

Bioaccumulation of Polychlorinated Biphenyls in the Delaware River Estuary

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EXECUTIVE SUMMARY

In anticipation of promulgating polychlorinated biphenyl (PCB) Total Maximum Daily Loads (TMDLs) for the Delaware River, the Delaware River Basin Commission (DRBC) has begun to formulate a bioaccumulation model that will be relied upon during their regulatory efforts in the control of PCBs. However, in order to calibrate and validate this model, DRBC requires reliable data sets summarizing PCB concentrations in biota within each of its four water quality zones. To meet this need, a spatially comprehensive evaluation of PCB inventories in selected biota and sediment within the Delaware River was completed. During two seasons (fall, 2001 and spring, 2002), white perch, channel catfish, invertebrates, small prey fish and sediment were collected from four zones of the Delaware River (Zones 2-5) and analyzed for a suite of PCB congeners. Highest concentrations of PCBs were found in the Zones 3 and 4 sediments resulting from greater inputs due to proximity to both non-point and point sources in the urbanized and industrialized sectors adjacent to these zones. Whole organism body burdens (white perch, channel catfish, invertebrates, and small prey fish) reflected these zonal distributions in sediment concentrations; Zones 3 and 4 harbored the highest biotic PCB concentrations (both on a wet weight and lipid normalized basis). There was considerable variation in t-PCB concentrations for individual catfish and perch fillets within a region of a zone. These differences were not significantly reduced upon lipid normalization of t-PCB concentrations suggesting that within a zone, there may be many factors driving accumulation such as dietary shifts, small-scale (within zones) heterogeneity in sediment contamination, and non-equilibrium conditions in contaminant partitioning. Predator/prey ratios revealed greater bioaccumulation from select prey items (amphipods and prey fish) in spring-collected predators. However, these ratios should be used only as rough indicators of bioaccumulation because of the dietary shifts that occur spatially and temporally within and among zones. With down-estuary distances, all biota except for perch had enhanced concentrations of more chlorinated congeners, especially octa-, nona- and deca-chlorinated biphenyls. Specific congeners such as PCB 206 and 209 may act as indicators of specific and unique local sources of contamination within zones of the Delaware River estuary. With the data sets generated and the associated knowledge gained from them, we anticipate that a more accurate representation of PCB concentrations may be modeled, enhancing DRBC's predictive capability and its ability to set appropriate scientifically-sound TMDLs.

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INTRODUCTION

Of the thousands of anthropogenic substances produced and emitted into the environment, the suite of compounds collectively known as polychlorinated biphenyls (PCBs) have fallen under enormous public and scientific scrutiny. Globally ubiquitous despite their production ban in the mid-1970s, PCBs are of concern due to their bioaccumulative nature and, for some congeners, their toxicity and potential carcinogenicity to higher organisms.

Polychlorinated biphenyls, like other hydrophobic organic contaminants (HOCs), may enter coastal waters through point and non-point sources (e.g., Frithsen et al., 1995; Latimer et al., 1990), run-off (e.g., Hoffman et al., 1984), or atmospheric deposition (e.g., Leister and Baker, 1994). The transfer and fate of PCBs within natural waters is highly dependent on their sorptive behavior. They have varying but relatively high affinities for dissolved and particulate organic carbon. Consequently, a large fraction of the total aquatic reserve of HOCs occurs in the complexed or bound form with only a very small fraction existing in the truly dissolved phase. Their particle-reactive nature may transfer, through particle settling, a portion of the water column inventory to the sedimentary environment. Once there, redistribution within the sedimentary environment, burial, or recycling back into the overlying water column may occur. Aquatic organisms, especially those inhabiting benthic or epi-benthic regions of a contaminated system, may bioaccumulate PCBs. However, the factors controlling this transfer from environment to biota are numerous (e.g., proximity to source, lipid content, diet, etc.) and are often dependent on a spectrum of physical, biological and chemical properties of both the system and organisms.

Due to historical and current point and non-point source inputs of PCBs, the Delaware Estuary has been classified as “impaired” under the Clean Water Act Section 303(d). Consequently, the Commonwealth of Pennsylvania and the states of New Jersey and Delaware are required to develop a PCB Total Maximum Daily Load (TMDL) which would include PCB wasteload allocations for point source dischargers and load allocations for nonpoint sources (www.state.nj.us/drbc). On the states’ behalf, the Delaware River Basin Commission (DRBC) has taken the lead on developing these TMDLs over the next two years.

As part of their effort to establish scientifically-sound TMDLs for the four zones DRBC will 1) characterize PCB loadings from air, sediments and tributaries, 2) develop hydrodynamic water quality and food web models, and 3) assess the targets and pathways for fish consumption, human health and wildlife endpoints (www.state.nj.us/drbc). This proposal will aid in the generation of a high-quality, spatially and temporally-descriptive congener-specific PCB data set that will be used by the Commission to attain their goals. In order to follow the transport of PCB within a portion of the Delaware River estuary food web, the bioaccumulation model will require a full suite of PCB data for not only the major fish species being modeled (white perch and channel catfish) but for their prey items as well. This project provided information regarding the trophic transfer and ultimately fate of PCBs within four zones of the Delaware River by targeting major biotic (white perch, channel catfish, small prey fish and amphipods) and abiotic phases (sediment) important in the estuary’s food web (Fig. 1).

White perch (*Morone americanus*) and channel catfish (*Ictalurus punctatus*) were chosen as model species (Fig. 2). Both are important and abundant demersal predators and thereby represent a link between PCB loadings in the Delaware Estuary and human and ecological risk. Both species are commercially harvested, but the most significant route of human exposure is through recreational takes. In 1999, Delaware State recreational harvests were estimated at 420,000 and 40,000 individuals for white perch and catfish, respectively (National Marine Fisheries Service statistics; see www.st.nmfs.gov/st1/recreational/index). The two species were also chosen for this study because they exhibit contrasting migration (home-range) behaviors that are expected to affect bioaccumulation models (e.g., Thomann et al., 1991; Thomann et al., 1992; Thomann, 1989) that relate sediment, macrobenthic invertebrate, and fish PCB inventories.

White perch undertake semi-anadromous seasonal migrations as adults, migrating to freshwater tidal regions each spring to spawn. However, unlike the closely related striped bass (*Morone saxatilis*), which migrates to coastal waters, they remain resident to the Delaware Estuary throughout their lives. Channel catfish disperse much less over their juvenile and adult lives. In this spatially retentive behavior, channel catfish are representative of other important fishes such as white catfish *Ameiurus catus*, yellow-phase American eel *Anguilla rostrata*, and carp *Cyprinus carpio*. While catfish move to deeper waters in the winter, they return to small home ranges during other times of the year. Recent electronic tagging research by Dr. Roman Jessien's laboratory (University of Maryland, Eastern Shore) shows that channel catfish in the Anacostia River home to regions within a 4 km radius throughout the year. In the Wisconsin River, 60% of tagged catfish were recaptured within 2 km of where they were tagged; homing was observed in individuals recaptured during three consecutive summers (Pellett et al., 1998).

The overall goal of this study was to quantify the concentrations of PCBs in white perch and channel catfish and their prey items from the four zones of the Delaware River from Liston Point, DE to the Trenton, NJ area during two seasons (fall and spring).

Specifically, this study:

- 1) *Produced an extensive data set summarizing PCB concentrations in white perch, channel catfish, their major prey items, and surficial sediment during two seasons (fall and spring),*
- 2) *quantified the transfer of PCBs between predators (white perch and channel catfish) and some of their most abundant prey items (small prey fish and amphipods),*
- 3) *quantified the variability in accumulated PCBs in collected perch and catfish individual fillets within and among zones, and*
- 4) *assessed the similarities and differences in accumulated PCB congeners among zones and species within the estuary.*

METHODS AND MATERIALS

Overview of Study Area and Design

To accomplish the objectives of this study, a “core study” and a “variability study” were designed for each of two field campaigns (Fall 2001 and Spring 2002). These two campaigns collected biota and sediment samples from the four “zones” being modeled by DRBC (Fig. 3). During these two field campaigns, the “core study” centered on the collection of individual fish and prey that were subsequently composited prior to instrumental analysis.

By compositing samples, only mean values were determined. To assess the variability amongst PCB concentrations in white perch and channel catfish, “variability studies” were conducted. To investigate variability in white perch PCB concentrations from fillets only, five individual white perch were analyzed from three separate tows throughout Zone 5 during the fall campaign. Periodic towing throughout the zone ensured a representative population of white perch. In addition to these three separate collections and subsequent individual fillet analyses, composite fillets arising from the 5 adult individuals (>125 mm) from each tow were analyzed.

To investigate variability among catfish, three areas within Zones 2 to 5 were chosen to yield sampling regions harboring different magnitudes of PCB contamination. The three sites (Dredge Harbor in Zone 2, Tinicum Shoals in Zone 4, and just north of Pea Patch Island in the Zone 5) were selected (as outlined in this project’s proposal) based on data from two recent studies characterizing concentrations of PCBs in surficial sediment (Costa and Sauer, 1994; Hartwell et al., 2001). Briefly, Tinicum Shoal (PA) was suspected to have higher concentrations of PCBs in surficial sediments, Dredge Harbor (NJ), less so, and finally, just north of Pea Patch Island (DE) sediment was likely to be least compromised by PCB contamination. Catfish variability within these three zones was assessed both in the fall and spring campaigns. At each site, five individual catfish were collected and subsequently analyzed. Additionally, the remaining portions of these individual fillets were composited and analyzed. Prey items and surficial sediments were collected at or near each site of catfish collection.

Sample Collection

Sediment and Fish Collection (Trawl) Locations: The latitude and longitude of each sampling location were recorded using a Trimble Geoplotter Global Positioning System (GPS) for the fall and spring collections. Additionally, date and time of collection, along with a descriptive sample site id, were recorded. Tables 1 and 2 also denote whether each site was part of the core or variability study (or both). Figures 4 to 7 show the locations of collection of biota and sediment within each zone.

Collected Biota and Sediment Samples: The sample IDs, sex, age, length, and weight of channel catfish and white perch collected from the fall and spring campaigns appear in Tables 3-6. Lists of collected small prey items and invertebrates from the fall and spring campaigns and their

associated sample IDs appear in Tables 7-10. Sediment samples collected from each campaign are tabulate in Tables 11 and 12.

Sediment was collected using CBL's R/V Aquarius using a petite ponar following published guidelines as outlined in the QAPP for this project. Each sample was a composite of three or more separate samples collected within a 5- to 10-m collection radius. Sediment samples consisted of the top 5 cm of the collected sediment. For sediment sample grabs, the sides were removed from each sample so that only mud that had not touched the sampler was used. Sediment samples were transferred to decontaminated stainless steel bowls, homogenized using a decontaminated stainless steel spoon and carefully spooned into pre-cleaned wide mouth glass jars.

All locations of sediment samples were determined using line of sight with navigational maps, shore-based observations and a laser distance meter or GPS (accurate to < 5 m) as well as ship-board GPS. Criteria for acceptability of grab samples included intact samples with sufficient depth penetration (>10 cm) and a relatively undisturbed sediment surface.

White perch and channel catfish were collected using 20 foot width otter trawls. Upon collection, fish were anaesthetized in Tricaine Methanesulfonate (MS222) and measured for total length. Efforts were made to collect white perch greater than 120 mm TL. Additionally, catfish greater than 300 mm TL were sub-sampled from trawls. Additional samples of white perch and channel catfish beyond the necessary numbers for this study were collected for gut analysis (separate project; Horwitz et al., 2002). Benthic trawls were not successful in Zone 2 due to bottom topography. Samples in this zone were collected using gill netting and/or electroshocking. After on-board measurements were taken, each fish was then be rinsed in D.I. water and wrapped in aluminum foil. Fish were placed on ice on board and at sampling day's end were placed into a freezer for subsequent preparation and chemical analysis.

Prey items (small fish, epibenthic organisms, etc.) were collected using benthic traps, benthic mats and from otter trawls. Upon collection, small fish were anaesthetized in Tricaine Methanesulfonate (MS222) and measured for total length. Subsampled fish were euthanized by overdose in MS222. Each fish was then be rinsed in D.I. water, blotted dry, wrapped in pre-combusted aluminum foil and sealed in a plastic bag. Some samples were placed directly in pre-cleaned jars. Prey items were placed on ice on board and at sampling day's end placed into a freezer for subsequent chemical analysis. Epibenthic organisms, collected from otter trawls were picked from collection nets and using pre-cleaned forceps, counted, sized, and composited in a pre-cleaned glass jar. Benthic organisms were collected using benthic traps and/or benthic mats deployed for numerous days or from sediment grabs. Organisms were allowed to purge their guts prior to freezing. Organisms were identified at the lowest visually identifiable taxa level.

Sample Extraction and Preparation

Sediment and biota samples were frozen and stored below -5°C until extraction. Sub-samples were taken to measure water content. These sub-samples were weighed and allowed to dry at

60°C for 24 hr, cooled to room temperature in a desiccator, and re-weighed to ± 0.001 g. Samples were dried using sodium sulfate. The dried sample was placed in a Soxhlet extracted with dichloromethane (DCM) for at least 18 hr. After extraction, the solvent was reduced in volume, exchanged with hexane using rotoevaporation and further concentrated under a purified N₂ stream. For biota, a fraction of the extracted sample was removed for gravimetric lipid analysis. For sediment analysis, activated elemental copper wool was used to remove elemental sulfur which interferes with the detection of PCB congeners when using an electron capture detector (Ashley and Baker, 1999). Prior to use, the copper was washed by 1 M HCl and rinsed with dichloromethane. The cleaned copper (0.5 - 1 g) was placed in the round bottom flask at the initiation of the Soxhlet extraction step. As a post extraction clean-up procedure, liquid-solid chromatography using florisil was performed on all samples. Florisil was activated at 550 degrees C for 4 hr and deactivated with 2% deionized water prior to use. The deactivated Florisil was placed into a glass column containing a pre-cleaned glass wool plug. Approximately 1 g of pre-cleaned Na₂SO₄ was added on the top. Using this technique, PCBs were eluted from the chromatographic column containing florisil using petroleum ether (F1 fraction). The remaining fraction (F2) was eluted using 50:50 petroleum ether and dichloromethane and archived for subsequent organochlorine pesticide analysis.

PCB Congener Analysis

Congener-specific PCBs were analyzed using a Hewlett Packard 5890 gas chromatograph equipped with a ⁶³Ni electron capture detector and a 5% phenylmethyl silicon capillary column. The column was 60-m long and had a 0.25-mm internal diameter with 0.25- μ m stationary phase film thickness (DB-5, J&W Scientific, Folsom, CA, USA). Hydrogen and argon/methane (ANS) or nitrogen (CBL) were used as the carrier and make-up gases, respectively (flow rates = 30 ml/min), and the inlet pressure was 100 kPa. The temperature program was as follows: 100°C for 2 min, 100-170°C at 4°C/min, 170-280°C at 3°C/min, and 5 min at 280°C. The injector and detector temperatures were 225°C and 285°C, respectively. An auto sampler (HP 7673) was used to inject a 2- μ l sample in the splitless injection-mode; data were acquired using both an HP3393A integrator and a computer operating Chemstation software (Hewlett Packard, Palo Alto, CA, USA). The identification and quantification of PCB congeners followed the method of Mullin (1985), in which the identities and concentrations of each congener in a mixed Aroclor standard (25:18:18 mixture of Aroclors 1232, 1248 and 1262) were determined by prior calibration with individual PCB congener standards. Congener identities in the sample extracts were based on their chromatographic retention times relative to the internal standards added. In cases where two or more congeners could not be chromatographically resolved, the combined concentrations were reported. Internal standards were added to all the samples and calibration standards prior to instrumental analysis: 2,3,6-trichlorobiphenyl (congener 30) and 2,2',3,4,4',5,6,6'-octachlorobiphenyl (congener 204).

Otolith Analysis

Age of white perch and channel catfish were determined from analysis of otoliths, the calcium carbonate 'ear stones' of these fishes responsible for hearing and equilibrium. Sagittal otoliths were embedded in resin, sectioned in transverse plane, polished with alumina powder, and

viewed under with light microscopy and an imaging system for the presence of annuli. Annuli were enumerated and recorded as annual ages. These analyses were conducted at University of Maryland's Chesapeake Biological Laboratory according to methods described in Secor et al. 1991 (<http://cbl.umces.edu/~secor/otolith-manual.html>).

Percent Water and Organic Carbon of Sediments

Sediment samples were sub-sampled for measurement of water content. Sub-samples were weighed and allowed to dry at 60°C for 24 hr, cooled to room temperature in a desiccator, and reweighed to ± 0.001 g. Sediments were also sub-sampled and analyzed for total organic carbon. Dried and pulverized sediment samples were treated in a desiccator with fuming HCl to remove any inorganic carbon prior to analysis on CE Flash CHN Analyzer. Blanks were analyzed and generally contained carbon near or below the detection limit. Sulfanilamide was used as a primary standard and NIST standard reference materials (SRM 2704 for carbon; SRM 1570a for nitrogen) were used to evaluate analytical accuracy.

Analytical Quality Assurance

Results from all quality assurance and quality control measures are summarized in the QA/QC (Final Report).

Statistical and Mathematical Data Analyses

Routine mathematical analyses of data sets were conducted using Excel. Correlations, analysis of variance and analysis of covariance (ANOVA and ANCOVA were performed using either Excel or the general linear model procedure in SAS or Statistica (at times followed by multiple range tests and planned comparisons of least squares means).

Using SAS, principal component analysis (PCA) was performed on individual PCB congeners to mathematically aid in discrimination of pattern differences/similarities. Our assumption underlying the use of this technique is that samples of common habitat/location use (deemed by collection zone or location within zone) will tend to have similar patterns of PCB congeners, even though absolute concentrations may vary widely due to such factors as age, lipid content and diet. To remove the effect of absolute concentration on the first principal component, individual PCB congener concentrations were normalized to t-PCB (Megan, 1992; Swartz and Stalling, 1991). Congeners that were consistently ranked as non-detect (ND) were not used in this mathematical analysis. In samples where several congener concentrations were below the instrumental detection limit, a value of 0.01 was substituted such that those congeners could be used in the PCA. The first two principal component scores of a PCA were used to detect differences or similarities among individual PCB congener patterns as these often represent the majority of the variance between patterns. The resulting eigenvectors in the principal component equation were used to identify those specific congeners that varied the most between grouping seen in the PCA cross-plot. PCA was only performed using the core data (whole fish). PCA

was initially performed using whole fish from spring and fall; subsequently, fall and spring fish of the same zone and species were averaged to further reduce complexity in the PCA cross-plot.

RESULTS

Summary and Qualification of Data

In this report, data were summarized according to study (core or variability) and species (separate tables for each); the qualifier column was deleted for ease of mathematical manipulations (Appendix 1 – Tables A1 to A21). In these tables, any data point that was either non-detect (ND), below detection limit (BDL), or not analyzed (NA), was substituted with a “ND” to indicate that these data points were not used in this reports’ data analyses. However, future analyses of these data sets may warrant use of values that were detected, but fell below the analytical detection limits (qualified by “BDL” in the QA/QC report). We therefore refer the reader to those results from each individual analysis, with associated analytical ‘qualifier’ columns, that appear in the QA/QC document as Appendices I and II.

The entire data set was merged into one (Table 13) where blank cells represent all qualified data points (those with ND, BDL, or NA qualifiers). In this table, PCB homologue group distributions were calculated. Because of the difficulties in accurately measuring the mono-substituted biphenyls, homologue distributions were calculated both with and without PCB congeners 1 and 3. In addition, Table 13 reports t-PCBs (reported as ng/g wet weight for biota and ng/g dry for sediments) as the sum of the concentrations of all PCBs that were detected above the BDL (as defined in the QA/QC report). Because PCBs are lipophilic chemicals, we also report t-PCB as a lipid-normalized concentration for biota (ng/g lipid).

Each whole fish PCB concentration value from the core studies was obtained from using the corresponding composite fillet and composite remains PCB values and calculating the (weight of fillet)/(weight of the whole fish) ratio and the (weight of remains)/(weight of whole fish) ratio (to determine the percent contribution from each). Values for white perch composited remains from the core study for two samples (Zone 2 fall and Zone 4 spring) were lost during analytical work-up. To estimate the corresponding whole concentrations for these two samples, values for composited remains were first calculated using the corresponding composited fillet values and an adjustment for lipid differences between fillet and remains. Once values for the remains were calculated, whole fish values were calculated using the weighted average technique describe above.

As mentioned in the QA/QC report, values for PCBs were not corrected for surrogate loss. However, in the case of the spring Zone 5 whole channel catfish, recovery of the surrogates was low. In order to compare these values to others having higher surrogate recoveries, values were transformed for this zone only to meet the average recovery of 90% observed in all samples (analyzed from Chesapeake Biological Laboratory). Justification for this lies in results from past studies in which surrogate correction for standard reference materials (SRMs) analyses having relatively low surrogate recoveries increased accuracy.

Fish Characteristics

White perch weights and ages ranged 27-220 g (mean \pm s.d. = 95 ± 43 g) and 2-9 years (4.4 ± 1.7 yr). Catfish weights and ages ranged 129-2170 g (676 ± 404 g) and 3-19 years (8.1 ± 2.5 yrs). Within each species no weight or growth differences were detected due to the effect of zone, gender or season (ANOVA; $p > 0.05$). Growth rates determined for white perch were similar to rates reported historically from the literature (Fig. 8). (Comparable growth data for catfish are unavailable in the published scientific literature). Condition (weight/length³) did not vary significantly across zone, season, or gender for catfish. On the other hand, white perch collected in Zone 4 during Spring showed 3-fold higher condition index compared to white perch collected at other zones during spring or fall (ANCOVA; $p < 0.001$).

Core Studies

Concentrations of t-PCBs (ng/g wet weight) for biota from all zones in fall and spring collections were variable (Figures 9 to 12). For example, concentrations ranged from 41 to 264 ng/g for invertebrates and 511 to 2,191 ng/g for channel catfish. Though concentrations were variable, some overall trends did surface. The following generalizations were based on inspection of concentrations that were not normalized for lipid content (ng/g wet weight):

- One average, across all zones, channel catfish had the highest concentrations, followed by white perch, small prey fish, and invertebrates (Figs. 9 and 10; ‘grouped by species’ plots).
- For fall collected samples, Zones 3 and 4 had the highest concentrations of PCBs within their biota; for spring collected samples, this trend was less pronounced as Zone 5 had elevated levels as well (Figs. 11 and 12; ‘grouped by zone’ plots).
- On average, concentrations were higher for spring collected biota than those captured in fall (Figs. 9 to 12).

It is widely accepted that when comparing accumulation of lipophilic contaminants such as PCBs, normalization to the lipid content is essential. For some data sets, trends observed from wet weight concentrations diminish or disappear when lipid content of biota is considered. By lipid normalizing concentrations of t-PCBs, variability between species and zones in both the fall and spring campaigns was again observed (Figs. 9 to 12). For example, invertebrate concentrations ranged from 4,344 to 26,001 ng/g lipid and a range of 10,577 to 22,582 ng/g lipid was observed for channel catfish. On average, lipid normalization did not reduce the variability in observed concentrations. The following generalizations were based on inspection of lipid-normalized concentrations (ng/g lipid basis):

- On average, fall collections of biota within Zones 3 and 4 had the highest lipid normalized concentrations; in the spring, Zone 5 collected white perch had the highest concentrations.
- Zones 2 and 5 had the lowest lipid normalized concentrations though this depended on the species and season.

- For fall collected prey fish and invertebrates from Zone 3, lipid-normalized concentrations were the highest in relation to all species; in spring, prey fish from Zone 3 had the highest concentrations.

By plotting lipid normalized t-PCB concentrations on a 3-D graph, the variability and trends among zones and species (described above) may be more easily visualized (Figs. 13 and 14).

Differences in surficial sediment concentration (ng/g dry weight) were observed though considerably less variability was observed compared to biotic phases within and between fall and spring collections. Average zonal surficial sediment concentrations ranged from 39 to 242 ng/g in the fall and from 28 to 200 ng/g in the spring. Highest t-PCB concentrations were observed in Zone 3 for both fall and spring campaigns, followed by Zone 4 (Fig. 15). Zone 5 had the lowest concentrations in both seasons. Upon normalizing concentrations to organic carbon content (ng/g OC), some variability among zones within a season decreased (Fig. 15). Highest concentrations were observed in Zones 3 and 4 in spring.

Variability Studies

For catfish, variability in fillet concentrations was assessed in three zones (Dredge Harbor (site 2CC), Tinicum Marsh (site 4CC) and just north of Pea Patch Island (5CC) (See Figs. 4, 5, and 7, respectively). Box plots of both fall and spring data for the three zones revealed tremendous variability in individual fillet concentrations (both wet weight and lipid normalized concentrations; Fig. 16). Individual t-PCB concentrations (both wet weight and lipid normalized concentrations) and the mathematical mean (and associated standard deviation) were compared to the fillet composite analyzed (Table 14 and Figs. 17 to 22). Overall, normalizing concentrations to lipid content did not reduce the variability in concentrations. However, in Zones 2 and 5, variability was reduced considerably except for one fillet in each of these zones. In all cases, the composite of fillets that were analyzed had similar values to the mathematical average of composites (Table 14). The relative standard deviation (expressed as a percent) of t-PCB concentrations from individual fillets (in ng/g wet weight) from each zone over the two seasons ranged from 24 to 80%. In four of the six variability studies, variability in concentrations (as denoted by relative standard deviation) increased upon lipid normalization.

Using log transformed wet weight concentrations of t-PCBs, there was a weak interaction of both age and zone on the individual fillet concentrations. ANOVA results also suggested a weak interaction between zone and lipid. However, the correlation between lipid and t-PCBs within a zone was not as usually predicted (increasing t-PCBs with increasing lipid content) because in Zone 4 there was an inverse relationship between lipid content and PCB concentration.

For white perch, variability in fillet concentrations was measured during three separate collections within Zone 5 during the fall. Again, box plots of the results of this study reveal tremendous variability (Fig. 23). Lipid normalizing the individual fillet concentrations did not significantly reduce the variability in these concentrations (Figs. 24 to 26). In variability study 1 from this zone, it actually increased the variability seen in concentrations. The mathematical

mean of the individual concentrations were close to the analyzed concentration of the composite of the fillets. The relative standard deviation of t-PCB concentrations from individual fillets in the three regions within Zone 5 ranged from 60 to 90% on lipid normalized values (Table 14).

Calculation of BCFs, BSAFs and PPRs

Individual congener BCFs (bioconcentration factors) were calculated using the ratio of PCB content in tissue normalized to lipid, C_B , to the dissolved PCB concentration in the water, C_{WT} . The units for biota samples of mg/kg lipid divided by mg/L in water samples gives the BCF units of L/kg (Mackay and Fraser 2000).

$$BCF = C_B / C_{WD}$$

The BCF for total PCBs was calculated using the congeners common to the fish tissue and water analysis (Fig. 27).

$$\text{Total BCF} = \sum(\text{congener specific } C_B) / \sum(\text{congener specific } C_{WD})$$

Individual congener BSAFs (biota sediment accumulation factors) were calculated using the ratio of PCB content in tissue normalized to lipid, C_B , to the PCB concentration in sediment normalized to carbon, C_S , for biota samples.

$$BSAF = C_B / C_S$$

BSAF values were calculated for zones and using biota samples compared with their respective sediment sites for both seasons (Fig. 28).

Also known as trophic transfer factors, predator/prey ratios (PPR) are the ratio of lipid normalized PCB content in the predator to lipid normalized PCB content in the prey and may be used to address magnification. PPRs were calculated using:

$$PPR = [PCB]_{\text{predator}} / [PCB]_{\text{prey}}$$

Food web dynamics involve multiple dietary pathways with varying contributions, while simple predator/prey ratios address single species. Predator/prey ratios were calculated based on available prey items and knowledge of channel catfish and white perch diets (Fig. 29).

Principal Component Analysis of Congeneric Patterns

Though visual inspection of congeneric PCB patterns provides cursory insight into the differences in accumulation, PCA is helpful in reducing the complexity of the congeneric data set and further identifying differences in relative contribution of each congener. The first two principal components (PC1 and PC2) described 37% and 15% of the variability among the PCB congener patterns of all samples, respectively. That is, considering only the first and second principal components, 52% of the variance in congeneric patterns was captured. Using core

(whole organism) congeneric data from both seasons, distinct separation and clustering of samples based on season, zone and species was observed (Fig. 30). Clustering of all perch samples occurred while remaining biota scattered. A notable sub-clustering occurred between spring and fall samples of all biota. Each fall core sample had a lower PC2 score than its respective spring counterpart. To factor out the separation due to season, principal component scores for fall and spring for each core sample were average and the PCA crossplot redrawn (Fig. 31). In this plot, separation or clustering among zones and species is more clearly seen. In the PC1 direction, samples were separated based on zone, while in the PC2, samples were separated based on species. Most striking is the difference in separation of perch from catfish, invertebrates and prey fish.

Clearly from these crossplots there are differences in the accumulated congeneric patterns between species and among zones. To pinpoint what congeners are most responsible for these pattern variations, coefficient weightings (or eigenvectors) were plotted (Fig. 32) for both PC1 and PC2. For PC1, changes in the distribution of the more heavily chlorinated congeners (octa-, nona-, and deca-substituted), especially congeners 206, 209, and coeluting congeners 208+195, were more responsible for driving the variations in patterns than other congeners. Though only 15% of the total variance is described by PC2, coefficient weightings suggest that it is primarily a small subset of congeners of varying degree of chlorination that are driving the differences in the PC2 direction.

Returning to the cross-plot with the added information from the eigenvectors, generalizations regarding pattern differences can be stated. White perch congeneric patterns were different from all other patterns (catfish, invertebrates, and prey fish). These differences are attributed to changes in both in the PC1 and PC2. Therefore, perch have, on average, a less 'heavy' pattern than catfish (especially from Zones 4 and 5) and invertebrates/prey fish from Zones 5. That is to say, they have a pattern that has a greater contribution from less chlorinated PCBs. The cross-plot also provides interesting information regarding zonal differences in patterns among each biotic group. It is clear that as the collection zones go from up-river (Zone 2) to down-river (Zone 5), patterns within each species adopt a more "heavy" (more chlorinated) congener distribution.

Though PCA allows much congeneric data to be reduced and more easily assessed, calculating the distribution of congeners based on homologue groups also provides some insight into pattern differences and similarities between species and zones. Homologue distributions for each species in each season were calculated (Figs. 33 to 36). Again, the overall patterns that were observed through PCA can be seen through comparison of homologue patterns. Noteworthy is the shift to "heavier" patterns from Zone 2 to Zone 5. The larger relative contribution from octa-, nona-, and deca-chlorobiphenyls in catfish, invertebrates and prey fish from Zone 5 is evident. This pattern shift is mirrored in the sediment distributions (Fig. 37).

In assessing the differences in congener distributions, it was apparent that both congeners 206 and 209 were present at relatively high levels in Zone 4 and particularly Zone 5. However, this shift was more evident in catfish, sediment, prey fish and invertebrates, rather than with white

perch (Fig. 38). For the fall collection, white perch concentrations of congener 209 remained relatively low and invariant while in the spring they increased (Figure 39) though magnitude wise were less than those for catfish. For catfish, lipid normalized concentrations increased with distance down-river, except in the spring where concentrations in Zone 4 were highest.

DISCUSSION

Species and Zonal Differences in t-PCBs

Sedimentary concentrations revealed no significant seasonal differences within zones. This reflects sediments' ability to integrate contaminant loads over long time scales. Among zone differences were observed and likely attributed to both sediment characteristics such as carbon content and proximity to source. Highest concentrations of PCBs in Zones 3 and 4 suggest greater inputs due to proximity to both non-point and point sources in the urbanized and industrialized sectors adjacent to these zones (Frithsen et al., 1995). These data reflect earlier collections characterizing sedimentary contaminants in the Delaware River and its tributaries (e.g., Costa et al, 1995; Hartwell et al., 2001; Velinsky and Ashley, unpublished data).

In general, trends in sedimentary PCB inventories between zones were reflected in the concentrations of biota collected within each region. However, concentrations of PCB varied considerably within a zone and this variability did not diminish upon lipid normalization of concentrations. This may be due to differing habitat uses by species within a zone, especially in zones where sediment contamination was more heterogeneous (Zones 3 and 4). This may also be due to variability among individuals in their feeding regimes. For example, though catfish have more limited ranges than perch, they may undergo small scale migrations within a zone, moving into and out of shallow areas or into tributaries (e.g., the Schuylkill River), where differing contaminant regimes may exist.

Quantifying Trophic Transfer through BCFs, BSAFs and PPRs

Bioconcentration factors increased with K_{ow} for all biota samples (Figs. 40-43). The average log BCF for total PCBs was similar throughout the estuary for all biota groups (Table 15). Using filtrate PCB concentrations presents a source of bias as actual dissolved concentrations may be overestimated due to the contribution of non-filterable colloids in total dissolved PCB values, thereby underestimating the bioconcentration factor (Baker and Eisenreich 1990). The contribution of the colloidal fraction to total dissolved PCBs was calculated using:

$$C_d/C_t = 1/1 + ((K_{ow} * DOC)/10^6)$$

where DOC is the dissolved organic carbon concentration (kg carbon/ L water) in the Delaware River. The truly dissolved phase is on average ~18% of the filtrate concentration, resulting in a BCF underestimation. Most BCF calculations in the literature do not correct for the colloid fraction contribution, and for that reason BCF values presented in this paper are based on filtrate PCB concentrations.

With increasing hydrophobicity contaminants may adsorb more strongly to particulate matter. Therefore chemicals with large octanol-water partitioning coefficients will not be as readily bioavailable (Mackay and Fraser 2000). Regression analysis showed a positive relationship between bioconcentration and K_{ow} for all biota groups (Figs. 40-43), for channel catfish, white

perch, prey fish, and invertebrates ($P > 0.001$). Although bioconcentration factors vary based on K_{ow} , the average log BCF value for biota throughout the study area remains relatively constant, indicating it is possible to apply a universal log BCF value of 7 to the Delaware system.

In order to evaluate the influence of hydrophobicity on bioaccumulation, BSAF values were plotted against log K_{ow} and both linear and quadratic regression analyses were performed for each group of biota, with all zones and seasons included (Figs. 44-47). The parabolic function ($P < 0.0001$ for channel catfish and white perch) better explained the relationship than the linear function, indicating that the bioavailability of chlorinated biphenyls to organisms initially increased and then decreased with increasing hydrophobicity. To address variation among trophic level, BSAF values based on total PCBs for all species are close to the mean of species-specific median BSAF values of 5.1 as shown in a box and whisker plot (Fig. 28), exhibiting similarity in BSAFs between species with comparable habitats. Previous studies have shown that similarity in chemical exposure for benthic species may allow for the application of sediment quality criteria for habitat groups (Tracey and Hansen 1996).

The observed trends in biota BSAF factors are similar to previously reported declines in bioavailability with increasing K_{ow} (Shaw and Connell 1984; Tracey and Hansen 1996; Maruya and Lee 1998). PCBs with $K_{ows} > 7$ have been shown to have reduced bioavailability, possibly due to problems with membrane permeability or assimilation efficiency (Gobas et al. 1988; Tracey and Hansen 1996; Kannan et al. 1997; Fisk et al. 1998).

Life history of an organism should be considered when grouping of species with similar habitats. Although both species are demersal predators, channel catfish and white perch exhibit a variation in accumulation of extremely hydrophobic PCB congeners present in the lower zones as previously shown. This may be due to migratory patterns as white perch migrate throughout the estuary while channel catfish remain in a small home range and have increased contact with the hydrophobic congeners. This is an important consideration in systems with point sources and sharp pollutant chemical gradients. However, we found that these variations in congener patterns do not affect the BSAF values based on total PCBs of these benthic species.

Biota samples from urbanized estuaries have elevated concentrations of PCBs corresponding to the highly urbanized zone 3 as shown previously. BSAFs do not vary with PCB concentration levels (Table 15). Although BSAFs vary within the river, the average BSAF is similar for all species. The spatial heterogeneity of PCB levels in sediment from the river leads to concerns whether natural variability would adequately be addressed using these BSAF values.

Tracey and Hansen (1996) calculated BSAF values among habitat groups from field data with median BSAFs of 2.2 and 1.4 for the benthically-coupled species of channel catfish and white perch respectively, which are lower than the BSAF of 5.1 found in this study. BSAF values express exposure levels from sediment. The higher BSAF values obtained in this study, suggest that the organisms are more efficient at bioaccumulation of PCBs, exposure is originating from some other source than sediment, or that the sediment samples are not representative of the study area. The sediment sites were randomly selected throughout each of the four zones, with little

sampling occurring in the flanks of the river, and may not adequately represent the spatial heterogeneity in the river. Organisms may not be feeding in the channels, but possibly closer to shorelines or in hot spots of contamination the river. Prey items such as small fish and macro invertebrates may be accumulating high levels of contaminants from tributaries, marsh areas, or flanks of the river then dispersing throughout the main stem of the river where they may be preyed upon. It is also possible that organisms are not accumulating a large proportion of contaminants from sediment, but from dissolved or particulate PCBs in the water column or ingestion of contaminated prey items as previously mentioned.

All organisms in this food web are benthic species; therefore they may not be directly comparable to previous work on the kinetics of PCB transport throughout food webs containing many trophic levels. As omnivorous feeders, the trophic position of channel catfish is difficult to characterize (VanderZanden and Rasmussen 1996), as demonstrated by gut content analysis which included a variety of items such as algae and insects. White perch stomach contents were mainly comprised of the invertebrate *Gammarus duebeni* (Horwitz et al. 2002). The simple predator/prey ratio allows us to determine contaminant transfer on a congener level. The resulting ratios (Figs. 48-50) show no distinct variation with K_{ow} . In addition, no consistent pattern by season or zone was observed on a congener specific level.

The predator/prey ratio of total PCB concentrations were 1-2 for both fall and spring channel catfish vs. prey fish and fall white perch vs. invertebrates (Fig. 29). The predator/prey ratios for spring channel catfish and white perch vs. invertebrates were higher due to low lipid content in spring invertebrates. Invertebrate spawning dynamics influence lipid content, thereby altering trophic transfer ratios (Wilhelm 2002).

Our results do not support the theory of increased biomagnification with higher trophic levels in the Delaware River estuary (Oliver and Niimi 1988; VanderZanden and Rasmussen 1996). Little magnification occurs between trophic levels as seen with predator/prey ratios of around 1 for both channel catfish and white perch over the range of PCB congeners. Previous work suggested that trophic transfer ratios decrease with increasing K_{ow} due to reduced uptake and assimilation efficiencies of highly chlorinated congeners (Thomann 1989; Kannan et al. 1997; Maruya and Lee 1998)

Although predator/prey ratios give insight into the transfer of contaminants, multiple prey items are not taken into account into this ratio. Channel catfish are opportunistic feeders; therefore narrowing prey items to one or two species overlooks the actual consumption patterns and levels seen in gut content analyses seen by Horwitz et al., 2002. Channel catfish may consume macrobenthic invertebrates such as crayfish and crabs; these prey items may be used to examine predator/prey ratios but do not compose the entire diet of higher trophic levels.

Using PPRs, seasonal and spatial variability in consumption is also not expressed accurately. In estuarine environments, consumption patterns may be affected by presence of prey items due to the salinity gradient as well as seasonal constraints. For example, grass shrimp were collected and subsequently analyzed in Zone 5 during the fall campaign. Due to the salinity gradient in

the river and limited sampling capabilities, grass shrimp were not collected upstream of Zone 5. In both spring and fall, gut content analyses (Horwitz et al., 2002) revealed a greater proportion of these prey in the stomachs of both perch and catfish in Zone 5. Using the lipid normalized t-PCB concentration found for this prey item, PPR for catfish/shrimp and perch/shrimp in Zone 5 were calculated to be 3.6 and 1.0, respectively.

Other difficulties in assessing the trophic transfer of PCBs from the potential prey items arise. In fall and spring sampling campaigns, insufficient numbers of macrobenthic prey items were collected. Moreover, in the upper zones of the estuary, algae were found in the guts of channel catfish. It is not known whether algae are ingested as food or ingested as a by-product in the foraging of benthic organisms such as amphipods. The role of algae in delivering contaminants to the fish is not known. Benthic algal mats and periphyton may well represent a significant source of carbon and associated PCBs to catfish in this zone. Unfortunately, no algae biomass was collected in this study. The paucity of PCB data for these potential prey items again further complicates the full assessment of trophic transfer of PCBs to predators such as catfish and perch. Future studies regarding food web dynamics should further examine lower trophic levels both spatially and temporally.

Congeneric Pattern Differences

By quantifying the similarities and differences in accumulated patterns between fish collected from various locations, some insight into the factors controlling bioaccumulation may be gained. Because of their limited home-range and diet consisting partially of benthos such as amphipods and other benthic or epi-benthic prey items, it is not surprising that accumulated PCB patterns in catfish are more reflective, both magnitude and congener wise, of the sediment. The increases in concentrations of the more chlorinated congeners such as PCB 209 with down-river catfish collections was also observed in their prey items in addition to the sediment in which they are closely coupled. A study in the Potomac River showed that PCB congener profiles of catfish collected in regions less than 3-4 Km showed significant pattern differences between zonal collections in that sub-estuary, again supporting the notion that this species may be indicative of local contamination (unpublished data, Baker).

Contrast this with the magnitude and patterns observed in white perch. On average, lipid normalized concentrations in this species were lower and congeneric patterns less closely matched benthic prey items and sediment. In contrast to catfish that may only integrate benthic PCB inventories on limited spatial scales, white perch are likely integrators over larger spatial scales. Moreover, their migration behavior is dependent upon season, enhancing their ability to integrate over even larger scales. Tagging data in the Patuxent River, MD, indicated that white perch sample local conditions during summer, fall, and winter months (Mansueti, 1961). During these months, greater than 75% recaptured white perch were recaptured within 16 km of their release location. Unfortunately, no comparable tagging study exists for Delaware River estuary white perch, but the Mansueti (1961) study indicated that white perch captured during summer, fall, and winter sampled local conditions. However, in spring, white perch captured within the

Delaware zones likely represent a spawning contingent that includes fish that had sampled the entire Delaware Estuary.

The presence of congener 209 (a surrogate for the general enrichment of more chlorinated congeners in the benthic environment in down-river zones) was so striking in all biota except for perch that this may be helpful in deciphering how predators such as perch and catfish bioaccumulate PCBs. In fall, white perch had low and unvariable concentrations of 209 between zones. This may be reflective of dietary shifts between the zones. In comparison to white perch, channel catfish are expected to more accurately reflect local sediment and macrobenthos PCB inventories. Moreover, specific congeners (e.g., PCB 206 and 209) may act as indicators of specific and unique local contamination with sub-zones of the Delaware River estuary.

CONCLUSIONS

PCB concentrations vary spatially in the Delaware River estuary, with increased contaminant levels downstream of Philadelphia, PA and Camden, NJ. In addition to the spatial variability of PCB concentration, congener patterns showed increased presence of highly chlorinated congeners, specifically nona- and deca- polychlorinated biphenyls in Zone 4 and 5 for all sediment and biota samples. This trend indicates the presence of a non-Aroclor source of PCB contamination to the Delaware River. While elevated levels of extremely hydrophobic biphenyls are seen throughout the food web, contrasting life history and migratory patterns result in varying accumulation of PCB congeners in biota. Organisms closely associated with contaminated sediment have greater accumulation of hydrophobic PCB congeners than do migratory species such as white perch. These distinctions should be addressed when modeling the transfer of contaminants in an estuarine system such as the Delaware River.

Modeling contaminant transfer in estuarine systems requires attention to multiple parameters. Simplistic models based on factors such as BCFs and BSAFs may apply blanket values to estuarine systems but additional inputs of species-specific lipid content, growth, reproduction, uptake and elimination kinetics are required for increasingly elaborate models. Considerations of seasonal variations are applicable to lower trophic species such as invertebrates that follow boom and bust dynamics and varying lipid contents have may have great impact on lipid normalized contaminant concentrations. Higher trophic levels do not follow such extreme fluctuation in lipid content although seasonal spawning does affect lipid reserves. PCB contaminant values determined from this study may be used to establish water and sediment quality criteria, setting a goal for acceptable contaminant levels. By reducing loadings in the river, PCB body burdens in recreational and commercial fisheries should decrease thereby protecting human and wildlife endpoints from adverse chemical effects.

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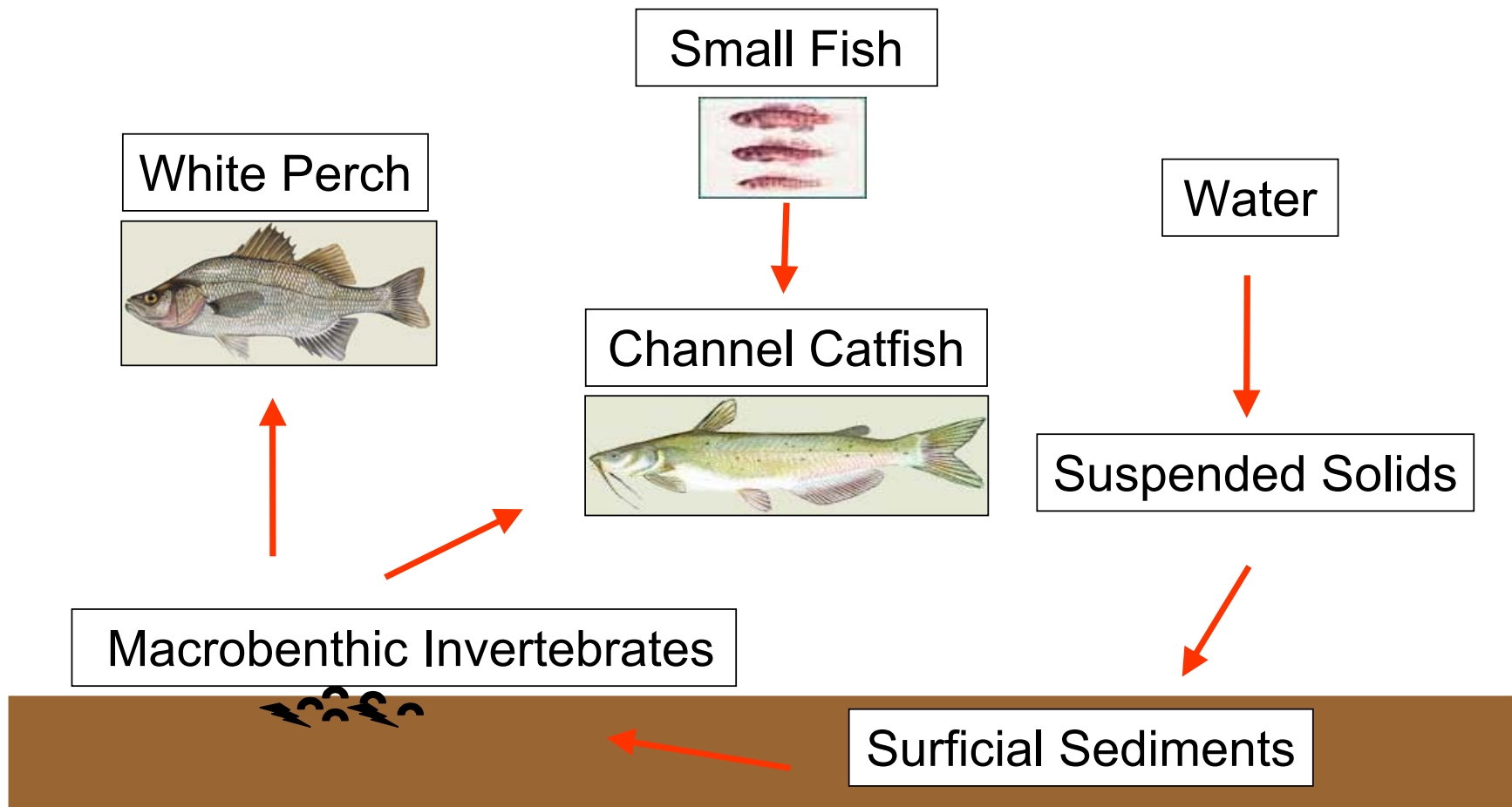


Figure 1. Schematic of the biotic and abiotic phases collected and analyzed for PCBs (except for water and suspended solids).



- Channel Catfish
Ictalurus punctatus
- Small home range
- Closely coupled with local sediment
- Benthic scavenger
- Long life span



- White Perch
Morone americanus
- Estuarine migratory
- Large temporal and spatial variability
- Diet mainly comprised of invertebrates
- Early maturation

Figure 2. Characteristics of channel catfish and white perch.

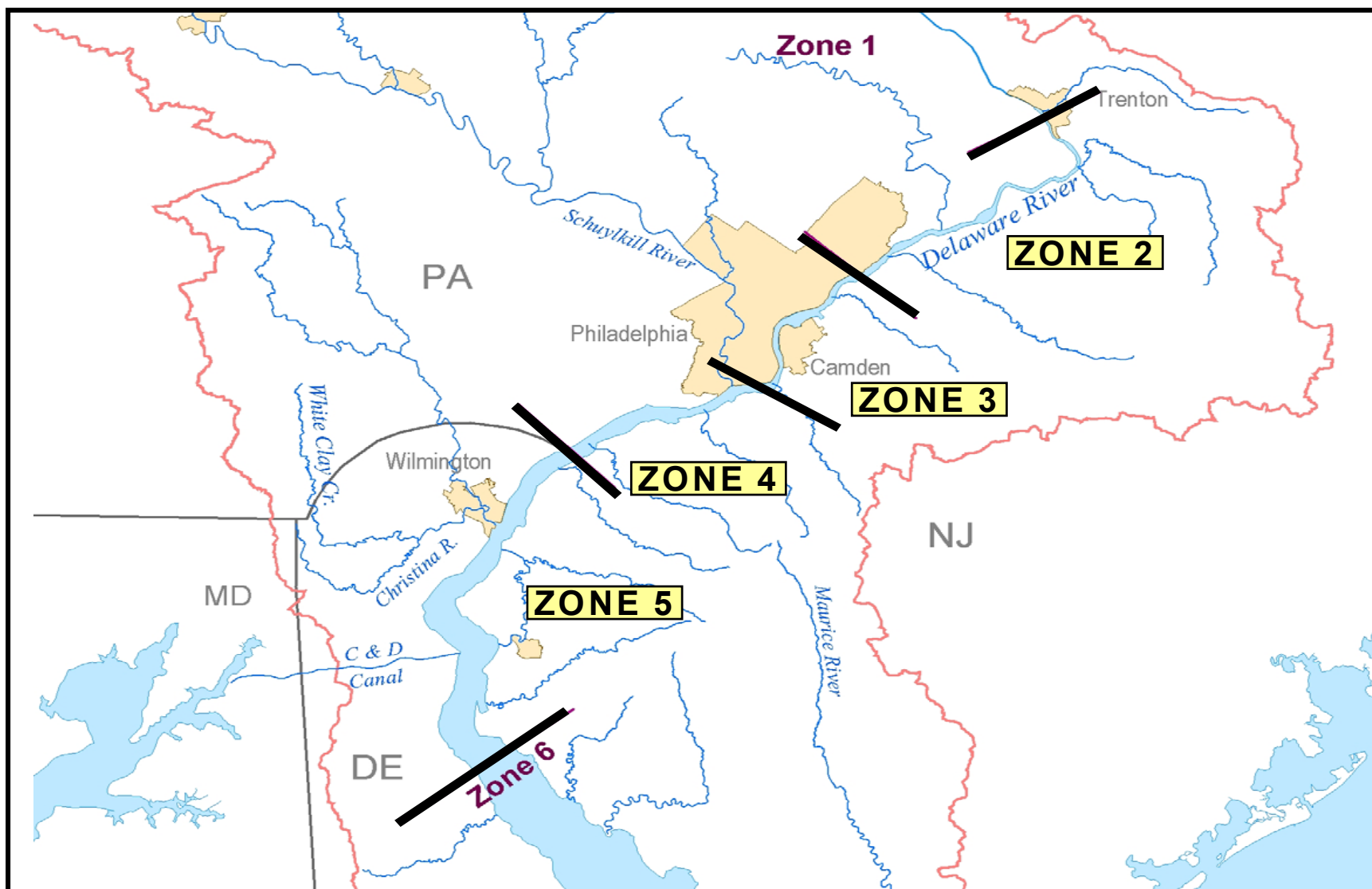


Figure 3. Map of the Delaware River estuary showing the six zones established by DRBC.

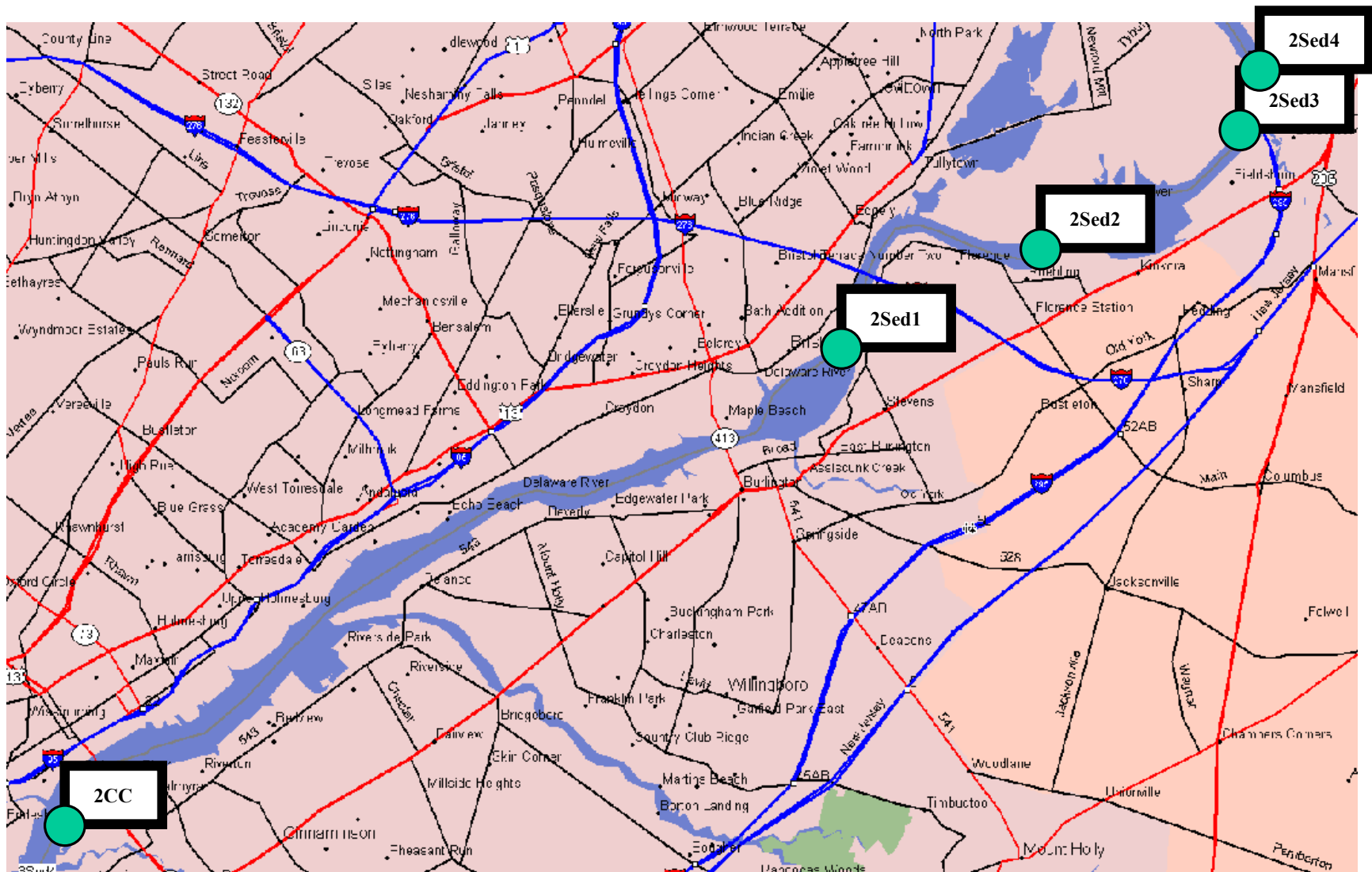


Figure 4. Map of locations of samples (biota and sediment) in Zone 2.

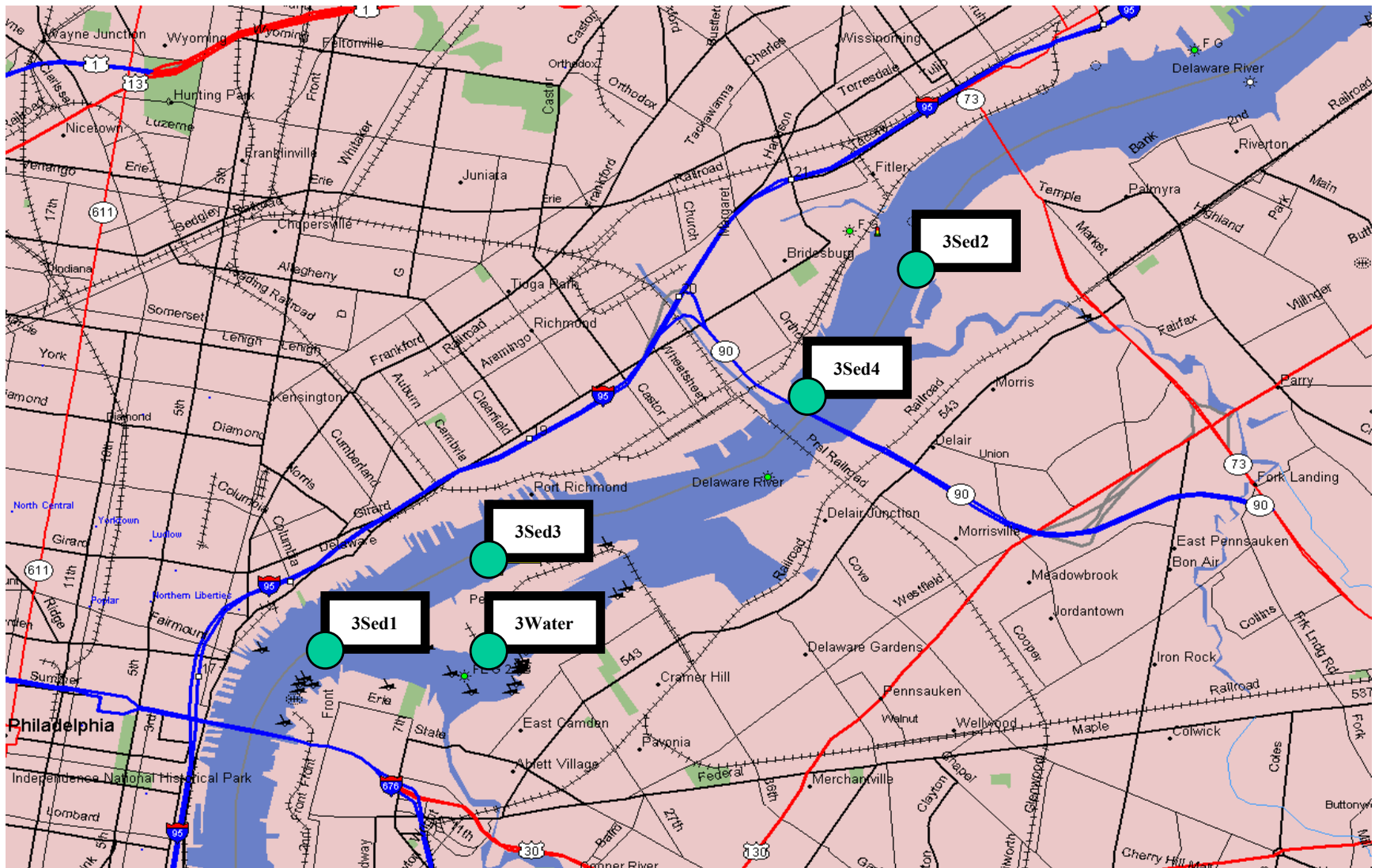


Figure 5. Map of locations of samples (biota and sediment) in Zone 3.

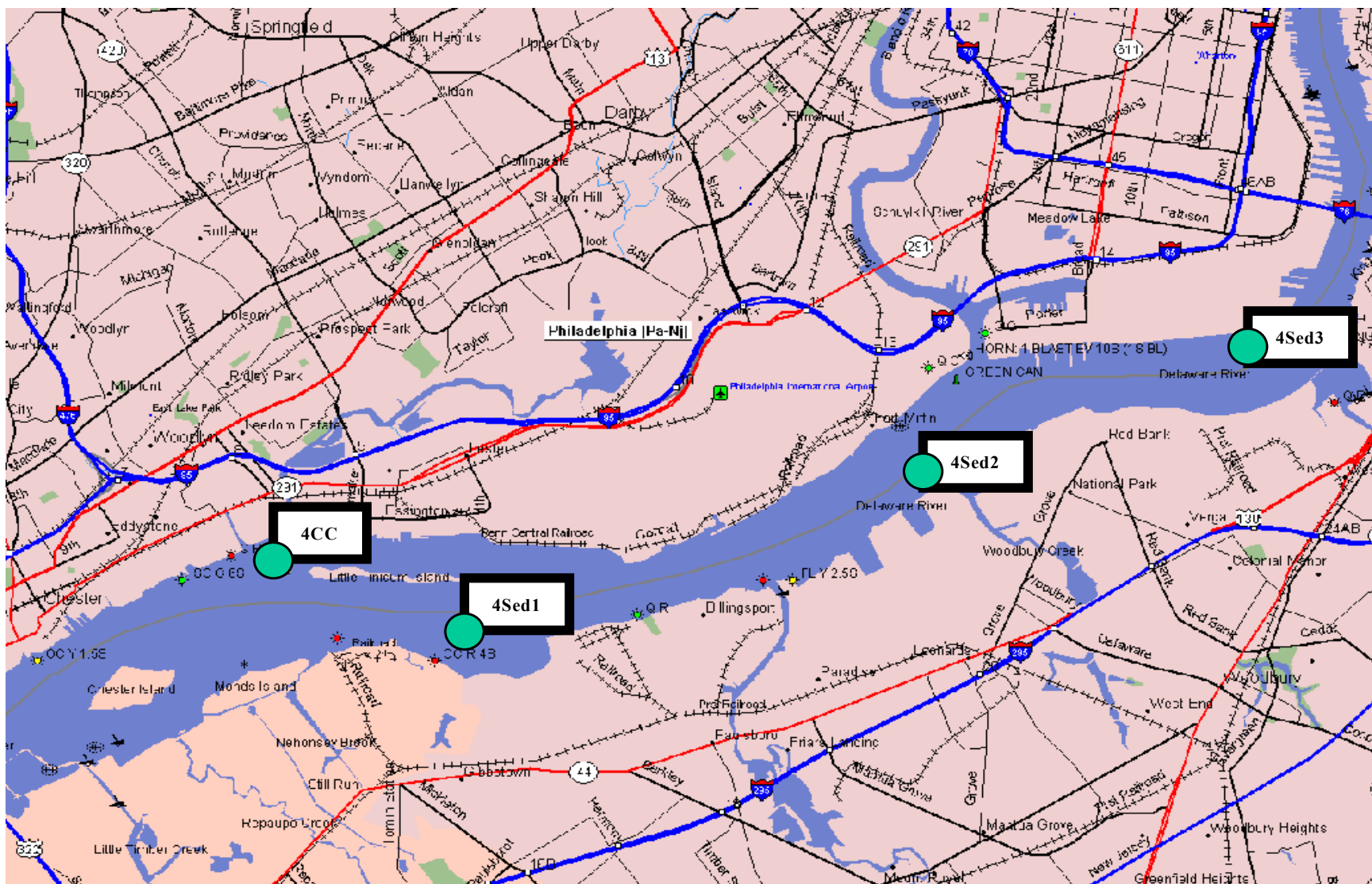


Figure 6. Map of locations of samples (biota and sediment) in Zone 4.

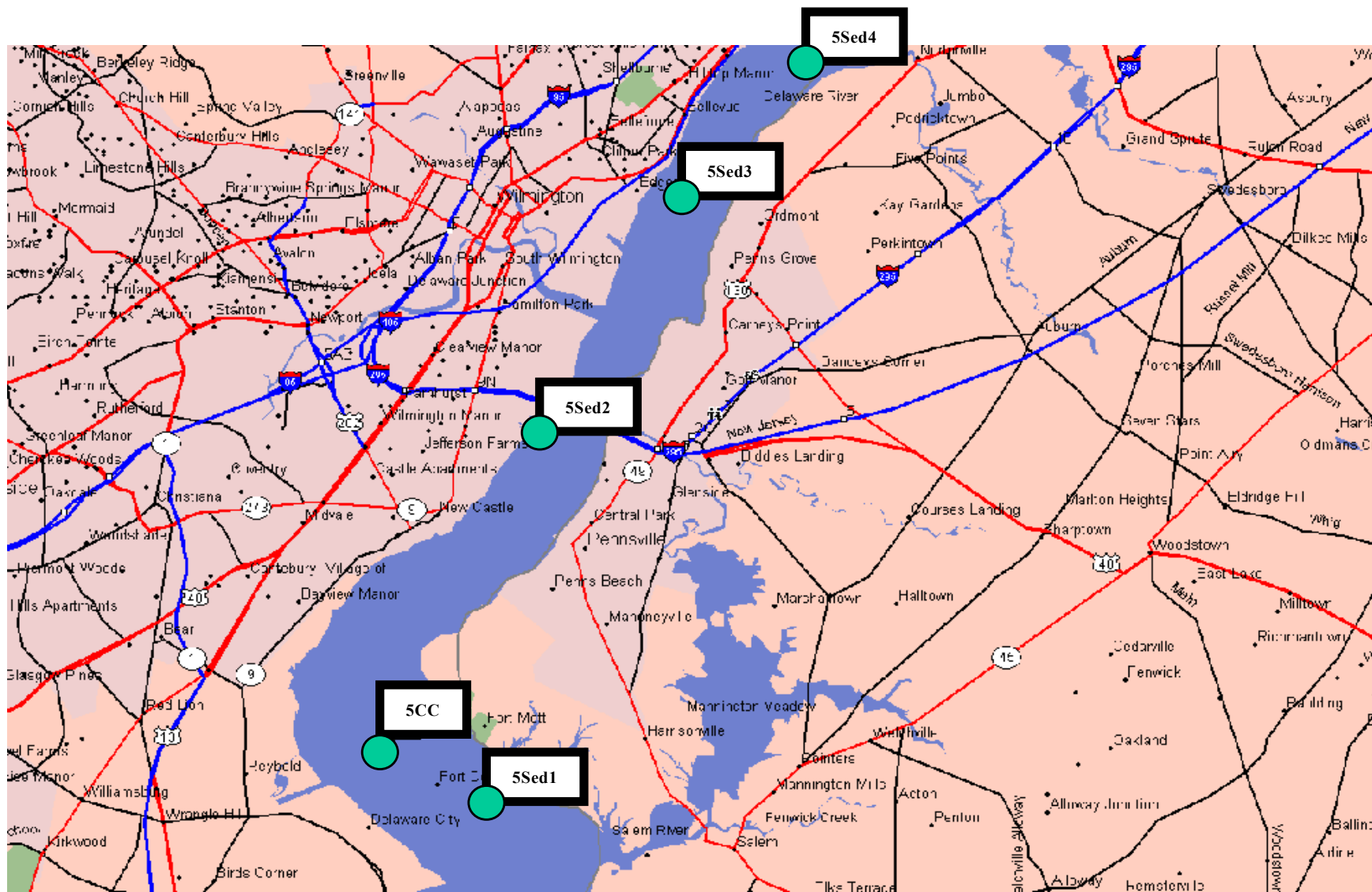


Figure 7. Map of locations of samples (biota and sediment) in Zone 5.

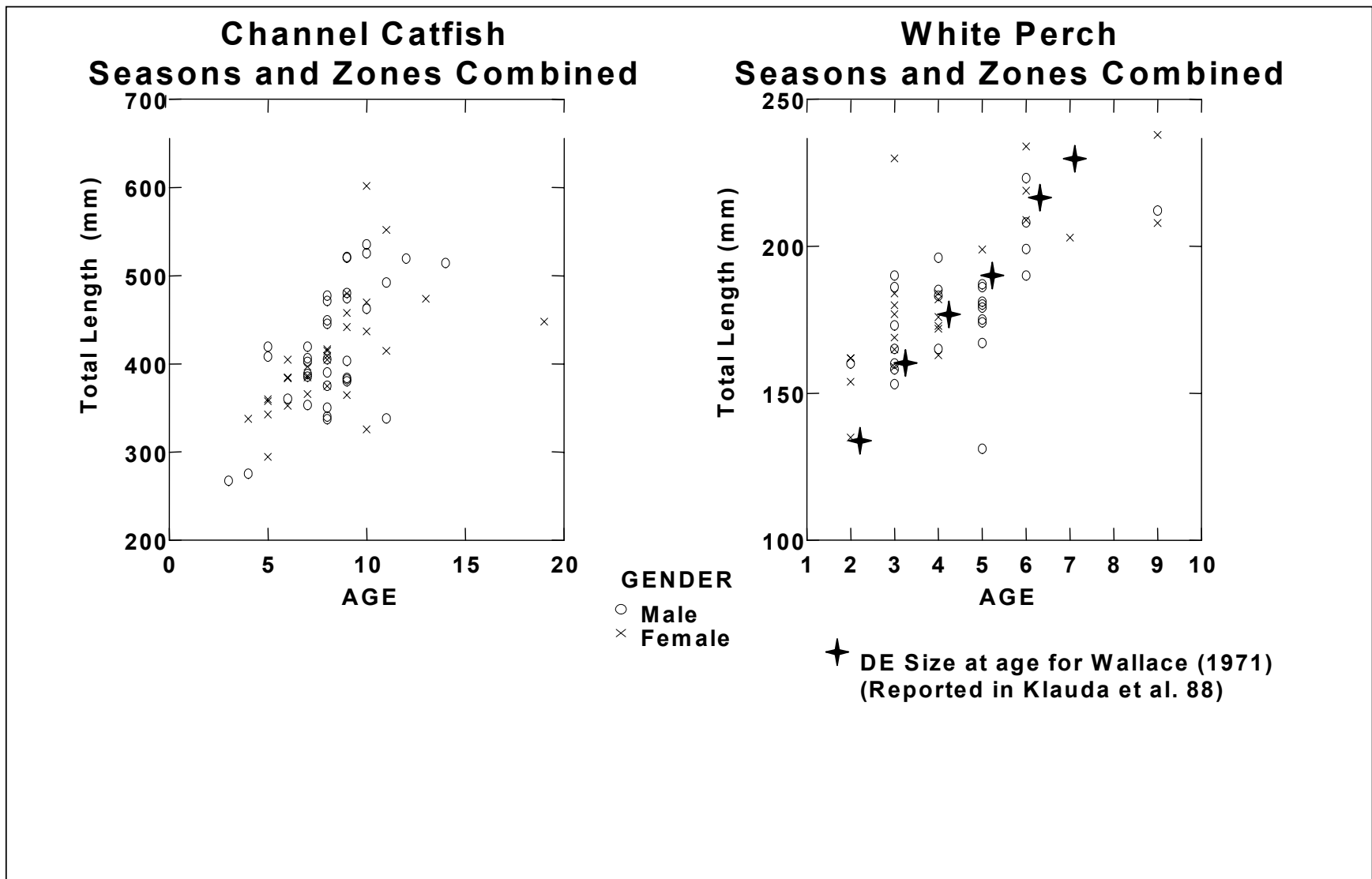


Figure 8. Total length versus age for collected channel catfish and white perch.

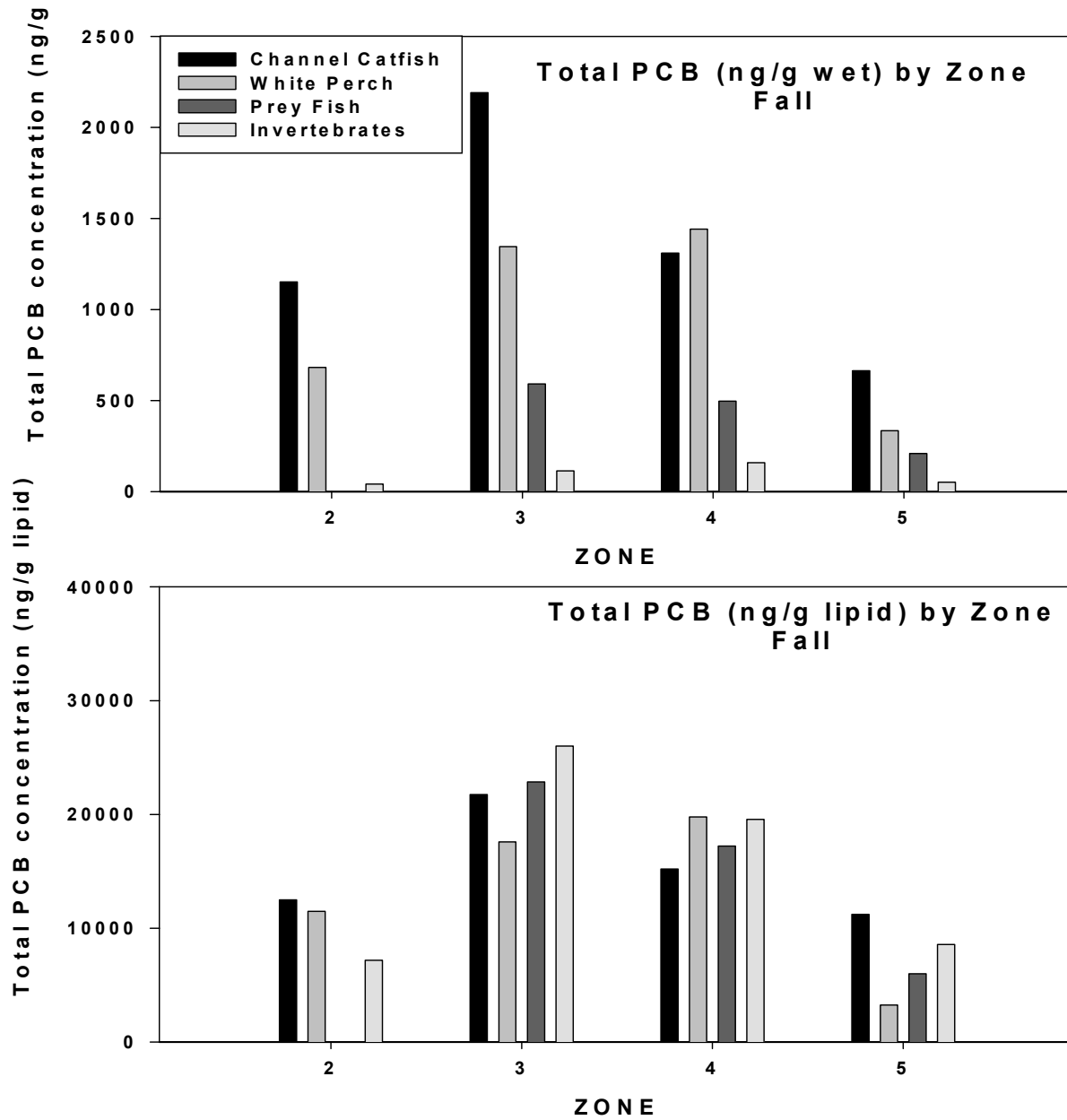


Figure 9. Total PCBs (based on wet weight and lipid normalized concentrations) grouped according to zone collected for fall biota.

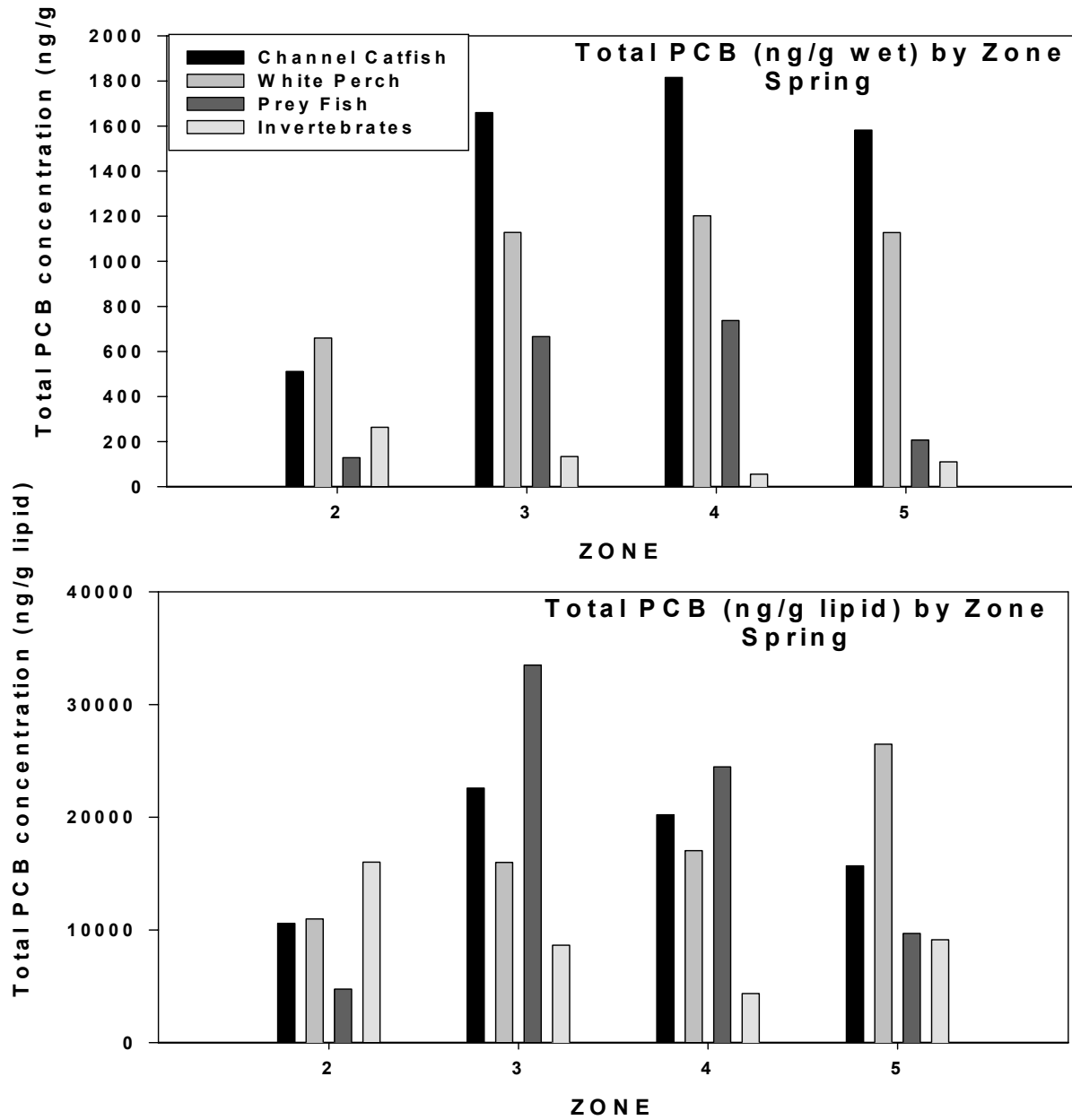


Figure 10. Total PCBs (based on wet weight and lipid normalized concentrations) grouped according to zone collected for spring biota.

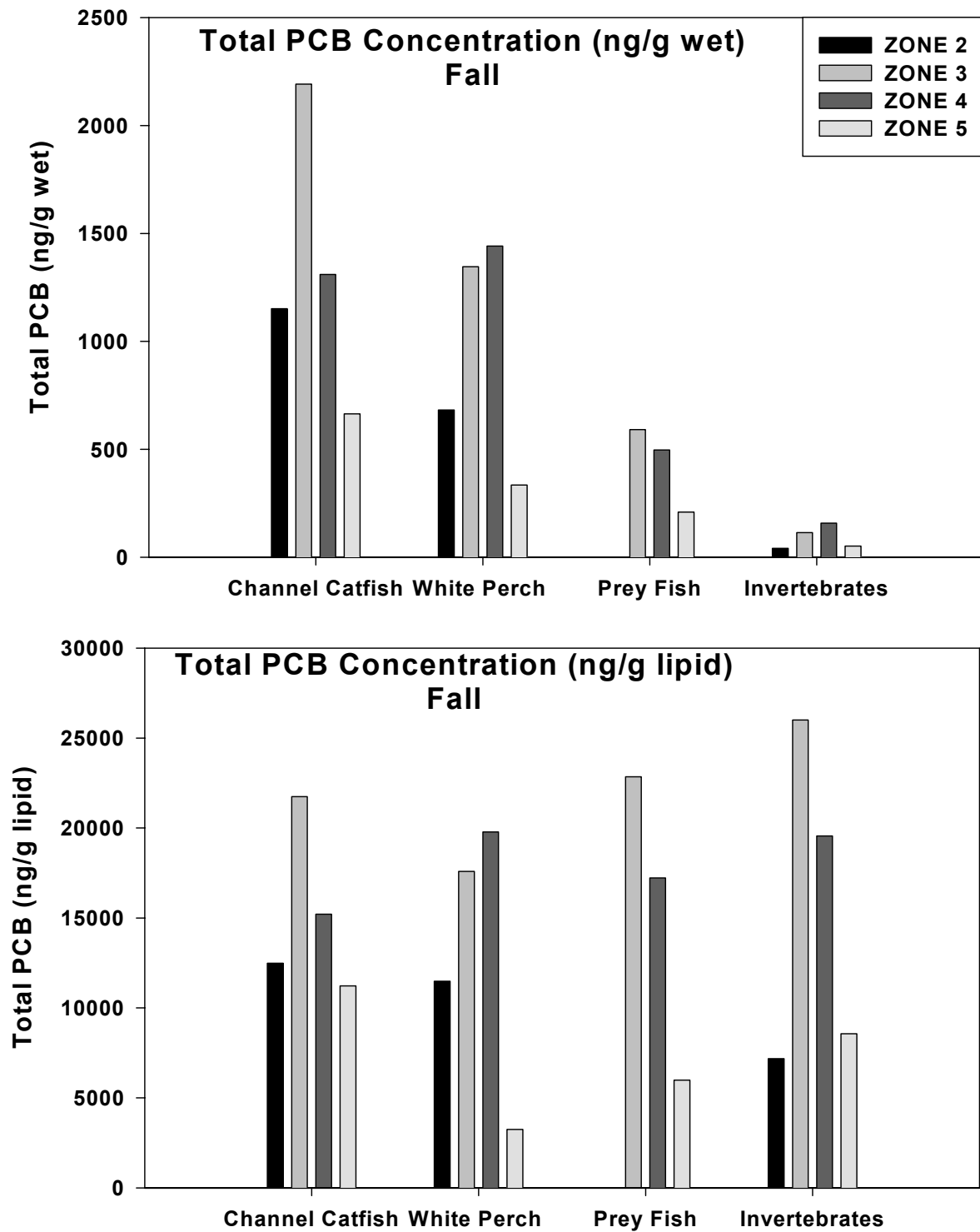


Figure 11. Total PCBs (based on wet weight and lipid normalized concentrations) grouped according to species for fall biota.

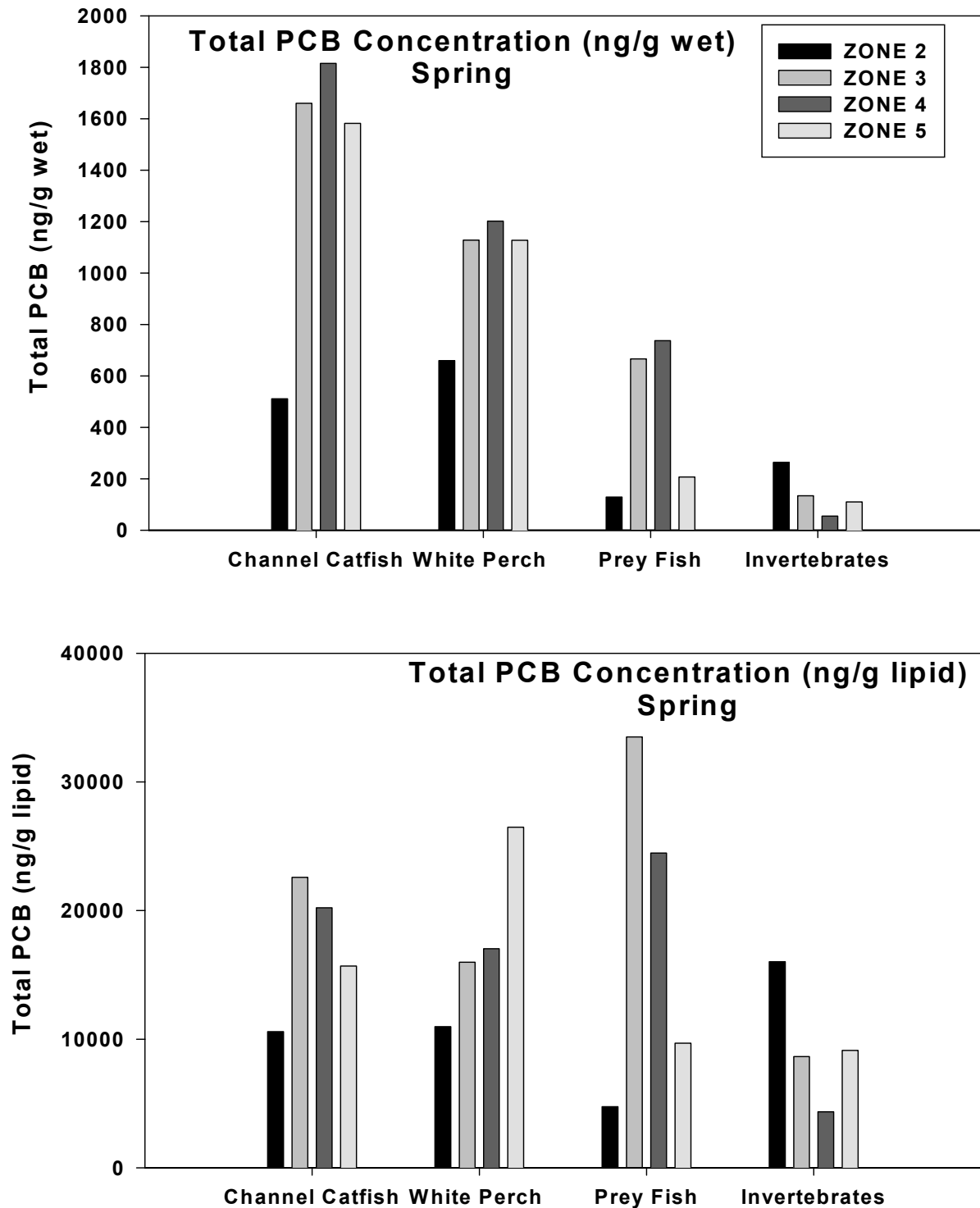


Figure 12. Total PCBs (based on wet weight and lipid normalized concentrations) grouped according to species for spring biota.

Fall Campaign

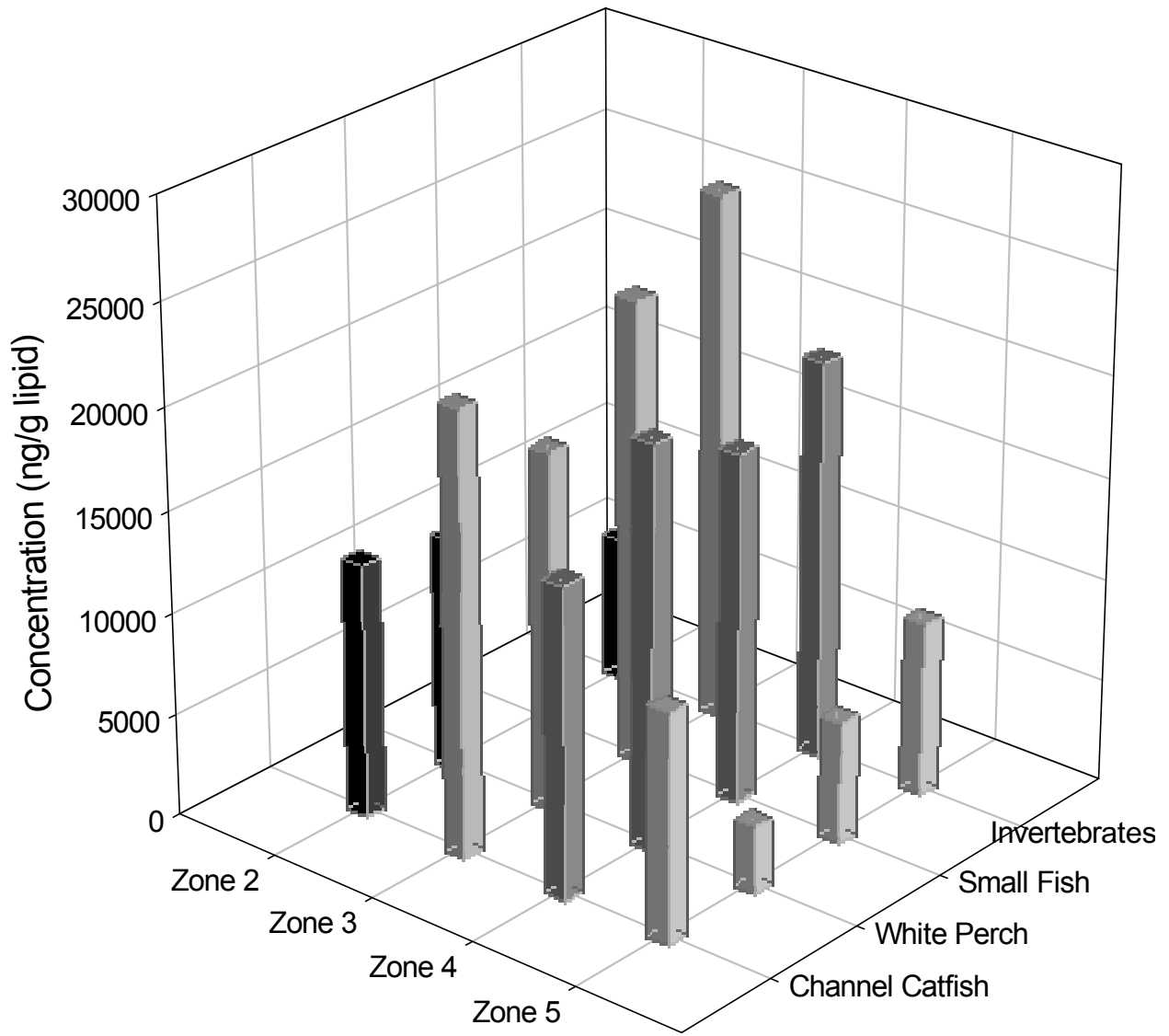


Figure 13. Zonal and species variation in total PCBs (lipid normalized concentrations) for fall biota.

Spring Campaign

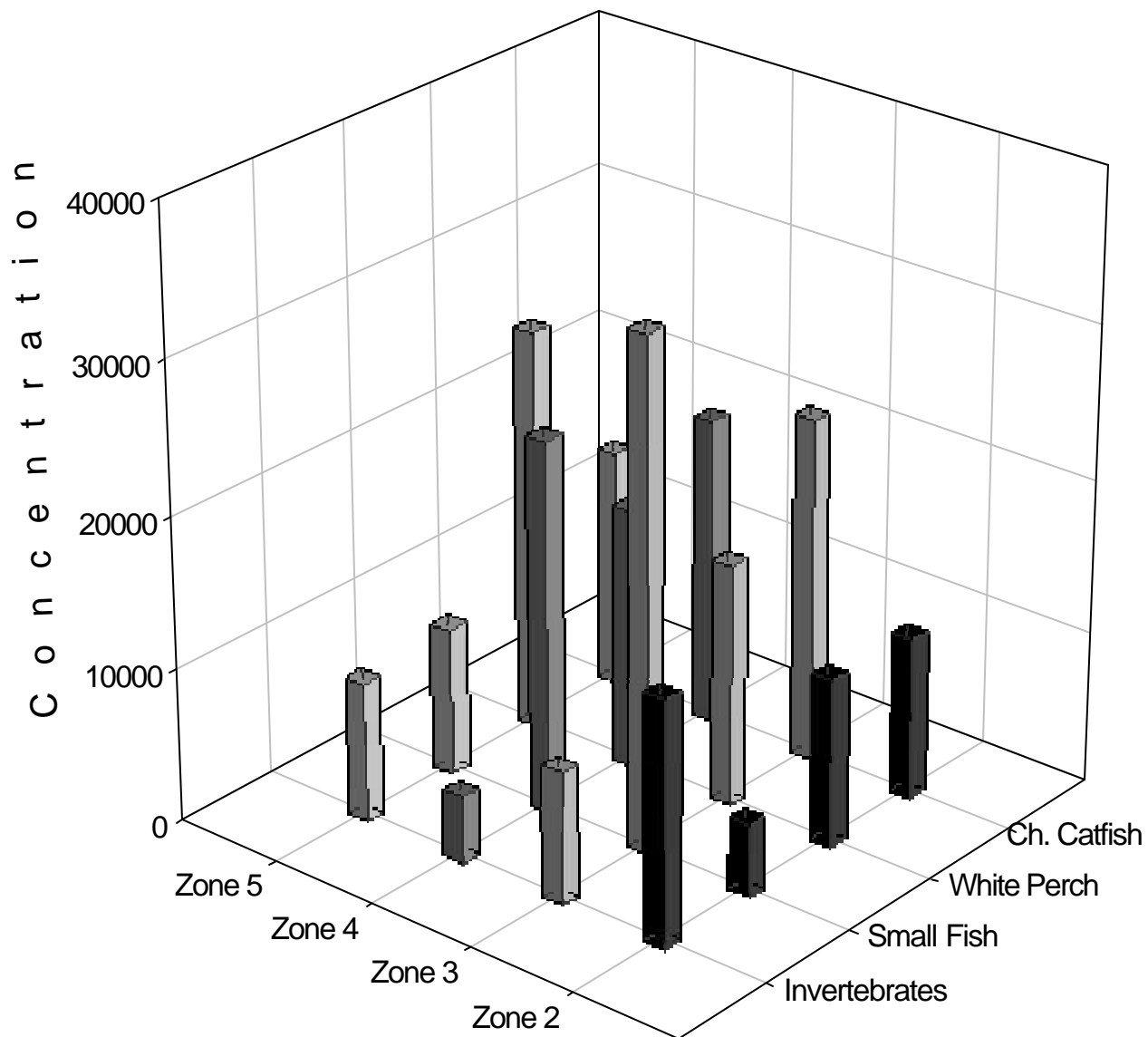


Figure 14. Zonal and species variation in total PCBs (based on wet weight and lipid normalized concentrations) for spring biota.

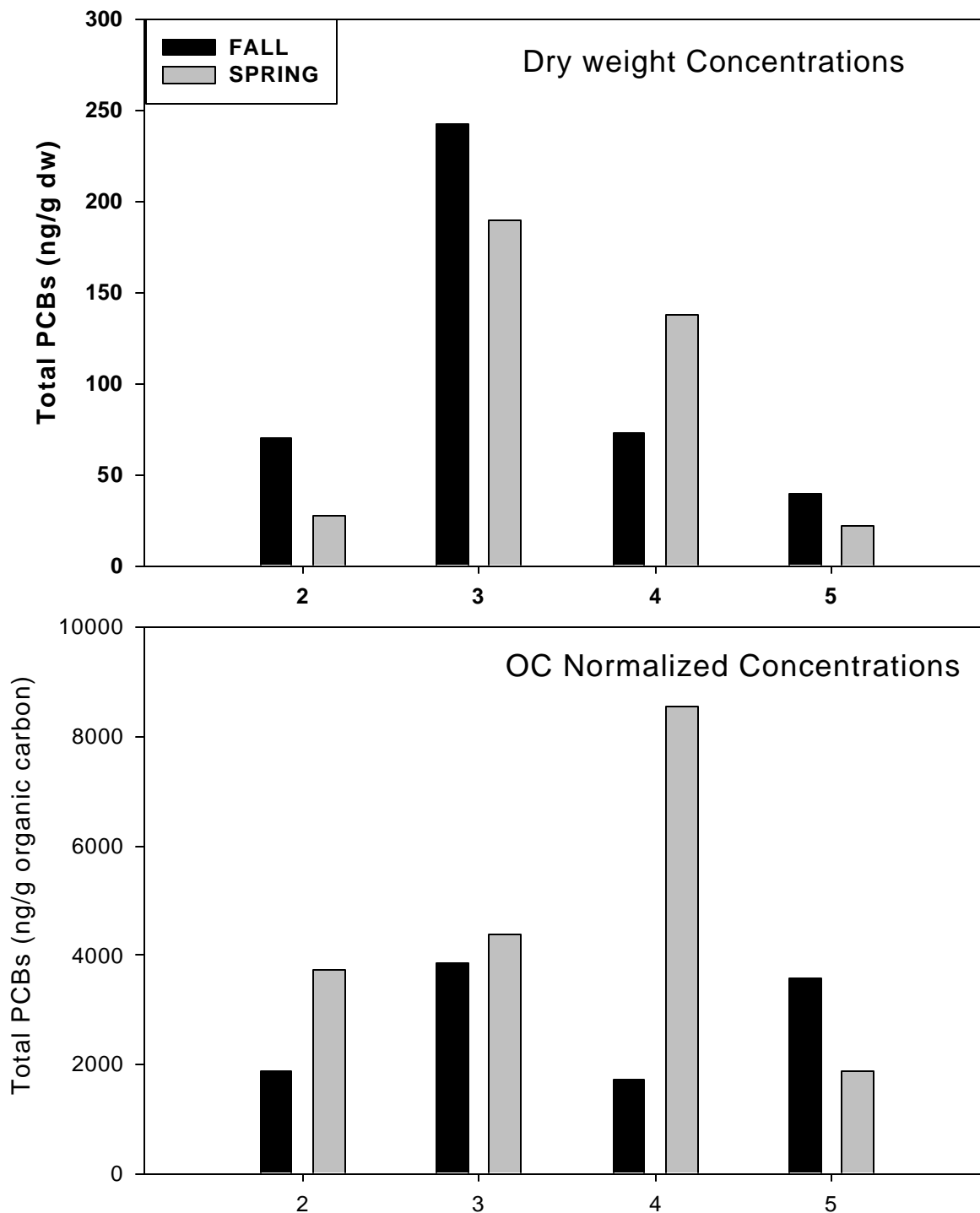


Figure 15. Zonal differences in sedimentary PCB concentrations for fall and spring collections (both on a dry weight and OC normalized basis).

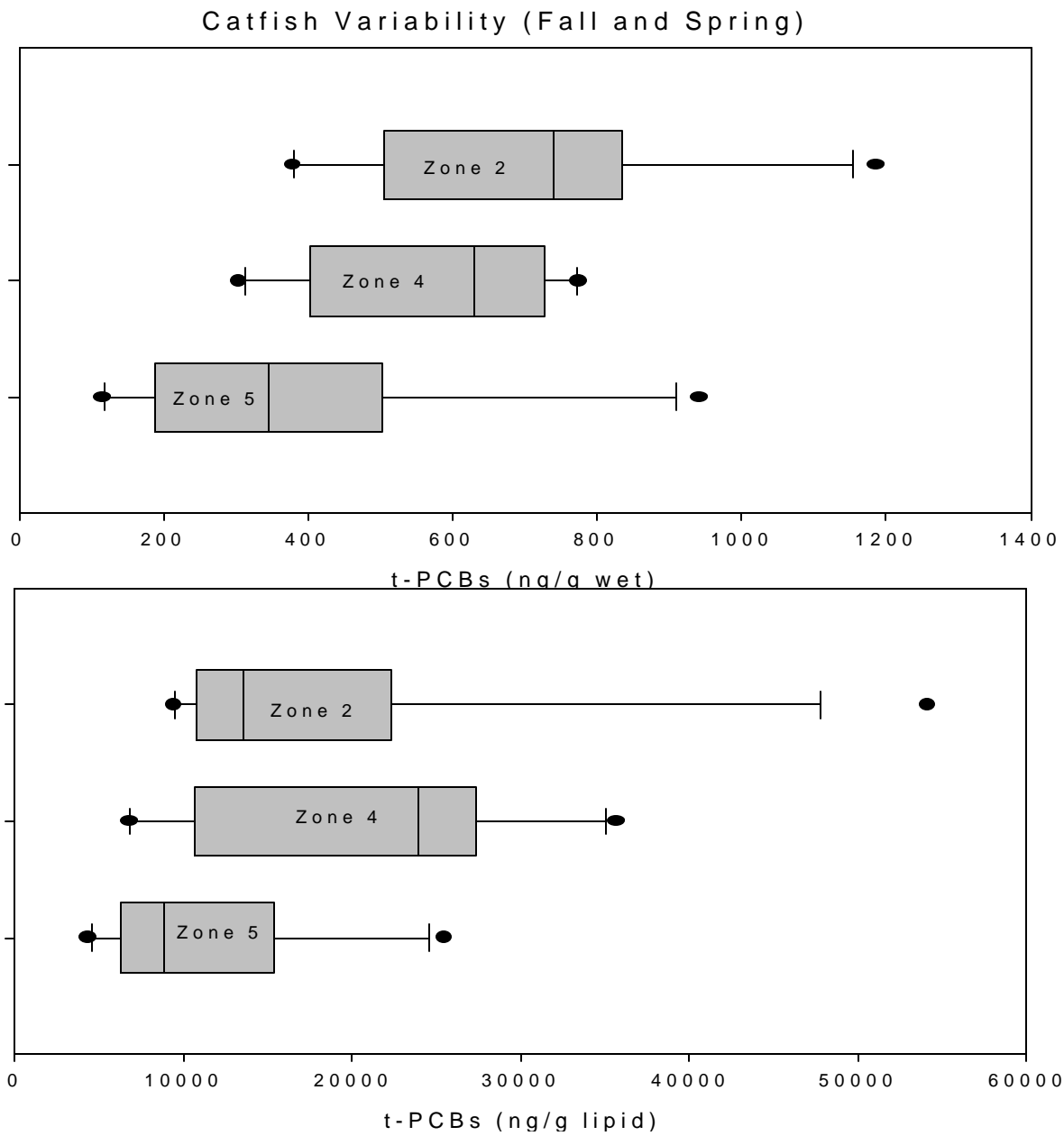


Figure 16. Variability in t-PCB channel catfish concentrations (lipid normalized) for fall collected (top) and spring (bottom) variability studies in Zones 2, 4, and 5.

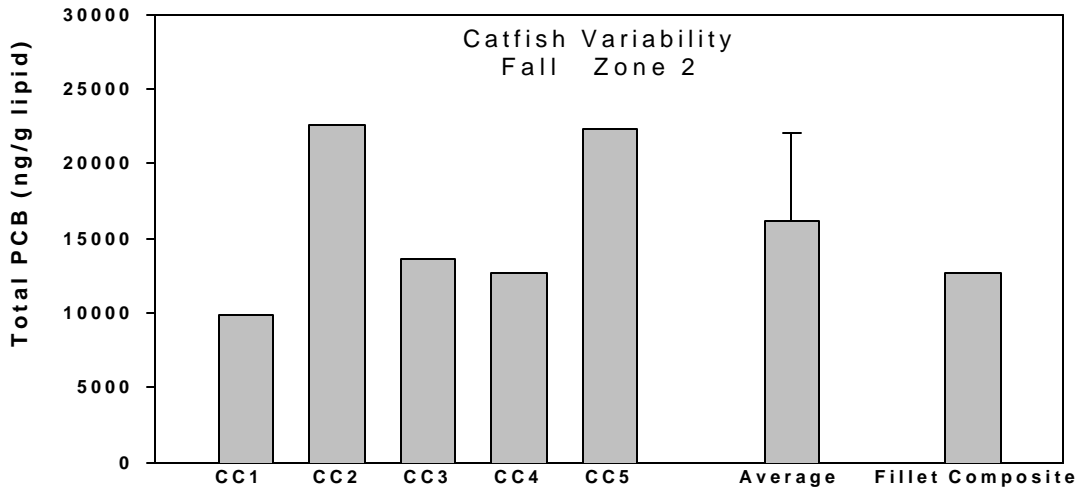
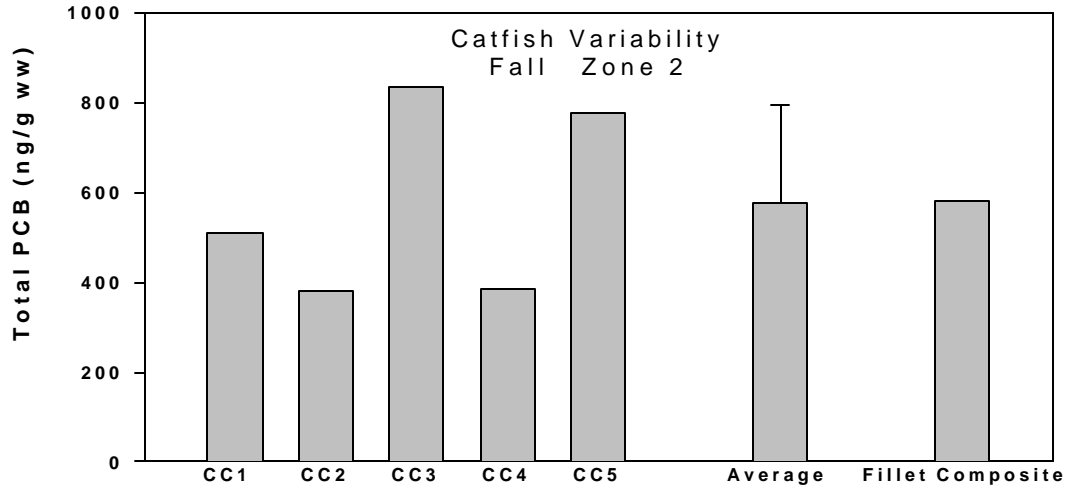


Figure 17. Individual fillet concentrations (wet weight and lipid normalized) for catfish from Zone 2 (fall) compared to the mathematical average (standard deviations shown by error bars) and the analyzed fillet composite.

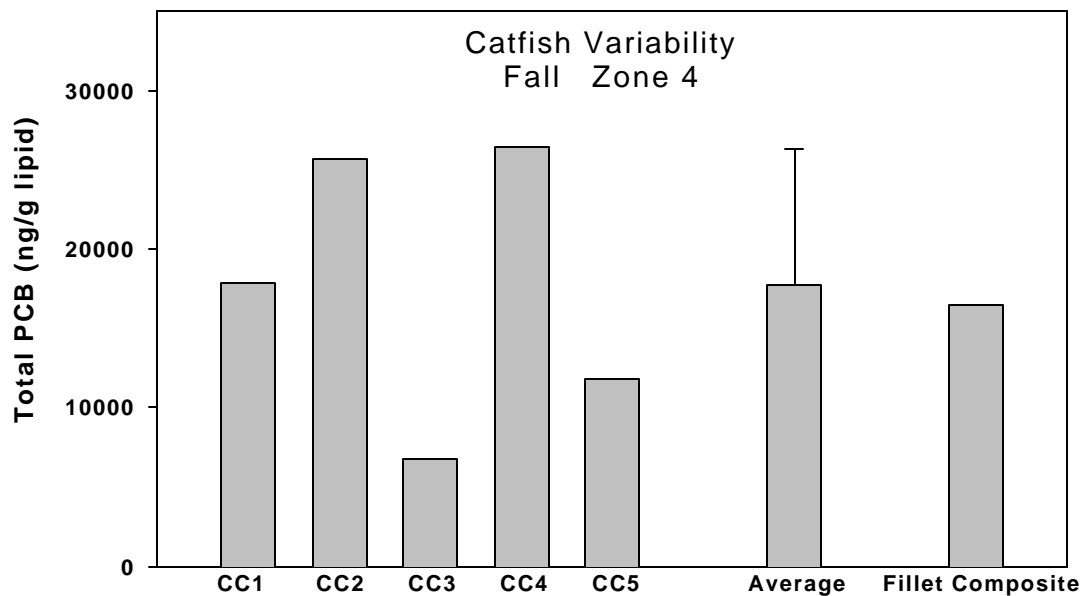
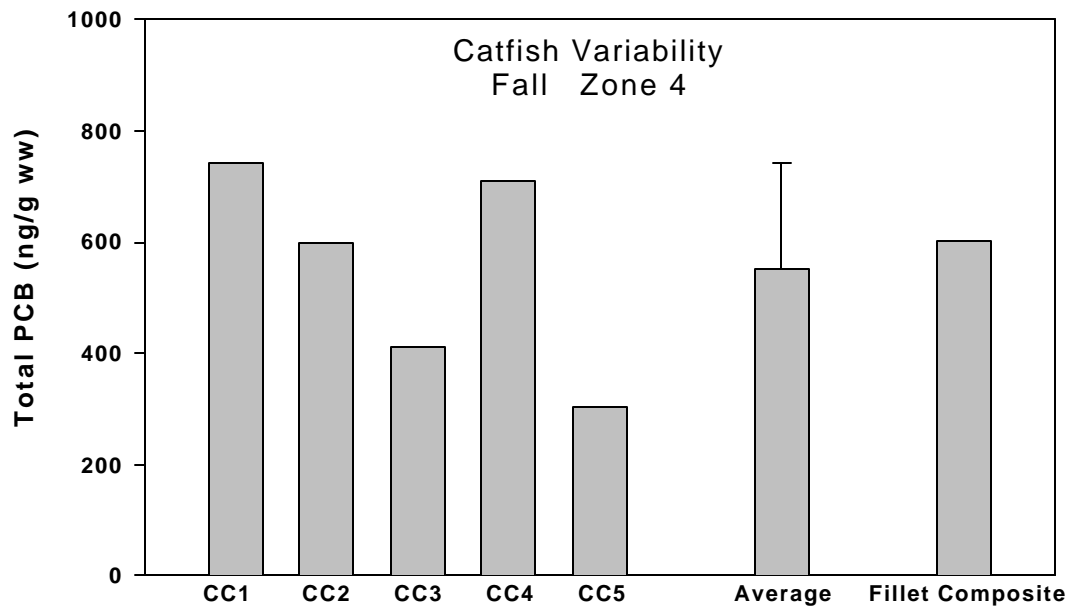


Figure 18. Individual fillet concentrations (wet weight and lipid normalized) for catfish from Zone 4 (fall) compared to the mathematical average (standard deviations shown by error bars) and the analyzed fillet composite.

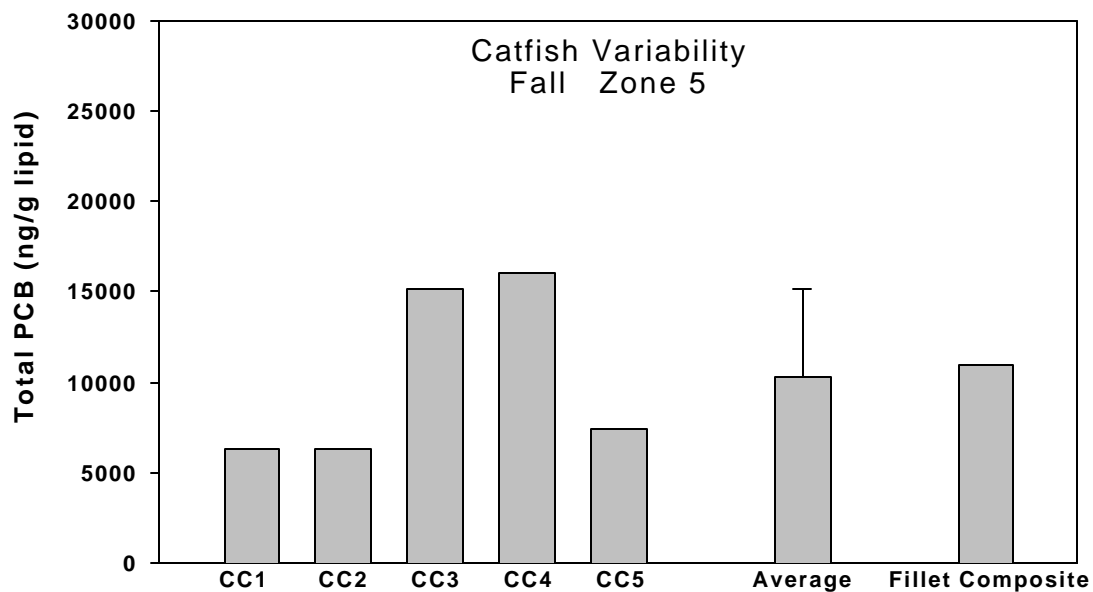
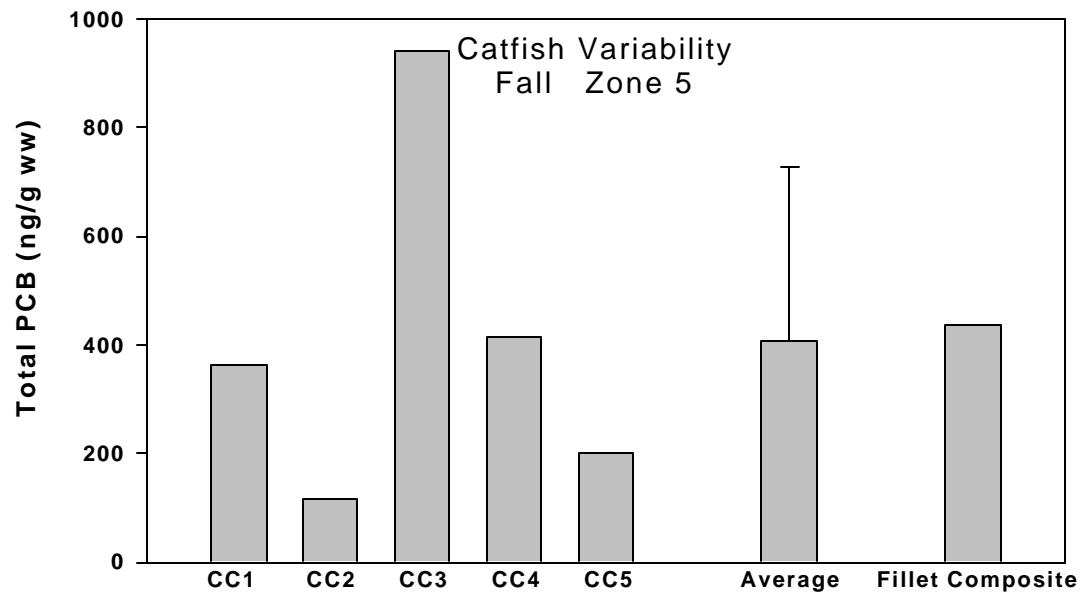


Figure 19. Individual fillet concentrations (wet weight and lipid normalized) for catfish from Zone 5 (fall) compared to the mathematical average (standard deviations shown by error bars) and the analyzed fillet composite.

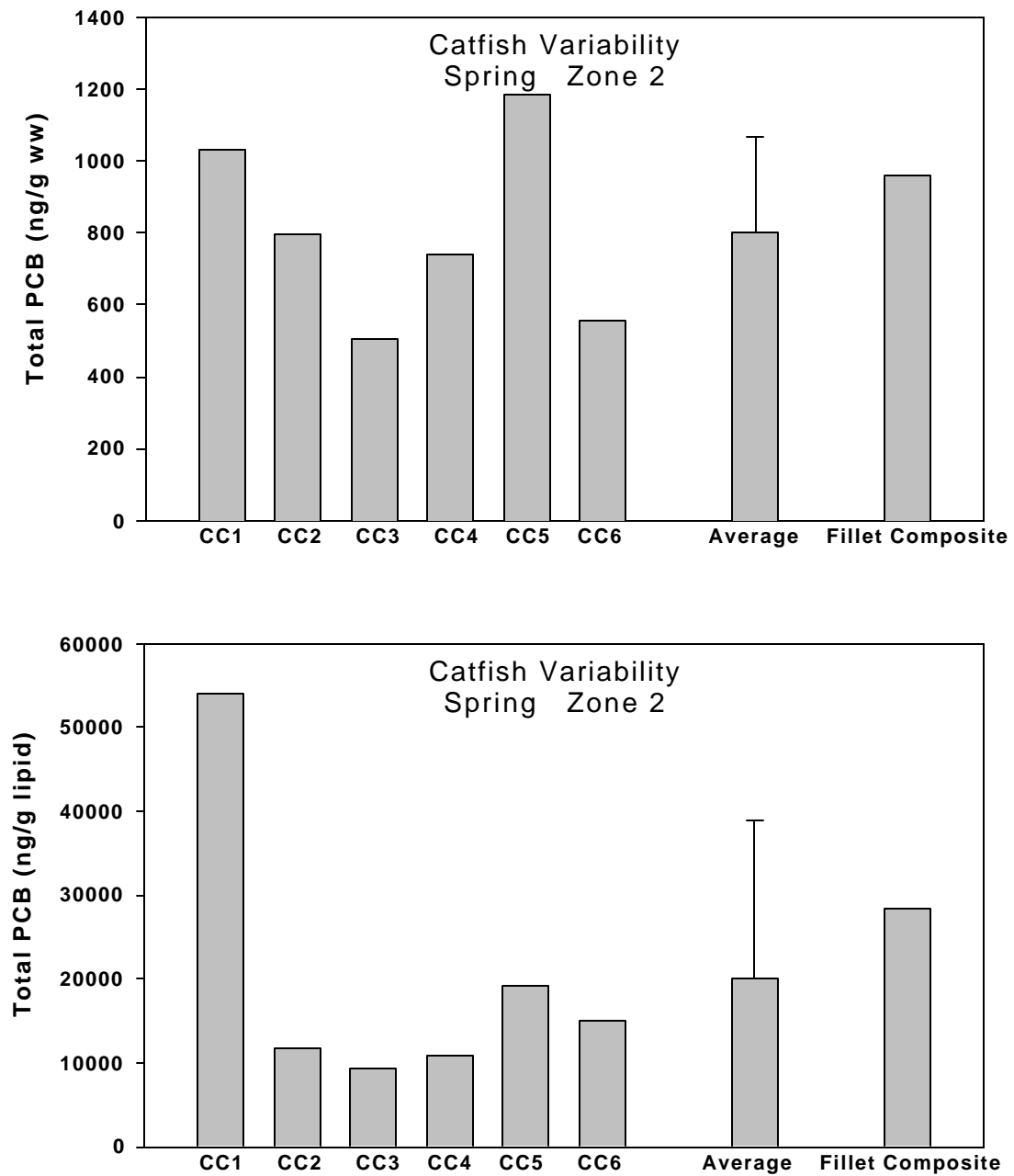


Figure 20. Individual fillet concentrations (wet weight and lipid normalized) for catfish from Zone 2 (spring) compared to the mathematical average (standard deviations shown by error bars) and the analyzed fillet composite.

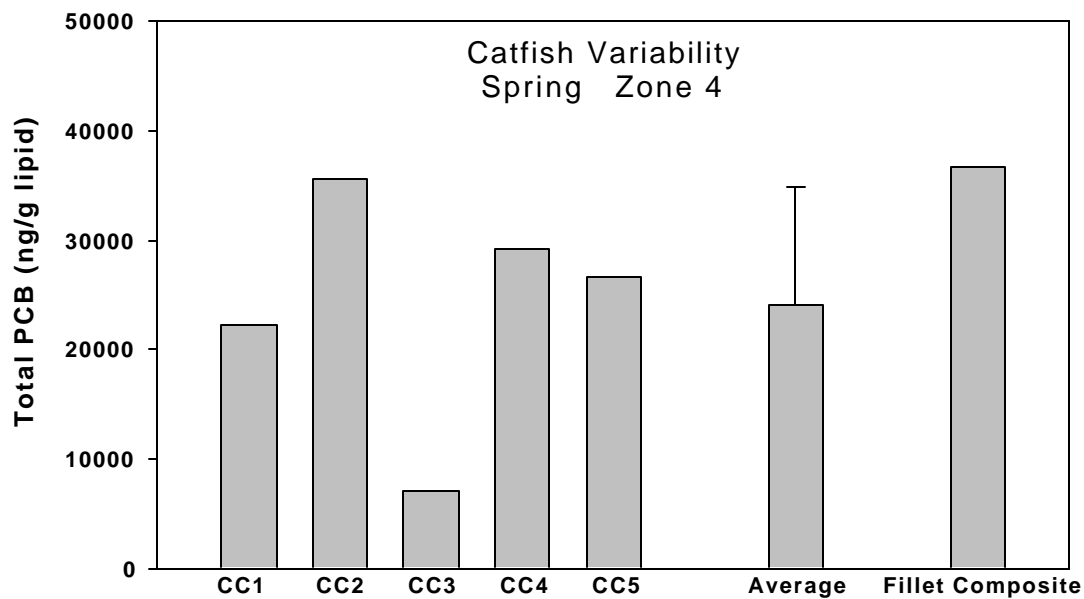
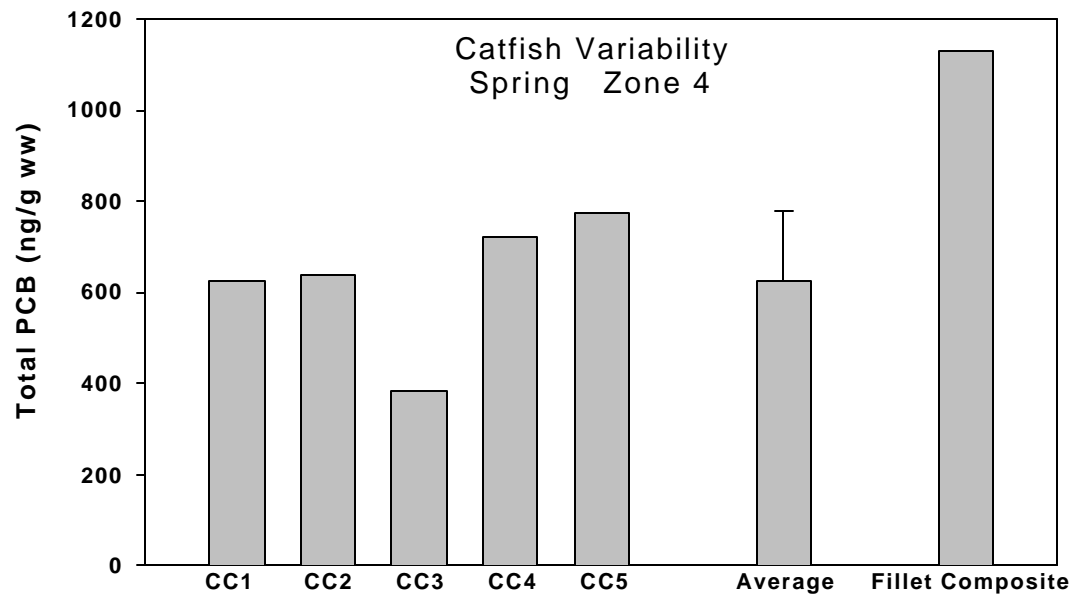


Figure 21. Individual fillet concentrations (wet weight and lipid normalized) for catfish from Zone 4 (spring) compared to the mathematical average (standard deviations shown by error bars) and the analyzed fillet composite.

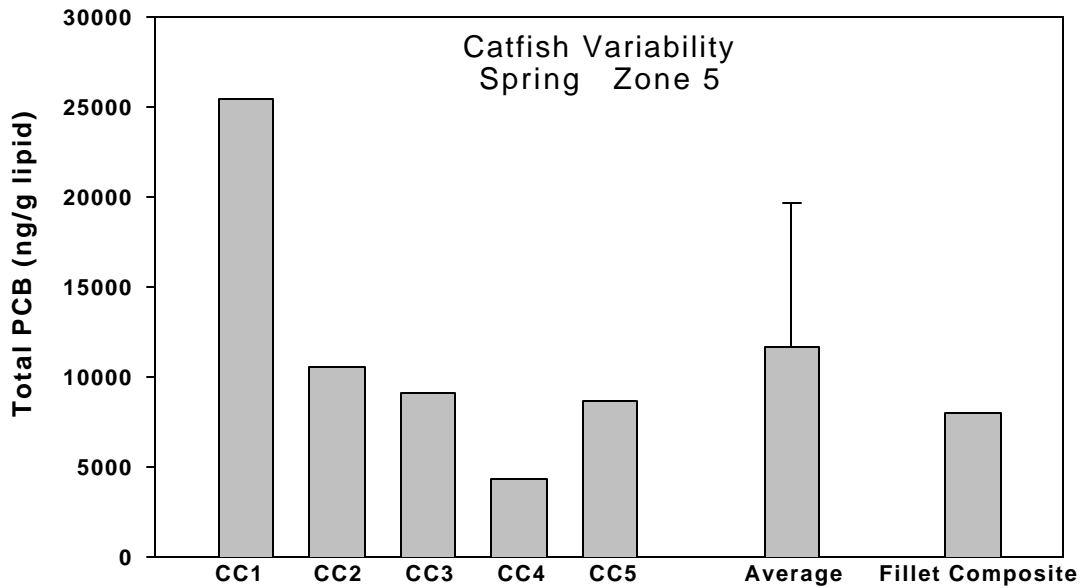
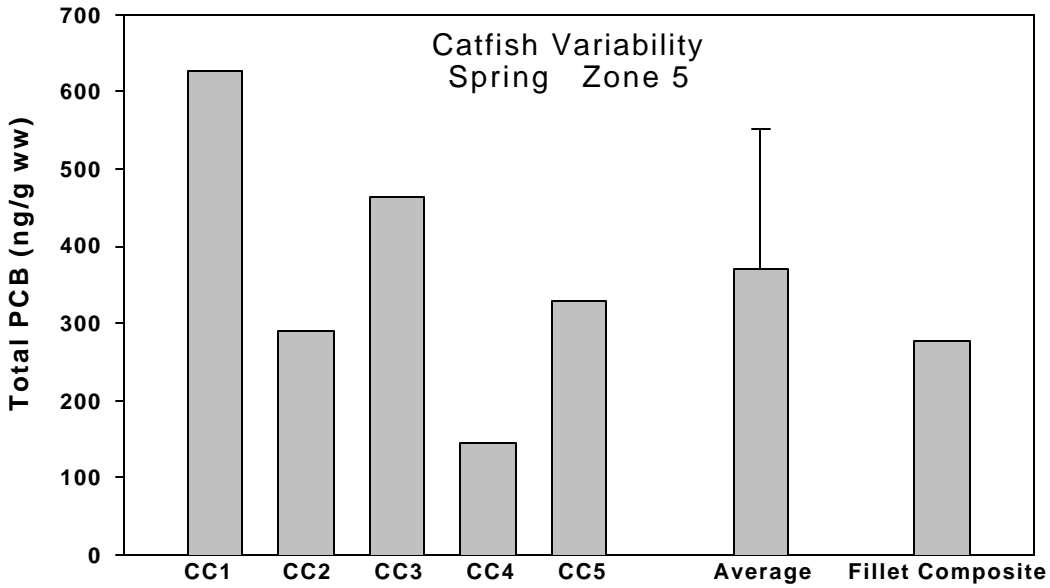


Figure 22. Individual fillet concentrations (wet weight and lipid normalized) for catfish from Zone 5 (spring) compared to the mathematical average (standard deviations shown by error bars) and the analyzed fillet composite.

White Perch Variability

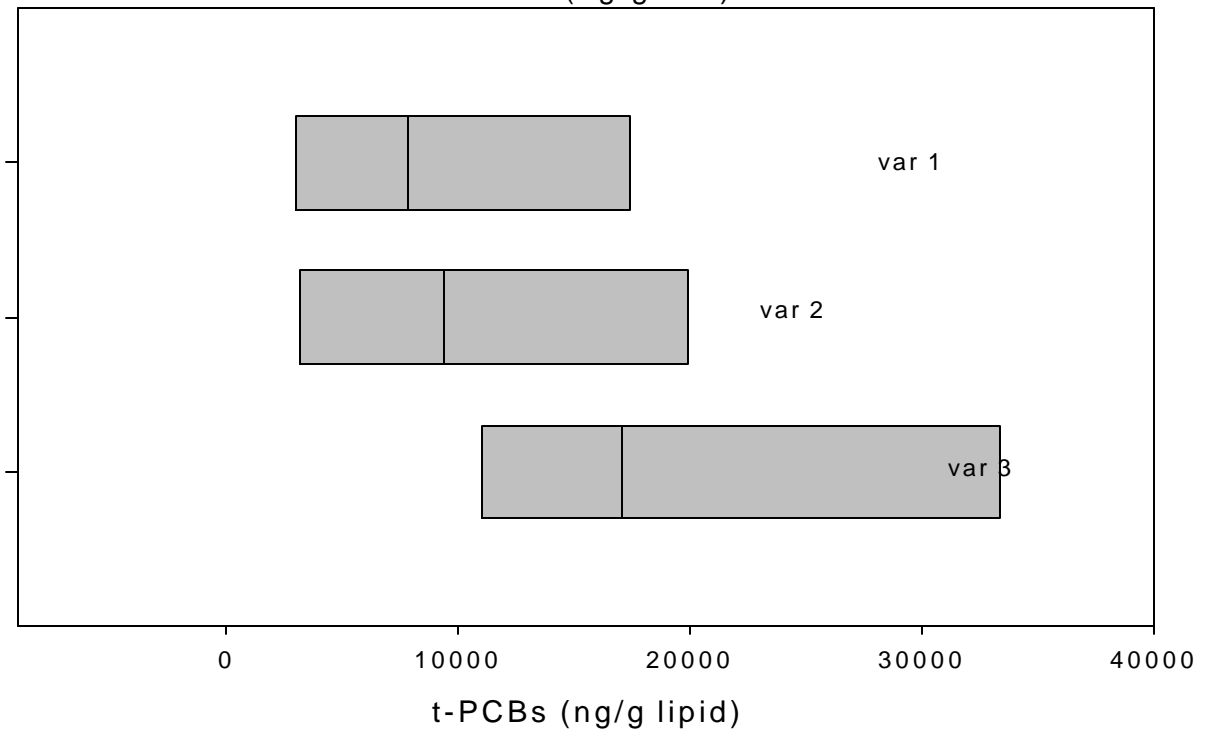
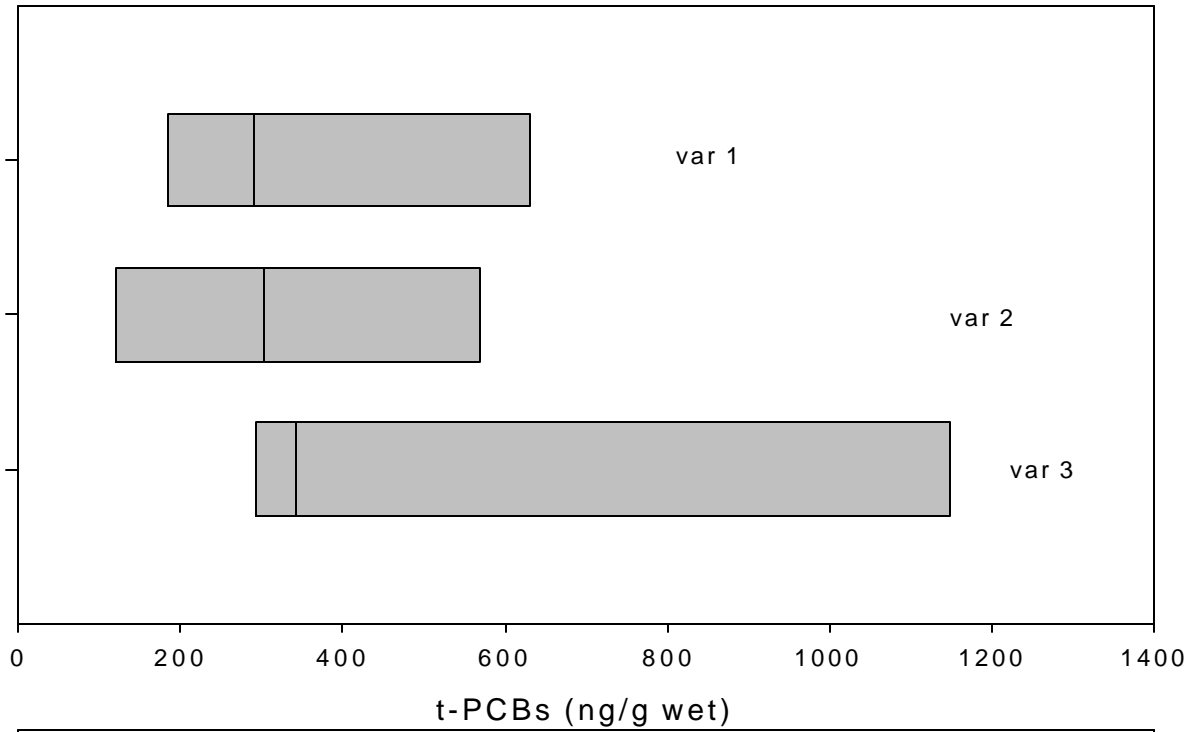


Figure 23. Variability in t-PCB white perch concentrations (lipid normalized) for fall collected variability study within three regions of Zone 5.

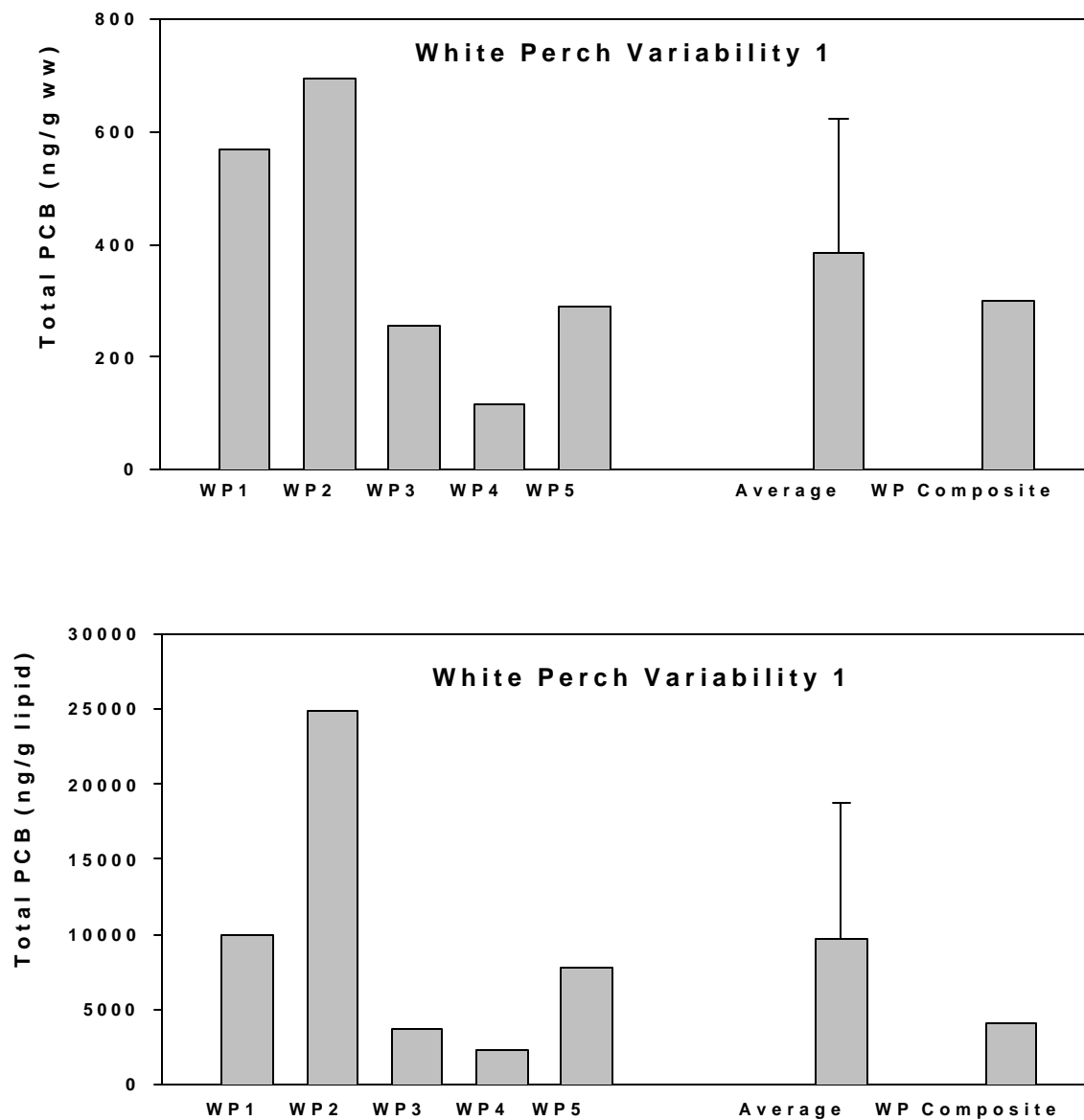


Figure 24. Individual fillet concentrations (wet weight and lipid normalized) for perch from region 1 in Zone 5 (fall) compared to the mathematical average (standard deviations shown by error bars) and the analyzed fillet composite.

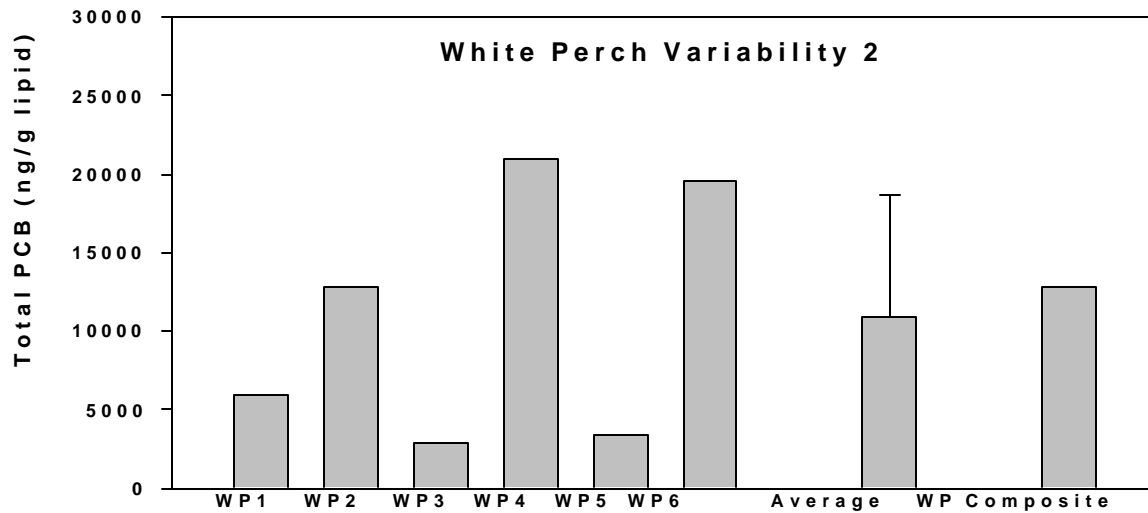
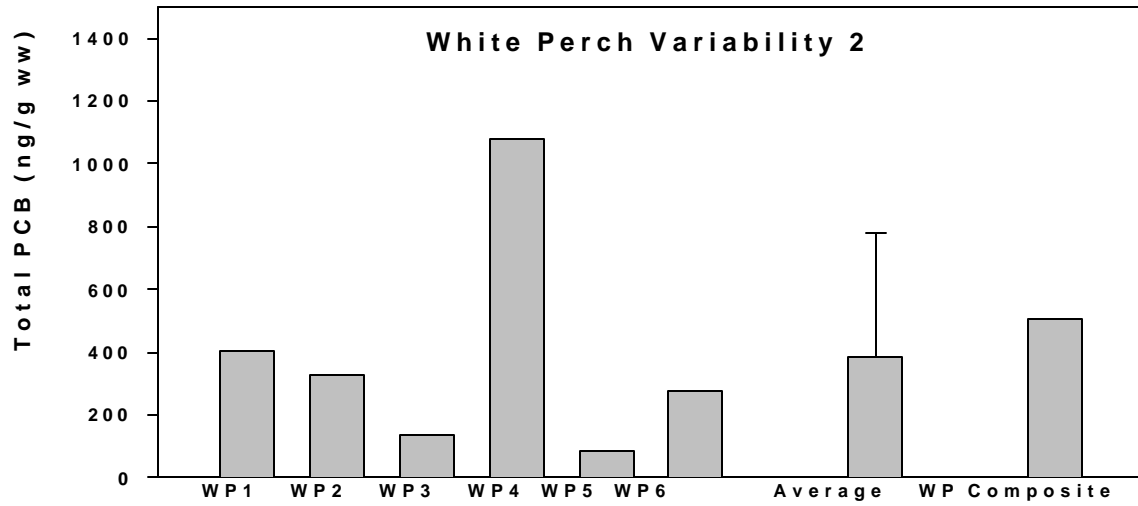


Figure 25. Individual fillet concentrations (wet weight and lipid normalized) for catfish from region 2 in Zone 5 (fall) compared to the mathematical average (standard deviations shown by error bars) and the analyzed fillet composite.

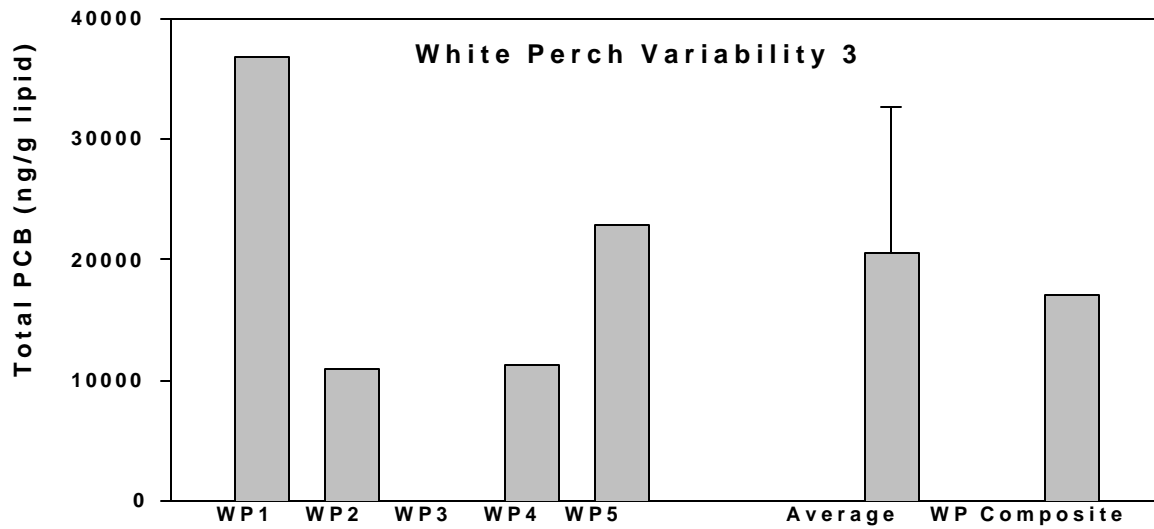
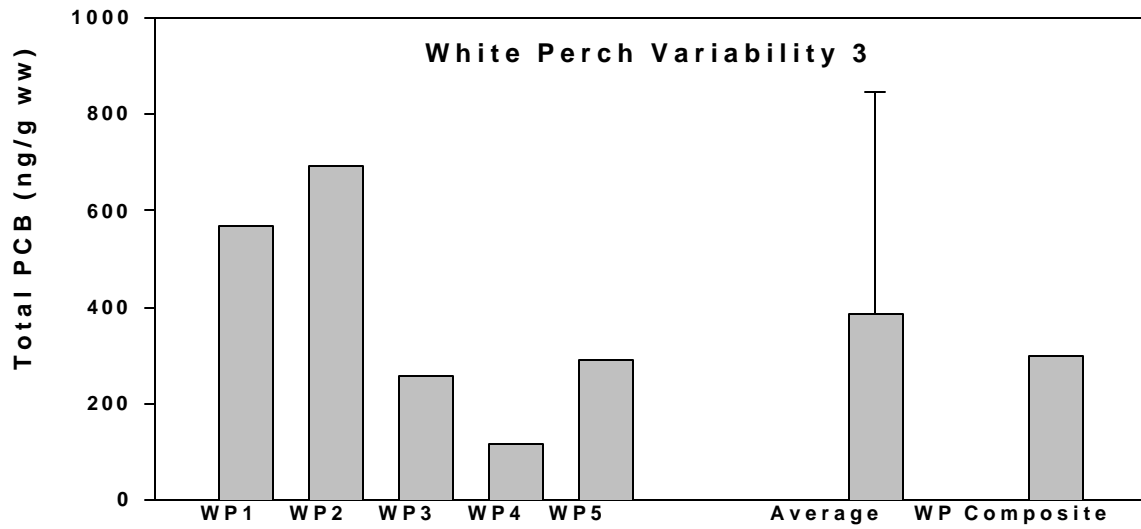


Figure 26. Individual fillet concentrations (wet weight and lipid normalized) for catfish from region 3 in Zone 5 (fall) compared to the mathematical average (standard deviations shown by error bars) and the analyzed fillet composite.

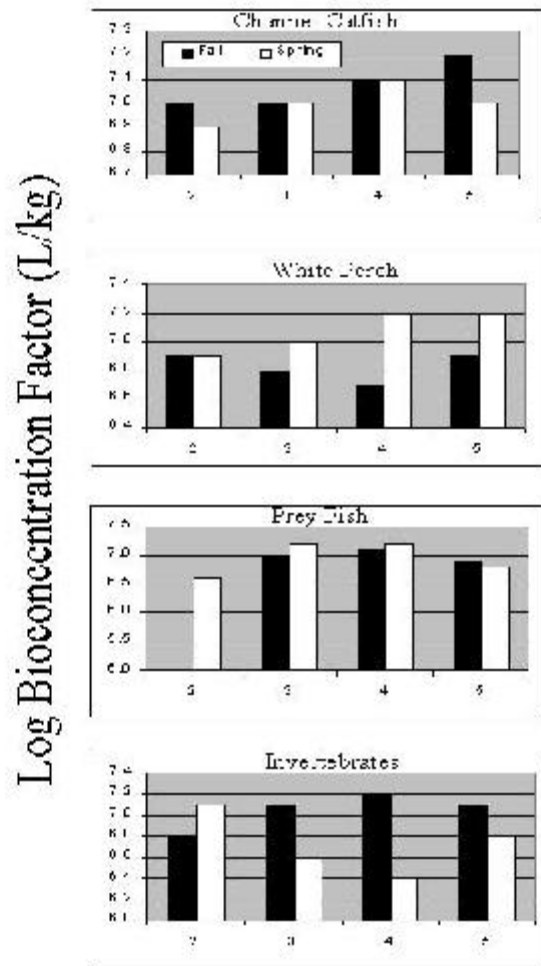


Figure 27. Total congeneric bioconcentration factors (BCFs).

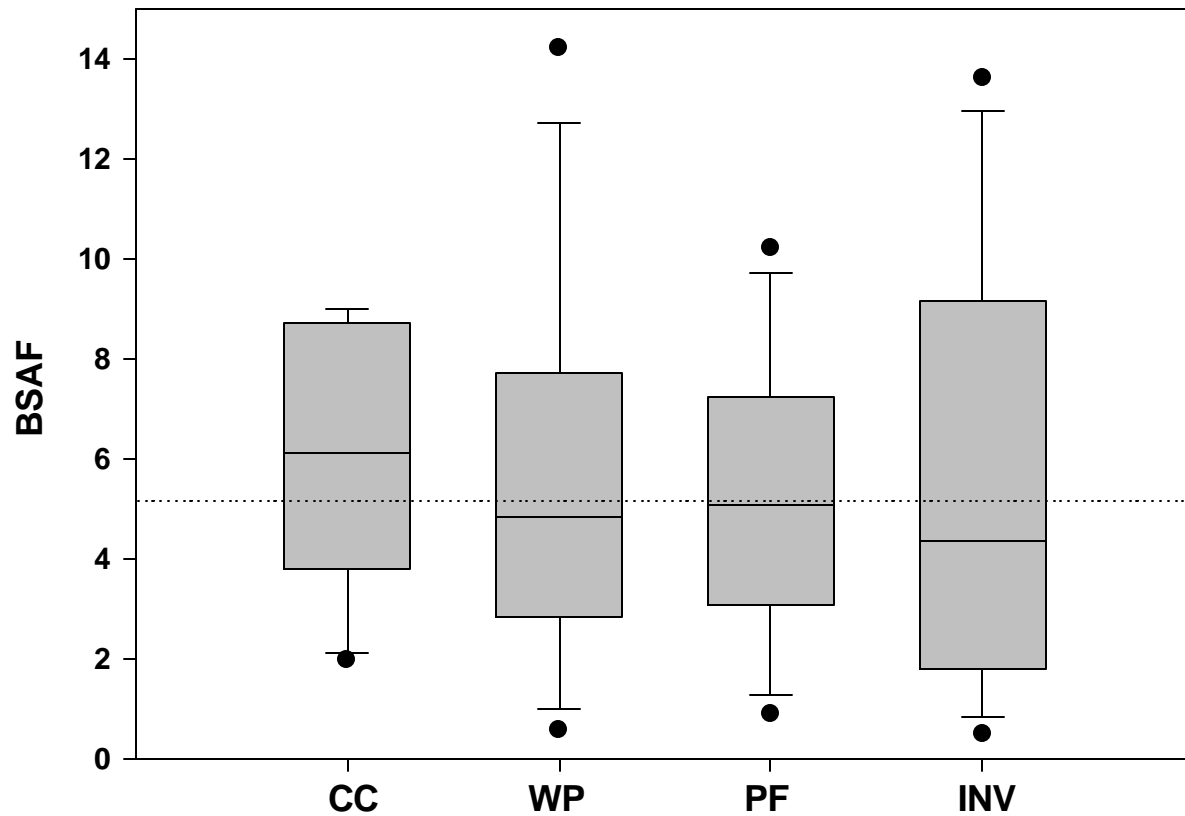


Figure 28. Total biota-sediment accumulation factors (BSAF) for channel catfish (CC), white perch (WP), prey fish (PF) and invertebrates (INV) collected from the Delaware River estuary in Fall 2001 and Spring 2002. The dotted line indicates the mean of species-specific median BSAF values.

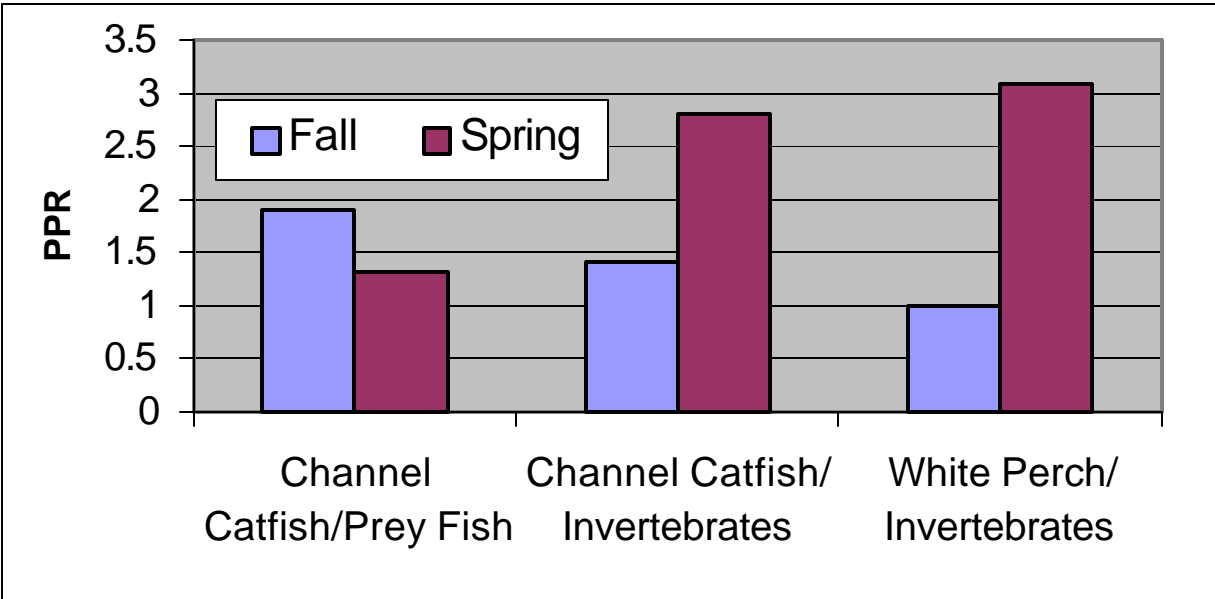


Figure 29. Predator/Prey Ratios of lipid normalized total PCBs from biota collected in the Delaware River estuary in Fall 2001 and Spring 2002.

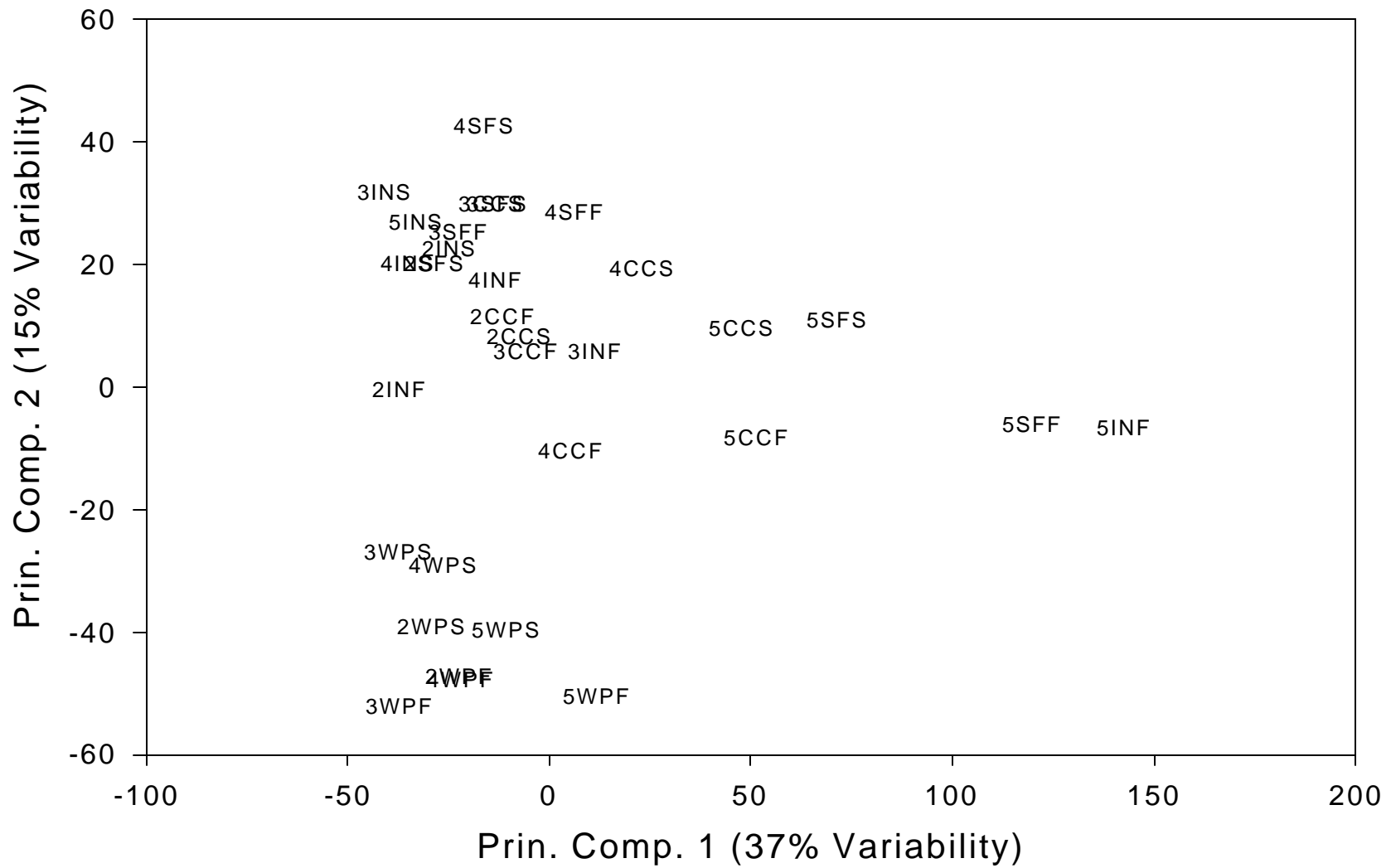


Figure 30. Principal component cross-plot for whole fish and prey items treating fall and spring separately.

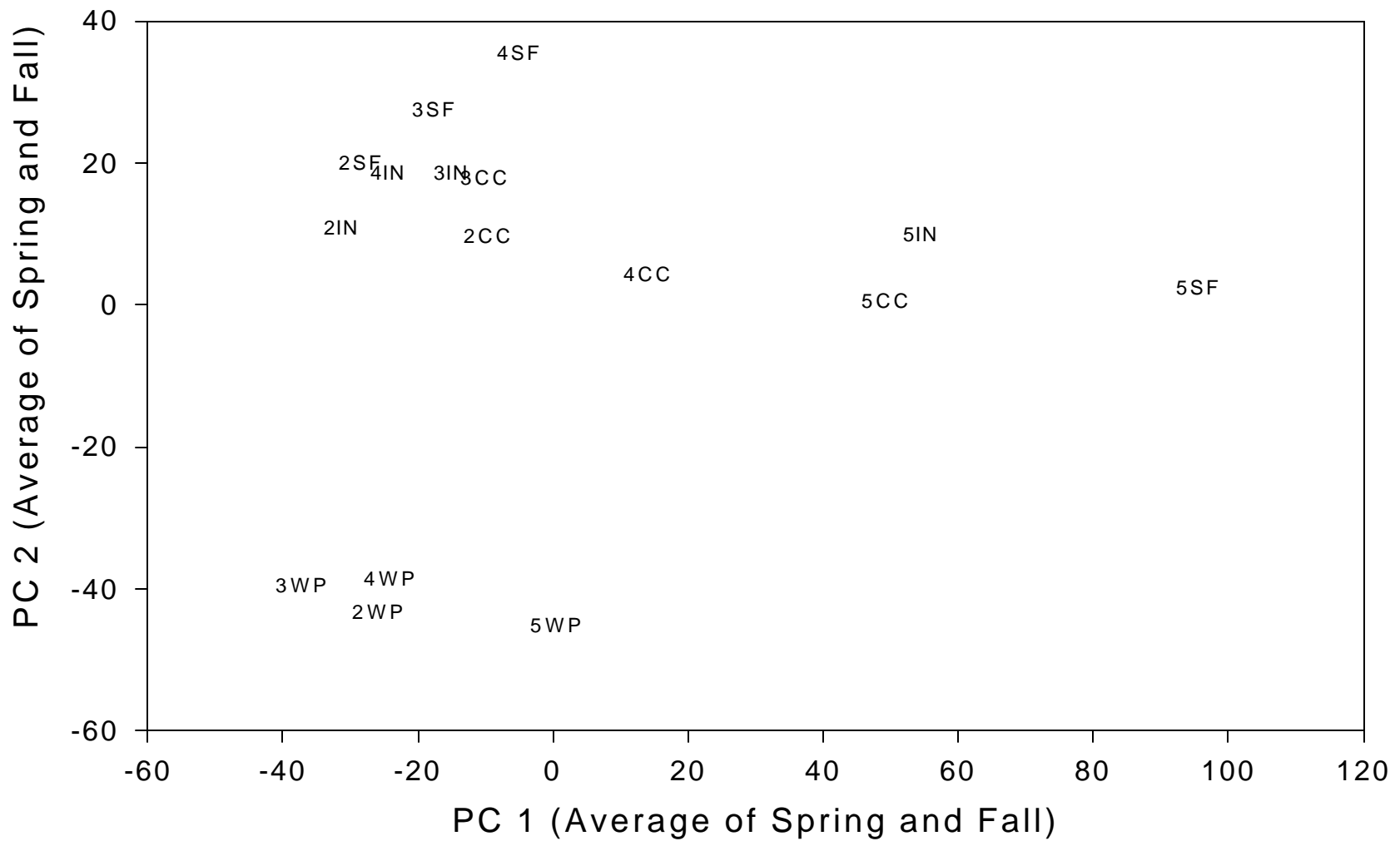


Figure 31. Reduced principal component cross-plot for whole fish and prey items treating generated by average values from both seasons.

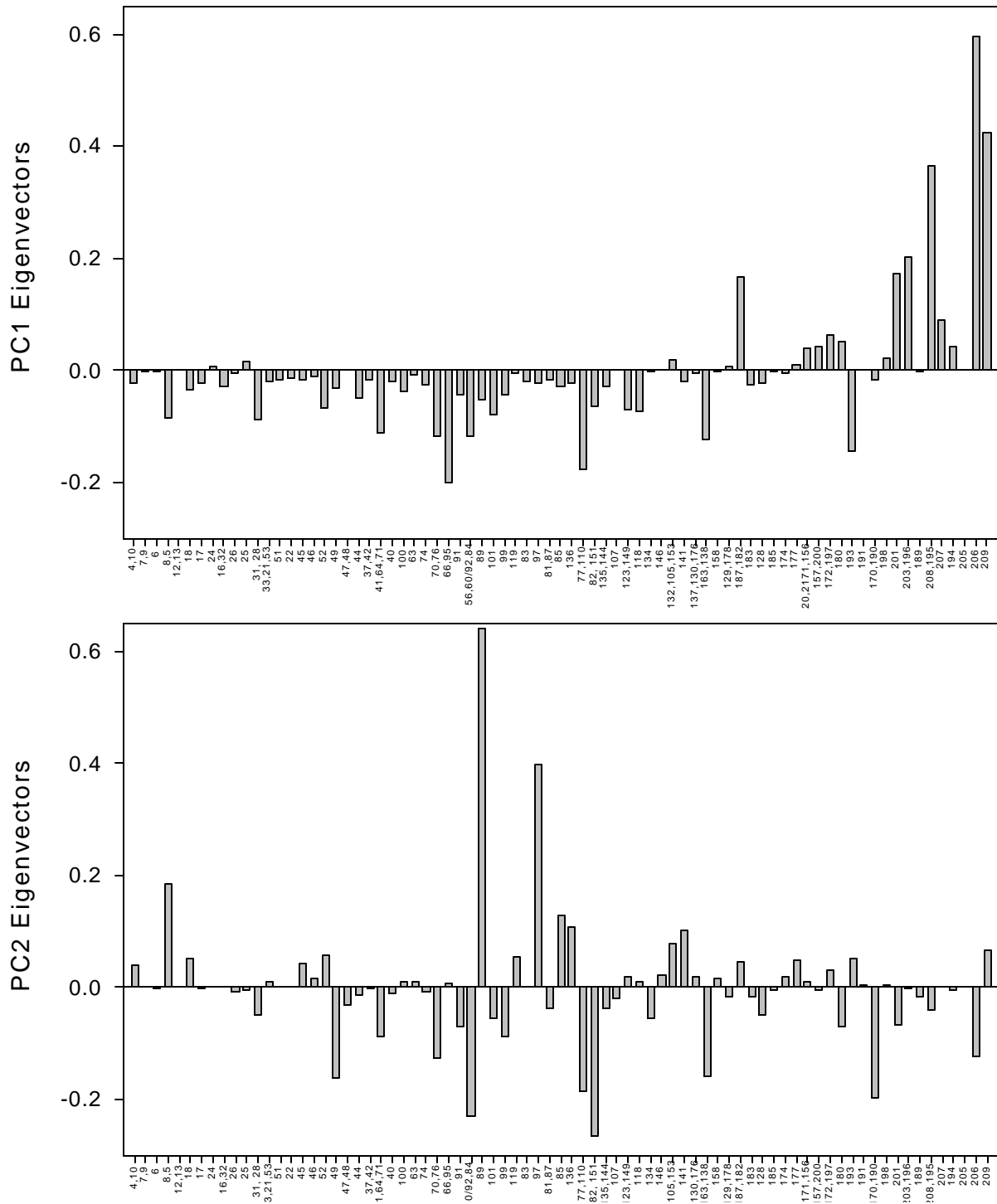


Figure 32. Principal component eigenvectors (weightings) for principal component 1 (PC1) and 2 (PC2).

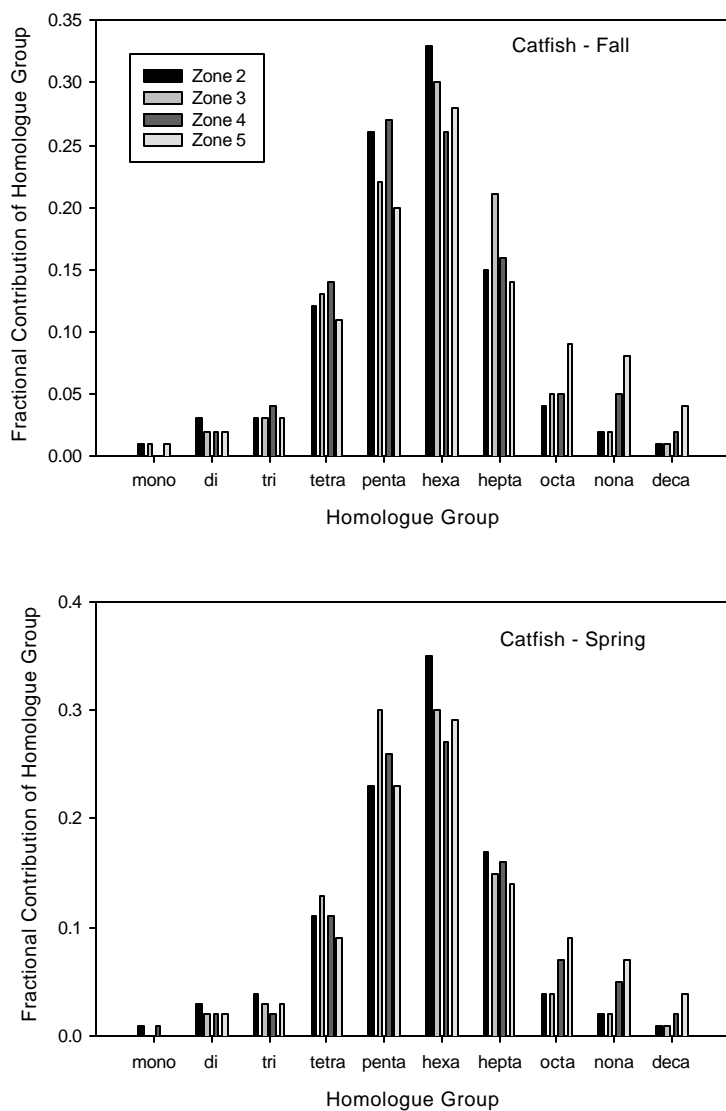


Figure 33. Zonal differences in the fractional (normalized to total wet weight concentrations) contribution from each homologue group for fall and spring collected channel catfish.

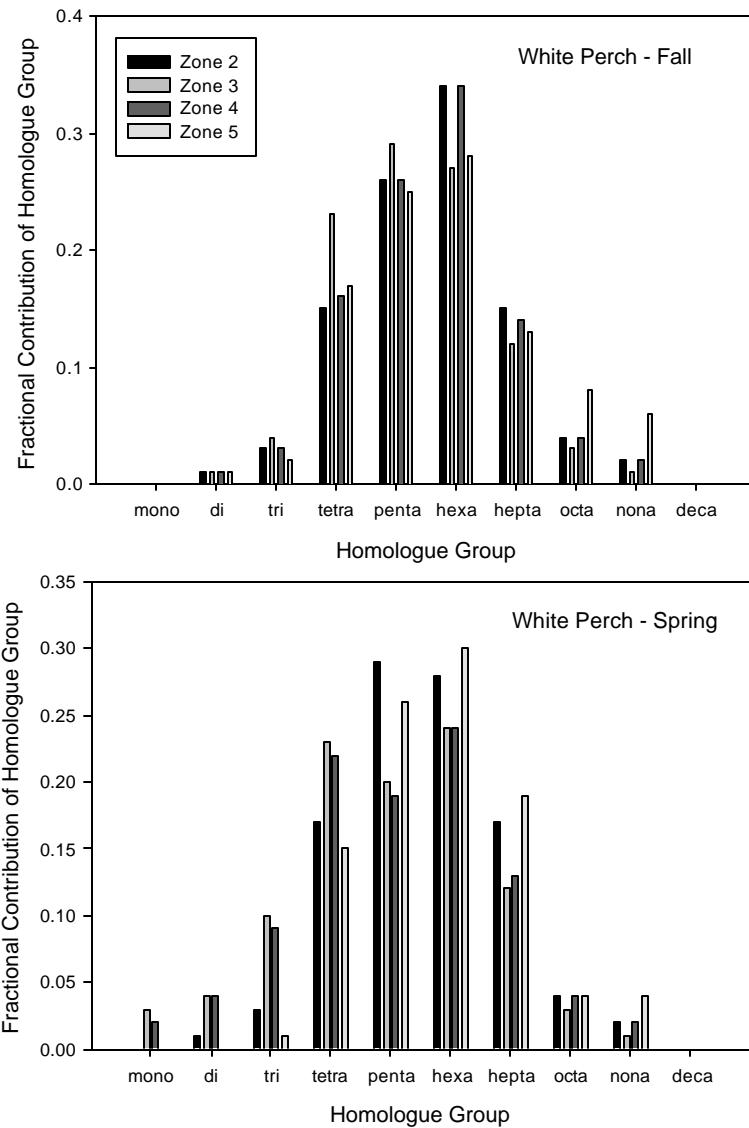


Figure 34. Zonal differences in the fractional (normalized to total wet weight concentrations) contribution from each homologue group for fall and spring collected white perch.

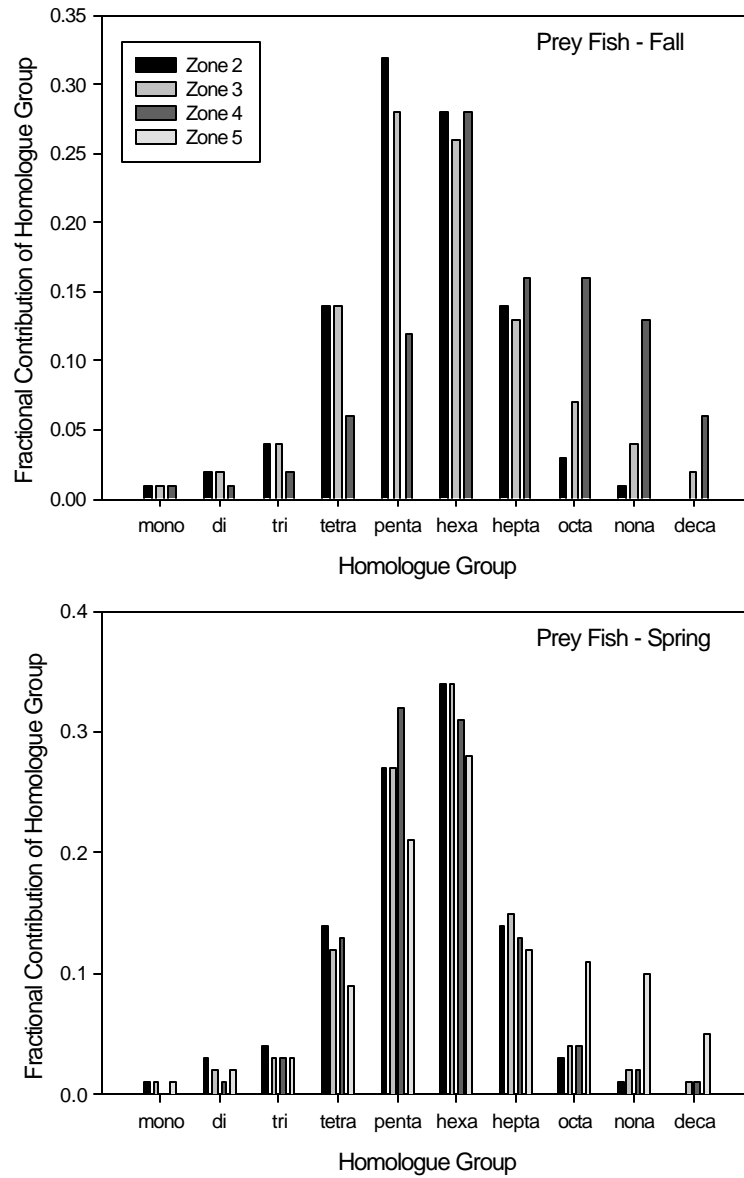


Figure 35. Zonal differences in the fractional (normalized to total wet weight concentrations) contribution from each homologue group for fall and spring collected invertebrates.

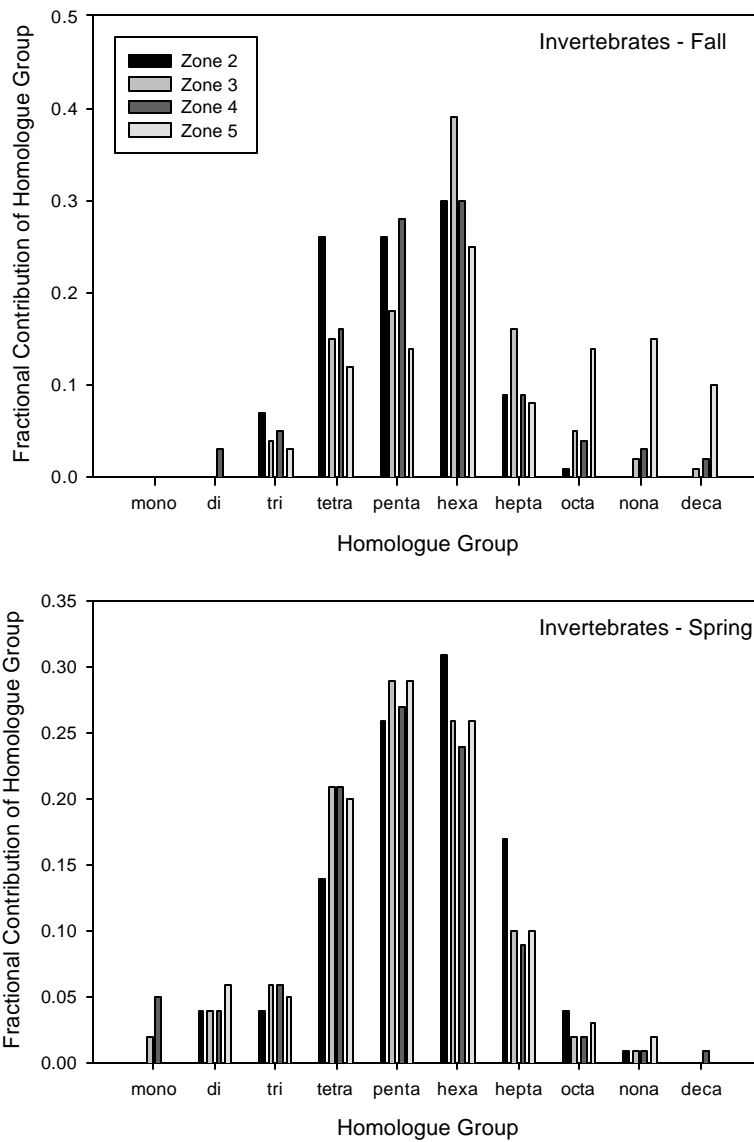


Figure 36. Zonal differences in the fractional (normalized to total wet weight concentrations) contribution from each homologue group for fall and spring collected small prey fish.

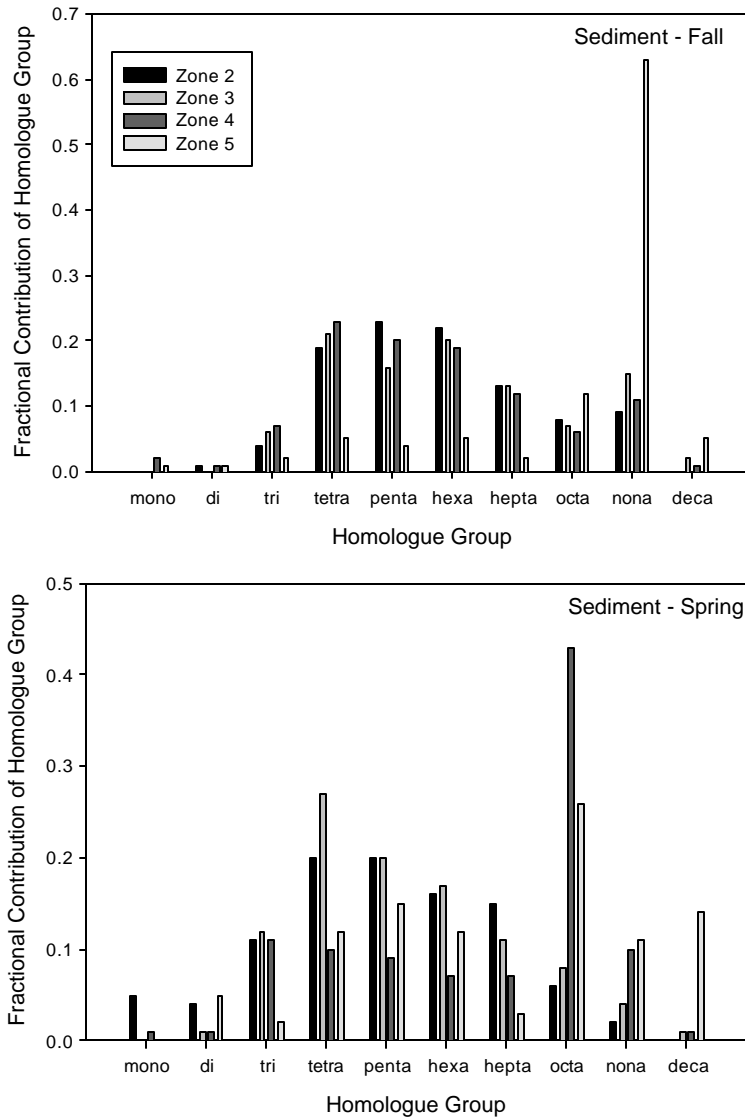


Figure 37. Zonal differences in the fractional (normalized to total wet weight concentrations) contribution from each homologue group for fall and spring collected sediment.

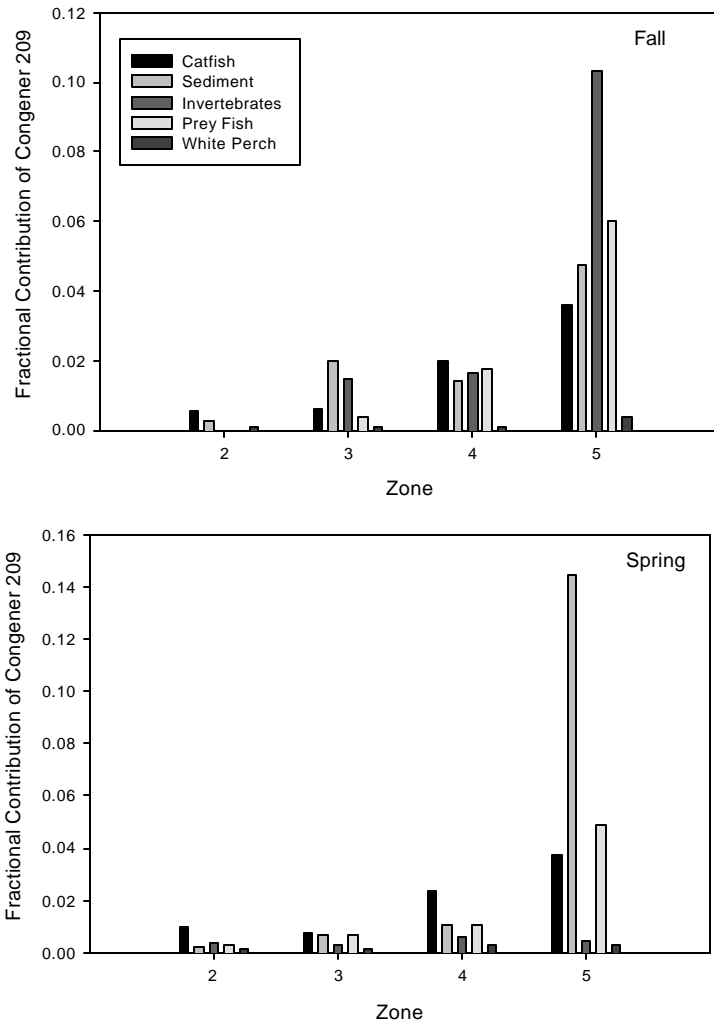


Figure 38. Zonal differences in fractional contribution of PCB congener 209 for fall and spring collected biota.

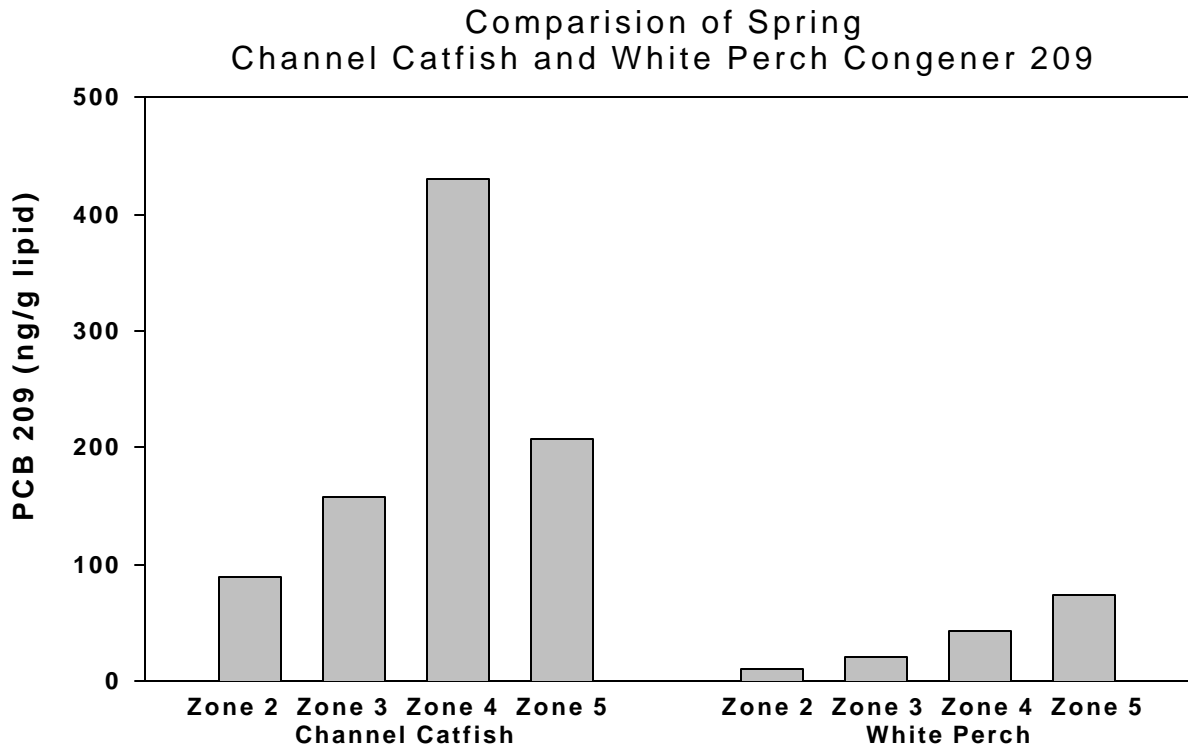
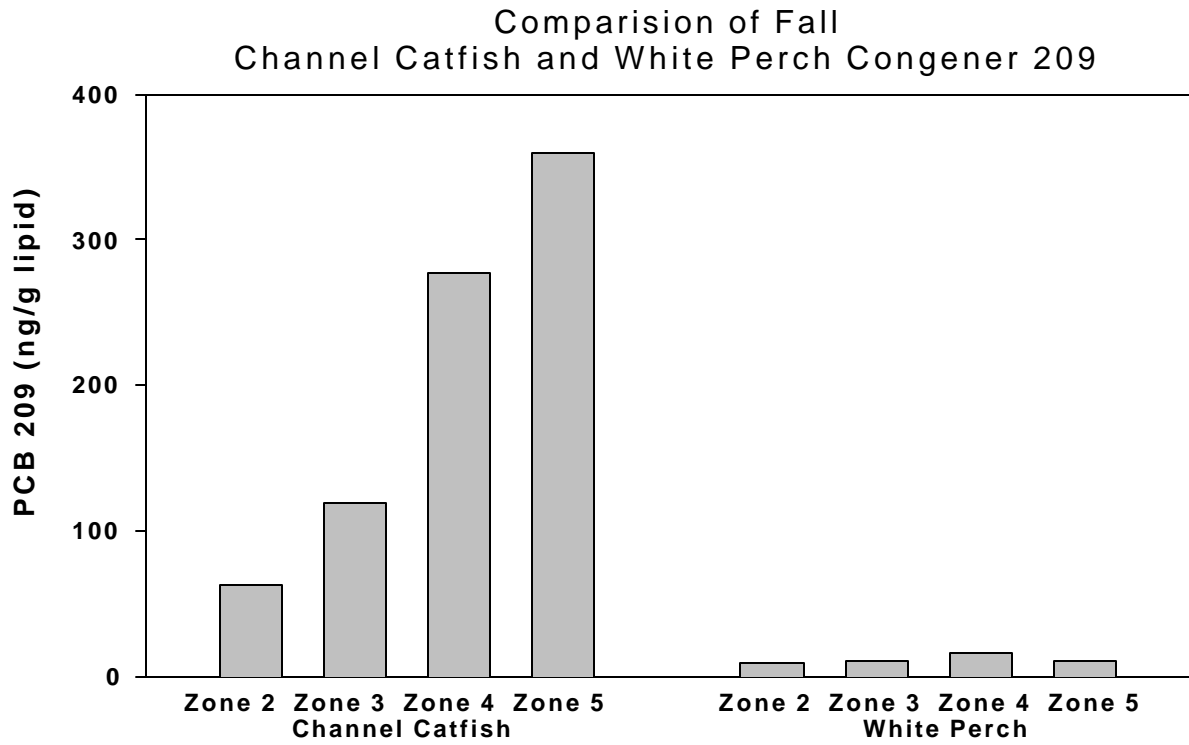


Figure 39. Zonal differences in PCB congener 209 lipid-normalized concentrations for fall and spring collected channel catfish and white perch.

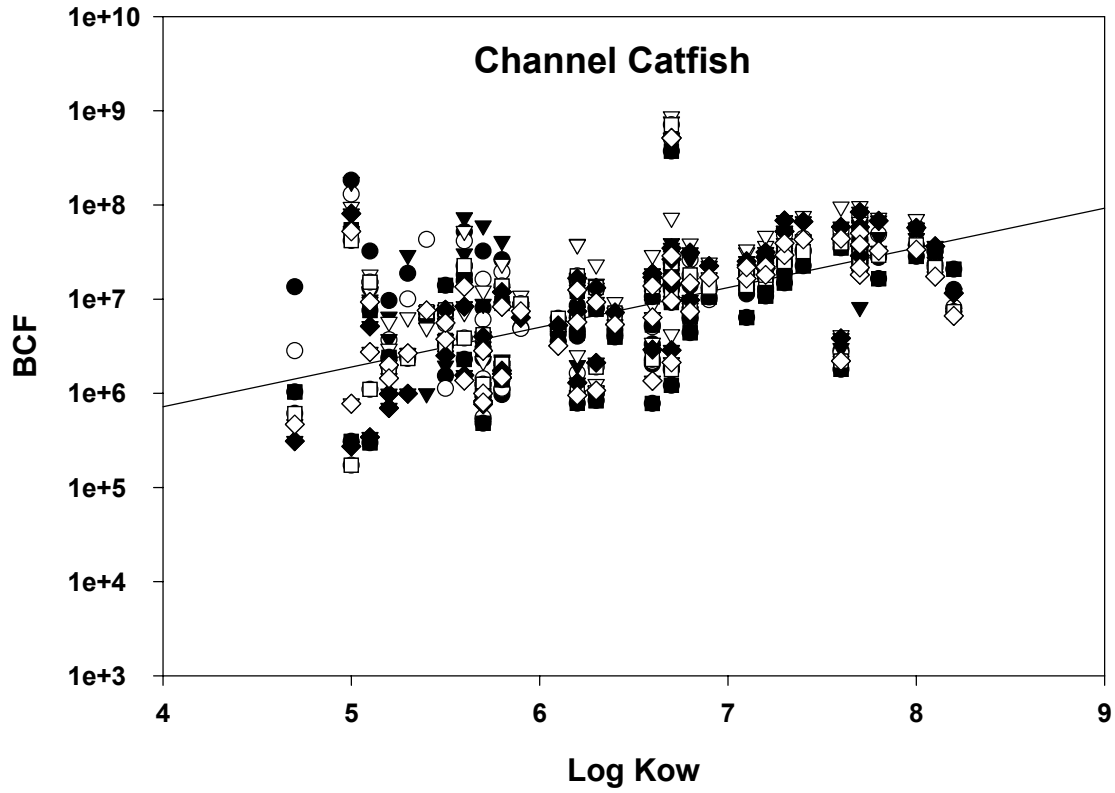


Figure 40. Bioconcentration factors (BCF) vs. $\log K_{ow}$ for individual PCB congeners in channel catfish collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. Regression analysis of BCF values vs. $\log K_{ow}$ values gave a linear regression of $\log BCF = 0.34 * \log K_{ow} + 4.81$ ($R = 0.49$, $P < 0.0001$).
 ●=Zone 2, ○=Zone 3, □=Zone 4, ▽=Zone 5.

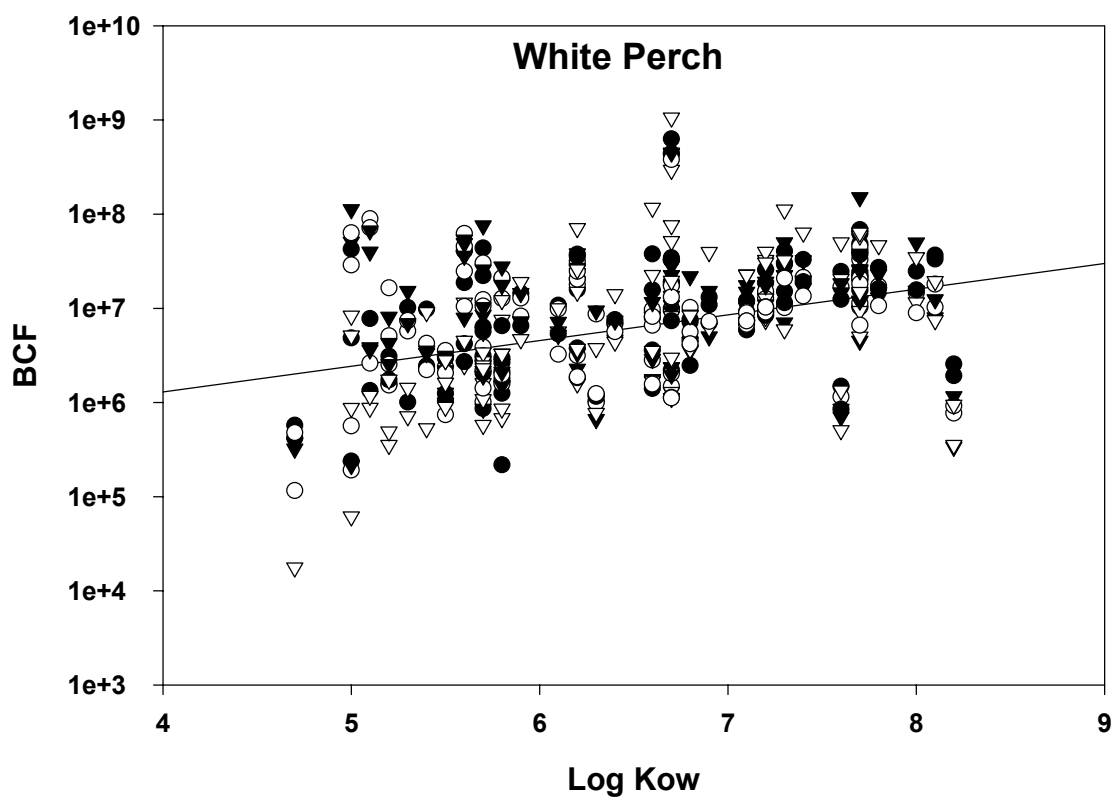


Figure 41. Bioconcentration factors (BCF) vs. $\log K_{ow}$ for individual PCB congeners in white perch collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. Regression analysis of BCF values vs. $\log K_{ow}$ values gave a linear regression of $\log BCF = 0.25 * \log K_{ow} + 5.24$ ($R = 0.35$, $P < 0.0001$).
 ●=Zone 2, ○=Zone 3, □=Zone 4, ▽=Zone 5.

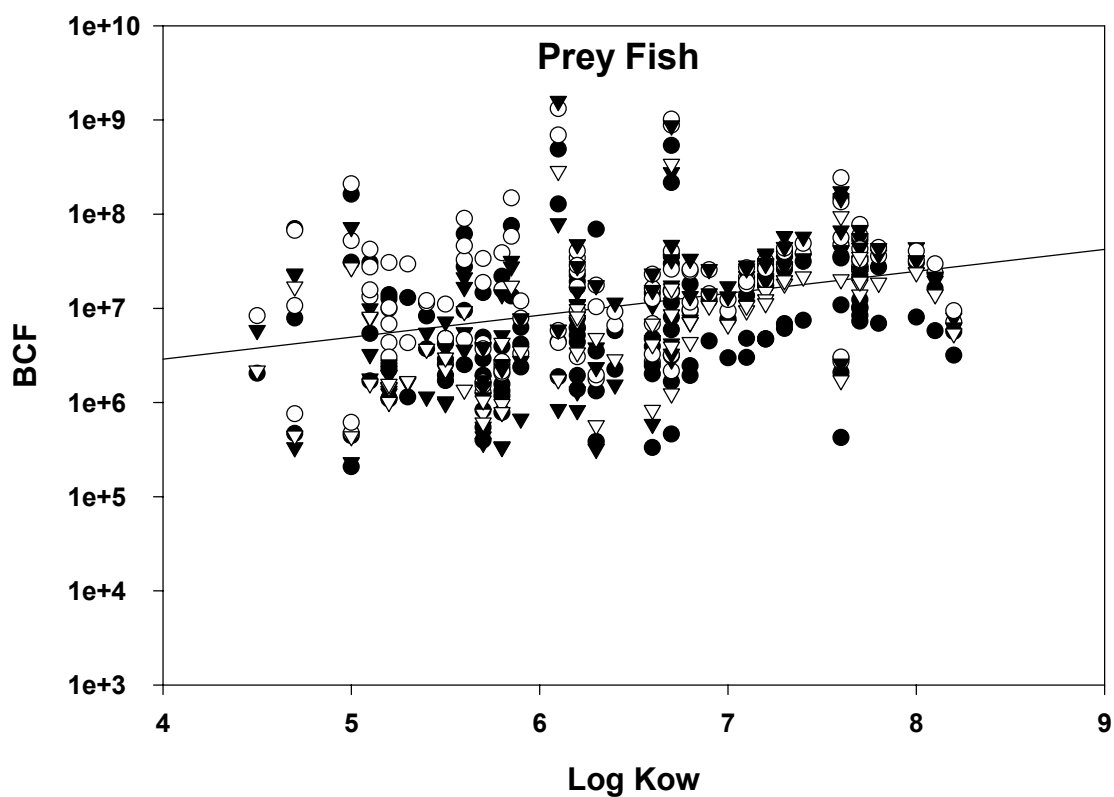


Figure 42. Bioconcentration factors (BCF) vs. $\log K_{ow}$ for individual PCB congeners in prey fish collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. Regression analysis of BCF values vs. $\log K_{ow}$ values gave a PCB linear regression of $\log BCF = 0.31 \cdot \log K_{ow} + 4.88$ ($R = 0.44$, $P < 0.0001$). ●=Zone 2, ○=Zone 3, □=Zone 4, ▽=Zone 5.

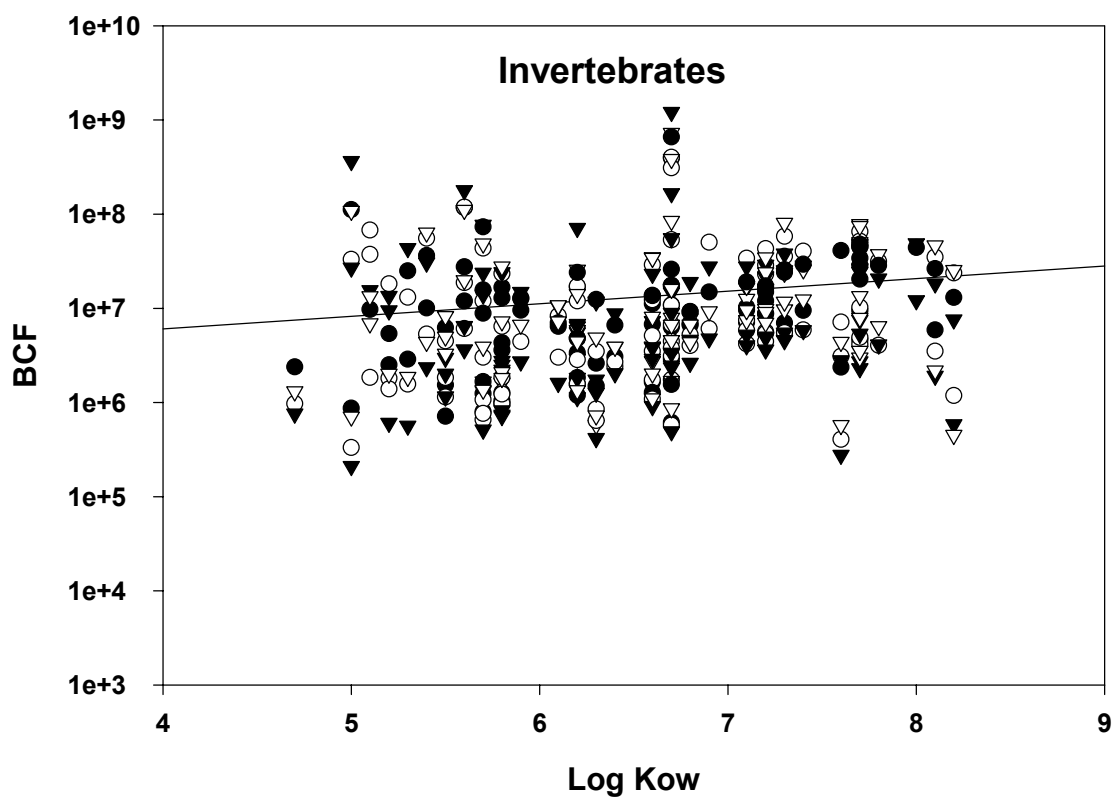


Figure 43. Bioconcentration factors (BCF) vs. log K_{ow} for individual PCB congeners in invertebrates collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. Regression analysis of BCF values vs. log K_{ow} values a PCB linear regression of $\log BCF = 0.14 * \log K_{ow} + 5.92$ ($R = 0.20$, $P = 0.0001$).
 ●=Zone 2, ○=Zone 3, □=Zone 4, ▽=Zone 5.

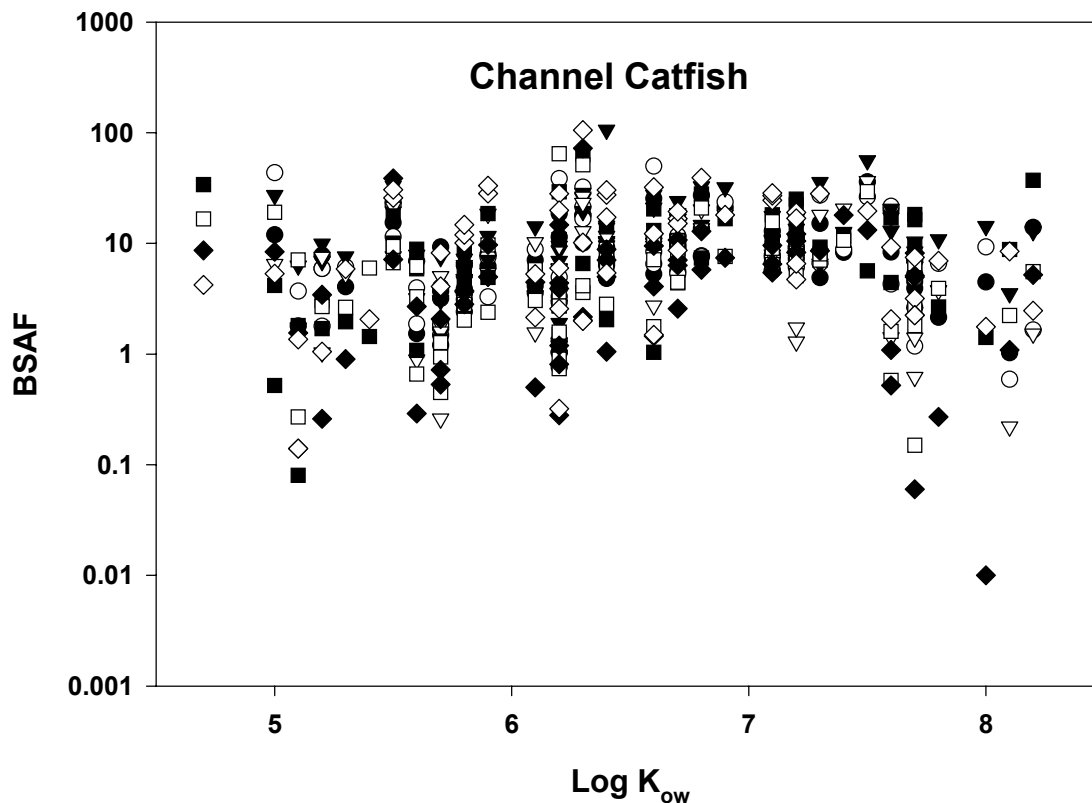


Figure 44. Biota-sediment accumulation factors (BSAFs) vs. $\log K_{ow}$ for individual PCB congeners in channel catfish collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. PCB linear regression: $BSAF = 1.06 \cdot \log K_{ow} + 3.23$ ($R = 0.08$, $P = 0.08$); PCB quadratic regression: $BSAF = -2.83 \cdot \log K_{ow}^2 + 37.98 \cdot \log K_{ow} - 115.22$ ($R = 0.20$, $P < 0.0001$). ●=Fall Zone 2, ○= Fall Zone 3, ◻= Fall Zone 4, ▽= Fall Zone 5, ◻=Spring Zone 2, ◻=Spring Zone 3, ◆=Spring Zone 4, ◻=Spring Zone 5.

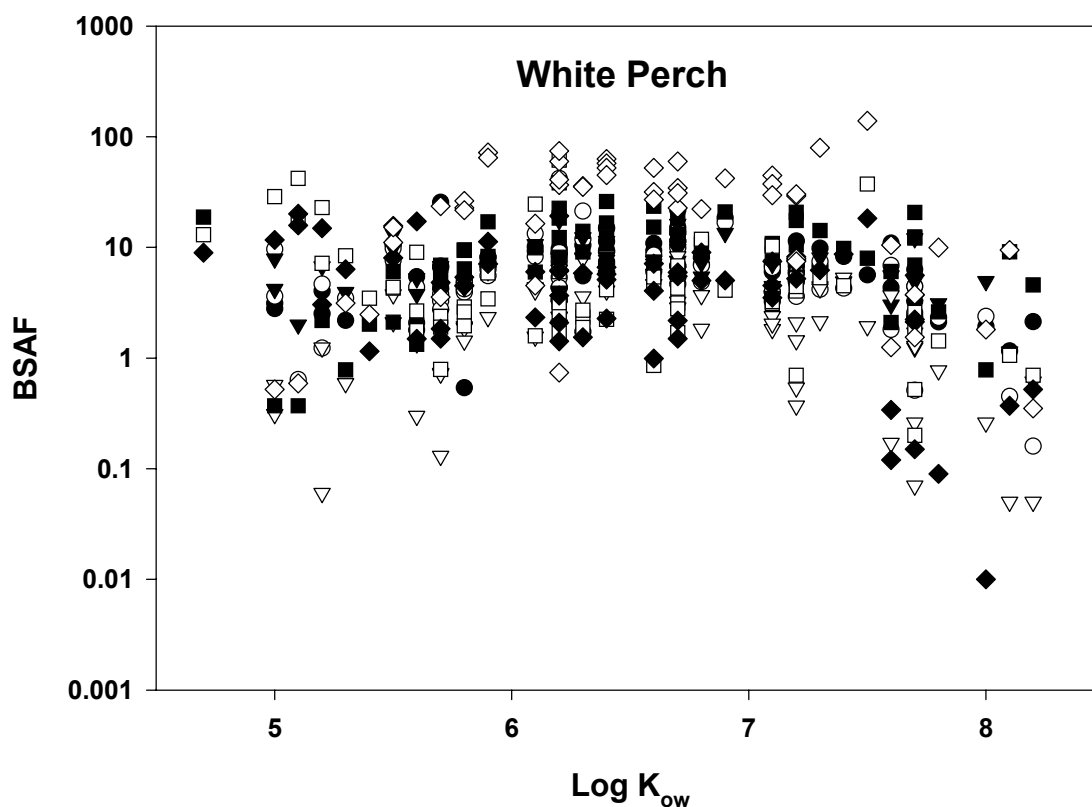


Figure 45. Biota-sediment accumulation factors (BSAFs) vs. $\log K_{ow}$ for individual PCB congeners in white perch collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. PCB linear regression: $BSAF = -0.33 \cdot \log K_{ow} + 10.75$ ($R = 0.02$, $P = 0.62$); PCB quadratic regression: $BSAF = -3.35 \cdot \log K_{ow}^2 + 43.37 \cdot \log K_{ow} - 129.43$ ($R = 0.20$, $P < 0.0001$). ●=Fall Zone 2, ○= Fall Zone 3, □= Fall Zone 4, ▽= Fall Zone 5, □=Spring Zone 2, □=Spring Zone 3, ◆=Spring Zone 4, □=Spring Zone 5.

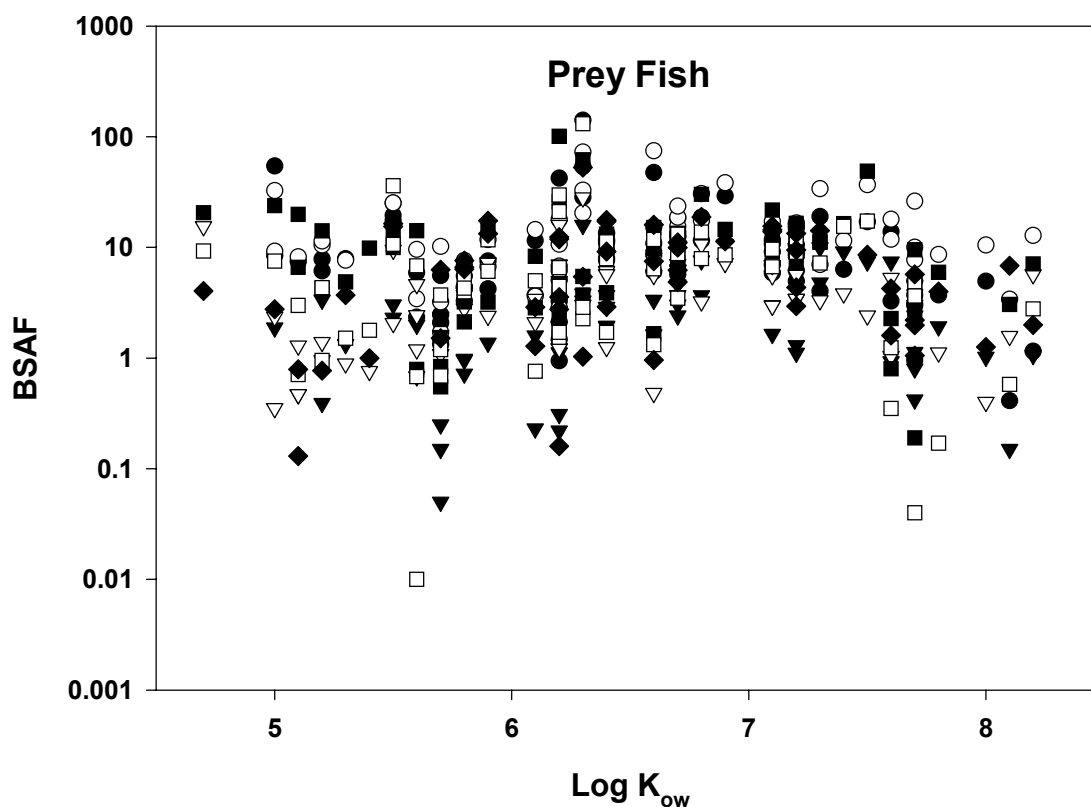


Figure 46. Biota-sediment accumulation factors (BSAFs) vs. $\log K_{ow}$ for individual PCB congeners in prey fish collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. PCB linear regression: $BSAF = -0.17 \cdot \log K_{ow} + 10.2$ ($R = 0.01$, $P = 0.83$); PCB quadratic regression: $BSAF = -2.94 \cdot \log K_{ow}^2 + 38.20 \cdot \log K_{ow} - 112.82$ ($R = 0.16$, $P = 0.0021$). ● = Fall Zone 2, ○ = Fall Zone 3, □ = Fall Zone 4, ▽ = Fall Zone 5, □ = Spring Zone 2, □ = Spring Zone 3, ◆ = Spring Zone 4, □ = Spring Zone 5.

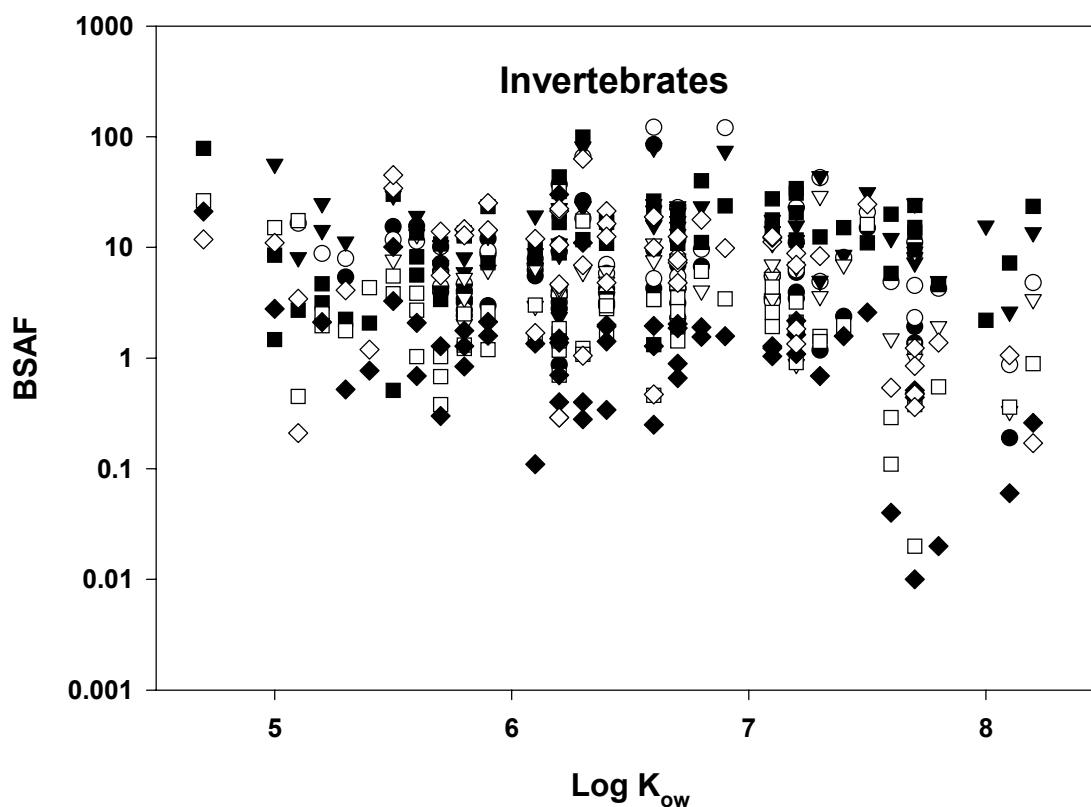


Figure 47. Biota-sediment accumulation factors (BSAFs) vs. $\log K_{ow}$ for individual PCB congeners in invertebrates collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. PCB linear regression: $\log \text{BSAF} = -0.51 \cdot \log K_{ow} + 12.01$ ($R = 0.03$, $P = 0.49$); PCB quadratic regression: $\log \text{BSAF} = -2.36 \cdot \log K_{ow}^2 + 30.32 \cdot \log K_{ow} - 86.94$ ($R = 0.13$, $P = 0.013$). ●=Fall Zone 2, ○= Fall Zone 3, ◻= Fall Zone 4, ▽= Fall Zone 5, ◻=Spring Zone 2, ◻=Spring Zone 3, ◆=Spring Zone 4, ◻=Spring Zone 5.

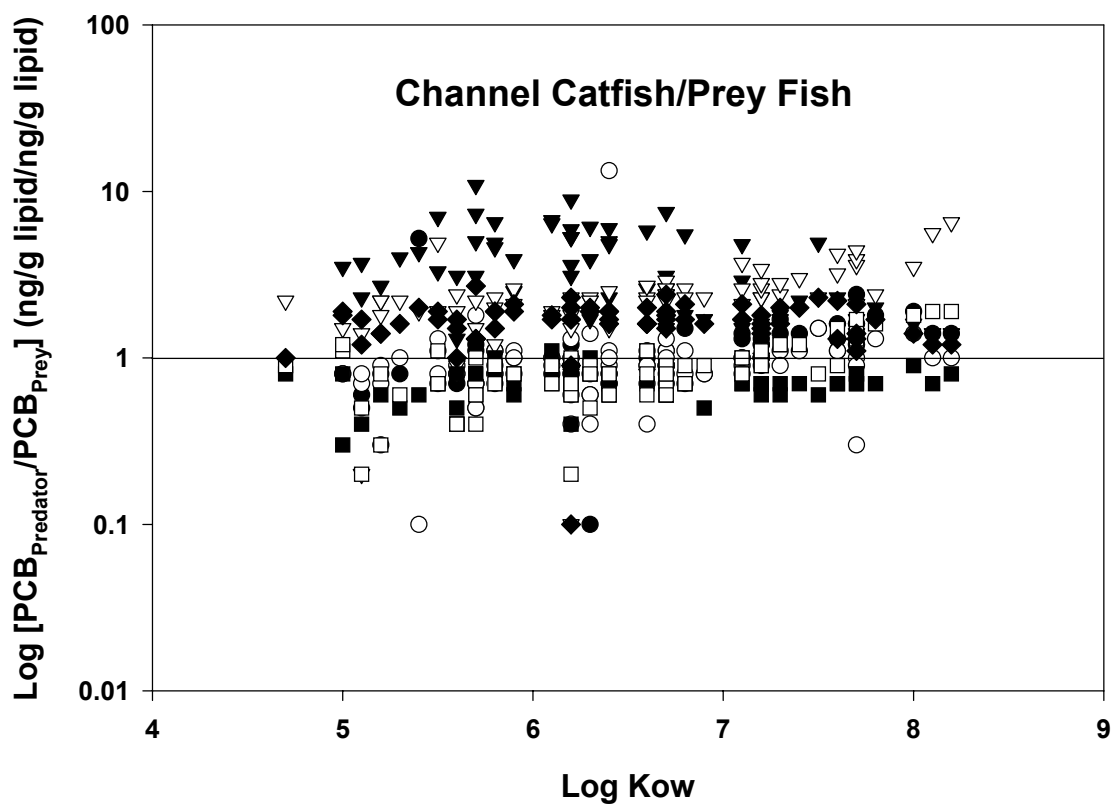


Figure 48. Lipid normalized predator/prey ratios vs. log K_{ow} for individual PCB congeners for channel catfish/prey fish collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. The line represents a 1:1 ratio, indicating no bioaccumulation of PCBs from prey to predator. ●=Fall Zone 3, ○= Fall Zone 4, □= Fall Zone 5, ▽= Spring Zone 2, □=Spring Zone 3, □=Spring Zone 4, ◆=Spring Zone 5.

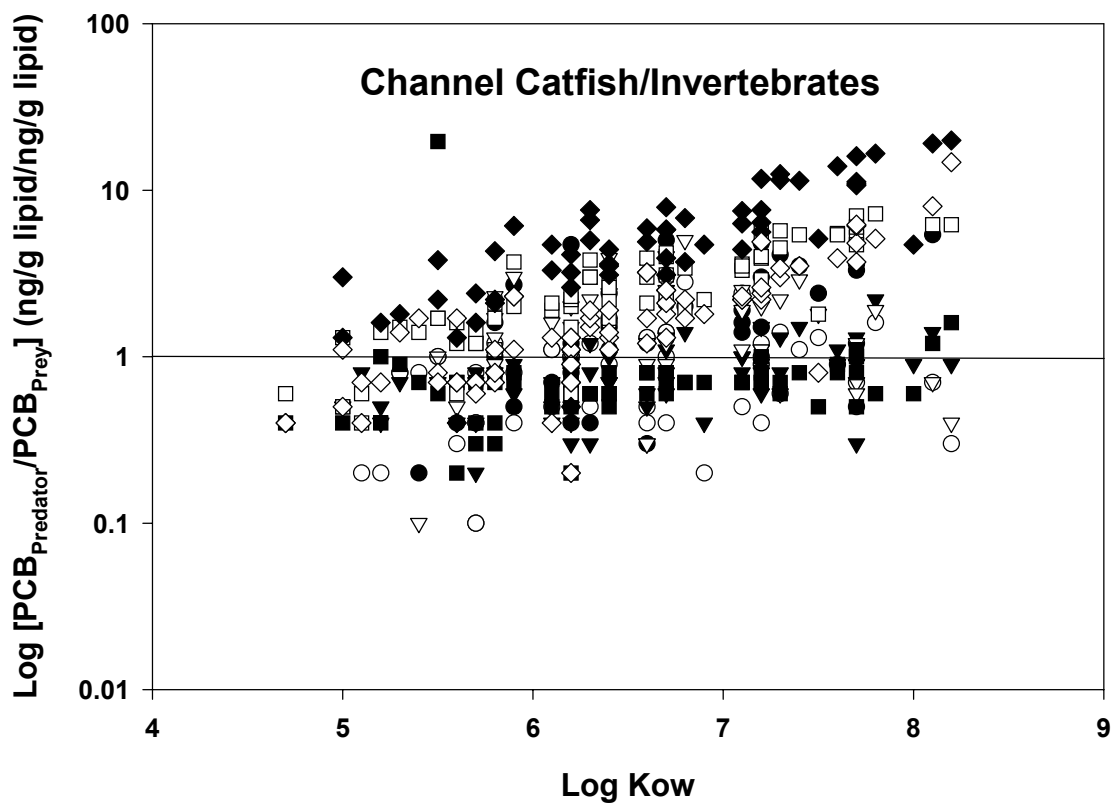


Figure 49. Lipid normalized predator/prey ratios vs. log K_{ow} for individual PCB congeners for channel catfish/invertebrates collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. The line represents a 1:1 ratio, indicating no bioaccumulation of PCBs from prey to predator. ●=Fall Zone 2, ○= Fall Zone 3, □= Fall Zone 4, ▽= Fall Zone 5, □=Spring Zone 2, □=Spring Zone 3, ◆=Spring Zone 4, □=Spring Zone 5.

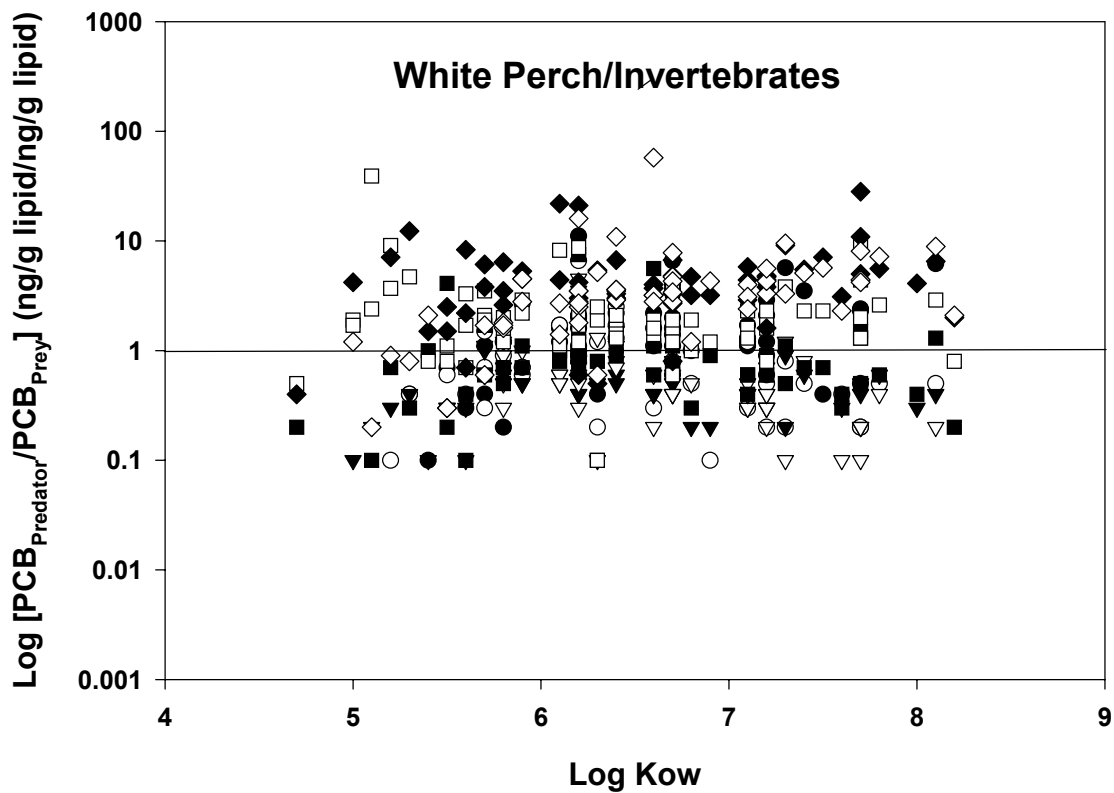


Figure 50. Lipid normalized predator/prey ratios vs. $\log K_{ow}$ for individual PCB congeners for white perch/invertebrates collected from the Delaware River estuary, USA in Fall 2001 and Spring 2002. The line represents a 1:1 ratio, indicating no bioaccumulation of PCBs from prey to predator. ●=Fall Zone 2, ○= Fall Zone 3, □= Fall Zone 4, ▽= Fall Zone 5, □=Spring Zone 2, □=Spring Zone 3, ◆=Spring Zone 4, □=Spring Zone 5.

Table 1. Location of biota and sediment collections for fall 2001.

Sample Site ID	STUDY	START Latitude	START Longitude	Date	Time
Sediment Collection					
Zone 2					
02 SED1	CORE	40.10387	74.83698	11/7/01	1:53:00
Zone 3					
03 SED1	CORE	39.96467	75.09897	11/7/01	7:55:00
Zone 4					
04 SED1	CORE	39.84375	75.28223	11/6/01	2:17:00
04 SED2	CORE	39.86788	75.20395	11/6/01	3:00:00
04 CC	CCVar	39.85238	75.31213	11/6/01	12:48:09
Zone 5					
05 SED1	CORE	39.58208	75.54306	11/6/01	10:00:00
05 SED2	CORE	39.68438	75.52755	11/6/01	11:24:31
05 SED3	CORE	39.75000	75.48330	11/8/01	~1:30:00
05 Var1	Variability	39.77995	75.46597	11/9/01	9:51:00
05 Var2	Variability	39.77687	75.46367	11/9/01	10:06:00
05 Var3	Variability	39.77574	75.46095	11/9/01	10:16:00
05 Var4	Variability	39.77487	75.45829	11/9/01	10:23:00
Biota Collection					
Zone 2					
02 CC2	CORE	40.0388	74.9881	11/8/01	7:30:00
02 CC2	CORE/CC	40.0399	74.9880	11/8/01	7:54:00
Zone 3					
03 SED1	CORE	39.5799	75.0697	11/9/01	6:06:00
03 SED2	CORE	40.0005	75.0556	11/9/01	6:47:00
Zone 4					
04 SED1	CORE	39.8511	75.3016	11/8/01	3:24:00
04 SED2	CORE	39.8514	75.3018	11/8/01	3:36:00
04 CC	CCVar	39.8509	75.3005	11/8/01	3:40:00
Zone 5					
05 CC	CORE/WPVar1	39.6054	75.5773	11/8/01	12:03:00
05 SED2	CCVar	39.6700	75.5334	11/8/01	12:42:00
05 SED3	WPVar2	39.7516	75.4778	11/8/01	1:36:00
05 SED4	WPVar3	39.7854	75.4538	11/8/01	2:17:18

Table 2. Location of biota and sediment collections for spring 2001.

Sample Site ID	STUDY	START Latitude	START Longitude	Date	Time
Sediment Collection					
Zone 2					
02 CC	CC	40.04087	74.97816	3/19/02	14:05
02 Sed1	Core	40.10405	74.83773	3/19/02	15:02
02 Sed3	Core/Var	40.15044	74.72394	3/19/02	16:01
02 Var2	Var	40.08987	74.43357	3/19/02	
02 Var3	Var	40.14875	74.72126	3/19/02	
02 Var4	Var	40.14738	74.72089	3/19/02	
Zone 3					
03 Sed1	Core	39.96407	75.09901	3/19/02	10:30
03 Sed2	Core	39.99409	75.05546	3/19/02	11:27
Zone 4					
04 Sed1	Core	39.84375	75.28223	3/18/02	15:36
04 Sed2	Core	39.86788	75.20395	3/18/02	16:05
04 CC	CC	39.85238	75.31213	3/18/02	
Zone 5					
05 Sed1	CC	39.5440	75.54165	3/18/02	11:52
05 Sed2	Core	39.6700	75.5334	3/18/02	13:08
05 Sed2 amphipod	Core	39.6888	75.52169	3/18/02	13:20
05 Sed3	Core	39.7537	75.4673	3/18/02	14:11
Biota Collection					
Zone 3					
03 SED1	CORE	39.9649	75.1164	3/20/02	7:03
03 SED2	CORE	40.0000	75.0576	3/20/02	8:06
Zone 4					
04 SED1	CORE	39.8499	75.2748	3/20/02	11:11
04 SED2	CORE	39.8662	75.2118	3/20/02	10:30
04 CC	CC	39.8555	75.3087	3/20/02	12:19/18:28
Zone 5					
05 SED1	CC	39.5839	75.5532	3/20/02	14:43/15:23
05 SED2	CORE	39.6824	75.5259	3/20/02	16:50
05 SED3	CORE	39.7472	75.4780	3/20/02	17:16
Additional Sampling Trips					
Zone 2					
2CC	CC	40.04	74.97	4/3/02	
2Sed1	Core	40.1	74.84	4/2/02	
2Sed3	Core	40.1	74.84	4/2/02	
2Sed4	Core	40.15	74.72	4/2/02	
2Sed1	Core	40.15	74.16	5/21/02	

Table 3. Summary of channel catfish samples from fall 2001 collections/analyses.

Sample ID	Sex	Age	Length (cm)	Weight (g)	Fillet Whole (g)	Fillet (g)	Whole Remains (g)	Remains (g)
Zone 2								
110801 02 CC2 CC1	F	9	44.2	761	92.2	69.44	668.8	
110801 02 CC2 CC2	F gravid	19	44.8	799.2	109.24	80.23	689.96	
*02 CC2 CC3	M	9	40.3	524.2	75.7	25.01	448.5	
*02 CC2 CC4	M	11	49.2	1020.4	124.71	25.01	895.69	
*02 CC2 CC5	F	13	47.4	863.4	122.53	24.99	740.87	
*02 CC2 CC6	F	10	60.2	2170.2	314.71	24.99	1855.49	
*second sampling trip	Average	12		1023.07	139.85		883.22	Whole Fillet+Whole Remains 1023.07
Zone 3								
110901 03 Sed1 CC1	M	9	38.2	475.05	58.84	55.65	416.21	299.6
110901 03 Sed1 CC2	M	9	38	448.75	55.98	57.68	392.26	299.88
110901 03 Sed1 CC3	M	10	46.2	907.9	100.99	57.67	807.3	299.62
110901 03 Sed2 CC1	M	8	47.1	892.42	124.52	57.38	767.9	300.3
110901 03 Sed2 CC2	M	8	44.5	801.26	127.26	57.75	674	300.04
110901 03 Sed2 CC3	M	9	38.4	476.42	58.04	57.72	418.38	299.82
110901 03 Core CCF	Average	9		666.97	87.61		579.34	666.95
110901 03 Core CCR								
Zone 4								
110801 04 Sed 1 CC1	F	8	37.5	406.54	52.24	34.99	200.02	
110801 04 Sed 2 CC1	M	5	35.7	292.81	36.9	35.02	199.55	
110801 04 Sed2 CC2	Discarded							
110801 04 Sed2 CC3	F	5	34.3	282.14	36.53	35.01	199.23	
110801 04 Sed2 CC4	F	5	35.8	358.39	45.72	35.03	199.8	
110801 04 Sed2 CC5	M	7	40.6	500.24	63.75	34.99	201.23	
110801 04 Core CCF	Average	6		368.02	47.03		199.97	246.99
110801 04 Core CCR								

Table 3 (continued). Summary of channel catfish samples from fall 2001 collections/analyses.

Sample ID	Sex	Age	Length (cm)	Weight (g)	Fillet Whole (g)	Fillet (g)	Whole Remains (g)	Remains (g)
Variability								
110801 04 CC CC1	M		33.7	601.9		15		
110801 04 CC CC2	M		38.8	597.7		14.99		
110801 04 CC CC3	M		35.3	484.7		15		
110801 04 CC CC4	F		36	427.5		15.01		
110801 04 CC CC5	M		26.7	359.7		15.01		
110801 04 CC CC1-5F						71.36		
Zone 5								
110801 05 CC5 CC1	F	4	33.8	291.07	37.41	35.03	235.98	200.01
110801 05 CC5 CC2	F	8	41.7	579.23	79.27	34.97	479.89	199.96
110801 05 CC5 CC3	M	9	52	1410.17	146.44	35.02	1151.09	199.97
110801 05 CC5 CC4	M	5	40.8	535.62	67.37	35.03	453.48	200.03
110801 05 CC5 CC5	F	7	36.6	366.06	40.05	35.03	327.94	200.08
110801 05 Core CCF	Average	7		636.43	74.11		529.68	603.78
110801 05 Core CCR								
Variability								
110801 05 Sed2 CC1	F		40.5	500.76	63.97	19.96	Remainder to individual samples	
110801 05 Sed2 CC2	M		41.9	569.79	68.98	19.97		
110801 05 Sed2 CC3	M		47.7	963.1	130.16	19.91		
110801 05 Sed2 CC4	F		39.7	537.63	66.28	19.91		
110801 05 Sed2 CC5	F		29.5	184.82	45.85	19.98		
110801 05 Sed2 CC1-5F						66.45		

Table 4. Summary of channel catfish samples from spring 2001 collections/analyses.

ID#	Sex	Age	Length (cm)	Weight (g)	Fillet Whole (g)	Fillet for Composite (g)	Whole Remains (g)	Remains for Composite (g)	
Zone 2									
040202 02 CC1	M?	9	48.9	995.4	138.97	~120	856.43	450.9	
040202 02 CC2	M	12	51.9	1535.5	188.8	~120	1346.7	450.8	
040402 02 CC3	M	10	53.5	1375.9	151.28	~120	1224.62	449.5	
040402 02 CC4	M	10	52.5	1439.6	182.94	~120	1256.66	451.8	
040402 02 CC5	F gravid	11	55.2	1728	230.53	~120	1497.47	450.3	Whole Fish+Whole Remains
040402 02 Core CCF	Average	10.4		1414.88	178.50		1236.38		1414.88
040402 02 Core CCR									
Catfish Variability									
040302 02 CC1	F gravid	10	47	1132.5	112.13	29.98			
040302 02 CC2	M	9	47.4	977.2	116.52	30.02			
040302 02 CC3	M	9	48	952	137.98	30.07			
040302 02 CC4	F	9	45.8	902.9	137.16	29.99			
040302 02 CC5	M	14	51.4	1190.3	117.85	30.05			
040302 02 CC6	M	7	41.9	621.7	149.27*	29.99			
040302 CC1-6F					* 2 fillets				
Zone 3									
032002 03 CC1	M	8	40.5	590.85	78.99	40.02	511.86	349.7	
032002 03 CC2	M	9	52.1	1505.50	222.87	40.00	1282.63	350.31	
032002 03 CC3	F	10	43.7	738.80	57.65	40.05	681.15	349.60	
032002 03 CC4	M	8	44.9	801.10	46.10	40.03	755.00	349.81	
032002 03 CC5	M	7	40.2	526.85	73.26	40.01	453.59		
032002 03 Core CCF	Average	8		832.62	95.77		736.85		832.62
032002 03 Core CCR									

Table 4 (continued). Summary of channel catfish samples from spring 2001 collections/analyses.

ID#	Sex	Age	Length (cm)	Weight (g)	Fillet Whole (g)	Fillet for Composite (g)	Whole Remains (g)	Remains for Composite (g)
Zone 4								
032002 04 CC1	F gravid	8	409	642.70	57.70	30.02	585.00	232.49
032002 04 CC2	F	6	384	441.56	47.91	30.04	393.65	231.91
032002 04 CC6	F gravid	6	353	392.53	42.32	30.03	350.21	232.63
032002 04 CC7	M	8	350	361.68	42.06	29.98	319.62	232.23
032002 04 CC8	M	8	340	328.30	33.15	30.02	295.15	232.00
032002 04 Core CCF	Average	7		433.35	44.63		388.73	433.35
032002 04 Core CCR								
Catfish Variability								
032002 04 CC1	M	7	385	419.80	40.88	10.03		
032002 04 CC2	M	8	375	400.86	42.18	10.04		
032002 04 CC3	M	11	338	336.99	35.55	9.99		
032002 04 CC4	F	10	362	393.81	35.18	10.03		
032002 04 CC5	F	9	365	376.27	31.73	10.00		
032002 04 CC1-5F						46.90		
Zone 5								
032002 05 CC1	F	11	41.5	624.7	58.97	38.78	565.73	349.56
032002 05 CC2	F	8	40.5	528.27	50.88	38.47	477.39	349.71
032002 05 CC3	F	9	48	1021.6	92.54	38.54	929.06	349.15
032002 05 CC4	F	8	41.5	627.1	46.77	38.04	580.33	349.78
032002 05 CC5	F	7	38.5	470.46	38.89	38.89	431.57	349.25
032002 05 Core CCF	Average	9		654.43	57.61		596.82	654.43
032002 05 Core CCR								
Catfish Variability								
032002 05 CC1	F	6	385	472.09	56.26	10.03		
032002 05 CC2	M	6	360	357.38	49.68	10.02		
032002 05 CC3	F	7	387	589.47	54.30	9.99		
032002 05 CC4	M	4	275	174.76	20.52	9.98		
032002 05 CC5	M	8	390	513.33	56.72	9.98		
032002 05 CC1-5F						50.00		

Table 5. Summary of white perch samples from fall 2001 collections/analyses.

Sample ID	Sex	Age	Length (cm)	Weight (g)	Fillet Whole (g)	Fillet (g)	Whole Remains (g)	Remains (g)	
Zone 2									
110801 02 CC2 WP1	F gravid	6	21.9	171.3	32.39	15.01	138.91	29.74	
110801 02 CC2 WP2	F gravid	5	19.9	102.7	20.01	14.98	82.69	29.79	
110801 02 CC2 WP3	Discarded			51.86			51.86		
110801 02 CC2 WP4	M ripe	5	18.1	93.26	18.96	15.02	74.3	29.78	
110801 02 CC2 WP5	M ripe	9	21.2	137.66	27.78	15.01	109.88	29.64	
110801 02 CC2 WP6	M ripe	5	17.4	79.9	15.61	15.03	64.29	29.69	
110801 02 CC2 WP7	Discarded								
110801 02 CC2 WP8	M ripe	5	18.7	96.23	19.95	14.97	76.28	29.75	Whole Fillet+Whole Remains
110801 02 Core WPF	Average	6		104.70	22.45		85.46		107.91
110801 02 Core WPR									
Zone 3									
110801 03 Sed1 WP1	M	2	16.5	66.66	12.93	10.82	51.57	29.94	
110801 03 Sed1 WP3	F	3	16.9	65.51	13.84	10.34	50.89	30	
110801 03 Sed1 WP4	M	3	16.6	69.92	13.97	10.68	53.93	30.02	
110801 03 Sed1 WP5	M	5	18	84.64	18.07	10.78	63.55	30.02	
110801 03 Sed1 WP6	M	3	16	53.53	10.6	10.6	40.18	29.99	
110801 03 Sed1 WP2*	F	6	23.4	203.62	38.86	37.78	158.57	69.12	
110801 03 Core WPF	Average	3		68.05	13.88		52.02		65.91
110801 03 Core WPR									
*individual									
Zone 4									
110801 04 Sed 1 WP1	F(gravid)	3	18.4	88.75	17.13	10.99	71.62	29.99	
110801 04 Sed 1 WP2	F	4	17.3	65.74	14.24	10.99	51.5	30.08	
110801 04 Sed 1 WP3	F	4	17.6	76.98	17.05	10.97	59.93	30.11	
110801 04 Sed 1 WP4	F	3	15.9	51.66	11.45	11.01	40.21	30.14	
110801 04 Sed 2 WP1	F(gravid)	3	18	75.13	15.52	10.97	59.61	29.97	
110801 04 Sed 2 WP2	F	3	16.5	59.74	12.59	11.03	47.15	30.06	
110801 04 Core WPF	Average	3		69.67	14.66		55.00		69.67
110801 04 Core WPR									

Table 5 (continued). Summary of white perch samples from fall 2001 collections/analyses.

Sample ID	Sex	Age	Length (cm)	Weight (g)	Fillet Whole (g)	Fillet (g)	Whole Remains (g)	Remains (g)
Zone 5								
110801 05 CC5 WP1	M ripe	6	22.3	161.38	33.61	15	90.41	42.01
110801 05 CC5 WP2	M ripe	3	18.6	92.93	18.9	15.01	52.26	42
110801 05 CC5 WP3	F gravid	7	20.2	129.27	26.22	15.02	71.96	42.01
110801 05 CC5 WP4	M ripe	6	19.9	125.26	25.72	15.02	68.3	41.99
110801 05 CC5 WP5	M ripe	6	19	100.89	19.72	14.99	55.78	42
110801 05 Core/Var WPF	Average	6		121.95	24.83		67.74	92.58
110801 05 Core WPR								
Variability Study								
110801 05 CC5 WP1	M ripe	6	22.3	161.38	31.11	29		
110801 05 CC5 WP2	M ripe	3	18.6	92.93	19.82	17.62		
110801 05 CC5 WP3	F gravid	7	20.2	129.27	24.55	21.55		
110801 05 CC5 WP4	M ripe	6	19.9	125.26	24.45	21.27		
110801 05 CC5 WP5	M ripe	6	19	100.89	20.61	17.97		
110801 05 Var2 WP1	M	4	18.5	84.27	34.55	5.03	Remainder to individual samples	
110801 05 Var2 WP2	F	3	17.9	75.03	32.22	5.01		
110801 05 Var2 WP3	F	2	16.2	55.79	25.97	5.01		
110801 05 Var2 WP4	M	5	17.5	66.25	28.83	4.99		
110801 05 Var2 WP5	M	3	15.3	44.88	19.76	5.02		
110801 05 Var2 WP6	F	2	13.5	27.39	12.3	5.01		
110801 05 Var2 WPF						28.32		
110801 05 Var3 WP1	M	5	18.6	91.98	36.62	9	Remainder to individual samples	
110801 05 Var3 WP2	M	3	17.3	68.24	29.61	9.01		
110801 05 Var3 WP3	F	2	16.2	52.24	22.01	9.02		
110801 05 Var3 WP4	F	2	15.4	48.56	18.43	8.99		
110801 05 Var3 WP5	M	3	15.8	51.11	21.82	9		
110801 05 Var3 WP6	F gravid	4	16.3	53.32	21.54	8.97		
110801 05 Var3 WPF						41.92		

Table 6. Summary of white perch samples from spring 2001 collections/analyses.

Sample ID	Sex	Age	Length (cm)	Weight (g)	Fillet Whole (g)	Fillet (g)	Whole Remains (g)	Remains (g)	
Zone 2									
062102 02 WP1*	M		15.5	63.23	18.57	10.01	37.76	20	
062102 02 WP2*	F		15.2	60.96	14.92	10.03	37.4	20.01	
062102 02 WP3*	M		15.4	64.25	19.26	9.99	37.67	19.97	
062102 02 WP4*	M		16.3	65.02	18.4	10.03	43.41	20.05	
062102 02 WP5*	F (gravid)		16	66.27	19.9	10.01	42.53	20.02	Whole Fillet+Whole Remains
062102 02 CORE WPF	Average			63.95	18.21		39.75		57.96
062102 02 CORE WPR									
*caught by rod & reel by ANS (near Bordentown, NJ)									
Zone 3									
032002 03 WP1	F	4	18.3	94.66	21.22	9.98	69.48	49.98	
032002 03 WP2	F	4	17.2	87.13	18.87	10.02	65.29	49.99	
032002 03 WP3	M	5	16.7	62.12	22.18	9.97	73.98	50.02	
032002 03 WP4	M	3	19	99.02	13.95	9.98	45.89	44.27	
032002 03 WP5	F	3	17.7	79.8	15.02	10.01	58.59	49.97	
032002 03 Core WPF	Average	4		84.55	18.25		62.65		80.89
032002 03 Core WPR									
Zone 4									
032002 04 WP1	F	4	184	90.79	19.34	10.01	71.45	49.13	
032002 04 WP2	M	4	196	119.81	19.31	10.00	100.50	49.60	
032002 04 WP3	M	4	183	89.10	15.91	10.03	73.19	49.29	
032002 04 WP4	M	5	179	90.82	16.76	9.99	74.06	49.49	
032002 04 WP5	M	4	165	67.34	12.98	10.00	54.36	48.53	
032002 04 Core WPF	Average	4		91.57	16.86		74.71		91.57
032002 04 Core WPR									
Zone 5									
032002 05 WP1	F	9	23.8	220	38.33	25	195	59.99	
032002 05 WP2	F	9	20.8	183	34.93	24.99	158.01	59.69	
032002 05 WP4	F	6	20.9	177	33.38	24.98	152.02	60.25	
032002 05 WP6	M	6	20.8	162	29.68	24.98	137.02	59.78	
032002 05 WP8	M	5	19.1	115	42.09	24.99	90.01	60.48	
032002 05 Core WPF	Average	7		171.4	35.68		146.41		182.09
032002 05 Core WPR									

Table 7. Summary of prey fish samples from fall 2001 collections/analyses.

Sample ID	Species	
Zone 3		
110801 03 SED1 SFA	4 YOY Channel Catfish	<i>Ictalurus punctatus</i>
110801 03 SED1 SFB	1 Hogchoker	<i>Trinectes maculatus</i>
110801 03 SED2 SFA	YOY Catfish	<i>Ictalurus punctatus</i>
110801 03 SED2 SFB	YOY Catfish	<i>Ictalurus punctatus</i>
110801 03 SED2 SFC	YOY Catfish	<i>Ictalurus punctatus</i>
Zone 4		
110801 04 CC SFA	4 YOY Channel Catfish	<i>Ictalurus punctatus</i>
110801 04 SED1 SFA	16 Croaker	<i>Micropogonias undulatus</i>
110801 04 SED1 SFB	15 Croaker	<i>Micropogonias undulatus</i>
110801 04 SED1 SFC	5 Hogchoker	<i>Trinectes maculatus</i>
110801 04 SD1 SFD	10 YOY Channel Catfish	<i>Ictalurus punctatus</i>
110801 04 SD1 SFE	1 Spottailed Shiner	<i>Notropis hudsonius</i>
110801 04 SED1 SFF	Tesselated Darter	<i>Etheostoma olmstedii</i>
110801 04 SED1 SFG	4 White perch	<i>Morone americanus</i>
Zone 5		
110801 05 SED2 SFA	1 YOY Channel Catfish	<i>Ictalurus punctatus</i>
110801 05 SED2 SFB	Croaker	<i>Micropogonias undulatus</i>
110801 05 SED2 SFC	Croaker	<i>Micropogonias undulatus</i>
110801 05 CC SFA	3 American Eels	<i>Anguilla rostrata</i>
110801 05 CC SFB	4 Hogchoaker	<i>Trinectes maculatus</i>
*Individual species analyzed and composited by zone		
**No Zone 2 SF		
***YOY= Young of the Year		

Table 8. Summary of prey fish samples from spring 2001 collections/analyses.

Small Fish	Species	
Zone 2		
040202 2CC SFA	Gizzard shad	<i>Dorosoma cepedianum</i>
040302 02CORE SFA	Spot-tailed Shiners	<i>Notropis hudsonius</i>
040302 02CORE SFB	Tessalated Darter	<i>Etheostoma olmstedii</i>
040302 02CORE SFC	Banded Killifish	<i>Fundulus diaphanus</i>
Zone 3		
032002 03 CORE SFA	YOY Channel Catfish	<i>Ictalurus punctatus</i>
032002 03 CORE SFB	Juvenile White Perch	<i>Morone americanus</i>
Zone 4		
032002 04 SED2 SFA1	Juvenile White Perch	<i>Morone americanus</i>
032002 04 SED2 SFA2	Juvenile White Perch	<i>Morone americanus</i>
032002 04 SED2 SFA3	Juvenile White Perch	<i>Morone americanus</i>
032002 04 SED2 SFB	YOY Channel Catfish	<i>Ictalurus punctatus</i>
032002 04 SED2 SFC	Spottail shiner	<i>Notropis hudsonius</i>
Zone 5		
032002 05 SED1 SFA	Juvenile White Perch	<i>Morone americanus</i>
032002 05 SED1 SFB	Hogchoker	<i>Trinectes maculatus</i>
032002 05 SED1 SFC	YOY Channel Catfish	<i>Ictalurus punctatus</i>
032002 05SED3 SFA	Juvenile White Perch	<i>Morone americanus</i>
032002 05SED3 SFB	YOY Channel Catfish	<i>Ictalurus punctatus</i>
*Individual species analyzed and composited by zone		
**YOY= Young of the Year		

Table 9. Summary of invertebrate samples from fall 2001 collections/analyses.

Sample ID	Species	
Zone 2		
110801 02 CC INVA	Amphipods	<i>Gammarus</i> spp.
110801 02 CC INVB	Blue crab	<i>Callinectes sapidus</i>
110801 02 SED1 INV	Amphipods	<i>Gammarus</i> spp.
Zone 3		
110801 03 SED1 INV	Amphipods	<i>Gammarus</i> spp.
Zone 4		
110801 04 CC INV	Amphipods	<i>Gammarus</i> spp.
110801 04 SED1 INV	Amphipods	<i>Gammarus</i> spp.
Zone 5		
110801 05 CC INVA	Amphipods	<i>Gammarus</i> spp.
110801 05 CC INVB	Grass shrimp	<i>Palaemonetes</i> spp.
110801 05 SED2 INV	Grass Shrimp	<i>Palaemonetes</i> spp.

Table 10. Summary of invertebrate samples from spring 2001 collections/analyses.

Site	Species	
Zone 2		
040302 02 CC INV	Amphipods	<i>Gammarus</i> spp.
040302 02 CORE INV	Amphipods	<i>Gammarus</i> spp.
Zone 3		
032002 03 CORE INV	Amphipods	<i>Gammarus</i> spp.
032002 03 CORE MACRO INV	Crayfish	Decopoda
Zone 4		
032002 04 CORE INV	Amphipods	<i>Gammarus</i> spp.
032002 04 CORE MACRO	Crayfish	Decopoda
Zone 5		
032002 05 CORE INV	Amphipods	<i>Gammarus</i> spp.
032002 05 SED1 INV	Amphipods	<i>Gammarus</i> spp.
032002 05 SED1 MACRO INV	White fingered mud crab	<i>Rhithropanopeus harrisi</i>

Table 11. Summary of sediment samples for fall 2001 collections/analyses.

Sample ID	
Zone 2	
02 Sed1	7310
Zone 3	
03 Sed1	7311
Zone 4	
04 Sed1	7312
04 Sed2	7313
04 CC	7314
Zone 5	
05 Sed1	7315
05 Sed2	7316
05 Sed3	7317
Variability	
05 Sed Var1	7318
05 Sed Var2	7319
05 Sed Var3	7320
05 Sed Var4	7321

Table 12. Summary of sediment samples for spring 2001 collections/analyses.

Sample ID	
Zone 2	
02 Sed1	7538
02 Var2	7539
02 Sed3	7540
02 Var3	7541
02 Var4	7542
02 CC	7543
Zone 3	
03 Sed1	7544
03 Sed2	7545
Zone 4	
04 Sed1	7546
04 Sed2	7547
04 CC	7548
Zone 5	
05 Sed1	7549
05 Sed2	7550
05 Sed2 amphipod	7551
05 Sed3	7552

Table 13. Summary of All Data (blank cells represent ND, BDL, or NA)

Field ID	2CORE Whole Fish	3 CORE Whole Fish	4 CORE Whole Fish	5 CORE Whole Fish	2CCCC1F	2CCCC2F	2CCCC3F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Fish	Fish	Fish	Fish	Fish	Fish	Fish
Species	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish
Zone	2	3	4	5	2	2	2
Description	Whole Fish	Whole Fish	Whole Fish	Whole Fish	Individual Fillet	Individual Fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)					761	799.2	524.2
Fish Length (mm)					442	448	403
Fish Sex					F	F	M
fish Age (yrs)					9	19	9
Fish/Invert. Lipid Content (%)	9.2%	10.1%	8.6%	5.9%	5.1%	1.7%	6.2%
Sediment % Solid							
Sediment % Water							
Sediment % Carbon							

Concentrations (ng/g wet biota or ng/g dry sediment)

1	3.69				6.49		
3	9.75	14.38	1.34	6.84	54.23	2.93	6.67
4,10	6.43	5.85			2.36		5.97
7,9	0.37	0.61	0.42	0.21	0.35	0.09	0.28
6	0.34	0.59	0.44	0.34	0.53	0.05	0.28
8,5	23.83	37.69	21.25	9.65	11.20	7.54	21.12
19							
12,13	0.45	0.39	0.43	0.25	0.15	0.14	0.30
18	8.30	11.06	8.93	3.94	2.56	2.75	6.27
17	3.93	7.38	5.11	2.22	1.04	0.95	3.68
24	0.29	3.68	0.04	0.13	0.66	0.07	0.21
16,32	5.35	10.68	6.96	2.83	1.82	1.21	4.93
29							
26	0.50	1.30	0.60	0.46	0.26		0.59
25	0.29	0.55	0.40	0.16	0.49	0.08	0.24
31, 28	7.61	15.31	12.66	3.23	2.55	1.51	6.17
33,21,53	7.87	13.98	10.30	4.27	2.95	2.39	6.21
51	1.37	4.58	2.94	0.73	0.61	0.30	1.40
22	0.89	3.07	2.08	0.49	0.73		0.68
45	5.80	9.49	6.69	2.61	2.51	2.02	5.11
46	5.60	9.10	5.03	2.05	1.74	1.90	4.23
52	7.77	18.50	16.72	5.50	3.24	1.58	7.40
49	8.83	14.98	11.39	5.82	5.56	3.09	10.63
47,48	14.17	36.63	12.40	7.01	6.34	5.96	9.13
44	8.49	18.07	15.20	4.78	3.26	1.88	9.68
37,42	8.89	14.91	11.05	3.80	2.87	1.96	8.53
41,64,71	14.45	27.61	21.74	8.37	5.12	4.05	11.75
40	2.00	4.27	3.58	1.39	1.34	0.56	1.39
100	3.77	7.69	4.51	2.04	1.65	1.26	2.73
63	2.03	3.35	2.64	1.51	1.08	0.61	1.28
74	11.22	19.21	12.84	4.85	3.63	3.21	8.30
70,76	4.44	8.64	6.45	1.90	2.17	1.33	3.21

Field ID	2CORE Whole Fish	3 CORE Whole Fish	4 CORE Whole Fish	5 CORE Whole Fish	2CCCC1F	2CCCC2F	2CCCC3F
66,95	38.34	77.54	62.68	22.75	14.66	9.93	34.99
91	4.97	8.88	7.22	3.10	1.52	1.39	4.12
56,60/92,84	23.83	45.02	22.31	9.51	7.78	6.22	23.01
89	34.09	70.14	17.44	7.60	11.79	8.37	32.34
101	19.92	38.82	28.91	12.05	7.22	5.84	16.88
99	16.70	24.74	20.20	10.77	4.84	6.31	11.63
119	4.04	4.79	3.68	1.60	0.87	1.58	2.57
83	3.55	7.42	4.29	1.61	1.45	1.03	3.17
97	26.43	44.48	20.00	10.39	12.51	7.17	33.38
81,87	18.76	3.75	41.13	1.06	0.62	0.67	1.66
85	11.97	14.71	12.76	4.94	71.57	4.53	8.23
136	10.36	4.16	2.77	1.12	0.32	0.23	0.99
77,110	38.41	66.28	54.09	21.28	11.67	12.10	31.96
82, 151	2.90	6.50	3.65	1.83	1.19	0.92	2.18
135,144	7.27	16.13	9.86	4.03	2.46	2.55	5.80
107	3.58	5.80	4.65	2.21	1.05	1.27	2.45
123,149	32.33	64.18	41.44	16.56	12.40	11.27	27.44
118	41.68	57.28	45.83	18.77	10.05	15.02	29.25
134	1.17	3.58	0.99	0.79	0.98	0.24	1.29
146	13.37	21.09	13.94	9.06	4.36	5.02	8.73
132,105,153	137.93	214.88	89.06	64.74	32.37	54.24	101.53
141	13.29	53.33	22.73	10.16	5.62	4.74	7.84
137,130,176	4.49	7.47	5.48	2.53	1.47	1.59	3.41
163,138	97.67	171.80	96.14	45.49	28.81	37.67	65.13
158	2.83	5.25	2.87	1.45	0.96	1.21	1.90
129,178	9.56	18.12	10.25	5.58	3.22	3.35	6.23
187,182	37.41	65.66	35.16	22.42	12.71	14.91	24.93
183	22.49	47.02	21.16	11.40	7.12	8.96	14.23
128	8.40	14.01	9.15	4.04	2.68	2.83	5.43
185	4.04	9.56	4.78	2.00	1.41	1.58	2.76
174	12.89	42.44	19.86	9.73	5.71	4.87	8.35
177	15.20	23.85	16.06	6.83	5.41	6.57	11.95
202,171,156	17.45	34.25	18.28	6.13	5.13	6.35	10.87
157,200	6.42	10.86	8.24	5.68	1.95	2.21	3.93
172,197	6.03	18.86	9.26	5.49	2.52	2.10	3.58
180	67.99	179.54	82.16	40.82	24.03	25.50	43.49
193	23.81	38.98	23.12	7.62	4.35	6.13	15.94
191	2.19	5.22	1.89	0.91	0.71	0.80	1.47
199							
170,190	30.02	96.10	31.31	13.74	10.18	10.02	17.30
198	1.65	3.23	2.75	1.80	0.61	0.55	1.03
201	14.68	35.74	25.94	18.27	6.26	4.80	8.43
203,196	36.52	76.31	44.64	28.32	12.06	13.25	22.06
189	0.81	2.58	1.23	0.56	0.47	0.25	0.44
208,195	13.20	28.75	9.74	25.14	6.13	4.28	7.10
207	2.08	3.67	5.50	5.77	1.38	0.65	1.04
194	8.46	31.40	16.79	7.84	4.03	2.44	4.54
205	1.03	2.24	1.19	0.48	1.34	0.35	0.56
206	14.20	29.39	49.11	39.77	8.19	3.76	6.91
209	5.94	12.01	23.82	21.26	3.61	1.63	2.81

Field ID	2CORE Whole Fish	3 CORE Whole Fish	4 CORE Whole Fish	5 CORE Whole Fish	2CCCC1F	2CCCC2F	2CCCC3F
T PCBs (ng/g wet weight)	1151.09	2191.38	1309.65	664.36	509.22	378.72	835.61
Lipid Normalized (ng/g lipid)	12485	21740	15211	11222	9908	22543	13575
Organic Carbon Normalized for Sediment (ng/g OC)							
Recovery							
14	356%	513%	451%	144%	231%	137%	334%
65							
166	101%	132%	91%	63%	81%	89%	97%
Distribution of Homologue Groups (in ng/g wet biota or ng/g dry sediment)							
mono	13	14	1	7	61	3	7
di	31	45	23	10	15	8	28
tri	36	67	47	17	13	9	30
tetra	126	250	171	67	51	37	110
penta	270	442	321	119	153	79	220
hexa	342	598	305	165	95	127	234
hepta	159	408	185	86	53	56	103
octa	42	107	61	56	19	14	24
nona	16	33	55	46	10	4	8
deca	6	12	24	21	4	2	3
total	1042	1976	1192	595	473	337	765
Percent Homologue Distribution (with monos)							
mono	0.01	0.01	0.00	0.01	13%	1%	1%
di	0.03	0.02	0.02	0.02	3%	2%	4%
tri	0.03	0.03	0.04	0.03	3%	3%	4%
tetra	0.12	0.13	0.14	0.11	11%	11%	14%
penta	0.26	0.22	0.27	0.20	32%	23%	29%
hexa	0.33	0.30	0.26	0.28	20%	38%	31%
hepta	0.15	0.21	0.16	0.14	11%	17%	13%
octa	0.04	0.05	0.05	0.09	4%	4%	3%
nona	0.02	0.02	0.05	0.08	2%	1%	1%
deca	0.01	0.01	0.02	0.04	1%	0%	0%
Percent Homologue Distribution (w/o monos)							
di	3%	2%	2%	2%	4%	2%	4%
tri	3%	3%	4%	3%	3%	3%	4%
tetra	12%	13%	14%	11%	12%	11%	14%
penta	26%	23%	27%	20%	37%	24%	29%
hexa	33%	30%	26%	28%	23%	38%	31%
hepta	15%	21%	16%	15%	13%	17%	14%
octa	4%	5%	5%	10%	5%	4%	3%
nona	2%	2%	5%	8%	2%	1%	1%
deca	1%	1%	2%	4%	1%	0%	0%

Table 13. Summary of All Data (bl:

Field ID	2CCCC4F	2CCCC5F	2CCCC1-5F	4CCCC1F	4CCCC2F	4CCCC3F	4CCCC4F	4CCCC5F	4CCCC1-5F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Fish	Fish	Fish	Fish	Fish	Fish	Fish	Fish	Fish
Species	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish
Zone	2	2	2	4	4	4	4	4	4
Description	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?									
Analyzed by	CBL	CBL		CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	1020.4	863.4		240.31	467.75	376.91	352.38	129.28	
Fish Length (mm)	492	474		337	388	353	360	267	
Fish Sex	M	F		M	M	M	F	M	
fish Age (yrs)	11	13		8	7	7	5	3	
Fish/Invert. Lipid Content (%)	3.0%	3.5%	0.0%	4.2%	2.3%	6.0%	2.7%	2.6%	3.6%
Sediment % Solid									
Sediment % Water									
Sediment % Carbon									

Concentrations (ng/g wet biota or ng/g dry se

1			6.49				9.94		
3	4.30	5.41	14.71	2.84	0.70	1.90	39.28	1.65	0.99
4,10	2.85	3.34	3.63						
7,9	0.18	0.29	0.24	0.24	0.41	0.17	0.52	0.14	0.26
6	0.16	0.26	0.26	0.26	0.26	0.15	0.45	0.27	0.28
8,5	9.34	13.99	12.64	9.99	8.98	13.55	16.95	4.42	13.19
19									
12,13	0.19	0.31	0.22	0.24	0.22	0.17	0.38	0.13	0.31
18	3.60	5.49	4.13	5.25	6.14	3.51	4.78	1.97	4.76
17	1.79	2.76	2.04	2.99	2.78	2.23	2.62	1.31	2.78
24	0.12	0.17	0.24	0.24	0.23	0.16	0.24	0.07	0.24
16,32	2.24	3.67	2.77	4.61	4.48	3.55	4.47	1.53	4.27
29									
26	0.22	0.20	0.32	0.30	0.64	0.23	0.56	0.33	0.44
25	0.14	0.22	0.23	0.22	0.46	0.11	0.20	0.16	0.17
31, 28	3.38	4.97	3.72	5.46	4.41	4.20	4.42	1.38	4.75
33,21,53	3.32	5.57	4.09	6.21	4.71	3.64	6.38	2.38	5.11
51	0.53	0.76	0.72	1.73	1.68	1.53	1.23	0.24	1.50
22	0.47	0.61	0.62	0.81	0.79	1.00	1.16	0.43	0.97
45	2.11	3.51	3.05	3.87	2.76	3.20	3.66	0.98	3.40
46	1.72	3.16	2.55	2.88	1.02	2.67	1.75	0.66	2.17
52	3.48	4.63	4.07	8.70	8.23	6.25	7.50	2.30	7.46
49	10.22	6.41	7.18	6.95	15.46	3.80	10.08	9.55	7.35
47,48	9.30	14.40	9.03	8.21	13.57	4.30	11.93	7.57	7.57
44	2.83	5.10	4.55	9.09	6.83	6.39	7.49	1.40	7.40
37,42	3.24	5.52	4.42	5.95	5.53	3.83	5.68	1.47	4.86
41,64,71	5.41	10.24	7.31	13.01	7.53	8.57	11.27	4.02	10.84
40	0.57	1.20	1.01	2.27	1.40	1.55	1.92	0.57	1.81
100	1.36	2.50	1.90	2.28	2.13	1.53	1.92	0.95	1.85
63	0.60	1.40	0.99	1.35	1.15	0.89	0.87	0.72	1.02
74	4.23	8.06	5.49	5.93	4.67	4.25	5.77	2.33	5.15
70,76	1.92	2.66	2.26	3.48	1.40	1.46	2.42	0.77	2.50

Field ID	2CCCC4F	2CCCC5F	2CCCC1-5F	4CCCC1F	4CCCC2F	4CCCC3F	4CCCC4F	4CCCC5F	4CCCC1-5F
66,95	13.70	30.71	20.80	34.85	23.13	20.12	28.64	7.93	26.98
91	1.73	3.30	2.41	3.96	3.30	2.37	3.38	1.23	3.20
56,60/92,84	7.84	14.40	11.85	10.95	6.41	9.86	8.36	3.29	9.56
89	7.75	18.21	15.69	39.44	16.61	9.07	24.17	1.52	6.28
101	7.92	13.89	10.35	16.18	13.84	9.05	13.39	5.74	12.75
99	5.99	12.87	8.33	10.42	8.37	5.57	9.12	5.87	8.37
119	1.32	2.31	1.73	1.63	1.15	1.71	1.78	0.66	1.46
83	1.17	2.01	1.77	2.29	1.36	1.31	1.68	0.55	1.81
97	14.66	18.95	17.34	20.87	21.70	11.07	27.48	6.23	17.19
81,87	0.63	25.14	5.74	1.65	6.86	0.98	1.62		1.36
85	3.87	7.96	19.23	5.66	3.80	3.01	5.03	2.63	4.54
136	0.34	0.50	0.49	1.52	0.52	0.68	1.18	0.21	1.05
77,110	12.19	27.51	19.09	31.57	20.28	17.73	28.05	7.14	24.77
82, 151	1.07	1.66	1.40	2.57	1.72	0.92	1.92	0.76	1.94
135,144	2.64	4.32	3.55	5.43	3.73	2.62	4.32	1.65	4.07
107	1.16	2.57	1.70	2.39	1.33	1.15	1.70	1.10	1.75
123,149	10.72	21.87	16.74	23.82	20.25	12.53	19.32	5.64	18.36
118	13.31	28.89	19.30	21.59	12.21	11.26	17.87	9.87	16.50
134	0.40	0.68	0.72	0.64	0.50	0.44	0.82	0.51	0.70
146	4.83	10.28	6.64	8.02	8.20	3.88	6.49	4.62	6.48
132,105,153	48.44	98.27	66.97	72.98	58.49	35.43	40.09	31.33	58.90
141	4.04	9.09	6.27	11.55	11.24	6.12	10.85	5.07	10.15
137,130,176	1.27	3.04	2.15	3.27	2.34	1.55	2.94	0.96	2.64
163,138	33.73	69.08	46.88	52.13	45.15	25.95	45.60	23.99	42.59
158	1.15	1.97	1.44	1.52	1.31	0.90	1.64		1.39
129,178	3.27	6.70	4.55	5.66	5.26	2.76	5.63	2.72	4.93
187,182	13.31	26.27	18.42	19.33	21.25	10.03	15.77	10.19	15.92
183	7.49	15.49	10.66	11.00	11.10	5.31	8.46	4.75	9.07
128	2.50	5.36	3.76	4.72	3.55	2.11	5.09	2.20	3.73
185	1.23	2.35	1.87	2.39	2.08	1.20	2.05	0.87	2.04
174	3.74	7.92	6.12	11.09	9.75	5.77	10.59	4.40	9.81
177	2.53	10.44	7.38	9.88	7.73	4.55	8.03	1.02	7.77
202,171,156	5.51	11.63	7.90	9.02	6.90	4.46	8.06	3.28	7.59
157,200	1.76	4.19	2.81	4.09	3.14	2.09	4.31	2.45	3.72
172,197	1.78	3.87	2.77	4.85	4.16	2.41	4.29	2.29	4.28
180	20.08	42.65	31.15	44.82	38.00	21.16	35.44	17.10	37.51
193	6.04	13.07	9.11	9.44	4.40	8.44	5.08	2.24	6.95
191	0.65	1.10	0.94	0.91	0.76	0.44	0.63	0.35	0.78
199			ND						
170,190	7.88	18.22	12.72	16.92	13.96	7.78	16.26	6.04	14.10
198	0.46	1.08	0.75	1.31	1.17	0.72	1.27	0.75	1.14
201	3.96	9.86	6.66	13.53	10.95	7.54	13.48	8.22	12.41
203,196	9.86	23.14	16.07	21.59	15.49	11.27	19.64	11.20	19.69
189	0.21	0.51	0.38	0.60	0.56	0.31	0.46	0.21	0.52
208,195	3.27	8.37	5.83	3.65	10.07	1.77	17.36	10.74	3.21
207	0.48	1.41	0.99	2.46	1.91	1.67	3.42	2.75	2.88
194	1.92	5.07	3.60	8.20	4.86	3.96	7.40	3.11	7.11
205	0.23	0.52	0.60	0.63	0.55	0.26	0.63	0.21	0.52
206	2.79	8.89	6.11	23.67	12.27	15.54	28.96	17.33	24.50
209	1.25	3.51	2.56	11.29	6.62	8.21	14.70	11.82	12.65

Field ID	2CCCC4F	2CCCC5F	2CCCC1-5F	4CCCC1F	4CCCC2F	4CCCC3F	4CCCC4F	4CCCC5F	4CCCC1-5F
T PCBs (ng/g wet weight)	383.86	777.91	583.19	743.29	598.88	409.86	710.36	304.45	601.00
Lipid Normalized (ng/g lipid)	12651	22306	1270215	17832	25630	6839	26418	11802	16479
Organic Carbon Normalized for Sediment (ng/g OC)									
Recovery									
14	204%	200%	221%	216%	283%	655%	228%	136%	305%
65									
166	98%	100%	93%	69%	78%	83%	93%	83%	87%
Distribution of Homologue Groups (in ng/¢									
mono	4	5	21	3	1	2	49	2	1
di	13	18	17	11	10	14	18	5	14
tri	15	24	18	26	25	19	24	9	23
tetra	57	90	69	96	86	64	90	39	81
penta	88	196	147	192	135	95	163	51	127
hexa	114	233	160	190	158	94	144	80	155
hepta	43	98	71	99	79	51	81	34	82
octa	11	27	19	29	29	15	42	24	26
nona	3	10	7	26	14	17	32	20	27
deca	1	4	3	11	7	8	15	12	13
total	349	705	532	683	544	378	659	275	549
Percent Homologue Distribution (with mor									
mono	1%	1%	4%	0%	0%	1%	7%	1%	0%
di	4%	3%	3%	2%	2%	4%	3%	2%	3%
tri	4%	3%	3%	4%	5%	5%	4%	3%	4%
tetra	16%	13%	13%	14%	16%	17%	14%	14%	15%
penta	25%	28%	28%	28%	25%	25%	25%	19%	23%
hexa	33%	33%	30%	28%	29%	25%	22%	29%	28%
hepta	12%	14%	13%	14%	15%	13%	12%	12%	15%
octa	3%	4%	4%	4%	5%	4%	6%	9%	5%
nona	1%	1%	1%	4%	3%	5%	5%	7%	5%
deca	0%	0%	0%	2%	1%	2%	2%	4%	2%
Percent Homologue Distribution (w/o mon									
di	4%	3%	3%	2%	2%	4%	3%	2%	3%
tri	4%	3%	4%	4%	5%	5%	4%	3%	4%
tetra	17%	13%	13%	14%	16%	17%	15%	14%	15%
penta	25%	28%	29%	28%	25%	25%	27%	19%	23%
hexa	33%	33%	31%	28%	29%	25%	24%	29%	28%
hepta	12%	14%	14%	14%	15%	14%	13%	12%	15%
octa	3%	4%	4%	4%	5%	4%	7%	9%	5%
nona	1%	1%	1%	4%	3%	5%	5%	7%	5%
deca	0%	1%	1%	2%	1%	2%	2%	4%	2%

Table 13. Summary of All Data (bl:

Field ID	5SED2CC1F	5SED2CC2F	5SED2CC3F	5SED2CC4F	5SED2CC5F	5SED2CC1-5F	2 CORE WHOLE FISH	3 CORE WHOLE FISH
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Spring 2002	Spring 2002
Matrix	Fish	Fish	Fish	Fish	Fish	Fish	Fish	Fish
Species	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish
Zone	5	5	5	5	5	5	2	3
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Whole Fish	Whole Fish
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	500.76	569.79	963.1	537.63	184.1			
Fish Length (mm)	405	419	477	397	295			
Fish Sex	F	M	M	F	F			
fish Age (yrs)	6	5	8	7	5			
Fish/Invert. Lipid Content (%)	5.8%	1.8%	6.2%	2.6%	2.7%	4.0%	4.8%	7.4%
Sediment % Solid								
Sediment % Water								
Sediment % Carbon								

Concentrations (ng/g wet biota or ng/g dry se

1							0.44	0.13
3	3.11	1.27	5.84	1.18	1.77	3.14	2.62	6.31
4,10							3.33	2.48
7,9	0.16	0.07	0.39	0.10	0.06	0.21	0.16	0.28
6	0.22	0.05	0.50	0.11	0.06	0.19	0.01	0.05
8,5	8.15	1.84	16.88	4.99	3.33	7.73	8.02	24.28
19	0.46		0.83				0.25	0.37
12,13	0.20	0.08	0.40	0.09	0.08	0.24	0.19	
18	3.09	0.87	7.48	1.49	1.28	3.60	4.46	8.45
17	1.91	0.47	4.57	1.10	0.84	2.16	1.84	4.47
24	0.16	0.05	0.35	0.03	0.07	0.16	0.15	0.44
16,32	2.57	0.68	6.45	0.86	1.23	2.88	2.39	6.72
29							0.20	0.43
26	0.19	0.02	0.32	0.16	0.11	0.20	0.32	1.14
25	0.16	0.03	0.34	0.16	0.06	0.18		
31, 28	3.12	0.52	8.26	2.22	1.41	3.29	2.99	12.02
33,21,53	3.36	0.96	8.41	1.56	1.29	4.09	3.80	9.85
51	0.74	0.12	2.14	0.21	0.46	0.79	0.59	4.26
22	0.55		1.69		0.34	0.75	0.53	1.73
45	1.81	0.58	5.21	1.32	1.00	2.16	2.63	9.90
46	1.29	0.31	3.55	1.27	0.57	1.38	2.46	4.68
52	5.34	1.01	11.54	2.71	2.91	5.10	3.48	17.65
49	4.56	2.74	10.27	4.80	3.10	5.48		
47,48	4.89	1.80	11.90	2.65	1.66	6.25	6.54	29.16
44	3.61	0.97	12.41	0.96	2.38	4.10	3.66	16.75
37,42	2.69	0.70	7.92	1.66	1.55	3.16	3.47	13.25
41,64,71	5.33	1.75	17.99	2.79	3.24	6.96	6.65	22.67
40	0.98	0.33	2.90	0.70	0.58	1.10	0.51	3.54
100	1.38	0.36	3.62	1.35	0.67	1.50	1.47	5.49
63	0.97	0.22	2.22	1.31	0.48	1.01	0.73	2.53
74	3.19	0.84	8.66	3.19	1.43	3.71	4.79	15.59
70,76	1.59	0.36	4.73	1.06	0.70	1.70	1.83	7.95

Field ID	5SED2CC1F	5SED2CC2F	5SED2CC3F	5SED2CC4F	5SED2CC5F	5SED2CC1-5F	2 CORE WHOLE FISH	3 CORE WHOLE FISH
66,95	15.68	4.08	45.85	11.57	8.71	17.99	15.55	63.95
91	2.13	0.59	5.52	1.83	1.07	2.38	2.16	8.25
56,60/92,84	5.89	1.57	18.65	4.95	2.49	6.35	9.51	41.52
89	3.74	1.10	10.58	2.16	2.23	3.54	5.11	90.42
101	8.26	2.29	21.74	8.43	4.18	9.39	8.84	34.82
99	6.11	1.92	15.77	7.71	2.87	7.44	7.80	22.59
119	0.96	0.27	2.57	1.14	0.43	1.11	2.79	6.59
83	1.07	0.28	2.92	0.65	0.54	0.98	1.40	8.23
97	5.91	1.98	12.64	4.66	2.44	7.72	19.68	60.78
81,87	0.72		2.08		0.37	0.76	0.92	3.58
85	2.59	0.76	7.56	3.39	1.46	3.40	3.96	14.47
136	0.47	0.17	1.64	0.42	0.34	0.62	1.01	1.86
77,110	14.63	3.87	43.24	1.65	7.58	14.80	15.73	66.57
82, 151	1.14	0.31	2.40	1.13	0.54	1.30	1.43	5.34
135,144	2.59	0.67	6.75	2.92	1.26	2.90	3.03	12.31
107	1.38	0.41	3.24	1.13	0.52	1.45	1.46	4.73
123,149	10.52	3.45	31.53	10.33	5.91	12.44	14.47	53.94
118	9.98	2.54	30.91	12.34	4.32	12.58	17.55	50.69
134	0.49	0.24	0.89	0.47	0.25	0.60	1.55	7.26
146	4.83	1.87	10.91	6.23	2.04	5.99	7.53	19.03
132,105,153	32.39	12.27	100.36	40.26	18.88	44.71	70.09	178.38
141	5.48	1.54	13.38	7.13	2.70	6.68	6.39	28.92
137,130,176	1.47	0.55	4.12	0.92	0.80	1.75	2.36	7.49
163,138	24.58	7.99	70.15	26.54	12.13	31.54	46.07	122.84
158	0.82		2.05			1.23	1.77	4.29
129,178	3.02	1.06	6.87	3.46	1.59	3.52	4.47	13.33
187,182	11.85	4.52	25.25	15.49	4.77	14.33	18.19	46.11
183	5.56	1.68	14.98	7.52	2.76	7.19	10.04	29.68
128	2.33	0.49	6.03	2.78	1.06	2.77	3.94	11.54
185	1.00	0.33	2.78	1.52	0.62	1.37	1.67	5.74
174	5.02	1.83	13.08	7.44	3.21	6.78	6.06	25.90
177	2.77	1.35	11.34	1.67	2.07	3.96	6.51	22.10
202,171,156	3.49	1.36	9.35	4.74	1.82	6.48	7.71	22.04
157,200	2.67	0.97	6.03	3.52	1.39	3.40	2.93	8.11
172,197	2.52	0.91	5.66	3.64	1.42	3.15	2.83	9.97
180	18.88	5.81	49.57	28.58	11.78	24.43	28.45	96.44
193	3.72	0.96	12.47	4.69	1.65	4.77	20.23	29.66
191	0.42	0.10	1.27	0.52	0.22	0.52	0.90	2.49
199								
170,190	6.33	1.93	17.77	9.59	3.72	7.76	11.35	45.12
198	0.80	0.33	1.77	1.29	0.50	1.04	0.70	2.05
201	8.39	3.29	17.38	13.79	5.29	10.74	6.86	21.73
203,196	12.25	4.51	30.08	19.63	9.06	16.14	14.96	42.74
189	0.26	0.08	0.72	0.37	0.18	0.32	0.34	1.21
208,195	10.77	0.34	3.78	20.48	1.01	2.70	6.29	19.08
207	2.43	1.21	5.10	4.13	1.99	3.35	1.29	2.98
194	3.19	1.11	7.92	5.53	2.62	4.37	3.44	13.89
205	0.18	0.07	0.60	0.35	0.20	0.31	0.40	1.21
206	16.06	7.02	36.64	34.80	16.01	22.95	8.26	23.70
209	8.94	4.63	19.84	20.13	9.39	13.09	4.35	11.51

Field ID	5SED2CC1F	5SED2CC2F	5SED2CC3F	5SED2CC4F	5SED2CC5F	5SED2CC1-5F	2 CORE WHOLE FISH	3 CORE WHOLE FISH
T PCBs (ng/g wet weight)	362.46	115.62	941.56	413.61	201.05	438.32	510.88	1659.77
Lipid Normalized (ng/g lipid)	6279	6350	15135	16086	7396	11003	10577	22582
Organic Carbon Normalized for Sediment (ng/g OC)								
Recovery								
14	204%	81%	324%	176%	115%	187%	193%	354%
65								
166	71%	64%	95%	91%	59%	85%	78%	89%
Distribution of Homologue Groups (in ng/¢								
mono	3	1	6	1	2	3	3	6
di	9	2	18	5	4	8	12	27
tri	15	3	38	8	7	17	17	47
tetra	48	15	134	33	26	56	50	199
penta	73	21	205	58	36	83	108	456
hexa	88	30	250	102	46	116	163	453
hepta	40	13	112	56	24	52	77	233
octa	25	6	34	43	10	21	19	62
nona	18	8	42	39	18	26	10	27
deca	9	5	20	20	9	13	4	12
total	328	104	859	366	182	395	462	1522
Percent Homologue Distribution (with mor								
mono	1%	1%	1%	0%	1%	1%	0.01	0.00
di	3%	2%	2%	1%	2%	2%	0.03	0.02
tri	5%	3%	4%	2%	4%	4%	0.04	0.03
tetra	15%	14%	16%	9%	14%	14%	0.11	0.13
penta	22%	20%	24%	16%	20%	21%	0.23	0.30
hexa	27%	29%	29%	28%	25%	29%	0.35	0.30
hepta	12%	13%	13%	15%	13%	13%	0.17	0.15
octa	8%	5%	4%	12%	6%	5%	0.04	0.04
nona	6%	8%	5%	11%	10%	7%	0.02	0.02
deca	3%	4%	2%	5%	5%	3%	0.01	0.01
Percent Homologue Distribution (w/o mon								
di	3%	2%	2%	1%	2%	2%	3%	2%
tri	5%	3%	5%	2%	4%	4%	4%	3%
tetra	15%	14%	16%	9%	14%	14%	11%	13%
penta	22%	20%	24%	16%	20%	21%	24%	30%
hexa	27%	30%	29%	28%	26%	30%	36%	30%
hepta	12%	13%	13%	15%	13%	13%	17%	15%
octa	8%	5%	4%	12%	6%	5%	4%	4%
nona	6%	8%	5%	11%	10%	7%	2%	2%
deca	3%	5%	2%	6%	5%	3%	1%	1%

Table 13. Summary of All Data (bl:

Field ID	4 CORE WHOLE FISH	5 CORE Whole transformed	2CC CC1F	2CC CC2F	2CC CC3F	2CC CC4F	2CC CC5F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Fish	Fish	Fish	Fish	Fish	Fish	Fish
Species	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish
Zone	4	5	2	2	2	2	2
Description	Whole Fish	Whole Fish	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)			1133	977	952	903	1190
Fish Length (mm)			470	474	480	458	514
Fish Sex			F	M	M	F	M
fish Age (yrs)			10	9	9	9	14
Fish/Invert. Lipid Content (%)	9.0%	10.1%	6.2%	6.8%	5.4%	6.9%	1.9%
Sediment % Solid							
Sediment % Water							
Sediment % Carbon							

Concentrations (ng/g wet biota or ng/g dry se

1	4.82		6.01	1.68	0.23	0.15	0.82
3	10.18	4.45	5.88	9.42	5.34	4.28	3.56
4,10	1.52	1.70	1.95	2.89	1.73	3.06	1.10
7,9	0.14	0.36	0.42	0.52	0.19	0.18	0.31
6	0.03	0.30	0.25	0.36	0.15	0.10	0.21
8,5	30.11	20.80	21.25	22.44	14.03	15.74	11.65
19	0.61	0.96	0.47	0.74	0.34	0.36	0.27
12,13	0.15	0.48	0.65	0.47	0.19	0.26	0.30
18	3.83	9.03	12.47	12.72	6.21	5.91	6.05
17	2.67	4.89	4.64	5.02	2.47	2.74	2.57
24		0.46	0.16	0.50	0.19	0.24	0.13
16,32	4.73	4.80	3.75	7.38	2.61	3.72	2.57
29	0.15	0.42	0.62	0.44	0.22	0.22	0.32
26	0.91	0.88	0.55	0.39	0.26	0.45	0.36
25				1.06			0.58
31, 28	13.59	7.93	7.54	8.66	3.77	5.55	4.27
33,21,53	4.97	7.77	8.68	8.70	4.34	5.57	4.51
51	3.07	1.75	1.18	1.94	1.05	1.86	0.75
22	1.13	1.11	0.78	2.40	0.65	0.94	0.60
45	7.45	6.90	7.24	6.94	4.04	5.68	3.69
46	6.40	3.06	2.56	2.27	1.77	3.41	4.56
52	19.83	13.09	8.18	9.30	5.53	8.03	6.36
49							
47,48	27.25	15.51	27.87	19.77	7.20	7.03	20.97
44	14.29	11.09	3.14	10.90	4.10	9.41	3.46
37,42	12.11	9.35	5.47	8.56	5.16	8.06	4.81
41,64,71	19.45	18.14	10.78	15.93	8.21	11.40	12.64
40	3.52	2.77	1.94	1.98	0.94	1.66	1.42
100	5.29	4.15	4.30	3.32	1.98	2.46	3.32
63	3.41	2.85	1.65	1.36	0.69	1.15	1.90
74	14.88	11.60	11.53	9.50	5.30	7.06	9.03
70,76	5.02	3.71	3.41	3.23	1.95	3.17	2.08

Field ID	4 CORE WHOLE FISH	5 CORE Whole transformed	2CC CC1F	2CC CC2F	2CC CC3F	2CC CC4F	2CC CC5F
66,95	59.35	45.90	31.81	32.33	18.73	31.47	23.87
91	8.27	7.54	4.88	4.04	2.92	4.17	3.59
56,60/92,84	35.29	22.96	19.17	23.05	15.42	21.49	18.15
89	87.81	38.19	33.86	38.05	16.73	49.79	4.18
101	36.01	28.40	21.77	16.14	12.24	16.36	17.61
99	25.22	23.85	18.23	9.83	7.97	10.32	17.48
119	7.79	5.25	4.49	4.12	2.86	4.81	4.28
83	9.47	5.27	3.62	3.14	2.45	3.53	3.18
97	44.93	55.37	51.55	34.79	21.25	29.19	35.14
81,87	3.15	2.39	0.87	1.74	1.07	1.63	1.61
85	13.26	9.34	8.47	4.77	4.39	5.25	10.77
136	1.94	2.59	1.06	0.85	0.47	1.36	0.22
77,110	61.92	51.01	8.28	27.29	17.54	29.43	21.13
82, 151	5.21	3.92	2.79	2.20	1.71	2.58	3.03
135,144	11.86	9.15	7.38	4.54	3.99	5.75	6.00
107	5.28	4.72	2.36	1.88	1.53	2.09	3.56
123,149	44.02	41.92	25.61	24.20	16.36	26.08	16.14
118	50.46	35.98	30.86	18.43	15.34	21.91	34.32
134	6.21	4.43	4.56	3.35	2.51	3.26	3.82
146	23.76	24.40	18.44	9.22	7.16	9.30	17.13
132,105,153	166.76	158.52	131.31	89.16	60.89	87.88	117.68
141	32.00	22.98	24.59	9.12	5.03	6.59	29.79
137,130,176	6.86	6.91	2.64	3.26	2.07	3.72	2.58
163,138	126.72	109.99	87.12	55.72	43.71	56.17	98.06
158	3.67	3.57	4.00	2.14	1.62	1.91	3.81
129,178	14.66	15.25	11.51	6.11	4.49	5.62	9.96
187,182	51.19	52.96	40.76	23.17	17.30	21.83	36.83
183	27.70	25.85	26.00	12.52	9.80	12.56	25.60
128	13.01	9.60	9.42	4.54	3.78	4.98	12.47
185	6.01	4.53	4.42	2.36	1.69	2.25	3.86
174	26.03	23.38	20.77	8.63	4.95	7.19	17.36
177	15.28	18.92	4.13	8.93	3.41	9.94	2.03
202,171,156	24.51	22.99	18.94	8.79	6.93	9.25	18.50
157,200	10.46	14.12	8.53	3.68	2.51	3.36	5.78
172,197	14.10	11.97	9.10	3.39	2.05	2.79	9.68
180	116.24	90.52	85.90	35.26	22.20	30.39	85.48
193	38.47	20.64	18.73	13.95	11.83	19.58	31.00
191	2.20	1.75	2.16	1.09	0.80	1.03	2.35
199	4.79	10.44	5.87				2.89
170,190	53.59	36.63	37.27	13.57	8.96	12.20	39.84
198	3.64	3.62	2.15	0.78	0.52	0.74	1.93
201	39.27	39.90	23.22	7.46	4.20	5.97	18.93
203,196	60.01	57.46	40.79	15.91	10.81	15.33	35.63
189	1.61	1.25	1.06	0.37	0.44	0.32	1.05
208,195	43.93	53.79	25.34	6.32	3.91	5.52	14.34
207	7.03	11.96	5.39	1.18	0.61	0.94	2.55
194	23.40	15.53	12.48	3.73	1.98	2.90	12.29
205	1.71	1.06	0.97	0.43	0.32	0.46	0.86
206	79.00	90.27	37.00	6.80	3.28	5.34	18.60
209	38.61	52.91	19.29	3.19	1.51	2.62	7.91

Field ID	4 CORE WHOLE FISH	5 CORE Whole transformed	2CC CC1F	2CC CC2F	2CC CC3F	2CC CC4F	2CC CC5F
		5 CORE Whole transformed					
T PCBs (ng/g wet weight)	1815.17	1582.18	1186.27	796.32	505.07	739.01	1030.01
Lipid Normalized (ng/g lipid)	20213	15681	19102	11731	9422	10754	54100
Organic Carbon Normalized for Sediment (ng/g OC)							
Recovery							
14	404%	447%	295%	238%	158%	224%	138%
65							
166	96%	126%	84%	68%	57%	75%	94%
Distribution of Homologue Groups (in ng/g)							
mono	15	4	12	11	6	4	4
di	32	24	25	27	16	19	14
tri	36	39	38	48	21	27	22
tetra	180	133	112	119	63	93	93
penta	426	324	230	206	133	220	189
hexa	453	414	333	207	150	207	327
hepta	268	205	179	85	55	83	189
octa	122	131	74	21	12	17	54
nona	86	102	42	8	4	6	21
deca	39	53	19	3	2	3	8
total	1657	1430	1065	735	461	680	921
Percent Homologue Distribution (with mor)							
mono	0.01	0%	1%	2%	1%	1%	0%
di	0.02	2%	2%	4%	4%	3%	1%
tri	0.02	3%	4%	7%	5%	4%	2%
tetra	0.11	9%	11%	16%	14%	14%	10%
penta	0.26	23%	22%	28%	29%	32%	21%
hexa	0.27	29%	31%	28%	32%	30%	36%
hepta	0.16	14%	17%	12%	12%	12%	20%
octa	0.07	9%	7%	3%	3%	3%	6%
nona	0.05	7%	4%	1%	1%	1%	2%
deca	0.02	4%	2%	0%	0%	0%	1%
Percent Homologue Distribution (w/o mon)							
di	2%	2%	2%	4%	4%	3%	1%
tri	2%	3%	4%	7%	5%	4%	2%
tetra	11%	9%	11%	16%	14%	14%	10%
penta	26%	23%	22%	28%	29%	32%	21%
hexa	28%	29%	32%	29%	33%	31%	36%
hepta	16%	14%	17%	12%	12%	12%	21%
octa	7%	9%	7%	3%	3%	3%	6%
nona	5%	7%	4%	1%	1%	1%	2%
deca	2%	4%	2%	0%	0%	0%	1%

Table 13. Summary of All Data (bl:

Field ID	2CC CC6F	2CC CC1-6F	4CC CC1F	4CC CC2F	4CC CC3F	4CC CC4F	4CC CC5F	4CC CC1-5F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Fish	Fish	Fish	Fish	Fish	Fish	Fish	Fish
Species	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish
Zone	2	2	4	4	4	4	4	4
Description	Individual Fillet	Composite fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	622		420	401	337	394	376	
Fish Length (mm)	419		385	375	338	326	365	
Fish Sex	M		M	M	M	F	F	
fish Age (yrs)	7		7	8	11	10	9	
Fish/Invert. Lipid Content (%)	3.7%	3.4%	2.8%	1.8%	5.4%	2.5%	2.9%	3.1%
Sediment % Solid								
Sediment % Water								
Sediment % Carbon								

Concentrations (ng/g wet biota or ng/g dry se

1	0.42	0.20	0.66	0.46	0.10	0.50	0.20	0.19
3	1.33	3.03	0.50	1.89	1.70	3.08	2.64	5.19
4,10	1.52	2.35	0.85	0.29	0.39	0.59	0.49	0.76
7,9	0.20	0.28	0.21	0.11	0.16	0.09	0.08	0.16
6	0.12	0.18	0.14	0.06	0.15	0.01		0.08
8,5	9.10	15.97	9.12	7.69	13.04	7.94	10.07	14.04
19	0.38	0.39	0.37	0.21	0.44	0.17	0.19	0.30
12,13	0.20	0.35	0.25	0.06	0.17	0.17	0.14	0.22
18	4.99	7.03	4.74	3.02	3.31	2.57	2.23	4.42
17	2.37	3.53	2.48	1.10	2.24	1.21	1.30	2.40
24	0.20	0.21	0.23	0.99	0.19	0.09	0.16	0.20
16,32	3.21	4.16	3.51	2.90	3.70	1.27	1.97	2.92
29	0.20	0.29	0.19	0.08	0.12	0.16	0.12	0.24
26	0.23	0.55	0.28	0.13	0.22		0.27	0.37
25						0.56		
31, 28	4.01	7.80	3.82	7.20	3.96	2.81	3.74	4.44
33,21,53	3.98	6.30	4.73	2.38	3.72	2.31	2.45	4.51
51	1.23	1.65	1.41	1.98	1.72	0.45	1.12	1.56
22	0.56	1.30	0.73	0.52	1.00	0.35	0.52	0.70
45	3.77	5.32	3.46	3.08	3.40	2.43	3.42	4.57
46	1.71	3.57	1.52	3.88	2.87	1.84	2.23	3.36
52	4.62	8.37	8.01	8.01	5.83	3.81	5.76	9.25
49								
47,48	11.43	19.64	11.91	0.99	4.62	11.34	12.04	17.32
44	6.18	7.82	6.95	8.14	5.93	1.87	6.23	7.61
37,42	5.32	7.72	5.89	6.55	3.60	2.54	5.72	5.95
41,64,71	8.32	13.01	10.22	10.29	8.64	6.62	8.70	12.24
40	1.03	1.71	1.27	1.53	1.49	0.86	1.14	1.66
100	1.93	3.21	1.74	2.88	1.42	2.10	2.10	3.16
63	0.84	1.65	0.82	1.87	0.77	1.18	1.21	1.70
74	5.28	9.06	5.14	8.16	3.91	4.98	5.84	8.15
70,76	2.03	3.23	1.70	1.13	1.28	1.00	1.56	1.95

Field ID	2CC CC6F	2CC CC1-6F	4CC CC1F	4CC CC2F	4CC CC3F	4CC CC4F	4CC CC5F	4CC CC1-5F
66,95	19.81	35.19	24.65	26.64	17.42	13.18	23.77	31.36
91	2.76	4.66	3.31	4.08	2.33	2.40	3.63	4.83
56,60/92,84	14.05	23.81	10.23	14.35	8.90	9.22	12.23	16.50
89	31.50	41.03	26.51	9.79	9.06	5.86	33.05	31.77
101	11.03	19.12	14.17	12.60	8.93	12.20	13.65	20.60
99	7.15	14.30	8.72	13.33	5.22	11.53	12.39	16.48
119	2.74	5.44	2.41	4.53	2.45	2.15	2.94	3.87
83	2.19	3.75	2.45	2.40	1.21	2.04	3.34	4.06
97	22.77	22.39	25.94	19.40	11.37	18.56	22.80	35.26
81,87	1.06	1.63	1.27	1.62	0.89	0.79	1.38	1.86
85	4.14	7.88	4.09	6.33	2.79	4.99	5.85	7.59
136	0.68	0.97	0.83	0.49	0.71	0.19	0.62	0.91
77,110	19.70	27.01	24.28	30.32	15.87	15.10	29.98	36.54
82, 151	1.76	2.92	1.70	2.28	0.86	1.71	1.98	2.97
135,144	3.76	6.39	4.09	4.82	2.50	3.89	4.98	6.99
107	1.44	2.72	1.65	2.67	1.00	2.09	2.26	3.19
123,149	17.85	24.84	18.78	21.42	11.83	12.44	21.14	29.19
118	15.38	29.51	16.00	24.40	9.49	19.54	22.95	29.70
134	2.13	4.40	1.45	0.98	0.65	1.54	1.81	2.67
146	6.70	13.41	7.72	8.98	4.37	12.36	11.25	16.63
132,105,153	67.45	107.35	61.64	61.89	34.51	78.45	62.61	118.75
141	6.68	16.43	8.71	11.46	5.96	16.02	12.23	22.25
137,130,176	2.56	3.41	2.76	2.41	1.60	1.95	3.48	4.64
163,138	41.91	76.23	42.73	45.74	24.16	61.30	60.22	88.43
158	1.50	2.88	1.48	1.43	1.07	1.92	1.76	2.67
129,178	4.45	8.50	5.14	4.79	2.75	7.77	6.65	10.73
187,182	16.83	30.74	16.47	19.56	9.86	28.56	23.90	37.21
183	9.61	19.21	8.92	10.24	5.14	15.23	13.01	20.69
128	3.36	7.75	4.04	4.38	2.21	5.79	5.41	8.03
185	1.92	3.34	1.95	1.80	1.15	2.71	2.46	4.09
174	6.72	12.91	8.63	8.95	5.46	12.14	11.85	19.09
177	7.58	7.57	7.53	7.10	4.11	2.27	10.04	12.14
202,171,156	6.88	14.06	7.27	8.07	4.22	11.58	10.88	16.22
157,200	2.65	5.01	3.54	2.98	2.04	5.81	5.09	7.48
172,197	2.71	6.22	3.77	4.62	2.26	6.82	5.76	9.38
180	29.81	60.03	32.77	38.12	18.40	59.51	48.39	80.70
193	14.12	26.13	9.98	12.43	8.18	11.20	11.97	18.11
191	0.82	1.71	0.65	0.93	0.40	1.15	0.99	1.60
199		3.11	2.84		2.17	3.25	3.25	4.61
170,190	11.47	26.36	14.47	16.72	6.42	23.50	19.92	34.73
198	0.63	1.42	1.03	1.00	0.63	1.73	1.69	2.29
201	5.97	13.74	10.87	11.54	6.54	19.80	18.26	25.90
203,196	13.28	27.79	16.49	17.82	9.57	29.86	26.82	39.59
189	0.32	0.67	0.39	0.44	0.25	0.70	0.66	1.00
208,195	5.07	12.31	13.03	10.55	1.47	21.85	21.43	28.16
207	0.83	2.24	2.40	1.66	1.48	4.23	4.00	4.80
194	3.54	8.12	5.80	5.43	3.12	10.17	8.22	13.69
205	0.40	0.80	0.49	0.37	0.23	0.68	0.61	0.96
206	6.40	16.65	22.09	16.97	12.23	37.88	37.22	47.28
209	3.33	8.25	11.79	7.77	6.68	20.43	20.71	24.05

Field ID	2CC CC6F	2CC CC1-6F	4CC CC1F	4CC CC2F	4CC CC3F	4CC CC4F	4CC CC5F	4CC CC1-5F
T PCBs (ng/g wet weight)	554.05	962.20	622.79	636.18	382.23	720.92	775.16	1131.87
Lipid Normalized (ng/g lipid)	15003	28384	22286	35660	7112	29132	26680	36678
Organic Carbon Normalized for Sediment (ng/g OC)								
Recovery								
14	143%	243%	145%	130%	629%	109%	154%	180%
65								
166	65%	97%	67%	92%	71%	66%	79%	94%
Distribution of Homologue Groups (in ng/¢								
mono	2	3	1	2	2	4	3	5
di	11	19	11	8	14	9	11	15
tri	21	32	22	21	19	12	15	21
tetra	68	112	75	74	57	50	71	99
penta	149	224	157	162	89	116	183	235
hexa	156	272	158	167	91	210	193	315
hepta	74	142	78	89	45	117	110	177
octa	17	42	36	30	15	60	56	79
nona	7	19	24	19	14	42	41	52
deca	3	8	12	8	7	20	21	24
total	508	873	574	580	353	640	703	1022
Percent Homologue Distribution (with mor								
mono	0%	0%	0%	0%	1%	1%	0%	1%
di	2%	2%	2%	1%	4%	1%	2%	1%
tri	4%	4%	4%	4%	5%	2%	2%	2%
tetra	13%	13%	13%	13%	16%	8%	10%	10%
penta	29%	26%	27%	28%	25%	18%	26%	23%
hexa	31%	31%	27%	29%	26%	33%	27%	31%
hepta	14%	16%	14%	15%	13%	18%	16%	17%
octa	3%	5%	6%	5%	4%	9%	8%	8%
nona	1%	2%	4%	3%	4%	7%	6%	5%
deca	1%	1%	2%	1%	2%	3%	3%	2%
Percent Homologue Distribution (w/o mon								
di	2%	2%	2%	1%	4%	1%	2%	2%
tri	4%	4%	4%	4%	5%	2%	2%	2%
tetra	13%	13%	13%	13%	16%	8%	10%	10%
penta	29%	26%	27%	28%	25%	18%	26%	23%
hexa	31%	31%	28%	29%	26%	33%	28%	31%
hepta	15%	16%	14%	15%	13%	18%	16%	17%
octa	3%	5%	6%	5%	4%	9%	8%	8%
nona	1%	2%	4%	3%	4%	7%	6%	5%
deca	1%	1%	2%	1%	2%	3%	3%	2%

Table 13. Summary of All Data (bl:

Field ID	5SED CC1F	5SED CC2F	5SED CC3F	5SED CC4F	5SED CC5F	5SED CC1-5F	3 CORE SF	4 CORE SF
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Fall 2001	Fall 2001
Matrix	Fish	Fish	Fish	Fish	Fish	Fish	Fish	Fish
Species	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Channel Catfish	Small Fish	Small Fish
Zone	5	5	5	5	5	5	3	4
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Composite	Composite
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	472	357	589	174	513			
Fish Length (mm)	385	360	387	275	390			
Fish Sex	F	M	F	M	M			
fish Age (yrs)	6	6	7	4	8			
Fish/Invert. Lipid Content (%)	2.5%	2.8%	5.1%	3.3%	3.8%	3.5%	2.6%	2.9%
Sediment % Solid								
Sediment % Water								
Sediment % Carbon								

Concentrations (ng/g wet biota or ng/g dry se

1	0.74	0.14	0.12	0.77	0.16	0.19		
3	2.31	0.93	1.32	5.68	0.66	0.44	4.10	4.16
4,10	0.94	0.35	0.53	0.40	0.59	0.27		
7,9	0.16	0.05	0.05	0.02	0.10	0.05	0.26	0.19
6	0.08	0.01	0.01	0.06	0.09	0.02	0.31	0.19
8,5	8.01	3.50	5.29	2.37	4.06	3.38	12.12	8.52
19	0.24	0.13	0.18	0.10	0.23	0.11	0.50	0.39
12,13	0.17	0.06	0.06	0.06	0.10	0.04	0.34	0.22
18	4.42	1.48	1.53	0.45	1.97	1.18	5.13	3.73
17	2.05	0.76	0.96	0.34	1.05	0.65	2.45	1.73
24	0.18	0.06	0.06	0.03	0.09	0.05	0.18	0.15
16,32	2.33	0.73	0.91	0.22	1.06	0.58	3.62	2.70
29	0.19	0.07	0.07	0.05	0.09	0.05		
26	0.11		0.21	0.11	0.09	0.09	0.27	0.43
25							0.29	0.18
31, 28	3.04	1.11	1.82	0.69	1.29	1.29	3.55	2.38
33,21,53	3.30	1.21	1.50	0.41	1.84	0.97	5.35	4.22
51	1.14	0.30	0.50	0.07	0.35	0.30	1.48	0.75
22	0.49	0.19		0.47	0.26		0.98	0.75
45	3.08	1.27	1.84	0.75	1.48	1.18	3.70	2.92
46	1.38	0.67	0.91	0.44	0.74	0.58	2.04	1.29
52	6.29	2.64	3.81	0.84	3.20	2.54	6.72	6.71
49							6.38	4.59
47,48	6.78	2.76	6.73	0.95	5.28	4.25	10.09	8.30
44	4.92	1.87	3.27	0.37	2.39	1.83	5.46	4.63
37,42	4.40	1.61	2.72	0.33	1.90	1.61	4.31	3.49
41,64,71	8.86	3.28	4.84	0.88	3.99	2.94	9.11	6.92
40	0.95	0.40	0.77	0.24	0.64	0.47	1.65	1.63
100	1.73	0.80	1.17	0.42	0.95	0.70	2.16	1.49
63	0.86	0.38	0.84	0.26	0.68	0.44	1.12	0.48
74	5.04	1.98	3.10	0.77	2.58	1.91	5.05	3.39
70,76	1.08	0.29	1.01	0.24	0.98	0.55	2.76	4.82

Field ID	5SED CC1F	5SED CC2F	5SED CC3F	5SED CC4F	5SED CC5F	5SED CC1-5F	3 CORE SF	4 CORE SF
66,95	19.52	7.75	12.53	2.80	10.53	8.20	24.16	22.28
91	3.19	1.06	2.30	0.53	1.67	1.36	2.98	2.47
56,60/92,84	10.08	4.15	6.92	1.87	5.50	3.94	12.04	8.00
89	18.21	5.71	13.28	2.98	8.08	6.88	23.04	25.63
101	12.74	5.87	8.75	2.40	6.78	5.59	12.03	11.09
99	9.27	4.85	6.77	1.98	5.24	4.30	8.08	6.33
119	2.07	1.01	1.63	0.54	1.24	0.90	1.31	0.86
83	2.24	0.97	1.79	0.38	1.26	0.91	2.54	2.42
97	26.07	9.35	14.07	2.98	11.34	8.88	19.08	19.06
81,87	1.16	0.53	0.73	0.11	0.49	0.41	1.44	1.04
85	4.11	1.80	2.70	0.71	2.01	1.86	32.11	3.07
136	0.47	0.26	0.37	0.13	0.47	0.26	0.90	1.44
77,110	22.60	9.71	16.19	1.34	10.84	8.85	23.31	19.07
82, 151	1.77	0.75	1.16	0.34	0.89	0.73	1.84	1.36
135,144	3.84	1.69	2.69	0.94	2.06	1.67	3.82	3.60
107	1.84	0.91	1.44	0.26	1.00	0.79	2.11	1.45
123,149	19.39	8.93	13.32	3.58	9.85	8.38	17.61	16.10
118	14.61	6.69	9.45	2.58	7.40	6.07	17.67	11.46
134	1.94	0.92	1.45	0.35	1.22	0.75	0.88	0.90
146	9.50	5.11	7.27	2.04	5.36	4.51	6.67	5.61
132,105,153	67.21	33.54	44.75	13.34	35.17	29.75	59.42	44.62
141	9.96	4.19	6.74	1.85	4.77	4.06	9.44	7.16
137,130,176	2.76	1.38	2.09	0.54	1.42	1.21	2.92	2.20
163,138	45.31	22.73	32.21	8.13	22.84	19.79	44.09	32.68
158	1.61	0.78	1.01	0.38	0.98	0.69	1.76	1.29
129,178	5.91	2.78	4.33	1.21	2.92	2.55	4.41	3.87
187,182	21.62	11.43	16.61	5.07	11.89	10.35	16.98	13.00
183	9.80	5.23	7.02	2.24	5.60	4.60	9.44	7.35
128	3.72	2.01	2.87	0.82	1.93	1.64	3.97	3.01
185	1.86	0.78	1.34	0.45	0.91	0.80	1.74	1.56
174	9.63	4.32	6.81	2.33	4.78	4.15	8.11	7.18
177	7.66	3.48	6.11	0.75	3.69	3.10	7.45	5.42
202,171,156	8.11	4.17	6.65	2.18	4.77	3.85	7.11	6.05
157,200	4.57	2.32	3.65	1.17	2.29	1.99	2.37	2.74
172,197	4.30	2.28	3.77	1.11	2.54	2.05	3.36	2.95
180	35.99	16.99	26.80	7.80	18.43	15.80	32.87	25.04
193	9.22	3.70	5.43	1.43	4.86	3.49	6.46	5.09
191	0.69	0.33	0.46	0.14	0.41	0.29	0.86	0.56
199	3.49	2.32	3.47	2.47		2.10		4.59
170,190	13.88	6.72	11.17	3.22	7.26	6.28	14.93	11.26
198	1.20	0.60	1.14	0.40	0.66	0.60	0.64	0.84
201	13.41	7.16	12.42	4.29	7.70	6.88	7.25	8.71
203,196	18.69	10.09	16.98	6.09	11.36	9.62	13.83	14.51
189	0.48	0.23	0.35	0.15	0.22	0.18	0.41	0.33
208,195	15.63	8.34	16.27	6.95	9.41	8.87	3.12	10.14
207	3.16	1.94	3.49	1.62	2.14	1.95	0.76	2.13
194	5.69	2.68	5.44	1.38	2.97	2.63	4.53	4.48
205	0.41	0.19	0.38	0.24	0.21	0.19	0.31	0.29
206	25.94	13.08	27.22	11.90	15.29	14.99	5.23	15.82
209	13.75	7.29	15.18	7.94	8.60	8.91	2.14	8.00

Field ID	5SED CC1F	5SED CC2F	5SED CC3F	5SED CC4F	5SED CC5F	5SED CC1-5F	3 CORE SF	4 CORE SF
T PCBs (ng/g wet weight)	625.57	290.10	463.10	145.20	328.13	277.26	591.02	497.40
Lipid Normalized (ng/g lipid)	25461	10488	9091	4346	8602	8025	22847	17222
Organic Carbon Normalized for Sediment (ng/g OC)								
Recovery								
14	137%	98%	150%	123%	120%	101%	161%	173%
65								
166	73%	50%	78%	48%	68%	51%	93%	82%
Distribution of Homologue Groups (in ng/¢								
mono	3	1	1	6	1	1	4	4
di	9	4	6	3	5	4	13	9
tri	17	6	8	3	8	5	22	16
tetra	59	23	39	8	32	24	78	65
penta	143	59	96	21	71	57	172	127
hexa	170	84	119	34	89	75	154	121
hepta	82	38	61	17	42	35	74	58
octa	42	22	41	16	22	22	17	30
nona	29	15	31	14	17	17	6	18
deca	14	7	15	8	9	9	2	8
total	569	261	418	130	296	250	544	457
Percent Homologue Distribution (with mor								
mono	1%	0%	0%	5%	0%	0%	0.01	0.01
di	2%	2%	1%	2%	2%	2%	0.02	0.02
tri	3%	2%	2%	2%	3%	2%	0.04	0.04
tetra	10%	9%	9%	7%	11%	10%	0.14	0.14
penta	25%	23%	23%	16%	24%	23%	0.32	0.28
hexa	30%	32%	29%	26%	30%	30%	0.28	0.26
hepta	14%	15%	15%	13%	14%	14%	0.14	0.13
octa	7%	9%	10%	13%	7%	9%	0.03	0.07
nona	5%	6%	7%	10%	6%	7%	0.01	0.04
deca	2%	3%	4%	6%	3%	4%	0.00	0.02
Percent Homologue Distribution (w/o mon								
di	2%	2%	1%	2%	2%	2%	2%	2%
tri	3%	2%	2%	2%	3%	2%	4%	4%
tetra	10%	9%	9%	7%	11%	10%	15%	14%
penta	25%	23%	23%	17%	24%	23%	32%	28%
hexa	30%	32%	29%	27%	30%	30%	29%	27%
hepta	14%	15%	15%	14%	14%	14%	14%	13%
octa	7%	9%	10%	13%	7%	9%	3%	7%
nona	5%	6%	7%	11%	6%	7%	1%	4%
deca	2%	3%	4%	6%	3%	4%	0%	2%

Table 13. Summary of All Data (bl:

Field ID	5 CORE SF	4CCSFA	5 SD2 SF	2 CORE INV	3 CORE INV	4 CORE INV	5 CORE INV	5 CORE MACRO INV
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Fish	Fish	Fish	Invertebrate	Invertebrate	Invertebrate	Invertebrate	Invertebrate
Species	Small Fish	Small Fish	Small Fish	Amphipods	Amphipods	Amphipods	Amphipods	Grass shrimp
Zone	5	4	5	2	3	4	5	5
Description	Composite	Composite	Composite					
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)								
Fish Length (mm)								
Fish Sex								
fish Age (yrs)								
Fish/Invert. Lipid Content (%)	3.5%	4.1%	3.5%	0.6%	0.4%	0.8%	0.6%	1.1%
Sediment % Solid								
Sediment % Water								
Sediment % Carbon								

Concentrations (ng/g wet biota or ng/g dry se

1								
3	1.15	4.04	1.14					
4,10								
7,9	0.07	0.17	0.07					
6	0.07	0.25	0.10		0.12	0.05		
8,5	1.99	10.88	1.88			4.16		
19		0.31	ND					
12,13	0.07	0.23	0.07		0.08	0.08		0.02
18	0.72	3.72	0.85	0.45	0.45	1.38	0.12	0.11
17	0.40	1.96	0.51	0.33	0.42	0.71		0.12
24	0.02	0.15	0.06	0.11	0.21	0.11	0.18	0.03
16,32	0.90	3.05	0.91			1.66		
29								
26	0.04	0.31	0.05			0.15		
25	0.02	0.10	0.08	0.12	0.20	0.17	0.37	
31, 28	0.21	2.39	0.48	1.07	1.78	1.52		0.36
33,21,53	0.97	4.11	1.04	1.10	1.74	2.36	0.92	0.36
51	0.09	1.04	0.13	0.19	0.32	0.43		0.04
22	0.26	0.50	0.22					
45	0.56	2.96	0.51	0.36	0.42	0.96	0.27	0.10
46	0.21	1.32	0.33					
52	0.79	6.50	1.05	0.63	0.70	2.01	0.24	0.14
49	0.63	4.09	1.76					
47,48	2.41	5.16	2.35	1.51	2.75	1.83	1.87	0.92
44	0.52	4.86	0.80	0.52	0.68	1.41	0.36	0.13
37,42	0.59	3.34	0.76	0.35	0.78	0.61	0.46	0.09
41,64,71	1.51	8.20	1.86	1.74	3.17	3.69		0.54
40	0.32	1.51	0.28	0.19	0.22	0.47		0.05
100	0.25	1.58	0.32	0.31	0.32	0.53		0.08
63	0.20	0.81	0.21	0.24	0.29	0.13		0.05
74	0.95	3.51	0.84	0.65	1.55	1.20	0.50	0.36
70,76	0.25	1.46	0.51	0.74		2.07		0.16

Field ID	5 CORE SF	4CCSFA	5 SD2 SF	2 CORE INV	3 CORE INV	4 CORE INV	5 CORE INV	5 CORE MACRO INV
66,95	3.06	19.53	4.36	2.61	3.65	10.95	1.58	0.74
91	0.34	2.53	0.61	0.27	0.35	0.93	0.21	0.06
56,60/92,84	1.01	7.12	1.86	1.98	3.83	5.49	1.85	0.76
89	1.67	4.31	2.16	1.26	1.57	4.66	0.81	0.26
101	1.72	10.69	2.43	1.09	1.87	3.90	0.79	0.40
99	1.60	7.07	1.84	0.43	0.68	1.96	0.28	0.82
119	0.23	0.98	0.25			0.56		
83	0.29	3.07	0.26	0.58	0.28	0.49	0.08	0.03
97	4.45	7.29	4.60		3.95	5.97		1.28
81,87	0.33	1.01	0.26					
85	0.58	4.08	0.72			0.98		0.21
136	0.26	0.80	0.29			1.83		0.21
77,110	2.53	19.91	4.03	1.55	1.65	7.13	0.92	0.52
82, 151	0.15	1.43	0.33	0.15	0.29	0.42	0.09	0.04
135,144	0.49	3.39	0.70	0.37	0.56	1.47	0.33	0.09
107	0.67	1.65	0.41	0.16	0.64	0.62	0.26	0.17
123,149	3.75	14.18	3.92	1.53	2.23	6.21	1.42	0.58
118	1.77	12.98	2.35	1.23	1.75	3.41	0.48	1.02
134	0.68	1.09	0.28	0.24	0.38	0.27	0.32	0.08
146	3.79	6.02	2.04		4.66	3.06		1.21
132,105,153	17.48	32.53	12.50	6.79	20.04	17.80	7.79	5.73
141	1.31	7.53	1.57	0.41	0.82	1.54	0.21	0.22
137,130,176	1.00	2.33	0.71					
163,138	12.81	35.84	8.10	2.27	9.21	10.41	1.58	2.82
158	1.11	1.09	0.63					
129,178	2.68	3.19	0.96	0.19	0.78	1.17	0.23	0.26
187,182	16.60	13.97	4.76	1.51	7.03	5.18	2.18	2.83
183	3.57	7.70	2.01	0.47	2.09	1.29		0.79
128	1.09	3.46	0.62	0.10	0.20	0.79		0.17
185	0.30	1.75	0.37	0.18	0.18	0.45	0.18	0.05
174	2.42	8.05	1.90	0.50	0.76	1.88	0.40	0.29
177	3.18	5.85	1.20	0.49	2.23	1.97	0.36	0.52
202,171,156	4.37	4.40	1.89	0.43	1.59	1.87	0.77	0.70
157,200	2.60	4.22	1.10	0.08	0.40	0.73	0.30	0.21
172,197	2.16	3.93	0.86		1.28	1.07	0.91	0.41
180	12.93	31.36	5.79	1.22	7.13	5.21	1.43	2.17
193	1.11	4.58	0.90	0.61	1.34	1.22		0.26
191	0.28	0.57	0.15					
199		4.66						
170,190	5.76	11.68	2.41	0.45	3.09	2.25	0.63	0.62
198	0.84	1.49	0.31	ND	0.16	0.24	0.20	0.06
201	9.28	13.90	3.36	0.28	2.17	2.10	1.85	1.15
203,196	11.55	21.13	5.02	0.69	2.85	3.31	2.35	1.40
189	0.19	0.47	0.10					
208,195	13.21	20.32	4.46	0.23	1.92	2.70	3.85	1.09
207	2.83	4.14	1.19		0.31	0.56	0.95	0.25
194	2.85	7.23	1.02		0.88	0.72	0.41	0.19
205	0.22	0.54	0.09			0.12		
206	19.63	35.04	7.66	0.16	1.90	3.42	6.09	1.13
209	10.52	17.76	4.25	0.00	1.52	2.39	4.88	1.02

Field ID	5 CORE SF	4CCSFA	5 SD2 SF	2 CORE INV	3 CORE INV	4 CORE INV	5 CORE INV	5 CORE MACRO INV
T PCBs (ng/g wet weight)	209.42	518.32	128.75	41.12	114.41	158.42	52.28	36.48
Lipid Normalized (ng/g lipid)	5990	12630	3683	7180	26001	19558	8570	3303
Organic Carbon Normalized for Sediment (ng/g OC)								
Recovery								
14	92%	178%	90%	107%	98%	101%	83%	73%
65								
166	65%	80%	68%	92%	84%	91%	73%	64%
Distribution of Homologue Groups (in ng/¢								
mono	1	4	1	0	0	0	0	0
di	2	12	2	0	0	4	0	0
tri	3	16	4	3	4	7	1	1
tetra	11	58	15	10	15	24	6	3
penta	21	96	25	10	18	42	6	6
hexa	50	110	33	11	39	43	12	12
hepta	28	67	13	3	16	14	4	4
octa	28	50	10	1	5	6	6	3
nona	22	39	9	0	2	4	7	1
deca	11	18	4	0	2	2	5	1
total	177	470	116	38	102	147	47	31
Percent Homologue Distribution (with mor								
mono	0.01	1%	1%	0.00	0.00	0.00	0.00	0.00
di	0.01	2%	2%	0.00	0.00	0.03	0.00	0.00
tri	0.02	3%	4%	0.07	0.04	0.05	0.03	0.03
tetra	0.06	12%	13%	0.26	0.15	0.16	0.12	0.11
penta	0.12	20%	22%	0.26	0.18	0.28	0.14	0.19
hexa	0.28	23%	28%	0.30	0.39	0.30	0.25	0.38
hepta	0.16	14%	12%	0.09	0.16	0.09	0.08	0.14
octa	0.16	11%	8%	0.01	0.05	0.04	0.14	0.08
nona	0.13	8%	8%	0.00	0.02	0.03	0.15	0.04
deca	0.06	4%	4%	0.0000	0.01	0.02	0.10	0.03
Percent Homologue Distribution (w/o mon								
di	1%	2%	2%	0%	0%	3%	0%	0%
tri	2%	3%	4%	7%	4%	5%	3%	3%
tetra	6%	13%	13%	26%	15%	16%	12%	11%
penta	12%	21%	22%	26%	18%	28%	14%	19%
hexa	28%	24%	28%	30%	39%	30%	25%	38%
hepta	16%	14%	12%	9%	16%	9%	8%	14%
octa	16%	11%	9%	1%	5%	4%	14%	8%
nona	13%	8%	8%	0%	2%	3%	15%	4%
deca	6%	4%	4%	0%	1%	2%	10%	3%

Table 13. Summary of All Data (bl:

Field ID	2CC INV	2CC MACRO INV	4CC INV	5SD2 INV	2 CORE SF	3 CORE SF	4 CORE SF	5 CORE SF
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Invertebrate	Invertebrate	Invertebrate	Invertebrate	Fish	Fish	Fish	Fish
Species	Amphipods	Blue crab	Amphipods	Grass Shrimp	Small Fish	Small Fish	Small Fish	Small Fish
Zone	2	2	4	5	2	3	4	5
Description								
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)								
Fish Length (mm)								
Fish Sex								
fish Age (yrs)								
Fish/Invert. Lipid Content (%)	0.6%	2.1%	0.6%	0.8%	2.7%	2.0%	3.0%	2.1%
Sediment % Solid								
Sediment % Water								
Sediment % Carbon								

Concentrations (ng/g wet biota or ng/g dry se

1					0.10	1.86	0.16	0.06
3		0.54	1.04		0.61	1.85	1.46	0.89
4,10					0.85	0.83	0.55	0.34
7,9	0.22	0.07			0.07	0.22	0.09	0.07
6	0.04	0.04		0.03	0.04	0.34	0.06	0.04
8,5	1.74	1.77			2.54	8.21	9.05	2.28
19					0.10	0.35	0.17	0.11
12,13	0.03	0.07			0.06	0.28	0.18	0.07
18	0.43	1.07	0.45	0.16	1.23	6.12	3.11	1.11
17	0.20	0.62	0.23		0.47	2.22	1.50	0.65
24	0.04	0.02	0.06	0.06	0.04	0.20	0.14	0.05
16,32	0.51	0.34	0.66		0.61	2.89	2.00	0.71
29					0.05	0.26	0.14	0.05
26		0.04			0.08	0.38	0.68	0.14
25	0.04	0.05	0.04				0.65	
31, 28	0.57	1.44	0.39	0.44	1.10	2.88	4.38	0.62
33,21,53	0.74	1.03	0.77	0.49	1.12	5.38	4.22	1.13
51	0.14	0.07	0.14		0.20	1.50	1.48	0.27
22	0.51	0.20			0.33	0.56	0.88	0.23
45	0.36	0.47	0.36	0.16	0.79	3.99	3.72	0.88
46	0.31	0.23			0.28	1.82	2.00	0.35
52	0.77	0.07	0.86	0.55	1.65	6.25	9.68	1.82
49						ND		
47,48	1.13	1.78	1.34	0.82	2.33	13.59	10.65	2.92
44	0.64	0.21	0.58	0.34	1.00	4.76	6.75	1.25
37,42	0.51	0.28	0.36	0.26	0.86	4.11	4.76	1.02
41,64,71	1.27	0.92	1.23	0.89	1.81	8.23	8.00	1.80
40	0.21	0.12	0.19	0.07	0.24	1.68	2.11	0.45
100	0.15	0.53	0.24	0.09	0.45	2.32	2.55	0.45
63	0.06	0.04	0.09	0.04	0.19	0.91	0.98	0.33
74	0.49	1.76	0.37	0.37	1.23	5.36	5.06	1.08
70,76	0.74	0.34	0.54		1.33	5.23	9.29	0.84

Field ID	2CC INV	2CC MACRO INV	4CC INV	5SD2 INV	2 CORE SF	3 CORE SF	4 CORE SF	5 CORE SF
66,95	3.15	3.33	3.58	1.22	5.64	24.39	33.36	5.81
91	0.31	0.06	0.33	0.05	0.68	3.22	4.19	0.95
56,60/92,84	1.13	2.56	2.36	1.26	2.80	10.47	13.27	2.67
89	1.78	0.63	1.65	0.28	2.96	34.12	49.87	5.49
101	1.14	0.71	1.30	0.47	3.30	14.28	18.69	3.76
99	0.57	2.97	0.61	0.41	1.77	9.11	10.76	2.93
119	0.23	0.29			0.69	2.15	2.55	0.58
83	0.18	0.20	0.17	0.07	0.36	2.30	3.57	0.59
97	1.97	2.32	1.82	1.38	4.90	19.89	27.41	5.86
81,87					0.31	1.34	1.72	0.27
85	0.33	1.19	0.29		0.99	5.17	5.91	1.02
136	1.46	1.58	1.00		4.53	14.53	24.00	4.71
77,110	2.07	1.02	2.10	0.38	5.03	23.37	32.86	5.73
82, 151	0.21	0.07	0.21	0.11	0.36	2.11	2.52	0.49
135,144	0.47	0.14	0.50	0.14	0.72	4.72	6.24	1.19
107	0.18	0.21	0.17	0.13	0.38	2.13	2.39	0.56
123,149	2.04	0.87	2.05	0.54	4.72	20.91	24.75	5.87
118	1.11	4.73	1.16	0.89	3.36	16.61	20.76	3.13
134	0.09	0.14	0.11	0.15	0.40	1.84	1.90	0.60
146	0.85	1.87	1.24	1.50	1.81	9.84	9.20	3.23
132,105,153	5.36	15.69	5.84	4.70	14.61	73.01	69.59	16.68
141	0.67	0.20	0.46	0.39	1.36	11.28	11.48	2.33
137,130,176					0.58	3.01	3.16	0.87
163,138	3.08	8.75	2.81	1.89	10.00	53.02	51.38	12.18
158					0.53	2.10	1.84	0.67
129,178	0.36	1.10	0.35	0.38	0.95	6.47	5.62	1.89
187,182	1.57	3.89	1.71	2.25	4.47	21.87	18.03	7.89
183	0.62	2.37	0.63	0.36	2.21	12.20	10.74	3.08
128	0.16	0.70	0.01		0.90	5.14	5.42	1.04
185	0.19	0.10	0.16	0.12	0.25	2.15	2.03	0.56
174	0.79	0.41	0.57	0.61	1.61	9.61	9.14	2.84
177	0.70	0.14	0.58	0.49	1.38	7.85	6.30	1.95
202,171,156	0.64	2.42	0.57	0.84	1.56	8.80	8.96	3.03
157,200	0.08	0.93	0.16	0.29	0.49	3.25	3.28	1.98
172,197	0.22	0.51	0.21	0.69	0.65	4.30	4.01	1.57
180	1.63	3.89	1.14	2.25	5.26	40.10	33.55	9.64
193	0.74	1.06	0.38	0.26	4.87	13.33	16.94	1.91
191		0.10			0.16	0.96	0.84	0.17
199							3.28	2.41
170,190	0.67	1.58	0.50	0.77	2.27	16.81	15.20	3.91
198	0.05	0.22	0.05	0.13	0.09	0.77	0.82	0.59
201	0.45	1.48	0.50	1.38	1.60	9.48	9.39	6.05
203,196	0.90	3.43	0.82	1.77	2.36	16.83	16.15	8.46
189	ND	0.05			0.09	0.44	0.40	0.12
208,195	0.28	3.30	0.59	1.99	0.90	6.67	8.83	8.69
207	0.06	0.82	0.13	0.39	0.17	1.14	1.68	2.24
194	0.21	0.47	0.14	0.43	0.81	5.71	5.02	1.88
205	0.03	0.03			0.06	0.35	0.32	0.16
206	0.27	3.71	0.67	2.97	0.83	8.78	14.16	15.38
209	0.17	2.92	0.46	1.81	0.37	3.98	6.96	9.08

Field ID	2CC INV	2CC MACRO INV	4CC INV	5SD2 INV	2 CORE SF	3 CORE SF	4 CORE SF	5 CORE SF
T PCBs (ng/g wet weight)	51.06	99.25	50.04	40.94	128.83	666.49	736.88	206.70
Lipid Normalized (ng/g lipid)	8609	4644	8110	5118	4754	33492	24467	9682
Organic Carbon Normalized for Sediment (ng/g OC)								
Recovery								
14	105%	119%	68%	77%	86%	142%	141%	118%
65								
166	92%	96%	66%	68%	52%	83%	80%	57%
Distribution of Homologue Groups (in ng/¢								
mono	0	1	1	0	1	4	2	1
di	2	2	0	0	4	10	10	3
tri	3	4	2	1	5	21	18	5
tetra	9	10	9	5	16	76	88	17
penta	13	18	14	6	31	162	217	38
hexa	14	33	14	10	40	204	211	52
hepta	5	8	3	5	16	93	86	22
octa	1	6	1	4	4	25	29	21
nona	0	5	1	3	1	10	16	18
deca	0	3	0	2	0	4	7	9
total	47	89	46	36	118	608	683	185
Percent Homologue Distribution (with mor								
mono	0%	1%	2%	0%	0.01	0.01	0.00	0.01
di	4%	2%	0%	0%	0.03	0.02	0.01	0.02
tri	6%	5%	5%	3%	0.04	0.03	0.03	0.03
tetra	19%	11%	20%	13%	0.14	0.12	0.13	0.09
penta	28%	20%	29%	16%	0.27	0.27	0.32	0.21
hexa	30%	38%	30%	28%	0.34	0.34	0.31	0.28
hepta	10%	9%	7%	14%	0.14	0.15	0.13	0.12
octa	2%	7%	3%	11%	0.03	0.04	0.04	0.11
nona	1%	5%	2%	9%	0.01	0.02	0.02	0.10
deca	0%	3%	1%	5%	0.00	0.01	0.01	0.05
Percent Homologue Distribution (w/o mon								
di	4%	2%	0%	0%	3%	2%	1%	2%
tri	6%	5%	5%	3%	4%	3%	3%	3%
tetra	19%	11%	20%	13%	14%	12%	13%	9%
penta	28%	20%	30%	16%	27%	27%	32%	21%
hexa	30%	38%	31%	28%	34%	34%	31%	28%
hepta	10%	9%	8%	14%	14%	15%	13%	12%
octa	2%	7%	3%	11%	3%	4%	4%	11%
nona	1%	5%	2%	9%	1%	2%	2%	10%
deca	0%	3%	1%	5%	0%	1%	1%	5%

Table 13. Summary of All Data (bl:

Field ID	2CCSFA	5 SED1 SF	2 CORE INV	3 CORE INV	3 CORE MACRO INV	4 CORE INV	4 CORE MACRO	5 CORE INV
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Fish	Fish	Invertebrate	Invertebrate	Invertebrate	Invertebrate	Invertebrate	Invertebrate
Species	Small Fish	Small Fish	Amphipods	Amphipods	Crayfish	Amphipods	Crayfish	Amphipods
Zone	2	5	2	3	3	4	4	5
Description								
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)								
Fish Length (mm)								
Fish Sex								
fish Age (yrs)								
Fish/Invert. Lipid Content (%)	1.8%	2.0%	1.6%	1.6%	1.8%	1.3%	1.1%	1.2%
Sediment % Solid								
Sediment % Water								
Sediment % Carbon								
<i>Concentrations (ng/g wet biota or ng/g dry se</i>								
1	0.06	0.10			0.09	0.11	0.10	0.13
3	0.21	0.71		1.97	0.22	2.63		
4,10	0.48	0.34	2.63	0.83	0.20	0.53	0.21	0.57
7,9	0.12	0.06		0.15	0.04		0.04	0.06
6	0.02	0.03	0.14	0.02	0.03		0.02	0.09
8,5	22.46	2.77	5.58	4.04	0.44	1.42	0.27	5.14
19	0.19	0.12	0.25	0.15	0.04	0.07	0.03	0.10
12,13	0.10	0.07	0.18	0.04	0.04		0.02	
18	3.29	1.24	2.11	1.71	0.40	0.44	0.31	1.08
17	1.56	0.64	0.72	0.63	0.22	0.22	0.09	0.41
24	0.14	0.05	0.07	0.07	0.01	0.03	0.01	0.03
16,32	2.24	0.74	0.85	1.04	0.14	0.41	0.15	0.80
29	0.14	0.06	0.10	0.06	0.03	0.03	0.02	0.03
26	0.92	0.15	0.15	0.21	0.04		0.10	
25	0.63							
31, 28	6.67	0.90	3.06	1.83	1.00	0.80	0.68	1.30
33,21,53	4.07	1.47	1.98	1.71	0.38	0.55	0.34	1.35
51	0.71	0.37	0.32	0.58	0.06	0.20	0.03	0.46
22	1.49	0.40	0.95	0.57	0.12	0.38		
45	2.11	1.33	1.53	1.19	0.14	0.49	0.09	1.10
46	0.77	0.42	0.04	0.58	0.07	0.24	0.04	0.54
52	6.36	3.09	3.67	3.31	0.80	1.33	1.00	2.24
49								
47,48	6.29	2.42	4.36	2.48	0.63	1.03	0.68	1.19
44	5.48	2.06	2.80	2.14	0.17	0.93	0.25	1.62
37,42	3.72	1.64	1.70	1.30	0.12	0.40	0.13	0.97
41,64,71	5.64	2.90	3.35	2.37	0.46	1.18	0.25	1.94
40	1.49	0.58	0.45	0.61	0.07	0.31	0.04	0.56
100	1.60	0.68	0.74	0.57	0.19	1.54	0.06	0.45
63	0.60	0.39	0.51	0.24	0.20	0.20	0.06	0.21
74	4.46	1.85	2.54	1.50	0.95	0.67	0.42	1.05
70,76	7.93	2.16	3.70	2.69	0.63	1.03	0.42	1.82

Field ID	2CCSFA	5 SED1 SF	2 CORE INV	3 CORE INV	3 CORE MACRO INV	4 CORE INV	4 CORE MACRO	5 CORE INV
66,95	18.97	10.29	10.49	9.17	2.44	3.24	1.68	6.19
91	1.90	1.49	1.19	0.91	0.05	0.25	0.07	0.71
56,60/92,84	11.86	4.71	6.40	4.23	1.02	1.53	1.28	6.23
89	12.34	10.26	7.81	6.08	0.35	2.22	0.15	4.47
101	8.15	6.37	6.29	3.38	1.94	1.40	1.06	2.64
99	4.29	4.52	3.19	1.75	1.12	0.81	0.40	1.54
119	4.01	0.81	1.08	0.65	0.10	0.24	0.04	0.58
83	1.66	1.02	0.85	0.59	0.16	0.27	0.05	0.43
97	13.26	10.08	10.56	4.34	1.28	0.97	0.56	3.97
81,87	0.92	0.59	0.53	0.46	0.09	0.15		0.25
85	2.90	2.08	2.14	0.80	0.31	0.25	0.08	0.59
136	1.21	6.41	0.52	0.62	0.05	0.24	0.95	0.44
77,110	14.25	10.28	9.01	5.31	0.44	2.48	0.21	4.42
82, 151	1.12	0.74	0.54	0.50	0.15	0.18	0.07	0.36
135,144	2.55	1.87	1.69	1.23	0.27	0.53	0.17	0.89
107	0.92	0.83	0.74	0.44	0.25	0.19	0.11	0.31
123,149	11.14	8.46	8.76	4.96	1.24	2.00	0.60	3.74
118	8.34	6.86	7.07	2.67	2.50	1.24	0.98	2.06
134	1.34	0.87	0.67	0.40	0.05	0.15	0.07	0.17
146	3.68	4.31	3.65	1.81	1.11	0.72	0.69	1.59
132,105,153	31.16	28.58	30.65	12.68	7.03	4.86	4.02	11.11
141	4.53	3.77	3.12	1.77	1.12	0.67	0.79	1.25
137,130,176	1.55	1.73	1.21	0.81	0.23	0.26	0.14	0.49
163,138	22.56	20.37	19.73	6.99	5.39	2.95	2.70	5.68
158	0.89	0.88	1.15	0.97	0.19		0.27	0.81
129,178	2.61	2.60	1.96	0.90	0.57	0.36	0.29	0.74
187,182	7.80	8.53	8.59	3.30	2.45	1.30	1.22	2.93
183	4.66	4.31	4.64	1.62	0.49	0.61	0.29	1.28
128	2.30	1.95	1.62	0.58	0.14	0.23	0.05	0.46
185	1.00	0.77	0.77	0.34	0.11	0.11	0.08	0.25
174	4.79	3.85	3.13	1.64	0.75	0.59	0.55	1.26
177	3.25	3.07	3.35	1.33	0.83	0.49	0.41	0.99
202,171,156	4.91	4.25	3.47	1.15	0.20	0.46	0.11	1.06
157,200	1.34	2.30	1.02	0.30	0.17	0.13	0.10	0.34
172,197	1.69	2.08	1.56	0.47	0.25	0.17	0.15	0.47
180	13.74	15.01	12.61	3.75	3.25	1.45	1.71	3.10
193	5.08	2.72	13.46	3.43	0.69	1.07	0.22	3.07
191	0.41	0.24	0.36	0.09	0.06		0.03	
199		2.75						
170,190	6.01	6.51	5.19	1.66	1.01	0.61	0.57	1.30
198	0.32	0.73	0.31	0.08	0.03	0.04	0.02	0.11
201	3.85	7.67	3.41	1.06	0.67	0.51	0.39	1.19
203,196	6.96	11.07	6.71	1.73	0.53	0.76	0.29	1.84
189	0.27	0.20	0.25	0.04	0.03	0.02	0.02	0.03
208,195	2.43	10.85	2.16	0.67	0.29	0.39	0.23	1.06
207	0.47	2.47	0.41	0.13	0.05	0.09	0.04	0.23
194	2.34	3.05	2.04	0.41	0.29	0.20	0.15	0.37
205	0.15	0.24	0.21	ND	0.02	0.05	0.01	
206	2.74	20.86	2.31	0.81	0.17	0.59	0.17	1.35
209	1.32	11.39	0.94	0.39	0.13	0.28	0.10	0.43

Field ID	2CCSFA	5 SED1 SF	2 CORE INV	3 CORE INV	3 CORE MACRO INV	4 CORE INV	4 CORE MACRO	5 CORE INV
T PCBs (ng/g wet weight)	357.90	307.37	264.01	134.00	49.99	55.47	30.15	110.02
Lipid Normalized (ng/g lipid)	19858	15726	16015	8645	2788	4344	2799	9121
Organic Carbon Normalized for Sediment (ng/g OC)								
Recovery								
14	136%	107%	164%	109%	118%	57%	52%	124%
65								
166	51%	68%	82%	73%	58%	37%	39%	64%
Distribution of Homologue Groups (in ng/¢								
mono	0	1	0	2	0	3	0	0
di	23	3	9	5	1	2	1	6
tri	21	6	10	8	2	3	2	5
tetra	61	27	34	26	6	10	5	20
penta	94	67	63	37	11	14	6	30
hexa	84	82	74	32	17	12	11	27
hepta	35	34	40	12	7	4	4	10
octa	10	26	9	2	1	1	1	3
nona	3	23	3	1	0	1	0	2
deca	1	11	1	0	0	0	0	0
total	334	281	241	126	46	51	28	103
Percent Homologue Distribution (with mor								
mono	0%	0%	0.00	0.02	0.01	0.05	0.00	0.00
di	7%	1%	0.04	0.04	0.02	0.04	0.02	0.06
tri	6%	2%	0.04	0.06	0.05	0.06	0.06	0.05
tetra	18%	9%	0.14	0.21	0.13	0.21	0.18	0.20
penta	28%	24%	0.26	0.29	0.24	0.27	0.20	0.29
hexa	25%	29%	0.31	0.26	0.37	0.24	0.37	0.26
hepta	11%	12%	0.17	0.10	0.15	0.09	0.13	0.10
octa	3%	9%	0.04	0.02	0.03	0.02	0.03	0.03
nona	1%	8%	0.01	0.01	0.00	0.01	0.01	0.02
deca	0%	4%	0.00	0.00	0.00	0.01	0.00	0.00
Percent Homologue Distribution (w/o mon								
di	7%	1%	4%	4%	2%	4%	2%	6%
tri	6%	2%	4%	6%	5%	6%	6%	5%
tetra	18%	10%	14%	21%	13%	22%	18%	20%
penta	28%	24%	26%	30%	24%	29%	20%	29%
hexa	25%	29%	31%	26%	37%	26%	38%	26%
hepta	11%	12%	17%	10%	15%	9%	13%	10%
octa	3%	9%	4%	2%	3%	3%	3%	3%
nona	1%	8%	1%	1%	0%	1%	1%	2%
deca	0%	4%	0%	0%	0%	1%	0%	0%

Table 13. Summary of All Data (bl:

Field ID	2 CC INV	5 SED1 INV	5 SED1 MACRO INV	2 CORE Whole Fish	3 CORE Whole Fish	4 CORE Whole Fish	5 CORE Whole Fish
Collected	Spring 2002	Spring 2002	Spring 2002	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Invertebrate	Invertebrate	Invertebrate	Fish	Fish	Fish	Fish
Species	Amphipods	Amphipods	Mud crab	White Perch	White Perch	White Perch	White Perch
Zone	2	5	5	2	3	4	5
Description				Whole Fish	Whole Fish	Whole Fish	Whole Fish
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	ANS	ANS	ANS	ANS
Fish Mass (g)							
Fish Length (mm)							
Fish Sex							
fish Age (yrs)							
Fish/Invert. Lipid Content (%)	1.0%	1.3%	1.4%	5.9%	7.6%	7.3%	10.3%
Sediment % Solid							
Sediment % Water							
Sediment % Carbon							

Concentrations (ng/g wet biota or ng/g dry se

1	0.19	0.34	0.40				
3	0.79	0.37		0.68	2.19	1.44	0.80
4,10	0.83	0.41	0.55	0.13	0.18	0.27	0.03
7,9	0.07	0.04	0.06	0.06	0.11	0.12	0.02
6	0.02	0.01	0.02	0.00	0.08	0.00	
8,5	1.71	1.35	0.80	3.57	6.34	7.59	1.47
19	0.06	0.06	0.04	0.36	0.64	0.76	0.09
12,13	0.05		0.03	0.09	0.20		0.03
18	0.49	0.52	0.41	1.36	3.64	2.88	0.48
17	0.17	0.40	0.17	1.37	3.19	2.91	0.43
24	0.03	0.03	0.03	0.07	0.14	0.16	0.02
16,32	0.26	0.33	0.28	2.34	6.37	4.98	0.81
29	0.02	0.03	0.03				
26		0.10		0.88	2.01	1.87	0.32
25				0.50	1.14	1.06	0.14
31, 28	0.56	0.53	0.20	6.60	21.61	14.02	2.56
33,21,53	0.52	0.56	0.43	3.97	11.68	8.43	1.61
51	0.13	0.14		1.36	4.89	2.88	0.65
22		0.24		0.67	2.59	1.43	0.29
45	0.35	0.33	0.16	2.55	4.75	5.43	1.26
46	0.22	0.17	0.08	1.63	3.04	3.47	0.63
52	0.91	0.97	0.41	1.13	21.60	2.40	3.88
49				7.74	20.97	16.44	3.81
47,48		0.97	1.08	8.49	33.03	18.03	5.60
44	0.52	0.65	0.21	6.44	19.26	13.68	3.29
37,42	0.32	0.44	0.25	4.53	12.28	9.62	2.09
41,64,71	0.82	0.67	0.76	12.27	35.31	26.06	6.29
40	0.13	0.26	0.08	2.13	5.94	4.53	1.20
100	0.13	9.44	0.11	3.02	6.36	6.41	1.39
63	0.02	0.13	0.07	0.73	1.71	1.54	0.31
74	0.45	0.45	0.68	5.66	15.83	12.02	2.63
70,76	0.59	0.72	0.30	12.06	37.53	25.62	5.61

Field ID	2 CC INV	5 SED1 INV	5 SED1 MACRO INV	2 CORE Whole Fish	3 CORE Whole Fish	4 CORE Whole Fish	5 CORE Whole Fish
66,95	3.31	2.78	1.15	25.30	66.42	53.74	15.62
91	0.28	0.38	0.24	4.57	10.15	9.71	2.14
56,60/92,84	1.12	1.37	0.58	34.49	79.25	73.27	16.48
89	2.12	1.57	0.36				
101	1.08	1.13	1.14	19.69	43.33	41.83	8.90
99	0.56	0.73	0.71	13.85	30.32	29.41	7.27
119	0.32	0.23	0.21				
83	0.16	0.19	0.09	2.38	5.63	5.06	1.74
97	1.24	1.65	2.01	5.22	12.37	11.09	2.46
81,87	0.38	0.20	0.23	1.85	4.78	3.93	0.83
85	0.28	0.22	0.22	0.74	0.00		
136	0.20	0.18	0.05	2.93	6.07	6.23	1.22
77,110	1.59	1.90	1.80	35.77	84.10	75.98	17.70
82, 151	0.16	0.15	0.08	17.31	33.29	36.77	7.14
135,144	0.49	0.41	0.28	8.29	15.90	17.61	3.44
107	0.16	0.17	0.26	3.26	6.86	6.92	1.57
123,149	1.96	1.70	1.09	25.28	42.61	53.70	9.76
118	0.95	0.87	1.09	20.29	43.29	43.09	8.50
134	0.11	0.20	0.15				
146	0.93	0.84	1.55	7.53	11.37	15.99	4.01
132,105,153	5.61	4.68	7.60	80.30	116.87	170.59	30.90
141	0.72	0.49	0.54	4.41	7.25	9.37	1.61
137,130,176			0.27	3.06	5.15	6.51	1.19
163,138	2.40	2.54	3.71	64.49	109.66	137.00	25.99
158		0.42	0.81	1.17	2.11	2.49	
129,178	0.26	0.35	0.68	7.18	11.63	15.25	2.98
187,182	1.43	1.51	3.60	18.90	26.21	40.15	7.99
183	0.70	0.58	1.01	14.05	19.31	29.84	5.37
128	0.23	0.20	0.32	7.08	13.92	15.04	3.12
185	0.15	0.09	0.10	2.39	3.70	5.08	1.05
174	0.67	0.53	0.67	8.84	16.20	18.79	3.61
177	0.55	0.44	0.84	5.82	10.23	12.36	2.31
202,171,156	0.42	0.56	1.19	9.61	15.33	20.42	4.42
157,200	0.06	0.19	0.61	3.34	6.61	7.08	2.13
172,197		0.32	0.56	2.52	3.90	5.34	1.14
180	1.27	1.54	2.75	43.60	65.75	92.62	18.39
193	1.63	0.88	0.49	2.39	0.49		0.71
191			0.04	0.77	1.25	1.63	0.34
199				0.26	0.49	0.55	0.16
170,190	0.57	0.60	0.86	26.76	45.80	56.84	12.46
198	0.07	0.07	0.16	0.55	1.04	1.18	0.39
201	0.36	0.78	1.94	11.92	19.28	25.33	8.04
203,196	0.61	1.13	2.36	16.96	25.04	36.04	9.31
189	0.03	0.02	0.03	1.24	1.79	2.64	0.52
208,195	0.18	0.74	2.29	5.37	7.71	11.41	12.10
207	0.07	0.17	0.60	0.81	1.20	1.73	1.07
194	0.13	0.22	0.41	5.35	8.40	11.37	2.78
205		0.01		0.29	0.44	0.61	0.14
206	0.12	1.15	2.56	10.43	17.14	22.16	16.62
209		0.54	1.87	0.58	0.86	1.24	1.15

Field ID	2 CC INV	5 SED1 INV	5 SED1 MACRO INV	2 CORE Whole Fish	3 CORE Whole Fish	4 CORE Whole Fish	5 CORE Whole Fish
T PCBs (ng/g wet weight)	45.97	58.27	59.82	681.60	1345.10	1441.02	334.51
Lipid Normalized (ng/g lipid)	4502	4487	4198	11485	17586	19776	3246
Organic Carbon Normalized for Sediment (ng/g OC)							
Recovery							
14	46%	111%	80%	113%	97%	119%	
65				78%	81%	68%	
166	35%	66%	61%	85%	91%	68%	
Distribution of Homologue Groups (in ng/¢							
mono	1	1	0	1	2	1	1
di	3	2	1	4	7	8	2
tri	2	3	2	18	53	39	7
tetra	7	8	5	96	289	205	53
penta	12	12	10	163	358	344	77
hexa	12	12	18	210	340	447	85
hepta	5	4	6	92	145	190	39
octa	1	2	5	25	41	54	25
nona	0	1	3	11	18	24	18
deca	0	1	2	1	1	1	1
total	43	45	52	622	1254	1314	307
Percent Homologue Distribution (with mor							
mono	2%	2%	1%	0.00	0.00	0.00	0.00
di	6%	4%	3%	0.01	0.01	0.01	0.01
tri	5%	6%	3%	0.03	0.04	0.03	0.02
tetra	16%	18%	10%	0.15	0.23	0.16	0.17
penta	29%	27%	19%	0.26	0.29	0.26	0.25
hexa	29%	26%	34%	0.34	0.27	0.34	0.28
hepta	11%	10%	12%	0.15	0.12	0.14	0.13
octa	2%	4%	10%	0.04	0.03	0.04	0.08
nona	0%	3%	6%	0.02	0.01	0.02	0.06
deca	0%	1%	4%	0.00	0.00	0.00	0.00
Percent Homologue Distribution (w/o mon							
di	6%	4%	3%	1%	1%	1%	1%
tri	5%	6%	3%	3%	4%	3%	2%
tetra	16%	18%	10%	16%	23%	16%	17%
penta	29%	27%	19%	26%	29%	26%	25%
hexa	29%	26%	34%	34%	27%	34%	28%
hepta	11%	10%	12%	15%	12%	14%	13%
octa	2%	4%	10%	4%	3%	4%	8%
nona	0%	3%	6%	2%	1%	2%	6%
deca	0%	1%	4%	0%	0%	0%	0%

Table 13. Summary of All Data (bl:

Field ID	05var1WP1	05var1WP2	05var1WP3	05var1WP4	05var1WP5	05scoreWP1-5F	05var2WP1
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Fish	Fish	Fish	Fish	Fish	Fish	Fish
Species	White Perch	White Perch	White Perch	White Perch	White Perch	White Perch	White Perch
Zone	5	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite	Individual Fillet
Replicate analysis?							
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	161.38	92.93	129.27	125.3	100.9		84.27
Fish Length (mm)	223	186	203	199	190		185
Fish Sex	M	M	F	M	M		M
fish Age (yrs)	6	3	7	6	6		4
Fish/Invert. Lipid Content (%)	5.7%	2.8%	6.9%	4.9%	3.7%	7.2%	6.8%
Sediment % Solid							
Sediment % Water							
Sediment % Carbon							

Concentrations (ng/g wet biota or ng/g dry se

1							
3	1.21	1.25	0.58	0.57	0.47	0.55	0.85
4,10	0.06	0.06	0.05		0.03	0.04	0.05
7,9	0.03	0.04	0.03	0.01	0.02	0.02	0.03
6							0.07
8,5	2.16		1.71	0.68	1.25	1.44	2.10
19	0.11	0.18	0.10	0.05	0.06	0.07	0.14
12,13	0.06	0.06	0.03	0.20	0.02	0.03	0.03
18	0.68	1.19	0.54	0.15	0.52	0.46	0.80
17	0.58	0.91	0.60	0.14	0.45	0.42	1.05
24	0.04	0.06	0.03		0.02	0.02	0.06
16,32	0.80	1.96	0.96	0.25	0.81	0.73	1.47
29							
26	0.45	0.64	0.33	0.20	0.34	0.31	0.76
25	0.16	0.33	0.16	0.06	0.16	0.13	0.38
31, 28	1.55	5.45	3.19	0.56	2.78	2.28	4.20
33,21,53	2.13	4.24	1.49	0.48	1.69	1.54	2.51
51	0.71	1.67	0.59	0.14	0.70	0.60	0.82
22	0.28	0.61	0.32		0.32	0.28	0.44
45	1.78	2.66	1.27	0.56	1.27	1.37	1.86
46	1.03	1.35	0.61	0.15	0.55	0.62	0.75
52	5.76	9.25	3.43	1.18	3.77	3.65	5.76
49	5.72	8.83	3.51	1.08	3.63	3.55	5.94
47,48	7.81	13.53	4.85	1.34	5.66	5.09	8.24
44	4.29	7.67	2.97	0.88	3.19	3.00	4.81
37,42	3.29	5.34	2.04	0.64	2.25	2.16	3.80
41,64,71	7.95	15.16	5.49	1.45	5.95	5.60	9.42
40	1.65	2.77	0.91	0.35	1.10	1.06	1.70
100	1.86	3.07	1.17	0.29	1.24	1.26	1.52
63	0.44	0.69	0.27	0.11	0.26	0.27	0.60
74	2.97	5.76	2.47	0.63	2.47	2.31	3.92
70,76	6.07	13.44	5.32	1.25	5.12	4.90	7.41

Field ID	05var1WP1	05var1WP2	05var1WP3	05var1WP4	05var1WP5	05scoreWP1-5F	05var2WP1
66,95	17.92	44.85	14.08	4.34	14.24	11.88	18.09
91	3.65	4.96	1.73	0.71	1.81	1.97	2.69
56,60/92,84	23.61	40.35	13.43	4.57	14.48	14.73	20.63
89							
101	15.20	22.22	7.06	2.71	8.14	8.29	10.15
99	11.37	15.01	5.71	2.27	6.16	6.54	8.65
119							
83	1.62	2.73	1.50	0.70	1.49	1.60	2.61
97	3.86	6.17	1.88	0.63	2.20	2.22	2.90
81,87	1.08	2.23	0.66	0.16	0.72	0.72	0.97
85							
136	2.08	3.06	0.99	0.33	1.04	1.11	1.31
77,110	26.76	41.57	14.23	5.14	15.21	16.19	20.85
82, 151	11.76	16.83	5.39	1.86	6.29	6.38	7.15
135,144	5.57	8.38	2.63	0.89	2.85	3.04	3.53
107	2.51	3.38	1.08	0.45	1.16	1.32	1.74
123,149	17.88	23.06	8.46	3.30	8.69	9.04	9.89
118	11.88	20.79	7.18	2.14	7.19	7.46	9.54
134							13.08
146	6.48	6.85	2.89	1.70	3.19	3.43	3.75
132,105,153	57.81	65.87	25.05	11.38	27.84	28.46	32.03
141	2.87	3.65	1.37	0.50	1.32	1.42	1.66
137,130,176	1.95	2.64	1.02	0.37	0.89	1.03	1.37
163,138	43.24	58.21	20.21	8.07	23.05	23.34	26.79
158	0.65	1.05	0.34	0.11	0.36		
129,178	5.39	5.96	2.20	1.02	2.52	2.61	3.04
187,182	16.05	14.16	5.61	3.29	7.31	7.31	7.16
183	9.35	10.93	3.94	1.68	4.62	4.69	4.84
128	4.57	7.13	2.00	0.84	2.60	2.62	3.42
185	1.48	1.85	0.89	0.36	0.85	0.92	1.14
174	6.06	7.90	2.93	1.05	2.92	3.16	3.70
177	3.89	4.80	2.06	0.73	1.64	2.03	2.55
202,171,156	8.02	8.01	3.04	1.58	3.64	3.85	4.33
157,200	4.62	3.46	1.36	0.93	1.68	1.92	2.34
172,197	2.02	2.06	0.74	0.38	0.99	0.99	1.14
180	30.99	36.04	12.57	5.49	16.42	15.93	17.54
193		4.99	0.53	0.39	1.28	0.92	0.65
191	0.43	0.67	0.21	0.08	0.30	0.28	0.29
199	0.48	0.26	0.10	0.09	0.13	0.16	0.25
170,190	19.73	24.02	7.92	3.53	10.72	10.49	11.86
198	0.86	0.51	0.22	0.19	0.28	0.34	0.49
201	17.61	10.74	4.65	3.85	6.43	7.17	9.31
203,196	17.83	13.44	5.71	3.70	7.51	8.05	9.59
189	0.89	0.85	0.33	0.22	0.43	0.44	0.52
208,195	31.68	12.64	6.07	7.07	8.57	11.05	15.56
207	2.97	1.02	0.48	0.73	0.79	1.01	1.38
194	4.96	4.19	1.65	0.98	2.26	2.36	2.94
205	0.30	0.21	0.08	0.08	0.13	0.13	0.16
206	42.91	14.39	6.94	9.79	11.79	15.25	23.84
209	3.28	0.91	0.48	0.79	0.78	1.11	1.67

Field ID	05var1WP1	05var1WP2	05var1WP3	05var1WP4	05var1WP5	05scoreWP1-5F	05var2WP1
T PCBs (ng/g wet weight)	567.75	693.18	254.59	114.61	290.98	298.69	400.57
Lipid Normalized (ng/g lipid)	9908	24935	3690	2353	7822	4126	5899
Organic Carbon Normalized for Sediment (ng/g OC)							
Recovery							
14	116%	127%					
65	71%	79%					
166	73%	81%					
Distribution of Homologue Groups (in ng/g)							
mono	1	1	1	1	0	1	1
di	2	0	2	1	1	2	2
tri	7	16	8	2	7	7	12
tetra	70	130	47	14	50	47	74
penta	116	185	63	22	67	69	102
hexa	150	184	67	29	74	76	87
hepta	64	81	27	12	35	34	38
octa	58	30	13	13	19	22	30
nona	46	15	7	11	13	16	25
deca	3	1	0	1	1	1	2
total	518	645	236	105	268	274	374
Percent Homologue Distribution (with mono)							
mono	0%	0%	0%	1%	0%	0%	0%
di	0%	0%	1%	1%	0%	1%	1%
tri	1%	3%	3%	2%	3%	2%	3%
tetra	13%	20%	20%	14%	19%	17%	20%
penta	22%	29%	27%	21%	25%	25%	27%
hexa	29%	29%	28%	28%	28%	28%	23%
hepta	12%	13%	12%	11%	13%	12%	10%
octa	11%	5%	6%	12%	7%	8%	8%
nona	9%	2%	3%	10%	5%	6%	7%
deca	1%	0%	0%	1%	0%	0%	0%
Percent Homologue Distribution (w/o mono)							
di	0%	0%	1%	1%	0%	1%	1%
tri	1%	3%	3%	2%	3%	2%	3%
tetra	13%	20%	20%	14%	19%	17%	20%
penta	22%	29%	27%	21%	25%	25%	27%
hexa	29%	29%	28%	28%	28%	28%	23%
hepta	12%	13%	12%	11%	13%	12%	10%
octa	11%	5%	6%	12%	7%	8%	8%
nona	9%	2%	3%	10%	5%	6%	7%
deca	1%	0%	0%	1%	0%	0%	0%

Table 13. Summary of All Data (bl:

Field ID	05var2WP2	05var2WP3	05var2WP4	05var2WP5	05var2WP6	05var2WP1-6F	05var3WP1	05var3WP2
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Fish	Fish	Fish	Fish	Fish	Fish	Fish	Fish
Species	White Perch	White Perch	White Perch	White Perch	White Perch	White Perch	White Perch	White Perch
Zone	5	5	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite	Individual Fillet	Individual Fillet
Replicate analysis?								
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	75.03	55.79	66.25	44.88	27.39		91.98	68.24
Fish Length (mm)	230	162	175	153	135		186	173
Fish Sex	F	F	M	M	F		M	M
fish Age (yrs)	3	2	5	3	2		5	3
Fish/Invert. Lipid Content (%)	2.6%	4.7%	5.1%	2.5%	1.4%	3.9%	3.1%	2.5%
Sediment % Solid								
Sediment % Water								
Sediment % Carbon								

Concentrations (ng/g wet biota or ng/g dry se

1	9.10					0.41	0.78	7.17
3	3.91	1.68	2.03	0.22	0.80	0.64	1.90	
4,10	0.62	0.04	0.07	0.03	0.05	0.06	0.10	0.97
7,9	0.47	0.02	0.03	0.02	0.03	0.04	0.05	0.32
6	0.78			0.04		0.06	0.08	0.50
8,5	13.43	2.50	5.83				5.00	10.70
19		0.08	0.28	0.04	0.11	0.18	0.32	
12,13	0.28	0.05	0.07	0.01	0.03	0.03	0.07	0.26
18	3.08	0.61	1.42	0.38	0.54	0.98	1.86	3.78
17	2.31	0.46	1.24	0.41	0.54	1.05	1.71	2.42
24	0.22	0.02	0.08		0.03			0.13
16,32	3.32	0.91	2.84	0.56	0.94	1.64	3.44	3.99
29	0.09				0.01			0.08
26		0.39	1.00	0.33	0.34	0.94	1.33	
25		0.18	0.46	0.17	0.18	0.52	0.61	
31, 28	8.74	3.57	10.06	2.07	2.77	7.51	10.94	5.33
33,21,53	3.68	1.38	5.09	0.88	1.84	3.11	6.67	5.15
51	1.02	0.40	2.32	0.17	0.66	1.14	2.38	0.63
22	1.34	0.63	0.81	0.27	0.31	0.76	1.14	1.42
45	1.14	0.91	3.77	0.48	1.17	1.21	3.87	1.51
46	0.48	0.33	1.98	0.15	0.67	0.81	2.28	0.60
52	6.28	2.69	12.10	1.98	3.85	7.21	14.69	4.19
49	6.01	2.30	12.15	1.83	3.77	7.40	14.68	4.83
47,48	6.97	0.81	17.42	2.52	6.33	10.90	21.40	6.10
44	4.61	2.40	17.90	1.85	3.28	5.74	21.13	3.36
37,42	2.99	1.72		1.25	2.33	4.14		2.47
41,64,71	6.78	3.71	21.59	2.88	6.22	10.61	26.54	6.00
40	1.64	0.74	4.27	0.50	1.15	1.78	4.89	1.18
100	1.42		4.70	0.25	1.23	1.97	4.67	1.28
63	0.45	0.20	1.05	0.16	0.40	0.72	1.35	0.43
74	3.30	2.05	9.10	1.40	2.77	5.66	10.66	2.20
70,76	7.02	3.76	20.09	3.04	6.08	12.82	21.73	4.25

Field ID	05var2WP2	05var2WP3	05var2WP4	05var2WP5	05var2WP6	05var2WP1-6F	05var3WP1	05var3WP2
66,95	17.02	8.41	45.95	13.21	34.42	59.73	146.22	15.66
91	5.73	0.93	6.01	0.56	1.90	3.10	7.92	8.12
56,60/92,84	6.12		50.21			25.93	62.53	8.40
89								
101	7.86	3.95	24.95	2.26	8.34	14.28	31.63	5.39
99	5.62	2.49	21.70	1.84	6.45	10.26	25.72	3.67
119								
83	1.31		7.11	0.38	1.23	1.68	6.35	1.46
97	1.25	1.05	7.18	0.67	2.35	3.79	9.02	0.36
81,87	1.36	0.36	2.61	0.18	0.84	1.35	3.33	0.62
85	2.31	0.78		0.48	1.30	3.07		1.52
136		0.42	3.49	0.20	1.08	1.65	4.44	
77,110	14.25	7.65	51.40	4.02	16.09	22.92	66.16	11.31
82, 151	5.22	2.15	19.14	1.15	6.21	7.97	25.12	4.48
135,144	2.47	0.95	9.44	0.51	2.93	4.12	12.29	1.98
107	1.27	0.48	4.38	0.26	1.32	2.15	5.70	0.88
123,149	10.48	3.22	31.74	1.68	8.54	11.94	29.01	7.36
118	4.97	3.68	29.91	2.16	8.48	14.98	27.78	1.33
134	3.01	5.96	28.82	2.39	6.05	7.70	27.40	0.69
146	4.09	1.04	12.38	0.52	2.54	4.59	9.75	3.06
132,105,153	31.99	11.56	90.12	5.48	26.41	44.05	84.27	25.61
141	2.77	0.39	5.68	0.24	1.39	1.89	4.77	3.09
137,130,176	0.56	0.44	4.65	0.18	1.06	1.70	3.98	0.92
163,138	21.22	10.52	84.55	4.21	22.71	34.53	76.09	15.87
158	2.75							
129,178	2.26	0.97	9.85	0.44	2.29	3.15	8.27	
187,182	7.27	2.23	21.11	0.94	5.49	7.53	19.13	7.07
183	4.34	1.39	15.11	0.62	4.00	5.84	14.23	3.56
128	2.19	1.23	11.28	0.48	2.71	3.55	10.40	1.91
185	0.70	0.23	4.35	0.12	0.72	1.06	3.01	0.57
174	3.14	0.99	14.02	0.53	2.84	4.30	11.08	2.45
177	2.13	1.10	9.68	0.37	2.12	2.97	7.24	1.74
202,171,156	3.23	1.23	12.97	0.62	3.02	2.78	11.76	2.74
157,200	0.65	0.53	6.45	0.27	1.26	2.34	5.46	0.22
172,197		0.37	3.93	0.16	0.75	1.51	3.01	
180	10.86	5.40	61.80	2.08	12.83	25.27	48.15	8.97
193	11.44	0.16	1.61	0.12	0.44	0.49	1.95	8.44
191	0.27	0.10	0.96	0.04	0.22	0.32	0.99	0.10
199		0.05	0.65	0.04	0.09	0.21	0.43	
170,190	7.11	3.89	44.60	1.39	8.37	15.36	34.03	6.01
198	0.15	0.11	1.28	0.07	0.18	0.42	0.90	0.13
201	3.32	2.18	25.17	1.30	3.86	7.85	17.41	3.80
203,196	4.31	2.15	27.53	1.19	4.85	9.68	21.24	4.42
189	0.37	0.16	1.71	0.07	0.36	0.68	1.42	0.33
208,195	3.32	3.16	36.86	2.27	4.13	11.67	21.90	5.30
207	0.23	0.21	2.47	0.19	0.29	1.06	1.79	0.46
194	1.18	0.84	11.18	0.34	1.61	4.05	6.61	1.09
205		0.06	0.75	0.02	0.10	0.26	0.35	0.09
206	3.04	3.64	48.87	2.98	4.04	19.10	27.60	5.37
209	0.30	0.27	3.16	0.21	0.26	1.14	1.62	0.97

Field ID	05var2WP2	05var2WP3	05var2WP4	05var2WP5	05var2WP6	05var2WP1-6F	05var3WP1	05var3WP2
T PCBs (ng/g wet weight)	326.90	133.62	1078.53	83.31	276.92	506.03	1135.71	268.74
Lipid Normalized (ng/g lipid)	12820	2825	21024	3353	19501	12843	36874	10924
Organic Carbon Normalized for Sediment (ng/g OC)								
Recovery								
14	121%				113%	94%	107%	74%
65	79%				89%	49%	108%	60%
166	90%				89%	68%	112%	61%
Distribution of Homologue Groups (in ng/¢								
mono	13	2	2	0	1	1	3	7
di	16	3	6	0	0	0	5	13
tri	22	8	21	5	8	17	25	21
tetra	61	26	174	25	56	112	253	51
penta	65	34	261	23	80	139	347	47
hexa	79	31	264	14	71	109	243	59
hepta	35	12	138	5	28	51	108	28
octa	8	7	79	4	11	26	50	11
nona	3	4	51	3	4	20	29	6
deca	0	0	3	0	0	1	2	1
total	303	127	1000	80	259	477	1066	244
Percent Homologue Distribution (with mor								
mono	4%	1%	0%	0%	0%	0%	0%	3%
di	5%	2%	1%	0%	0%	0%	0%	5%
tri	7%	7%	2%	7%	3%	4%	2%	9%
tetra	20%	21%	17%	31%	22%	24%	24%	21%
penta	22%	27%	26%	29%	31%	29%	33%	19%
hexa	26%	24%	26%	17%	27%	23%	23%	24%
hepta	12%	10%	14%	6%	11%	11%	10%	12%
octa	3%	5%	8%	5%	4%	5%	5%	4%
nona	1%	3%	5%	4%	2%	4%	3%	2%
deca	0%	0%	0%	0%	0%	0%	0%	0%
Percent Homologue Distribution (w/o mon								
di	5%	2%	1%	0%	0%	0%	0%	5%
tri	8%	7%	2%	7%	3%	4%	2%	9%
tetra	21%	21%	17%	31%	22%	24%	24%	22%
penta	22%	27%	26%	29%	31%	29%	33%	20%
hexa	27%	25%	26%	17%	28%	23%	23%	25%
hepta	12%	10%	14%	6%	11%	11%	10%	12%
octa	3%	5%	8%	5%	4%	5%	5%	4%
nona	1%	3%	5%	4%	2%	4%	3%	2%
deca	0%	0%	0%	0%	0%	0%	0%	0%

Table 13. Summary of All Data (bl:

Field ID	05var3WP3	05var3WP5	05var3WP6	05var3WP1-6F	02 CORE Whole Fish	3 CORE Whole Fish	4 CORE Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Spring 2002	Spring 2002	Spring 2002
Matrix	Fish	Fish	Fish	Fish	Fish	Fish	Fish
Species	White Perch	White Perch	White Perch	White Perch	White Perch	White Perch	White Perch
Zone	5	5	5	5	2	3	4
Description	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite	Whole Fish	Whole Fish	Whole Fish
Replicate analysis?							
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	52.24	51.11	53.32				
Fish Length (mm)	162	158	163				
Fish Sex	F	M	F				
fish Age (yrs)	2	3	4				
Fish/Invert. Lipid Content (%)	NA	3.0%	5.1%	2.9%	6.0%	7.1%	7.1%
Sediment % Solid							
Sediment % Water							
Sediment % Carbon							

Concentrations (ng/g wet biota or ng/g dry se

1	0.41			0.30		19.46	13.47
3	1.01	1.36	2.12	1.03		11.44	8.94
4,10	0.04	0.07	0.09	0.06	2.30	1.86	1.24
7,9	0.02	0.03	0.05	0.04		1.62	1.47
6		0.03	0.20	0.04	0.07	3.14	3.03
8,5			7.28	3.19	0.88	35.18	32.83
19		0.59	0.36	0.18		1.16	
12,13	0.02	0.04	0.09	0.05		1.62	1.32
18	0.65	0.97	2.11	0.95	1.10	16.42	17.31
17	0.53	1.02	1.75	0.83	0.91	13.61	14.69
24			0.12	0.06	0.26	0.25	0.21
16,32	1.15	1.83	3.97	1.68	2.14	17.24	16.09
29				0.01		0.18	0.13
26	0.36	0.54	1.34	0.58	0.92	1.93	2.02
25	0.17	0.31	0.63	0.28	0.51		
31, 28	2.63	5.07	12.60	4.74	7.19	29.06	27.24
33,21,53	2.54	2.94	6.78	3.01	0.71	25.87	24.95
51	0.85	1.11	2.80	1.14	1.48	3.01	2.98
22	0.32	0.58	1.17	0.57	1.22	4.49	4.51
45	1.65	1.92	4.66	2.15	1.12	6.11	6.59
46	0.69	1.16	2.54	1.09	0.65	2.09	2.03
52	5.02	4.84	15.75	6.72	9.30	17.45	18.86
49	4.46	4.84	15.31	6.48	8.60	17.74	20.33
47,48	6.52	7.91	21.34	9.53	12.77	27.76	27.67
44	4.20	4.31	14.38	5.86	7.54	15.60	17.81
37,42	2.75	3.20	10.73	4.12	3.14	11.79	14.06
41,64,71	7.67	7.71	27.83	11.04	13.92	31.34	34.69
40	1.46	1.49	5.18	2.07	2.71	5.12	6.44
100	1.37	1.64	4.92	2.08	2.39	5.01	5.45
63	0.32	0.46	1.29	0.55	0.72	1.44	1.49
74	2.48	3.75	10.89	4.32	6.79	13.37	9.77
70,76	5.56	8.32	23.72	9.36	12.39	26.87	20.04

Field ID	05var3WP3	05var3WP5	05var3WP6	05var3WP1-6F	02 CORE Whole Fish	3 CORE Whole Fish	4 CORE Whole Fish
66,95	41.87	35.28	81.74	35.06	33.02	71.11	74.45
91	2.28	2.28	7.68	3.35	4.42	33.84	30.26
56,60/92,84	16.67	9.71	62.48	22.19	17.76	20.77	37.55
89							
101	9.64	10.25	32.34	14.09	20.14	22.79	23.01
99	7.24	8.02	27.66	11.36	17.90	15.55	14.86
119							
83		2.06	8.41	3.19	2.42	5.15	
97	2.64	2.84	9.19	3.95	5.41	2.15	2.85
81,87	0.90	1.05	3.34	1.40	5.99	2.73	5.37
85						9.06	7.43
136	1.24	1.33	4.41	1.90	2.94	3.37	3.95
77,110	19.73	19.99	66.39	28.90	37.53	50.68	49.70
82, 151	6.66	7.86	24.30	10.62	14.63	19.58	21.11
135,144	3.21	3.45	11.96	5.14	6.79	8.05	9.27
107	1.28	1.42	5.35	2.25	3.39	3.25	3.52
123,149	9.64	10.88	30.92	14.38	20.88	27.57	29.94
118	7.92	11.05	29.40	13.17	17.51	7.89	5.52
134	9.06	10.34	30.50	13.09	13.72	3.40	3.32
146	3.03	2.83	10.08	4.48	11.74	9.85	12.64
132,105,153	25.62	31.55	89.75	42.00	65.10	92.31	98.35
141	1.78	1.42	5.26	2.32	3.05	15.69	17.52
137,130,176	1.12	1.18	4.29	1.81		3.86	4.68
163,138	22.54	28.01	80.91	36.75	52.63	71.48	72.80
158					3.29		
129,178	2.23	2.52	8.87	3.82	5.20	8.00	9.49
187,182	5.48	6.79	20.44	9.68	17.74	24.35	27.28
183	3.89	4.48	14.59	6.59	10.34	14.13	15.89
128	2.64	3.12	9.98	4.40	6.34	9.25	8.61
185	0.75	0.86	3.06	1.15	1.65	3.59	3.69
174	3.13	3.63	12.48	5.16	6.99	12.07	14.19
177	2.14	2.47	8.41	3.50	4.70	7.58	7.77
202,171,156	3.07	3.58	12.33	5.29		12.15	12.11
157,200	1.42		6.03	2.50	3.36	1.06	1.11
172,197	0.69	0.85	3.34	1.32	2.72		
180	12.23	14.63	55.52	22.53	30.03	39.08	44.04
193	0.64		1.92	0.83	35.76	36.23	41.86
191	0.21	0.25	0.92	0.38	0.40		0.54
199	0.12	0.11	0.60	0.21			
170,190	8.07	9.83	38.10	14.97	21.68	28.67	30.60
198	0.40	0.16	1.11	0.41	0.41		0.64
201	4.37	3.98	22.01	8.46	9.94	13.00	16.56
203,196	5.05	5.31	25.23	9.75	12.41	16.16	21.21
189	0.30	0.45	1.55	0.60	1.40	1.63	3.26
208,195	5.61	1.87	30.99	11.15	10.32	13.49	23.66
207	0.45	0.22	2.24	0.92	0.68	0.82	2.30
194	1.31	1.95	8.71	3.02	4.20	4.87	6.17
205	0.09	0.12	0.59	0.18	0.28	0.28	1.16
206	6.04	3.26	40.33	13.61	10.66	10.82	21.13
209	0.38	0.20	2.55	0.88	0.67	1.39	3.03

Field ID	05var3WP3	05var3WP5	05var3WP6	05var3WP1-6F	02 CORE Whole Fish	3 CORE Whole Fish	4 CORE Whole Fish
T PCBs (ng/g wet weight)	319.64	341.44	1160.22	486.82	659.88	1127.98	1202.04
Lipid Normalized (ng/g lipid)		11306	22794	17022	10965	15983	17037
Organic Carbon Normalized for Sediment (ng/g OC)							
Recovery							
14	92%	105%	122%	107%	138%	85%	111%
65	69%	87%	105%	87%	94%	64%	79%
166	64%	80%	109%	84%	89%	61%	75%
Distribution of Homologue Groups (in ng/¢							
mono	1	1	2	1	0	31	22
di	0	0	8	3	3	43	40
tri	8	14	33	13	16	103	102
tetra	73	73	227	92	105	233	244
penta	99	103	324	138	174	202	208
hexa	72	84	256	116	169	248	265
hepta	27	32	122	49	104	125	142
octa	13	8	67	25	27	32	49
nona	6	3	43	15	11	12	23
deca	0	0	3	1	1	1	3
total	301	320	1084	454	611	1031	1098
Percent Homologue Distribution (with mor							
mono	0%	0%	0%	0%	0.00	0.03	0.02
di	0%	0%	1%	1%	0.01	0.04	0.04
tri	3%	4%	3%	3%	0.03	0.10	0.09
tetra	24%	23%	21%	20%	0.17	0.23	0.22
penta	33%	32%	30%	30%	0.29	0.20	0.19
hexa	24%	26%	24%	26%	0.28	0.24	0.24
hepta	9%	10%	11%	11%	0.17	0.12	0.13
octa	4%	3%	6%	5%	0.04	0.03	0.04
nona	2%	1%	4%	3%	0.02	0.01	0.02
deca	0%	0%	0%	0%	0.00	0.00	0.00
Percent Homologue Distribution (w/o mon							
di	0%	0%	1%	1%	1%	4%	4%
tri	3%	4%	3%	3%	3%	10%	9%
tetra	24%	23%	21%	20%	17%	23%	23%
penta	33%	32%	30%	30%	29%	20%	19%
hexa	24%	26%	24%	26%	28%	25%	25%
hepta	9%	10%	11%	11%	17%	13%	13%
octa	4%	3%	6%	5%	4%	3%	5%
nona	2%	1%	4%	3%	2%	1%	2%
deca	0%	0%	0%	0%	0%	0%	0%

Table 13. Summary of All Data (bl:

Field ID	5 CORE Whole Fish	2 CORE	3 CORE	4 CORE	5 CORE	05sedvar1	05sedvar2	05sedvar3	05sedvar4
Collected	Spring 2002	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Fish	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Species	White Perch								
Zone	5	2	3	4	5	5	5	5	5
Description	Whole Fish								
Replicate analysis?									
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)									
Fish Length (mm)									
Fish Sex									
fish Age (yrs)									
Fish/Invert. Lipid Content (%)	4.3%								
Sediment % Solid		41	40	61	60	46	52	75	81
Sediment % Water		59	60	39	40	54	48	25	19
Sediment % Carbon		3.685	6.266	4.173	1.089	1.981	1.791	0.187	0.113

Concentrations (ng/g wet biota or ng/g dry se

1			0.23	0.38					
3				0.66	0.47				
4,10									
7,9									
6	0.05	0.08	0.10	0.04	0.02	0.01		0.00	0.00
8,5	0.86	0.80	0.54	0.39	0.18	0.07			
19	0.46	0.07	0.15	0.06	0.02	0.02			
12,13		0.02	0.14	0.03	0.03		0.00	0.00	
18	1.08	0.23	1.43	0.40	0.17	0.13	0.35		0.08
17	1.10	0.39	0.75	0.34	0.05	0.03	0.02	0.01	0.01
24	0.23								
16,32	2.44	0.36	1.12	0.35	0.05				
29				0.00	0.00				
26	1.01	0.02	0.44	0.20	0.03	0.01	0.02	0.01	0.00
25	0.66		0.29	0.13	0.08	0.07	0.08		0.03
31, 28	2.92	0.96	6.45	2.08	0.24			0.04	
33,21,53		0.45	2.20	0.66	0.08	0.04	0.04	0.02	
51	2.60	0.07	0.28	0.09	0.01	0.00	0.00	0.01	0.00
22	1.54	0.23	1.02	0.33	0.07		0.14		
45	1.25	0.15	0.51	0.17	0.04		0.01		
46	0.64	0.09	0.25	0.08	0.01		0.01	0.01	
52	12.48	1.29	3.71	1.32	0.14	0.09	0.08	0.06	0.04
49	13.12	0.94	3.22	1.11	0.18	0.07	0.05	0.07	0.03
47,48	19.53	1.11	4.33	1.31	0.18	0.16	0.15	0.14	0.07
44	10.34	0.97	4.02	1.26	0.12				
37,42	5.79	0.56	2.39	0.77	0.10			0.04	0.02
41,64,71	19.48	0.93	5.22	1.55	0.19	0.17	0.12	0.05	0.01
40	3.36	0.20	0.72	0.24	0.03				
100	4.02		0.12	0.12					
63	0.97		0.15	0.09					
74	10.41	0.39	2.42	0.75	0.06	0.04	0.02	0.02	0.01
70,76	22.45	1.73	7.09	2.54	0.19	0.05	0.03	0.08	0.04

Field ID	5 CORE Whole Fish	2 CORE	3 CORE	4 CORE	5 CORE	05sedvar1	05sedvar2	05sedvar3	05sedvar4
66,95	39.91	4.64	16.42	5.40	0.46	0.14	0.15	0.22	0.08
91	6.70	0.28	0.63	0.26	0.04		0.01	0.01	0.01
56,60/92,84	30.17	2.31	7.87	3.31	0.74			0.24	
89									
101	27.39	1.65	3.82	1.43	0.15			0.06	0.03
99	19.04	0.93	1.67	0.70	0.09		0.03	0.03	0.02
119									
83	7.81	0.14	0.22	0.11	0.02			0.01	
97	7.79	0.59	0.86	0.39	0.05			0.02	
81,87	9.74		0.26	0.19					
85		0.27	0.55	0.22	0.03				
136	4.24	0.22	0.67	0.20	0.04			0.01	
77,110	56.21	3.15	6.09	2.59	0.22	0.07		0.10	0.05
82, 151	20.53	1.11	3.03	0.96	0.08	0.03	0.01	0.03	0.02
135,144	9.99	0.55	1.53	0.49	0.05	0.01		0.02	0.01
107	5.24	0.15	0.40	0.14	0.02	0.01	0.01	0.01	0.00
123,149	36.43	2.32	7.49	2.17	0.21	0.06		0.08	0.04
118	31.04	1.85	3.12	1.37	0.12			0.04	0.03
134	33.95	0.02	0.04	0.02	0.03				
146	23.93	0.25	0.55	0.22	0.06				
132,105,153	108.81	4.59	15.90	4.41	0.37	0.13		0.16	0.10
141	5.48	0.39	1.22	0.35	0.06	0.02		0.01	0.01
137,130,176		0.23	0.61	0.19	0.02	0.01	0.01	0.01	0.01
163,138	90.57	4.93	14.17	4.15	0.30	0.16	0.11	0.15	0.07
158	9.18	0.04	0.07	0.03					
129,178	9.03	0.39	0.96	0.31	0.07	0.05	0.02	0.01	0.01
187,182	34.13	1.63	4.40	1.30	0.38			0.10	0.08
183	19.61	0.76	2.66	0.69	0.18	0.06	0.05	0.03	0.02
128	12.50	0.29	0.53	0.19	0.03	0.02	0.02	0.01	0.00
185	3.49	0.22	0.46	0.14	0.03				0.01
174	13.62	0.91	3.35	0.92	0.14			0.03	0.02
177	8.28	0.91	2.60	0.75	0.08	0.03	0.07	0.03	0.02
202,171,156	16.29	0.81	3.50	0.86	0.57	0.02	0.02	0.03	0.02
157,200	6.77	0.31	0.93	0.25	0.39				0.01
172,197	5.51	0.16	0.43	0.13	0.04			0.03	
180	56.37	3.28	12.60	3.26	0.24	0.04	0.02	0.11	0.06
193	61.57	0.26	0.92	0.21	0.03				0.00
191	0.84	0.04	0.15	0.05	0.01				0.00
199		0.08	0.25	0.07	0.05	0.01	0.01	0.00	0.00
170,190	43.67	2.45	9.01	2.40	0.20	0.04	0.02	0.08	0.05
198	0.93	0.08	0.47	0.11	0.15			0.00	0.01
201	23.39	2.63	9.35	2.20	3.08	0.05	0.02	0.08	0.06
203,196	28.41	3.25	9.03	2.16	2.44	0.05	0.03	0.08	0.06
189	0.88	0.12	0.33	0.10	0.03		0.03	0.01	0.01
208,195		0.75	2.46	0.58	0.49				
207	3.46	0.21	1.94	0.41	1.13			0.02	0.01
194	9.38	1.57	2.96	0.78	0.25	0.01	0.01	0.03	0.02
205	0.46	0.09	0.15	0.04	0.04				
206	42.53	5.58	31.16	6.97	21.44	0.20	0.08	0.30	0.25
209	3.16	0.17	4.52	0.93	1.68	0.02	0.01	0.04	0.03

Field ID	5 CORE Whole Fish	2 CORE	3 CORE	4 CORE	5 CORE	05sedvar1	05sedvar2	05sedvar3	05sedvar4
T PCBs (ng/g wet weight)	1127.26	69.65	241.61	72.55	39.06	2.21	1.88	2.82	1.53
Lipid Normalized (ng/g lipid)	26479								
Organic Carbon Normalized for Sediment (ng/g OC)		1890.03	3855.83	1738.52	3586.87	111.60	104.91	1506.55	1357.46
Recovery									
14	98%	129%	128%	148%	131%	123%	115%	99%	117%
65	71%	107%	95%	116%	109%	106%	98%	86%	103%
166	68%	109%	105%	121%	120%	116%	108%	92%	113%
Distribution of Homologue Groups (in ng/¢									
mono	0	0	0	1	0	0	0	0	0
di	1	1	1	0	0	0	0	0	0
tri	14	3	14	5	1	0	1	0	0
tetra	155	12	46	16	2	1	1	1	0
penta	272	14	36	14	2	0	0	1	0
hexa	312	14	44	13	2	0	0	0	0
hepta	191	8	29	8	1	0	0	0	0
octa	38	5	16	4	4	0	0	0	0
nona	46	6	33	7	23	0	0	0	0
deca	3	0	5	1	2	0	0	0	0
total	1031	64	224	68	36	2	2	3	1
Percent Homologue Distribution (with mor									
mono	0.00	0.00	0.00	0.02	0.01	0%	0%	0%	0%
di	0.00	0.01	0.00	0.01	0.01	4%	0%	0%	0%
tri	0.01	0.04	0.06	0.07	0.02	13%	35%	3%	10%
tetra	0.15	0.19	0.21	0.23	0.05	32%	32%	27%	18%
penta	0.26	0.23	0.16	0.20	0.04	10%	7%	22%	15%
hexa	0.30	0.22	0.20	0.19	0.05	21%	10%	17%	18%
hepta	0.19	0.13	0.13	0.12	0.02	5%	8%	11%	12%
octa	0.04	0.08	0.07	0.06	0.12	4%	2%	5%	6%
nona	0.04	0.09	0.15	0.11	0.63	10%	5%	12%	19%
deca	0.00	0.00	0.02	0.01	0.05	1%	1%	1%	2%
Percent Homologue Distribution (w/o mon									
di	0%	1%	0%	1%	1%	4%	0%	0%	0%
tri	1%	4%	6%	7%	2%	13%	35%	3%	10%
tetra	15%	19%	21%	23%	5%	32%	32%	27%	18%
penta	26%	23%	16%	20%	4%	10%	7%	22%	15%
hexa	30%	22%	20%	19%	5%	21%	10%	17%	18%
hepta	19%	13%	13%	12%	2%	5%	8%	11%	12%
octa	4%	8%	7%	6%	12%	4%	2%	5%	6%
nona	4%	9%	15%	11%	64%	10%	5%	12%	19%
deca	0%	0%	2%	1%	5%	1%	1%	1%	2%

Table 13. Summary of All Data (bl:

Field ID	2 CORE	3 CORE	4 CORE	5 CORE	02sed3 var1	02sed3 var2	02sed3 var3
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Species							
Zone	2	3	4	5	2	2	2
Description							
Replicate analysis?							
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)							
Fish Length (mm)							
Fish Sex							
fish Age (yrs)							
Fish/Invert. Lipid Content (%)							
Sediment % Solid	63	74	60	63	46	62	52
Sediment % Water							
Sediment % Carbon	0.769	4.590	1.690	1.519	2.315	5.332	3.613

Concentrations (ng/g wet biota or ng/g dry se

1	0.20	0.15	1.43			0.73	0.75
3	1.19				1.19		
4,10	0.05	0.09	0.03	0.06	0.06		
7,9	0.05	0.03	0.02	0.38	0.09	0.05	
6	0.08	0.12	0.05	0.03	0.27	0.03	0.05
8,5	0.97	0.79	0.67	0.59	1.66	0.54	0.33
19	0.25						
12,13	0.06	0.05	0.10	0.07	0.10		
18	0.81	4.37	0.26			0.47	
17	0.47	1.05	0.55	0.13	0.89	0.42	0.34
24	0.05	0.05	0.04	0.03	0.11	0.02	0.04
16,32	0.40	1.56	0.26		0.79	0.31	0.39
29	0.02	0.04	8.81		0.02		0.02
26		1.60	0.32				
25		1.71					
31, 28	0.42	7.95	3.55	0.29	0.63	0.36	0.29
33,21,53	0.22	1.86	0.35		0.27	0.16	0.14
51	0.11	1.31	0.21	0.06	0.23	0.07	0.16
22	0.25	1.65	0.72		0.42	0.21	0.29
45	0.08	0.93	0.20	0.04	0.05	0.20	
46	0.12	0.31	0.03	0.02	0.38	0.01	0.08
52	0.40	3.92	1.00	0.20	0.67	0.48	0.48
49	0.45	4.01	1.06	0.26	0.81	0.59	0.78
47,48	1.21	4.54	2.14	0.86	1.82	0.82	1.52
44	0.32	5.18	0.95	0.14	0.49	0.34	0.36
37,42	0.20	2.94	0.62	0.10	0.36	0.25	0.22
41,64,71	0.68	5.92	0.74	0.10	1.23	0.50	0.58
40	0.20	1.74	0.32	0.05	0.39	0.12	0.34
100	0.03	0.05	0.07	1.95		0.03	0.06
63	0.03	0.05	0.25	0.05	0.04		0.09
74	0.22	2.68	0.64	0.06	0.40	0.26	0.32
70,76	0.62	6.74	3.39	0.22	1.11	0.68	0.61

Field ID	2 CORE	3 CORE	4 CORE	5 CORE	02sed3 var1	02sed3 var2	02sed3 var3
66,95	0.72	14.66	2.86	0.35	1.10	0.63	0.71
91	0.18	0.89	3.11	0.53	0.29	0.23	0.18
56,60/92,84	1.20	8.50	1.49	0.66	1.84	1.21	1.88
89							
101	0.49	3.57	0.96	0.16	0.73	0.43	0.59
99	0.28	1.59	0.54	0.12	0.58	0.24	0.40
119							
83	0.11	1.43	0.88	0.08	0.17	0.14	0.14
97	0.16	0.74	0.12	0.08	0.25	0.10	0.19
81,87	0.23	0.79	0.56	0.07	0.33	0.18	0.25
85		2.18	1.15	0.71			
136		1.30	0.45				
77,110	1.23	5.31	2.33	0.45	1.97	0.65	1.25
82, 151	0.26	2.11	0.83	0.10	0.49	0.30	0.46
135,144	0.12	1.08	0.55	0.11	0.22	0.13	0.14
107	0.07	0.67	0.39	0.08	0.10	0.10	0.11
123,149	0.69	4.19	1.31	0.38	0.96	0.54	0.68
118	0.54	3.02	0.88	0.36	0.86	0.40	0.52
134	0.75	2.56	0.81	0.45	1.51	3.04	1.57
146	0.23	1.56	0.60	0.20	0.33	0.16	0.18
132,105,153	1.73	11.10	3.30	0.74	2.47	1.23	1.77
141	0.12	0.86	0.47	0.09	0.22	0.13	0.22
137,130,176	0.16		0.22				0.14
163,138	1.25	7.91	2.46	0.50	2.38	1.10	1.57
158		1.10					
129,178		1.86					
187,182	0.41	3.05	0.79	0.42	0.82	0.53	0.67
183	0.20	2.28	0.50	0.23	0.39	0.20	0.32
128	0.22	0.88	0.35	0.07	0.28	0.17	0.29
185	0.08	0.23	0.12	0.03	0.14	0.15	0.16
174	0.26	2.52	0.75	0.13	0.54	0.25	0.33
177	0.18	1.53	0.53	0.10	0.34	0.18	0.29
202,171,156	0.25	1.78	0.56	0.73	0.48	0.25	0.37
157,200	0.13	0.99		0.32	0.21	0.06	0.07
172,197		0.88					
180	1.24	5.65	1.22		1.31	0.67	0.73
193	1.81	0.63	0.55	0.16	3.25	1.38	2.73
191	0.03	0.97	0.38	0.03		0.01	
199		1.76	0.42				
170,190	0.62	3.50	1.18	0.20	1.11	0.63	0.65
198	0.08	2.21	1.31	0.26	0.07	0.26	0.31
201	0.39	4.21	2.18	3.80	0.80	0.48	0.44
203,196	0.41	4.07	2.28	2.73	0.88	0.49	0.47
189	0.03	5.20	5.21	0.08		0.02	0.01
208,195	0.34	4.58	1.01	1.08	0.72	0.36	
207	0.04	1.03	0.26	0.80	0.07	0.04	0.04
194	0.65	2.21	16.56	0.34	1.35	0.19	0.23
205	0.14		38.23	0.09			
206	0.47	6.64	13.66	1.60	0.71	0.47	0.29
209	0.06	1.29	1.40	3.25	0.10	0.02	0.03

Field ID	2 CORE	3 CORE	4 CORE	5 CORE	02sed3 var1	02sed3 var2	02sed3 var3
T PCBs (ng/g wet weight)	28.68	200.45	144.47	28.31	44.88	25.41	29.61
Lipid Normalized (ng/g lipid)							
Organic Carbon Normalized for Sediment (ng/g OC)	3729.79	4367.11	8551.34	1863.70	1938.76	476.51	819.54
Recovery							
14	106%	69%	139%	139%	108%	114%	114%
65	91%	64%	79%	87%	96%	98%	94%
166	87%	65%	90%	110%	100%	104%	99%
Distribution of Homologue Groups (in ng/g)							
mono	1	0	1	0	1	1	1
di	1	1	1	1	2	1	0
tri	3	22	15	0	3	2	2
tetra	6	51	14	3	9	5	7
penta	5	38	12	3	9	7	7
hexa	4	32	10	3	7	3	5
hepta	4	21	10	1	7	3	5
octa	2	15	60	6	3	1	1
nona	1	8	14	2	1	1	0
deca	0	1	1	3	0	0	0
total	27	190	138	22	42	24	28
Percent Homologue Distribution (with mono)							
mono	0.05	0.00	0.01	0.00	3%	3%	3%
di	0.04	0.01	0.01	0.05	5%	3%	1%
tri	0.11	0.12	0.11	0.02	8%	8%	6%
tetra	0.20	0.27	0.10	0.12	22%	22%	24%
penta	0.20	0.20	0.09	0.15	21%	28%	26%
hexa	0.16	0.17	0.07	0.12	16%	15%	18%
hepta	0.15	0.11	0.07	0.03	15%	13%	17%
octa	0.06	0.08	0.43	0.26	7%	6%	4%
nona	0.02	0.04	0.10	0.11	2%	2%	1%
deca	0.00	0.01	0.01	0.14	0%	0%	0%
Percent Homologue Distribution (w/o mono)							
di	5%	1%	1%	5%	5%	3%	1%
tri	11%	12%	11%	2%	8%	9%	6%
tetra	22%	27%	10%	12%	23%	23%	25%
penta	21%	20%	9%	15%	22%	29%	26%
hexa	17%	17%	7%	12%	17%	15%	19%
hepta	16%	11%	7%	3%	16%	14%	18%
octa	6%	8%	44%	26%	7%	6%	4%
nona	2%	4%	10%	11%	2%	2%	1%
deca	0%	1%	1%	14%	0%	0%	0%

Table 14. Results from the variability studies.

							Calculated Mean of Individual Fillets	Std. Dev. of Calc. Mean
White Perch Variability Study (Fall Only; Zone 5 Only)								
Zone 5 Variability 1								
	White Perch F1	White Perch F2	White Perch F3	White Perch F4	White Perch F5			
Conc (ng/g wet wgt)	568	693	255	115	291		384 ± 238	
Conc (ng/g lipid)	9908	24935	3690	2353	7822		9742 ± 9024	
Zone 5 Variability 2								
	White Perch F1	White Perch F2	White Perch F3	White Perch F4	White Perch F5	White Perch F6		
Conc (ng/g wet wgt)	401	327	134	1079	83	277	383 ± 399	
Conc (ng/g lipid)	5899	12820	2825	21024	3353	19501	10904 ± 7724	
Zone 5 Variability 3								
	White Perch F1	White Perch F2	White Perch F3	White Perch F4	White Perch F5			
Conc (ng/g wet wgt)	1136	269	320	341	1160		645 ± 460	
Conc (ng/g lipid)	36874	10924	no lipid deter.	11306	22794		20474 ± 12242	
Catfish Variability Study (Fall and Spring, Zones 2,4&5)								
Zone 2 (Fall)								
	Catfish Fillet 1	Catfish Fillet 2	Catfish Fillet 3	Catfish Fillet 4	Catfish Fillet 5			
Conc (ng/g wet wgt)	509	379	836	384	778		577 ± 217	
Conc (ng/g lipid)	9908	22543	13575	12651	22306		16197 ± 5844	
Zone 4 (Fall)								
	Catfish Fillet 1	Catfish Fillet 2	Catfish Fillet 3	Catfish Fillet 4	Catfish Fillet 5			
Conc (ng/g wet wgt)	743	599	410	710	304		553 ± 191	
Conc (ng/g lipid)	17832	25630	6839	26418	11802		17704 ± 8539	
Zone 5 (Fall)								
	Catfish Fillet 1	Catfish Fillet 2	Catfish Fillet 3	Catfish Fillet 4	Catfish Fillet 5			
Conc (ng/g wet wgt)	362	116	942	414	201		407 ± 322	
Conc (ng/g lipid)	6279	6350	15135	16086	7396		10249 ± 4926	
Spring								
Zone 2 (Spring)								
	Catfish Fillet 1	Catfish Fillet 2	Catfish Fillet 3	Catfish Fillet 4	Catfish Fillet 5	Catfish Fillet 6		
Conc (ng/g wet wgt)	1186	796	505	739	1030	554	802 ± 264	
Conc (ng/g lipid)	19102	11731	9422	10754	54100	15003	20019 ± 18869	
Zone 4 (Spring)								
	Catfish Fillet 1	Catfish Fillet 2	Catfish Fillet 3	Catfish Fillet 4	Catfish Fillet 5			
Conc (ng/g wet wgt)	623	636	382	721	775		627 ± 151	
Conc (ng/g lipid)	22286	35660	7112	29132	26680		24174 ± 10694	
Zone 5 (Spring)								
	Catfish Fillet 1	Catfish Fillet 2	Catfish Fillet 3	Catfish Fillet 4	Catfish Fillet 5			
Conc (ng/g wet wgt)	626	290	463	145	328		370 ± 182	
Conc (ng/g lipid)	25461	10488	9091	4346	8602		11598 ± 8082	

Table 15. Bioconcentration (BCF) factors and biota-sediment accumulation (BSAF) factors for total PCB concentrations in biota collected in the Delaware River estuary in Fall 2001 and Spring 2002. Average log BCFs and BSAFs are reported with standard deviations, SD.

Organism		Total BCF	Total Log BCF	Average Log BCF±SD	Total BSAF	Average BSAF±SD
Channel Catfish						
Fall	Zone 2	10,700,000	7.0	7.0 ± 0.1	6.5	6.3 ± 3.1
	Zone 3	9,900,000	7.0		5.6	
	Zone 4	12,000,000	7.1		9.2	
	Zone 5	17,000,000	7.2		2.1	
Spring	Zone 2	8,500,000	6.9		10.0	
	Zone 3	10,900,000	7.0		5.2	
	Zone 4	11,900,000	7.1		2.2	
	Zone 5	9,800,000	7.0		9.4	
White Perch						
Fall	Zone 2	10,300,000	6.9	7.0 ± 0.2	6.2	6.1 ± 5.0
	Zone 3	8,200,000	6.8		4.6	
	Zone 4	6,700,000	6.7		5.2	
	Zone 5	5,000,000	6.9		0.6	
Spring	Zone 2	8,700,000	6.9		10.4	
	Zone 3	7,700,000	7.0		3.7	
	Zone 4	10,200,000	7.2		1.9	
	Zone 5	17,000,000	7.2		16.2	
Prey Fish						
Fall	Zone 2	NS		7.0 ± 0.2	NS	5.3 ± 3.0
	Zone 3	10,200,000	7.0		5.8	
	Zone 4	12,700,000	7.1		9.8	
	Zone 5	7,500,000	6.9		0.9	
Spring	Zone 2	3,700,000	6.6		4.4	
	Zone 3	16,000,000	7.2		7.6	
	Zone 4	14,200,000	7.2		2.7	
	Zone 5	6,000,000	6.8		5.7	
Invertebrates						
Fall	Zone 2	6,200,000	6.8	6.9 ± 0.3	3.7	5.8 ± 5.1
	Zone 3	12,200,000	7.1		6.9	
	Zone 4	15,200,000	7.2		11.7	
	Zone 5	13,000,000	7.1		1.6	
Spring	Zone 2	12,700,000	7.1		14.8	
	Zone 3	4,100,000	6.6		2.0	
	Zone 4	2,500,000	6.4		0.5	
	Zone 5	5,700,000	6.8		5.4	
NS = Not Sampled						

Table A-1. PCB concentrations in Channel Catfish (ng/g) from Fall 2001 Core Study

Field ID	2 CORE CCF	2 CORE CCR	2 CORE Whole Fish	3 CORE CCFA	3 CORE CCFB	3 CORE CCFC	3 CORE CCR
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	3	3	3	3
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Fillet Composite	Fillet Composite	Remains Composite
Replicate analysis?				rep A	rep B	rep C	
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.59%	9.92%	9.2%	4.23	4.13	4.33	10.96
1	6.49	3.27	3.69	ND	ND	ND	ND
3	14.71	9.00	9.75	8.14	0.70	3.75	15.91
4,10	3.63	6.86	6.43	2.41	2.42	ND	6.36
7,9	0.24	0.39	0.37	0.35	0.33	0.33	0.65
6	0.26	0.36	0.34	0.31	0.29	0.26	0.64
8,5	12.64	25.53	23.83	13.21	12.93	14.17	41.36
19	ND	ND	ND	ND	ND	ND	ND
12,13	0.22	0.48	0.45	0.41	0.29	0.24	0.40
18	4.13	8.94	8.30	6.28	5.77	5.37	11.85
17	2.04	4.22	3.93	3.87	3.58	3.52	7.94
24	0.24	0.30	0.29	0.25	0.23	0.19	4.21
16,32	2.77	5.74	5.35	5.37	5.03	4.66	11.54
29	ND	ND	ND	ND	ND	ND	ND
26	0.32	0.53	0.50	0.46	0.31	0.40	1.44
25	0.23	0.30	0.29	0.27	0.26	0.23	0.60
31, 28	3.72	8.20	7.61	6.83	6.31	5.91	16.66
33,21,53	4.09	8.45	7.87	6.84	6.56	5.80	15.13
51	0.72	1.47	1.37	2.06	1.95	1.78	4.98
22	0.62	0.93	0.89	1.09	1.26	1.17	3.36
45	3.05	6.22	5.80	3.89	3.89	3.84	10.34
46	2.55	6.06	5.60	3.52	3.20	3.14	9.97
52	4.07	8.34	7.77	8.50	7.94	7.26	20.10
49	7.18	9.09	8.83	7.67	7.26	7.02	16.14
47,48	9.03	14.95	14.17	9.92	9.72	9.52	40.70
44	4.55	9.09	8.49	7.97	7.72	6.85	19.67
37,42	4.42	9.58	8.89	5.03	4.99	4.65	16.43
41,64,71	7.31	15.54	14.45	12.79	12.26	11.66	29.94
40	1.01	2.16	2.00	1.61	1.57	1.59	4.68
100	1.90	4.05	3.77	2.62	2.48	2.85	8.45
63	0.99	2.19	2.03	1.27	1.17	1.15	3.68
74	5.49	12.09	11.22	7.00	6.64	6.82	21.08
70,76	2.26	4.77	4.44	3.70	3.55	3.22	9.42
66,95	20.80	41.01	38.34	33.79	31.98	30.12	84.43
91	2.41	5.36	4.97	3.75	3.49	3.23	9.70
56,60/92,84	11.85	25.65	23.83	12.41	11.84	13.39	49.93

Field ID	2 CORE CCF	2 CORE CCR	2 CORE Whole Fish	3 CORE CCFA	3 CORE CCFB	3 CORE CCFC	3 CORE CCR
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	3	3	3	3
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Fillet Composite	Fillet Composite	Remains Composite
Replicate analysis?				rep A	rep B	rep C	
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.59%	9.92%	9.2%	4.23	4.13	4.33	10.96
89	15.69	36.89	34.09	7.68	24.70	7.92	78.71
101	10.35	21.38	19.92	17.20	16.21	16.11	42.19
99	8.33	17.98	16.70	10.74	9.91	10.19	26.92
119	1.73	4.40	4.04	1.77	1.59	1.60	5.27
83	1.77	3.82	3.55	1.83	1.73	2.13	8.25
97	17.34	27.81	26.43	19.79	19.19	17.31	48.36
81,87	5.74	20.75	18.76	1.59	1.55	1.39	4.08
85	19.23	10.86	11.97	5.74	5.36	5.92	16.08
136	0.49	11.86	10.36	1.29	1.25	1.14	3.07
77,110	19.09	41.36	38.41	26.98	26.41	23.77	72.41
82, 151	1.40	3.13	2.90	3.28	3.08	3.18	7.00
135,144	3.55	7.83	7.27	6.40	6.35	6.48	17.60
107	1.70	3.87	3.58	2.28	2.14	2.22	6.34
123,149	16.74	34.70	32.33	28.46	27.15	25.99	69.77
118	19.30	45.09	41.68	22.71	20.65	21.83	62.65
134	0.72	1.24	1.17	0.99	0.96	1.17	3.97
146	6.64	14.40	13.37	9.18	8.64	9.00	22.93
132,105,153	66.97	148.74	137.93	93.85	89.22	91.10	233.55
141	6.27	14.36	13.29	21.23	20.08	22.10	58.19
137,130,176	2.15	4.84	4.49	3.23	3.16	2.91	8.13
163,138	46.88	105.41	97.67	72.38	69.31	72.72	186.97
158	1.44	3.05	2.83	2.11	2.19	2.25	5.71
129,178	4.55	10.33	9.56	7.28	7.16	7.47	19.76
187,182	18.42	40.31	37.41	27.83	26.10	28.00	71.46
183	10.66	24.29	22.49	19.02	17.87	19.72	51.28
128	3.76	9.11	8.40	5.23	5.15	4.88	15.36
185	1.87	4.37	4.04	3.61	3.42	3.64	10.47
174	6.12	13.92	12.89	17.59	16.80	16.91	46.27
177	7.38	16.39	15.20	10.40	10.35	8.96	25.96
202,171,156	7.90	18.91	17.45	13.04	12.42	13.35	37.48
157,200	2.81	6.97	6.42	4.25	3.99	4.10	11.88
172,197	2.77	6.53	6.03	7.17	6.75	7.58	20.63
180	31.15	73.60	67.99	70.23	66.42	73.73	196.09
193	9.11	26.05	23.81	11.81	11.37	12.32	43.08
191	0.94	2.38	2.19	2.00	1.89	2.11	5.71
199	ND	ND	ND	ND	ND	ND	ND
170,190	12.72	32.66	30.02	27.68	33.80	28.98	106.08

Field ID	2 CORE CCF	2 CORE CCR	2 CORE Whole Fish	3 CORE CCFA	3 CORE CCFB	3 CORE CCFC	3 CORE CCR
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	3	3	3	3
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Fillet Composite	Fillet Composite	Remains Composite
Replicate analysis?				rep A	rep B	rep C	
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.59%	9.92%	9.2%	4.23	4.13	4.33	10.96
198	0.75	1.79	1.65	1.30	1.21	1.32	3.53
201	6.66	15.90	14.68	14.10	13.22	14.53	39.04
203,196	16.07	39.64	36.52	28.95	27.17	27.76	83.62
189	0.38	0.87	0.81	0.95	0.87	1.02	2.83
208,195	5.83	14.32	13.20	6.47	6.25	7.05	32.10
207	0.99	2.25	2.08	1.34	1.50	1.47	4.01
194	3.60	9.20	8.46	11.03	10.39	12.06	34.46
205	0.60	1.10	1.03	1.13	0.68	0.97	2.44
206	6.11	15.43	14.20	10.51	9.91	10.51	32.28
209	2.56	6.45	5.94	4.75	4.24	4.52	13.15
T PCBs	583	1238	1151	852	828	825	2396
Recovery							
14	221%	377%	356%	259%	260%	219%	553%
65	NM	NM	NM	NM	NM	NM	NM
166	93%	102%	101%	104%	102%	86%	137%

Table A-1. PCB concn

Field ID	3 CORE Whole Fish	4 CORE CCF	4 CORE CCR	4 CORE Whole Fish	5 CORE CCF	5 CORE CCR	5 CORE Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	3	4	4	4	5	5	5
Description	Whole Fish	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	10.08%	2.821	9.460	8.61%	3.297	7.918	5.92%
1	ND	ND	ND	ND	ND	ND	ND
3	14.38	0.72	1.43	1.34	1.75	9.49	6.84
4,10	5.85	ND	1.56	ND	ND	ND	ND
7,9	0.61	0.27	0.45	0.42	0.19	0.27	0.21
6	0.59	0.29	0.46	0.44	0.23	0.45	0.34
8,5	37.69	7.13	23.32	21.25	7.09	12.63	9.65
19	ND	ND	ND	ND	ND	ND	ND
12,13	0.39	0.27	0.45	0.43	0.21	0.32	0.25
18	11.06	4.92	9.51	8.93	3.52	5.05	3.94
17	7.38	2.68	5.46	5.11	1.97	2.85	2.22
24	3.68	0.21	0.01	0.04	0.13	0.17	0.13
16,32	10.68	3.76	7.43	6.96	2.49	3.64	2.83
29	ND	ND	ND	ND	ND	ND	ND
26	1.30	0.24	0.65	0.60	0.13	0.63	0.46
25	0.55	0.20	0.43	0.40	0.14	0.21	0.16
31, 28	15.31	4.87	13.80	12.66	2.68	4.17	3.23
33,21,53	13.98	5.23	11.04	10.30	3.93	5.46	4.27
51	4.58	1.31	3.18	2.94	0.58	0.95	0.73
22	3.07	0.81	2.27	2.08	0.45	0.62	0.49
45	9.49	3.22	7.20	6.69	2.15	3.38	2.61
46	9.10	1.87	5.50	5.03	1.43	2.70	2.05
52	18.50	7.46	18.08	16.72	4.38	7.15	5.50
49	14.98	5.89	12.19	11.39	6.42	7.26	5.82
47,48	36.63	7.48	13.12	12.40	9.93	8.38	7.01
44	18.07	6.35	16.50	15.20	3.79	6.21	4.78
37,42	14.91	4.53	12.00	11.05	3.38	4.87	3.80
41,64,71	27.61	9.74	23.50	21.74	7.08	10.80	8.37
40	4.27	1.49	3.89	3.58	1.15	1.80	1.39
100	7.69	1.88	4.90	4.51	1.59	2.65	2.04
63	3.35	0.93	2.88	2.64	1.04	1.99	1.51
74	19.21	4.87	14.00	12.84	4.40	6.21	4.85
70,76	8.64	2.16	7.08	6.45	1.52	2.47	1.90
66,95	77.54	25.95	68.06	62.68	18.17	29.53	22.75
91	8.88	3.02	7.84	7.22	2.35	4.05	3.10
56,60/92,84	45.02	7.82	24.43	22.31	6.69	12.49	9.51

Field ID	3 CORE Whole Fish	4 CORE CCF	4 CORE CCR	4 CORE Whole Fish	5 CORE CCF	5 CORE CCR	5 CORE Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	3	4	4	4	5	5	5
Description	Whole Fish	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	10.08%	2.821	9.460	8.61%	3.297	7.918	5.92%
89	70.14	5.38	19.20	17.44	12.14	8.86	7.60
101	38.82	12.20	31.35	28.91	9.73	15.63	12.05
99	24.74	8.67	21.88	20.20	8.22	14.04	10.77
119	4.79	1.16	4.05	3.68	1.07	2.11	1.60
83	7.42	1.47	4.70	4.29	1.13	2.12	1.61
97	44.48	8.77	21.65	20.00	8.57	13.44	10.39
81,87	3.75	1.20	46.98	41.13	0.82	1.38	1.06
85	14.71	4.54	13.97	12.76	4.08	6.40	4.94
136	4.16	0.92	2.25	2.77	0.66	0.98	1.12
77,110	66.28	21.69	58.84	54.09	16.48	27.72	21.28
82, 151	6.50	1.83	3.91	3.65	1.40	2.39	1.83
135,144	16.13	3.97	10.72	9.86	3.10	5.25	4.03
107	5.80	1.71	5.08	4.65	1.62	2.89	2.21
123,149	64.18	17.92	44.89	41.44	13.63	21.43	16.56
118	57.28	16.58	50.12	45.83	13.51	24.61	18.77
134	3.58	0.58	1.05	0.99	0.74	1.00	0.79
146	21.09	6.05	15.10	13.94	7.13	11.78	9.06
132,105,153	214.88	55.73	93.95	89.06	51.86	84.02	64.74
141	53.33	8.81	24.77	22.73	7.66	13.27	10.16
137,130,176	7.47	2.22	5.96	5.48	2.02	3.28	2.53
163,138	171.80	39.86	104.39	96.14	35.39	59.21	45.49
158	5.25	1.32	3.09	2.87	1.31	1.86	1.45
129,178	18.12	4.34	11.11	10.25	4.79	7.18	5.58
187,182	65.66	15.06	38.10	35.16	17.88	29.11	22.42
183	47.02	8.43	23.02	21.16	8.78	14.85	11.40
128	14.01	3.35	9.99	9.15	3.13	5.26	4.04
185	9.56	1.78	5.22	4.78	1.52	2.61	2.00
174	42.44	8.46	21.53	19.86	7.78	12.63	9.73
177	23.85	6.38	17.48	16.06	5.27	8.89	6.83
202,171,156	34.25	6.80	19.96	18.28	7.66	7.49	6.13
157,200	10.86	3.14	8.98	8.24	4.28	7.42	5.68
172,197	18.86	3.44	10.12	9.26	3.99	7.20	5.49
180	179.54	31.31	89.61	82.16	29.82	53.45	40.82
193	38.98	6.11	25.62	23.12	4.77	10.12	7.62
191	5.22	0.69	2.07	1.89	0.62	1.19	0.91
199	ND	ND	ND	ND	ND	ND	ND
170,190	96.10	10.68	34.33	31.31	12.57	17.56	13.74

Field ID	3 CORE Whole Fish	4 CORE CCF	4 CORE CCR	4 CORE Whole Fish	5 CORE CCF	5 CORE CCR	5 CORE Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	3	4	4	4	5	5	5
Description	Whole Fish	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	10.08%	2.821	9.460	8.61%	3.297	7.918	5.92%
198	3.23	0.94	3.01	2.75	1.23	2.37	1.80
201	35.74	9.70	28.32	25.94	13.33	23.93	18.27
203,196	76.31	15.95	48.84	44.64	20.25	37.16	28.32
189	2.58	0.42	1.35	1.23	0.39	0.73	0.56
208,195	28.75	3.59	10.64	9.74	17.74	33.02	25.14
207	3.67	2.23	5.98	5.50	4.21	7.55	5.77
194	31.40	5.26	18.48	16.79	5.19	10.36	7.84
205	2.24	0.38	1.31	1.19	0.33	0.64	0.48
206	29.39	16.52	53.89	49.11	27.13	52.40	39.77
209	12.01	8.54	26.06	23.82	14.84	27.96	21.26
T PCBs	2191	524	1442	1310	521	871	664
Recovery							
14	513%	218%	485%	451%	145%	183%	144%
65	NM	NM	NM	NM	NM	NM	NM
166	132%	82%	92%	91%	86%	75%	63%

Table A-2. PCB concentrations in Channel Catfish (ng/g) from Fall 2001 Variability Study

Field ID	2CC CC1F	2CC CC2F	2CC CC3F	2CC CC4F	2CC CC5F	2CC CC1-5F	4CC CC1F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	2	2	2	4
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	761	799.2	524.2	1020.4	863.4		240.31
Fish Length (mm)	442	448	403	492	474		337
Fish Sex	F	F	M	M	F		M
Fish Age (yrs)	9	19	9	11	13		8
Lipid Content (%)	5.14%	1.68%	6.16%	3.03%	3.49%	4.59%	4.17%
1	6.49	ND	ND	ND	ND	6.49	ND
3	54.23	2.93	6.67	4.30	5.41	14.71	2.84
4,10	2.36	ND	5.97	2.85	3.34	3.63	ND
7,9	0.35	0.09	0.28	0.18	0.29	0.24	0.24
6	0.53	0.05	0.28	0.16	0.26	0.26	0.26
8,5	11.20	7.54	21.12	9.34	13.99	12.64	9.99
19	ND	ND	ND	ND	ND	ND	ND
12,13	0.15	0.14	0.30	0.19	0.31	0.22	0.24
18	2.56	2.75	6.27	3.60	5.49	4.13	5.25
17	1.04	0.95	3.68	1.79	2.76	2.04	2.99
24	0.66	0.07	0.21	0.12	0.17	0.24	0.24
16,32	1.82	1.21	4.93	2.24	3.67	2.77	4.61
29	ND	ND	ND	ND	ND	ND	ND
26	0.26	ND	0.59	0.22	0.20	0.32	0.30
25	0.49	0.08	0.24	0.14	0.22	0.23	0.22
31, 28	2.55	1.51	6.17	3.38	4.97	3.72	5.46
33,21,53	2.95	2.39	6.21	3.32	5.57	4.09	6.21
51	0.61	0.30	1.40	0.53	0.76	0.72	1.73
22	0.73	ND	0.68	0.47	0.61	0.62	0.81
45	2.51	2.02	5.11	2.11	3.51	3.05	3.87
46	1.74	1.90	4.23	1.72	3.16	2.55	2.88
52	3.24	1.58	7.40	3.48	4.63	4.07	8.70
49	5.56	3.09	10.63	10.22	6.41	7.18	6.95
47,48	6.34	5.96	9.13	9.30	14.40	9.03	8.21
44	3.26	1.88	9.68	2.83	5.10	4.55	9.09
37,42	2.87	1.96	8.53	3.24	5.52	4.42	5.95
41,64,71	5.12	4.05	11.75	5.41	10.24	7.31	13.01
40	1.34	0.56	1.39	0.57	1.20	1.01	2.27
100	1.65	1.26	2.73	1.36	2.50	1.90	2.28
63	1.08	0.61	1.28	0.60	1.40	0.99	1.35
74	3.63	3.21	8.30	4.23	8.06	5.49	5.93
70,76	2.17	1.33	3.21	1.92	2.66	2.26	3.48
66,95	14.66	9.93	34.99	13.70	30.71	20.80	34.85

Field ID	2CC CC1F	2CC CC2F	2CC CC3F	2CC CC4F	2CC CC5F	2CC CC1-5F	4CC CC1F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	2	2	2	4
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	761	799.2	524.2	1020.4	863.4		240.31
Fish Length (mm)	442	448	403	492	474		337
Fish Sex	F	F	M	M	F		M
Fish Age (yrs)	9	19	9	11	13		8
Lipid Content (%)	5.14%	1.68%	6.16%	3.03%	3.49%	4.59%	4.17%
91	1.52	1.39	4.12	1.73	3.30	2.41	3.96
56,60,92,84	7.78	6.22	23.01	7.84	14.40	11.85	10.95
89	11.79	8.37	32.34	7.75	18.21	15.69	39.44
101	7.22	5.84	16.88	7.92	13.89	10.35	16.18
99	4.84	6.31	11.63	5.99	12.87	8.33	10.42
119	0.87	1.58	2.57	1.32	2.31	1.73	1.63
83	1.45	1.03	3.17	1.17	2.01	1.77	2.29
97	12.51	7.17	33.38	14.66	18.95	17.34	20.87
81,87	0.62	0.67	1.66	0.63	25.14	5.74	1.65
85	71.57	4.53	8.23	3.87	7.96	19.23	5.66
136	0.32	0.23	0.99	0.34	0.50	0.49	1.52
77,110	11.67	12.10	31.96	12.19	27.51	19.09	31.57
82, 151	1.19	0.92	2.18	1.07	1.66	1.40	2.57
135,144	2.46	2.55	5.80	2.64	4.32	3.55	5.43
107	1.05	1.27	2.45	1.16	2.57	1.70	2.39
123,149	12.40	11.27	27.44	10.72	21.87	16.74	23.82
118	10.05	15.02	29.25	13.31	28.89	19.30	21.59
134	0.98	0.24	1.29	0.40	0.68	0.72	0.64
146	4.36	5.02	8.73	4.83	10.28	6.64	8.02
132,105,153	32.37	54.24	101.53	48.44	98.27	66.97	72.98
141	5.62	4.74	7.84	4.04	9.09	6.27	11.55
137,130,176	1.47	1.59	3.41	1.27	3.04	2.15	3.27
163,138	28.81	37.67	65.13	33.73	69.08	46.88	52.13
158	0.96	1.21	1.90	1.15	1.97	1.44	1.52
129,178	3.22	3.35	6.23	3.27	6.70	4.55	5.66
187,182	12.71	14.91	24.93	13.31	26.27	18.42	19.33
183	7.12	8.96	14.23	7.49	15.49	10.66	11.00
128	2.68	2.83	5.43	2.50	5.36	3.76	4.72
185	1.41	1.58	2.76	1.23	2.35	1.87	2.39
174	5.71	4.87	8.35	3.74	7.92	6.12	11.09
177	5.41	6.57	11.95	2.53	10.44	7.38	9.88
202,171,156	5.13	6.35	10.87	5.51	11.63	7.90	9.02
157,200	1.95	2.21	3.93	1.76	4.19	2.81	4.09
172,197	2.52	2.10	3.58	1.78	3.87	2.77	4.85
180	24.03	25.50	43.49	20.08	42.65	31.15	44.82

Field ID	2CC CC1F	2CC CC2F	2CC CC3F	2CC CC4F	2CC CC5F	2CC CC1-5F	4CC CC1F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	2	2	2	4
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	761	799.2	524.2	1020.4	863.4		240.31
Fish Length (mm)	442	448	403	492	474		337
Fish Sex	F	F	M	M	F		M
Fish Age (yrs)	9	19	9	11	13		8
Lipid Content (%)	5.14%	1.68%	6.16%	3.03%	3.49%	4.59%	4.17%
193	4.35	6.13	15.94	6.04	13.07	9.11	9.44
191	0.71	0.80	1.47	0.65	1.10	0.94	0.91
199	ND	ND	ND	ND	ND	ND	ND
170,190	10.18	10.02	17.30	7.88	18.22	12.72	16.92
198	0.61	0.55	1.03	0.46	1.08	0.75	1.31
201	6.26	4.80	8.43	3.96	9.86	6.66	13.53
203,196	12.06	13.25	22.06	9.86	23.14	16.07	21.59
189	0.47	0.25	0.44	0.21	0.51	0.38	0.60
208,195	6.13	4.28	7.10	3.27	8.37	5.83	3.65
207	1.38	0.65	1.04	0.48	1.41	0.99	2.46
194	4.03	2.44	4.54	1.92	5.07	3.60	8.20
205	1.34	0.35	0.56	0.23	0.52	0.60	0.63
206	8.19	3.76	6.91	2.79	8.89	6.11	23.67
209	3.61	1.63	2.81	1.25	3.51	2.56	11.29
T PCBs	509	379	836	384	778	583	743
Recovery							
14	231%	137%	334%	204%	200%	221%	216%
65	NM	NM	NM	NM	NM	NM	NM
166	81%	89%	97%	98%	100%	93%	69%

Table A-2. PCB concn

Field ID	4CC CC2F	4CC CC3F	4CC CC4F	4CC CC5F	4CC CC1-5F	5SED2 CC1F	5SED2 CC2F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	4	4	4	4	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	467.75	376.91	352.38	129.28		500.76	569.79
Fish Length (mm)	388	353	360	267		405	419
Fish Sex	M	M	F	M		F	M
Fish Age (yrs)	7	7	5	3		6	5
Lipid Content (%)	2.34%	5.99%	2.69%	2.58%	3.65%	5.77%	1.82%
1	ND	ND	9.94	ND	ND	ND	ND
3	0.70	1.90	39.28	1.65	0.99	3.11	1.27
4,10	ND	ND	ND	ND	ND	ND	ND
7,9	0.41	0.17	0.52	0.14	0.26	0.16	0.07
6	0.26	0.15	0.45	0.27	0.28	0.22	0.05
8,5	8.98	13.55	16.95	4.42	13.19	8.15	1.84
19	ND	ND	ND	ND	ND	0.46	ND
12,13	0.22	0.17	0.38	0.13	0.31	0.20	0.08
18	6.14	3.51	4.78	1.97	4.76	3.09	0.87
17	2.78	2.23	2.62	1.31	2.78	1.91	0.47
24	0.23	0.16	0.24	0.07	0.24	0.16	0.05
16,32	4.48	3.55	4.47	1.53	4.27	2.57	0.68
29	ND	ND	ND	ND	ND	ND	ND
26	0.64	0.23	0.56	0.33	0.44	0.19	0.02
25	0.46	0.11	0.20	0.16	0.17	0.16	0.03
31, 28	4.41	4.20	4.42	1.38	4.75	3.12	0.52
33,21,53	4.71	3.64	6.38	2.38	5.11	3.36	0.96
51	1.68	1.53	1.23	0.24	1.50	0.74	0.12
22	0.79	1.00	1.16	0.43	0.97	0.55	ND
45	2.76	3.20	3.66	0.98	3.40	1.81	0.58
46	1.02	2.67	1.75	0.66	2.17	1.29	0.31
52	8.23	6.25	7.50	2.30	7.46	5.34	1.01
49	15.46	3.80	10.08	9.55	7.35	4.56	2.74
47,48	13.57	4.30	11.93	7.57	7.57	4.89	1.80
44	6.83	6.39	7.49	1.40	7.40	3.61	0.97
37,42	5.53	3.83	5.68	1.47	4.86	2.69	0.70
41,64,71	7.53	8.57	11.27	4.02	10.84	5.33	1.75
40	1.40	1.55	1.92	0.57	1.81	0.98	0.33
100	2.13	1.53	1.92	0.95	1.85	1.38	0.36
63	1.15	0.89	0.87	0.72	1.02	0.97	0.22
74	4.67	4.25	5.77	2.33	5.15	3.19	0.84
70,76	1.40	1.46	2.42	0.77	2.50	1.59	0.36
66,95	23.13	20.12	28.64	7.93	26.98	15.68	4.08

Field ID	4CC CC2F	4CC CC3F	4CC CC4F	4CC CC5F	4CC CC1-5F	5SED2 CC1F	5SED2 CC2F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	4	4	4	4	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	467.75	376.91	352.38	129.28		500.76	569.79
Fish Length (mm)	388	353	360	267		405	419
Fish Sex	M	M	F	M		F	M
Fish Age (yrs)	7	7	5	3		6	5
Lipid Content (%)	2.34%	5.99%	2.69%	2.58%	3.65%	5.77%	1.82%
91	3.30	2.37	3.38	1.23	3.20	2.13	0.59
56,60,92,84	6.41	9.86	8.36	3.29	9.56	5.89	1.57
89	16.61	9.07	24.17	1.52	6.28	3.74	1.10
101	13.84	9.05	13.39	5.74	12.75	8.26	2.29
99	8.37	5.57	9.12	5.87	8.37	6.11	1.92
119	1.15	1.71	1.78	0.66	1.46	0.96	0.27
83	1.36	1.31	1.68	0.55	1.81	1.07	0.28
97	21.70	11.07	27.48	6.23	17.19	5.91	1.98
81,87	6.86	0.98	1.62	ND	1.36	0.72	ND
85	3.80	3.01	5.03	2.63	4.54	2.59	0.76
136	0.52	0.68	1.18	0.21	1.05	0.47	0.17
77,110	20.28	17.73	28.05	7.14	24.77	14.63	3.87
82, 151	1.72	0.92	1.92	0.76	1.94	1.14	0.31
135,144	3.73	2.62	4.32	1.65	4.07	2.59	0.67
107	1.33	1.15	1.70	1.10	1.75	1.38	0.41
123,149	20.25	12.53	19.32	5.64	18.36	10.52	3.45
118	12.21	11.26	17.87	9.87	16.50	9.98	2.54
134	0.50	0.44	0.82	0.51	0.70	0.49	0.24
146	8.20	3.88	6.49	4.62	6.48	4.83	1.87
132,105,153	58.49	35.43	40.09	31.33	58.90	32.39	12.27
141	11.24	6.12	10.85	5.07	10.15	5.48	1.54
137,130,176	2.34	1.55	2.94	0.96	2.64	1.47	0.55
163,138	45.15	25.95	45.60	23.99	42.59	24.58	7.99
158	1.31	0.90	1.64	ND	1.39	0.82	ND
129,178	5.26	2.76	5.63	2.72	4.93	3.02	1.06
187,182	21.25	10.03	15.77	10.19	15.92	11.85	4.52
183	11.10	5.31	8.46	4.75	9.07	5.56	1.68
128	3.55	2.11	5.09	2.20	3.73	2.33	0.49
185	2.08	1.20	2.05	0.87	2.04	1.00	0.33
174	9.75	5.77	10.59	4.40	9.81	5.02	1.83
177	7.73	4.55	8.03	1.02	7.77	2.77	1.35
202,171,156	6.90	4.46	8.06	3.28	7.59	3.49	1.36
157,200	3.14	2.09	4.31	2.45	3.72	2.67	0.97
172,197	4.16	2.41	4.29	2.29	4.28	2.52	0.91
180	38.00	21.16	35.44	17.10	37.51	18.88	5.81

Field ID	4CC CC2F	4CC CC3F	4CC CC4F	4CC CC5F	4CC CC1-5F	5SED2 CC1F	5SED2 CC2F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	4	4	4	4	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	467.75	376.91	352.38	129.28		500.76	569.79
Fish Length (mm)	388	353	360	267		405	419
Fish Sex	M	M	F	M		F	M
Fish Age (yrs)	7	7	5	3		6	5
Lipid Content (%)	2.34%	5.99%	2.69%	2.58%	3.65%	5.77%	1.82%
193	4.40	8.44	5.08	2.24	6.95	3.72	0.96
191	0.76	0.44	0.63	0.35	0.78	0.42	0.10
199	ND	ND	ND	ND	ND	ND	ND
170,190	13.96	7.78	16.26	6.04	14.10	6.33	1.93
198	1.17	0.72	1.27	0.75	1.14	0.80	0.33
201	10.95	7.54	13.48	8.22	12.41	8.39	3.29
203,196	15.49	11.27	19.64	11.20	19.69	12.25	4.51
189	0.56	0.31	0.46	0.21	0.52	0.26	0.08
208,195	10.07	1.77	17.36	10.74	3.21	10.77	0.34
207	1.91	1.67	3.42	2.75	2.88	2.43	1.21
194	4.86	3.96	7.40	3.11	7.11	3.19	1.11
205	0.55	0.26	0.63	0.21	0.52	0.18	0.07
206	12.27	15.54	28.96	17.33	24.50	16.06	7.02
209	6.62	8.21	14.70	11.82	12.65	8.94	4.63
T PCBs	599	410	710	304	601	362	116
Recovery							
14	283%	655%	228%	136%	305%	204%	81%
65	NM	NM	NM	NM	NM	NM	NM
166	78%	83%	93%	83%	87%	71%	64%

Table A-2. PCB concn

Field ID	5SED2 CC3F	5SED2 CC4F	5SED2 CC5F	5SED2 CC1-5F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?				
Analyzed by	CBL	CBL	CBL	CBL
Fish Mass (g)	963.1	537.63	184.1	
Fish Length (mm)	477	397	295	
Fish Sex	M	F	F	
Fish Age (yrs)	8	7	5	
Lipid Content (%)	6.22%	2.57%	2.72%	3.98%
1	ND	ND	ND	ND
3	5.84	1.18	1.77	3.14
4,10	ND	ND	ND	ND
7,9	0.39	0.10	0.06	0.21
6	0.50	0.11	0.06	0.19
8,5	16.88	4.99	3.33	7.73
19	0.83	ND	ND	ND
12,13	0.40	0.09	0.08	0.24
18	7.48	1.49	1.28	3.60
17	4.57	1.10	0.84	2.16
24	0.35	0.03	0.07	0.16
16,32	6.45	0.86	1.23	2.88
29	ND	ND	ND	ND
26	0.32	0.16	0.11	0.20
25	0.34	0.16	0.06	0.18
31, 28	8.26	2.22	1.41	3.29
33,21,53	8.41	1.56	1.29	4.09
51	2.14	0.21	0.46	0.79
22	1.69	ND	0.34	0.75
45	5.21	1.32	1.00	2.16
46	3.55	1.27	0.57	1.38
52	11.54	2.71	2.91	5.10
49	10.27	4.80	3.10	5.48
47,48	11.90	2.65	1.66	6.25
44	12.41	0.96	2.38	4.10
37,42	7.92	1.66	1.55	3.16
41,64,71	17.99	2.79	3.24	6.96
40	2.90	0.70	0.58	1.10
100	3.62	1.35	0.67	1.50
63	2.22	1.31	0.48	1.01
74	8.66	3.19	1.43	3.71
70,76	4.73	1.06	0.70	1.70
66,95	45.85	11.57	8.71	17.99

Field ID	5SED2 CC3F	5SED2 CC4F	5SED2 CC5F	5SED2 CC1-5F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?				
Analyzed by	CBL	CBL	CBL	CBL
Fish Mass (g)	963.1	537.63	184.1	
Fish Length (mm)	477	397	295	
Fish Sex	M	F	F	
Fish Age (yrs)	8	7	5	
Lipid Content (%)	6.22%	2.57%	2.72%	3.98%
91	5.52	1.83	1.07	2.38
56,60,92,84	18.65	4.95	2.49	6.35
89	10.58	2.16	2.23	3.54
101	21.74	8.43	4.18	9.39
99	15.77	7.71	2.87	7.44
119	2.57	1.14	0.43	1.11
83	2.92	0.65	0.54	0.98
97	12.64	4.66	2.44	7.72
81,87	2.08	ND	0.37	0.76
85	7.56	3.39	1.46	3.40
136	1.64	0.42	0.34	0.62
77,110	43.24	1.65	7.58	14.80
82, 151	2.40	1.13	0.54	1.30
135,144	6.75	2.92	1.26	2.90
107	3.24	1.13	0.52	1.45
123,149	31.53	10.33	5.91	12.44
118	30.91	12.34	4.32	12.58
134	0.89	0.47	0.25	0.60
146	10.91	6.23	2.04	5.99
132,105,153	100.36	40.26	18.88	44.71
141	13.38	7.13	2.70	6.68
137,130,176	4.12	0.92	0.80	1.75
163,138	70.15	26.54	12.13	31.54
158	2.05	ND	ND	1.23
129,178	6.87	3.46	1.59	3.52
187,182	25.25	15.49	4.77	14.33
183	14.98	7.52	2.76	7.19
128	6.03	2.78	1.06	2.77
185	2.78	1.52	0.62	1.37
174	13.08	7.44	3.21	6.78
177	11.34	1.67	2.07	3.96
202,171,156	9.35	4.74	1.82	6.48
157,200	6.03	3.52	1.39	3.40
172,197	5.66	3.64	1.42	3.15
180	49.57	28.58	11.78	24.43

Field ID	5SED2 CC3F	5SED2 CC4F	5SED2 CC5F	5SED2 CC1-5F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?				
Analyzed by	CBL	CBL	CBL	CBL
Fish Mass (g)	963.1	537.63	184.1	
Fish Length (mm)	477	397	295	
Fish Sex	M	F	F	
Fish Age (yrs)	8	7	5	
Lipid Content (%)	6.22%	2.57%	2.72%	3.98%
193	12.47	4.69	1.65	4.77
191	1.27	0.52	0.22	0.52
199	ND	ND	ND	ND
170,190	17.77	9.59	3.72	7.76
198	1.77	1.29	0.50	1.04
201	17.38	13.79	5.29	10.74
203,196	30.08	19.63	9.06	16.14
189	0.72	0.37	0.18	0.32
208,195	3.78	20.48	1.01	2.70
207	5.10	4.13	1.99	3.35
194	7.92	5.53	2.62	4.37
205	0.60	0.35	0.20	0.31
206	36.64	34.80	16.01	22.95
209	19.84	20.13	9.39	13.09
T PCBs	942	414	201	438
Recovery				
14	324%	176%	115%	187%
65	NM	NM	NM	NM
166	95%	91%	59%	85%

Table A-3. PCB concentrations in Channel Catfish (ng/g) from Spring 2002 Core Study

Field ID	2 CORE CCF	2 CORE CCR	2 CORE WHOLE FISH	3 CORE CCF	3 CORE CCR	3 CORE WHOLE FISH
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	3	3	3
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?						
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.70%	4.86%	4.83%	3.51%	7.85%	7.35%
1	0.27	0.51	0.44	0.33	0.11	0.13
3	2.75	2.89	2.62	3.85	6.63	6.31
4,10	3.88	0.43	3.33	1.08	2.66	2.48
7,9	0.17	0.22	0.16	0.14	0.30	0.28
6	0.03	0.09	0.01	0.05	0.05	0.05
8,5	7.80	10.26	8.02	9.75	26.17	24.28
19	0.25	0.40	0.25	0.27	0.38	0.37
12,13	0.20	0.28	0.19	ND	0.39	ND
18	4.08	6.35	4.46	4.04	9.02	8.45
17	1.73	2.30	1.84	1.99	4.79	4.47
24	0.13	0.20	0.15	0.19	0.48	0.44
16,32	2.22	2.98	2.39	3.07	7.20	6.72
29	0.21	0.30	0.20	0.22	0.45	0.43
26	0.32	0.33	0.32	0.50	1.23	1.14
25	ND	ND	ND	ND	ND	ND
31, 28	3.24	3.31	2.99	4.27	13.03	12.02
33,21,53	3.71	4.63	3.80	3.70	10.64	9.85
51	0.56	0.57	0.59	1.54	4.61	4.26
22	0.55	0.50	0.53	0.57	1.88	1.73
45	2.46	2.88	2.63	3.81	10.69	9.90
46	2.99	2.73	2.46	1.96	5.03	4.68
52	3.34	3.59	3.48	7.49	18.97	17.65
49	ND	ND	ND	ND	ND	ND
47,48	6.09	11.66	6.54	12.53	31.33	29.16
44	3.64	4.09	3.66	6.81	18.05	16.75
37,42	3.18	4.01	3.47	5.37	14.28	13.25
41,64,71	6.39	8.03	6.65	9.35	24.40	22.67
40	0.49	0.60	0.51	1.34	3.83	3.54
100	1.44	1.69	1.47	2.16	5.92	5.49
63	0.77	0.79	0.73	1.04	2.72	2.53
74	4.91	5.72	4.79	6.32	16.79	15.59
70,76	1.80	2.08	1.83	2.98	8.59	7.95
66,95	15.41	17.57	15.55	28.01	68.62	63.95
91	2.11	2.39	2.16	3.37	8.89	8.25
56,60/92,84	9.60	11.37	9.51	15.28	44.93	41.52
89	6.92	5.56	5.11	31.43	98.08	90.42
101	8.57	9.45	8.84	14.83	37.42	34.82

Field ID	2 CORE CCF	2 CORE CCR	2 CORE WHOLE FISH	3 CORE CCF	3 CORE CCR	3 CORE WHOLE FISH
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	3	3	3
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?						
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.70%	4.86%	4.83%	3.51%	7.85%	7.35%
99	5.39	8.85	7.80	9.70	24.27	22.59
119	3.19	3.39	2.79	2.60	7.11	6.59
83	1.29	1.53	1.40	3.03	8.91	8.23
97	19.11	24.33	19.68	25.36	65.38	60.78
81,87	0.95	1.11	0.92	1.53	3.85	3.58
85	4.25	4.96	3.96	4.66	15.75	14.47
136	0.42	0.52	1.01	0.94	2.76	1.86
77,110	16.07	17.49	15.73	27.19	71.68	66.57
82, 151	1.48	1.22	1.43	2.13	5.76	5.34
135,144	2.99	3.40	3.03	5.00	13.26	12.31
107	1.53	1.68	1.46	1.88	5.10	4.73
123,149	13.82	15.02	14.47	23.02	57.96	53.94
118	19.39	20.33	17.55	20.83	54.57	50.69
134	1.35	2.05	1.55	2.22	7.92	7.26
146	7.90	8.78	7.53	8.27	20.43	19.03
132,105,153	71.99	78.02	70.09	77.21	191.53	178.38
141	6.73	7.73	6.39	11.84	31.15	28.92
137,130,176	2.53	2.86	2.36	3.02	8.07	7.49
163,138	49.08	53.72	46.07	53.02	131.91	122.84
158	1.88	2.14	1.77	1.80	4.62	4.29
129,178	4.68	5.53	4.47	5.49	14.34	13.33
187,182	19.13	21.26	18.19	19.81	49.52	46.11
183	10.81	12.30	10.04	12.38	31.93	29.68
128	4.46	4.68	3.94	4.72	12.43	11.54
185	1.81	2.08	1.67	2.26	6.19	5.74
174	6.31	7.41	6.06	10.81	27.87	25.90
177	6.91	7.80	6.51	9.13	23.79	22.10
202,171,156	8.49	9.74	7.71	8.97	23.74	22.04
157,200	3.14	3.68	2.93	3.24	8.74	8.11
172,197	3.05	3.35	2.83	4.14	10.73	9.97
180	31.01	35.42	28.45	40.14	103.76	96.44
193	26.16	30.81	20.23	10.80	32.11	29.66
191	0.96	0.96	0.90	1.07	2.68	2.49
199	ND	ND	ND	ND	5.80	ND
170,190	12.91	15.07	11.35	17.52	48.71	45.12
198	0.77	0.93	0.70	0.81	2.21	2.05
201	7.59	9.04	6.86	8.88	23.40	21.73
203,196	17.10	20.34	14.96	16.79	46.11	42.74
189	0.39	0.47	0.34	0.44	1.31	1.21

Field ID	2 CORE CCF	2 CORE CCR	2 CORE WHOLE FISH	3 CORE CCF	3 CORE CCR	3 CORE WHOLE FISH
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	3	3	3
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?						
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.70%	4.86%	4.83%	3.51%	7.85%	7.35%
208,195	6.76	8.44	6.29	7.96	20.53	19.08
207	1.31	1.66	1.29	1.29	3.20	2.98
194	3.88	4.75	3.44	5.19	15.02	13.89
205	0.45	0.52	0.40	0.43	1.32	1.21
206	8.68	11.52	8.26	10.02	25.48	23.70
209	4.30	5.74	4.35	5.05	12.34	11.51
T PCBs	535	613	511	682	1794	1660
Recovery						
14	196%	211%	193%	188%	376%	354%
65	NM	NM	NM	NM	NM	NM
166	82%	79%	78%	75%	91%	89%

Table A-3. PCB concen

Field ID	4 CORE CCF	4 CORE CCR	4 CORE WHOLE FISH	5 CORE CCF	5 CORE CCR	5 CORE WHOLE FISH
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	4	5	5	5
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?						
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.52%	9.49%	8.98%	3.01%	10.77%	10.09%
1	2.69	5.06	4.82	ND	0.22	
3	8.41	10.39	10.18	0.76	1.84	1.75
4,10	0.92	1.58	1.52	0.21	0.72	0.67
7,9	0.15	0.14	0.14	0.03	0.15	0.14
6	0.04	0.03	0.03	0.02	0.13	0.12
8,5	17.55	31.55	30.11	2.35	8.80	8.23
19	0.31	0.64	0.61	0.10	0.41	0.38
12,13	0.12	0.15	0.15	0.03	0.21	0.19
18	2.72	3.95	3.83	0.74	3.86	3.58
17	1.78	2.77	2.67	0.47	2.08	1.94
24	0.19	ND	ND	0.03	0.20	0.18
16,32	2.84	4.94	4.73	0.45	2.04	1.90
29	0.12	0.15	0.15	0.04	0.18	0.17
26	0.43	0.97	0.91	0.15	0.36	0.34
25	ND	ND	ND	ND	ND	ND
31, 28	7.62	14.28	13.59	0.90	3.35	3.14
33,21,53	3.26	5.16	4.97	0.70	3.31	3.08
51	1.77	3.22	3.07	0.19	0.74	0.69
22	0.36	1.22	1.13	0.16	0.46	0.44
45	4.61	7.78	7.45	0.79	2.91	2.73
46	3.31	6.75	6.40	0.43	1.28	1.21
52	11.81	20.75	19.83	1.53	5.53	5.18
49	ND	25.60	ND	ND	ND	ND
47,48	16.51	28.48	27.25	2.86	6.41	6.09
44	8.14	15.00	14.29	1.31	4.68	4.39
37,42	6.96	12.71	12.11	1.07	3.95	3.70
41,64,71	11.59	20.35	19.45	1.94	7.69	7.18
40	1.97	3.70	3.52	0.30	1.18	1.10
100	3.11	5.54	5.29	0.49	1.75	1.64
63	1.86	3.59	3.41	0.34	1.20	1.13
74	8.09	15.66	14.88	1.32	4.90	4.59
70,76	3.05	5.24	5.02	0.40	1.57	1.47
66,95	34.11	62.25	59.35	5.32	19.39	18.15
91	5.08	8.64	8.27	0.89	3.18	2.98
56,60/92,84	18.71	37.20	35.29	2.91	9.67	9.07
89	41.00	93.19	87.81	4.64	16.11	15.10
101	22.44	37.57	36.01	3.29	12.00	11.23

Field ID	4 CORE CCF	4 CORE CCR	4 CORE WHOLE FISH	5 CORE CCF	5 CORE CCR	5 CORE WHOLE FISH
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	4	5	5	5
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?						
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.52%	9.49%	8.98%	3.01%	10.77%	10.09%
99	16.13	26.26	25.22	2.82	10.07	9.43
119	3.91	8.24	7.79	0.65	2.21	2.08
83	4.94	9.99	9.47	0.72	2.21	2.08
97	27.93	46.88	44.93	5.63	23.50	21.93
81,87	1.84	3.30	3.15	0.29	1.01	0.94
85	7.76	13.89	13.26	1.13	3.94	3.69
136	1.10	2.07	1.94	0.17	0.67	1.05
77,110	36.45	64.85	61.92	6.29	21.50	20.16
82, 151	2.93	5.48	5.21	0.45	1.65	1.55
135,144	7.09	12.41	11.86	1.09	3.86	3.62
107	3.04	5.54	5.28	0.55	1.99	1.87
123,149	27.14	45.95	44.02	5.06	17.68	16.57
118	29.48	52.87	50.46	4.14	15.21	14.23
134	2.23	6.67	6.21	0.60	1.86	1.75
146	14.59	24.81	23.76	2.89	10.30	9.65
132,105,153	101.91	174.21	166.76	14.37	67.53	62.85
141	18.29	33.57	32.00	2.75	9.70	9.09
137,130,176	3.83	7.21	6.86	0.82	2.92	2.73
163,138	77.02	132.42	126.72	12.89	46.45	43.50
158	2.12	3.85	3.67	0.45	1.50	1.41
129,178	8.62	15.35	14.66	1.72	6.45	6.04
187,182	30.82	53.53	51.19	6.26	22.36	20.94
183	15.87	29.06	27.70	3.02	10.92	10.22
128	7.78	13.61	13.01	1.09	4.06	3.80
185	3.25	6.33	6.01	0.56	1.91	1.79
174	15.24	27.27	26.03	2.73	9.87	9.24
177	8.27	16.08	15.28	2.21	7.99	7.48
202,171,156	13.47	25.77	24.51	2.60	9.72	9.09
157,200	5.72	11.00	10.46	1.36	6.00	5.60
172,197	7.62	14.84	14.10	1.39	5.06	4.73
180	66.06	122.00	116.24	10.45	38.25	35.80
193	16.79	40.96	38.47	2.29	8.73	8.17
191	1.23	2.31	2.20	0.20	0.74	0.69
199	2.98	5.00	ND	1.94	4.31	ND
170,190	28.40	56.48	53.59	4.13	15.49	14.49
198	1.82	3.85	3.64	0.41	1.53	1.43
201	20.95	41.38	39.27	4.50	16.87	15.79
203,196	30.77	63.36	60.01	6.31	24.33	22.74
189	0.79	1.70	1.61	0.14	0.53	0.49

Field ID	4 CORE CCF	4 CORE CCR	4 CORE WHOLE FISH	5 CORE CCF	5 CORE CCR	5 CORE WHOLE FISH
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	4	5	5	5
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?						
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.52%	9.49%	8.98%	3.01%	10.77%	10.09%
208,195	21.83	46.47	43.93	5.88	22.77	21.29
207	3.55	7.43	7.03	1.27	5.07	4.74
194	11.16	24.80	23.40	1.69	6.57	6.14
205	0.80	1.82	1.71	0.12	0.45	0.42
206	37.98	83.71	79.00	9.76	38.24	35.73
209	19.19	40.84	38.61	5.99	22.37	20.93
T PCBs	1024	1932	1810	179	669	622
Recovery						
14	260%	420%	404%	85%	184%	176%
65	NM	NM	NM	NM	NM	NM
166	91%	97%	96%	43%	49%	49%

Table A-3. PCB concen

Field ID	5 CORE WHOLE FISH*
Collected	Spring 2002
Zone	5
Description	Whole Fish
Replicate analysis?	
Analyzed by	CBL
Lipid Content (%)	10.09%

1	
3	4.45
4,10	1.70
7,9	0.36
6	0.30
8,5	20.80
19	0.96
12,13	0.48
18	9.03
17	4.89
24	0.46
16,32	4.80
29	0.42
26	0.88
25	ND
31, 28	7.93
33,21,53	7.77
51	1.75
22	1.11
45	6.90
46	3.06
52	13.09
49	ND
47,48	15.51
44	11.09
37,42	9.35
41,64,71	18.14
40	2.77
100	4.15
63	2.85
74	11.60
70,76	3.71
66,95	45.90
91	7.54
56,60/92,84	22.96
89	38.19
101	28.40

Field ID	5 CORE WHOLE FISH*
Collected	Spring 2002
Zone	5
Description	Whole Fish
Replicate analysis?	
Analyzed by	CBL
Lipid Content (%)	10.09%
99	23.85
119	5.25
83	5.27
97	55.37
81,87	2.39
85	9.34
136	2.59
77,110	51.01
82, 151	3.92
135,144	9.15
107	4.72
123,149	41.92
118	35.98
134	4.43
146	24.40
132,105,153	158.52
141	22.98
137,130,176	6.91
163,138	109.99
158	3.57
129,178	15.25
187,182	52.96
183	25.85
128	9.60
185	4.53
174	23.38
177	18.92
202,171,156	22.99
157,200	14.12
172,197	11.97
180	90.52
193	20.64
191	1.75
199	ND
170,190	36.63
198	3.62
201	39.90
203,196	57.46
189	1.25

Field ID	5 CORE WHOLE FISH*
Collected	Spring 2002
Zone	5
Description	Whole Fish
Replicate analysis?	
Analyzed by	CBL
Lipid Content (%)	10.09%
208,195	53.79
207	11.96
194	15.53
205	1.06
206	90.27
209	52.91
T PCBs	1572
Recovery	
14	447%
65	NM
166	126%

Table A-4. PCB concentrations in Channel Catfish (ng/g) from Spring 2002 Variability Study

Field ID	2CC CC1F	2CC CC2F	2CC CC3F	2CC CC4F	2CC CC5F	2CC CC6F	2CC CC1-6F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	2	2	2	2
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	1133	977	952	903	1190	622	
Fish Length (mm)	470	474	480	458	514	419	
Fish Sex	F	M	M	F	M	M	
Average Fish Age (yrs)	10	9	9	9	14	7	
Lipid Content (%)	6.21%	6.79%	5.36%	6.87%	1.90%	3.69%	3.39%
1	6.01	1.68	0.23	0.15	0.82	0.42	0.20
3	5.88	9.42	5.34	4.28	3.56	1.33	3.03
4,10	1.95	2.89	1.73	3.06	1.10	1.52	2.35
7,9	0.42	0.52	0.19	0.18	0.31	0.20	0.28
6	0.25	0.36	0.15	0.10	0.21	0.12	0.18
8,5	21.25	22.44	14.03	15.74	11.65	9.10	15.97
19	0.47	0.74	0.34	0.36	0.27	0.38	0.39
12,13	0.65	0.47	0.19	0.26	0.30	0.20	0.35
18	12.47	12.72	6.21	5.91	6.05	4.99	7.03
17	4.64	5.02	2.47	2.74	2.57	2.37	3.53
24	0.16	0.50	0.19	0.24	0.13	0.20	0.21
16,32	3.75	7.38	2.61	3.72	2.57	3.21	4.16
29	0.62	0.44	0.22	0.22	0.32	0.20	0.29
26	0.55	0.39	0.26	0.45	0.36	0.23	0.55
25	ND	1.06	ND	ND	0.58	ND	ND
31, 28	7.54	8.66	3.77	5.55	4.27	4.01	7.80
33,21,53	8.68	8.70	4.34	5.57	4.51	3.98	6.30
51	1.18	1.94	1.05	1.86	0.75	1.23	1.65
22	0.78	2.40	0.65	0.94	0.60	0.56	1.30
45	7.24	6.94	4.04	5.68	3.69	3.77	5.32
46	2.56	2.27	1.77	3.41	4.56	1.71	3.57
52	8.18	9.30	5.53	8.03	6.36	4.62	8.37
49	ND	ND	ND	ND	ND	ND	ND
47,48	27.87	19.77	7.20	7.03	20.97	11.43	19.64
44	3.14	10.90	4.10	9.41	3.46	6.18	7.82
37,42	5.47	8.56	5.16	8.06	4.81	5.32	7.72
41,64,71	10.78	15.93	8.21	11.40	12.64	8.32	13.01
40	1.94	1.98	0.94	1.66	1.42	1.03	1.71
100	4.30	3.32	1.98	2.46	3.32	1.93	3.21
63	1.65	1.36	0.69	1.15	1.90	0.84	1.65
74	11.53	9.50	5.30	7.06	9.03	5.28	9.06
70,76	3.41	3.23	1.95	3.17	2.08	2.03	3.23
66,95	31.81	32.33	18.73	31.47	23.87	19.81	35.19
91	4.88	4.04	2.92	4.17	3.59	2.76	4.66
56,60/92,84	19.17	23.05	15.42	21.49	18.15	14.05	23.81
89	33.86	38.05	16.73	49.79	4.18	31.50	41.03
101	21.77	16.14	12.24	16.36	17.61	11.03	19.12
99	18.23	9.83	7.97	10.32	17.48	7.15	14.30

Field ID	2CC CC1F	2CC CC2F	2CC CC3F	2CC CC4F	2CC CC5F	2CC CC6F	2CC CC1-6F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	2	2	2	2
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	1133	977	952	903	1190	622	
Fish Length (mm)	470	474	480	458	514	419	
Fish Sex	F	M	M	F	M	M	
Average Fish Age (yrs)	10	9	9	9	14	7	
Lipid Content (%)	6.21%	6.79%	5.36%	6.87%	1.90%	3.69%	3.39%
119	4.49	4.12	2.86	4.81	4.28	2.74	5.44
83	3.62	3.14	2.45	3.53	3.18	2.19	3.75
97	51.55	34.79	21.25	29.19	35.14	22.77	22.39
81,87	0.87	1.74	1.07	1.63	1.61	1.06	1.63
85	8.47	4.77	4.39	5.25	10.77	4.14	7.88
136	1.06	0.85	0.47	1.36	0.22	0.68	0.97
77,110	8.28	27.29	17.54	29.43	21.13	19.70	27.01
82, 151	2.79	2.20	1.71	2.58	3.03	1.76	2.92
135,144	7.38	4.54	3.99	5.75	6.00	3.76	6.39
107	2.36	1.88	1.53	2.09	3.56	1.44	2.72
123,149	25.61	24.20	16.36	26.08	16.14	17.85	24.84
118	30.86	18.43	15.34	21.91	34.32	15.38	29.51
134	4.56	3.35	2.51	3.26	3.82	2.13	4.40
146	18.44	9.22	7.16	9.30	17.13	6.70	13.41
132,105,153	131.31	89.16	60.89	87.88	117.68	67.45	107.35
141	24.59	9.12	5.03	6.59	29.79	6.68	16.43
137,130,176	2.64	3.26	2.07	3.72	2.58	2.56	3.41
163,138	87.12	55.72	43.71	56.17	98.06	41.91	76.23
158	4.00	2.14	1.62	1.91	3.81	1.50	2.88
129,178	11.51	6.11	4.49	5.62	9.96	4.45	8.50
187,182	40.76	23.17	17.30	21.83	36.83	16.83	30.74
183	26.00	12.52	9.80	12.56	25.60	9.61	19.21
128	9.42	4.54	3.78	4.98	12.47	3.36	7.75
185	4.42	2.36	1.69	2.25	3.86	1.92	3.34
174	20.77	8.63	4.95	7.19	17.36	6.72	12.91
177	4.13	8.93	3.41	9.94	2.03	7.58	7.57
202,171,156	18.94	8.79	6.93	9.25	18.50	6.88	14.06
157,200	8.53	3.68	2.51	3.36	5.78	2.65	5.01
172,197	9.10	3.39	2.05	2.79	9.68	2.71	6.22
180	85.90	35.26	22.20	30.39	85.48	29.81	60.03
193	18.73	13.95	11.83	19.58	31.00	14.12	26.13
191	2.16	1.09	0.80	1.03	2.35	0.82	1.71
199	5.87	ND	ND	ND	2.89	ND	3.11
170,190	37.27	13.57	8.96	12.20	39.84	11.47	26.36
198	2.15	0.78	0.52	0.74	1.93	0.63	1.42
201	23.22	7.46	4.20	5.97	18.93	5.97	13.74
203,196	40.79	15.91	10.81	15.33	35.63	13.28	27.79
189	1.06	0.37	0.44	0.32	1.05	0.32	0.67
208,195	25.34	6.32	3.91	5.52	14.34	5.07	12.31
207	5.39	1.18	0.61	0.94	2.55	0.83	2.24

Field ID	2CC CC1F	2CC CC2F	2CC CC3F	2CC CC4F	2CC CC5F	2CC CC6F	2CC CC1-6F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	2	2	2	2
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	1133	977	952	903	1190	622	
Fish Length (mm)	470	474	480	458	514	419	
Fish Sex	F	M	M	F	M	M	
Average Fish Age (yrs)	10	9	9	9	14	7	
Lipid Content (%)	6.21%	6.79%	5.36%	6.87%	1.90%	3.69%	3.39%
194	12.48	3.73	1.98	2.90	12.29	3.54	8.12
205	0.97	0.43	0.32	0.46	0.86	0.40	0.80
206	37.00	6.80	3.28	5.34	18.60	6.40	16.65
209	19.29	3.19	1.51	2.62	7.91	3.33	8.25
T PCBs	1186	796	505	739	1030	554	962
Recovery							
14	295%	238%	158%	224%	138%	143%	243%
65	NM	NM	NM	NM	NM	NM	NM
166	84%	68%	57%	75%	94%	65%	97%

Table A-4. PCB concentrati

Field ID	4CC CC1F	4CC CC2F	4CC CC3F	4CC CC4F	4CC CC5F	4CC CC1-5F	5SED CC1F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	4	4	4	4	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	420	401	337	394	376		472
Fish Length (mm)	385	375	338	326	365		385
Fish Sex	M	M	M	F	F		F
Average Fish Age (yrs)	7	8	11	10	9		6
Lipid Content (%)	2.79%	1.78%	5.37%	2.47%	2.91%	3.09%	2.46%
1	0.66	0.46	0.10	0.50	0.20	0.19	0.74
3	0.50	1.89	1.70	3.08	2.64	5.19	2.31
4,10	0.85	0.29	0.39	0.59	0.49	0.76	0.94
7,9	0.21	0.11	0.16	0.09	0.08	0.16	0.16
6	0.14	0.06	0.15	0.01	ND	0.08	0.08
8,5	9.12	7.69	13.04	7.94	10.07	14.04	8.01
19	0.37	0.21	0.44	0.17	0.19	0.30	0.24
12,13	0.25	0.06	0.17	0.17	0.14	0.22	0.17
18	4.74	3.02	3.31	2.57	2.23	4.42	4.42
17	2.48	1.10	2.24	1.21	1.30	2.40	2.05
24	0.23	0.99	0.19	0.09	0.16	0.20	0.18
16,32	3.51	2.90	3.70	1.27	1.97	2.92	2.33
29	0.19	0.08	0.12	0.16	0.12	0.24	0.19
26	0.28	0.13	0.22	ND	0.27	0.37	0.11
25	ND	ND	ND	0.56	ND	ND	ND
31, 28	3.82	7.20	3.96	2.81	3.74	4.44	3.04
33,21,53	4.73	2.38	3.72	2.31	2.45	4.51	3.30
51	1.41	1.98	1.72	0.45	1.12	1.56	1.14
22	0.73	0.52	1.00	0.35	0.52	0.70	0.49
45	3.46	3.08	3.40	2.43	3.42	4.57	3.08
46	1.52	3.88	2.87	1.84	2.23	3.36	1.38
52	8.01	8.01	5.83	3.81	5.76	9.25	6.29
49	ND	ND	ND	ND	ND	ND	ND
47,48	11.91	0.99	4.62	11.34	12.04	17.32	6.78
44	6.95	8.14	5.93	1.87	6.23	7.61	4.92
37,42	5.89	6.55	3.60	2.54	5.72	5.95	4.40
41,64,71	10.22	10.29	8.64	6.62	8.70	12.24	8.86
40	1.27	1.53	1.49	0.86	1.14	1.66	0.95
100	1.74	2.88	1.42	2.10	2.10	3.16	1.73
63	0.82	1.87	0.77	1.18	1.21	1.70	0.86
74	5.14	8.16	3.91	4.98	5.84	8.15	5.04
70,76	1.70	1.13	1.28	1.00	1.56	1.95	1.08
66,95	24.65	26.64	17.42	13.18	23.77	31.36	19.52
91	3.31	4.08	2.33	2.40	3.63	4.83	3.19
56,60/92,84	10.23	14.35	8.90	9.22	12.23	16.50	10.08
89	26.51	9.79	9.06	5.86	33.05	31.77	18.21
101	14.17	12.60	8.93	12.20	13.65	20.60	12.74
99	8.72	13.33	5.22	11.53	12.39	16.48	9.27

Field ID	4CC CC1F	4CC CC2F	4CC CC3F	4CC CC4F	4CC CC5F	4CC CC1-5F	5SED CC1F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	4	4	4	4	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	420	401	337	394	376		472
Fish Length (mm)	385	375	338	326	365		385
Fish Sex	M	M	M	F	F		F
Average Fish Age (yrs)	7	8	11	10	9		6
Lipid Content (%)	2.79%	1.78%	5.37%	2.47%	2.91%	3.09%	2.46%
119	2.41	4.53	2.45	2.15	2.94	3.87	2.07
83	2.45	2.40	1.21	2.04	3.34	4.06	2.24
97	25.94	19.40	11.37	18.56	22.80	35.26	26.07
81,87	1.27	1.62	0.89	0.79	1.38	1.86	1.16
85	4.09	6.33	2.79	4.99	5.85	7.59	4.11
136	0.83	0.49	0.71	0.19	0.62	0.91	0.47
77,110	24.28	30.32	15.87	15.10	29.98	36.54	22.60
82, 151	1.70	2.28	0.86	1.71	1.98	2.97	1.77
135,144	4.09	4.82	2.50	3.89	4.98	6.99	3.84
107	1.65	2.67	1.00	2.09	2.26	3.19	1.84
123,149	18.78	21.42	11.83	12.44	21.14	29.19	19.39
118	16.00	24.40	9.49	19.54	22.95	29.70	14.61
134	1.45	0.98	0.65	1.54	1.81	2.67	1.94
146	7.72	8.98	4.37	12.36	11.25	16.63	9.50
132,105,153	61.64	61.89	34.51	78.45	62.61	118.75	67.21
141	8.71	11.46	5.96	16.02	12.23	22.25	9.96
137,130,176	2.76	2.41	1.60	1.95	3.48	4.64	2.76
163,138	42.73	45.74	24.16	61.30	60.22	88.43	45.31
158	1.48	1.43	1.07	1.92	1.76	2.67	1.61
129,178	5.14	4.79	2.75	7.77	6.65	10.73	5.91
187,182	16.47	19.56	9.86	28.56	23.90	37.21	21.62
183	8.92	10.24	5.14	15.23	13.01	20.69	9.80
128	4.04	4.38	2.21	5.79	5.41	8.03	3.72
185	1.95	1.80	1.15	2.71	2.46	4.09	1.86
174	8.63	8.95	5.46	12.14	11.85	19.09	9.63
177	7.53	7.10	4.11	2.27	10.04	12.14	7.66
202,171,156	7.27	8.07	4.22	11.58	10.88	16.22	8.11
157,200	3.54	2.98	2.04	5.81	5.09	7.48	4.57
172,197	3.77	4.62	2.26	6.82	5.76	9.38	4.30
180	32.77	38.12	18.40	59.51	48.39	80.70	35.99
193	9.98	12.43	8.18	11.20	11.97	18.11	9.22
191	0.65	0.93	0.40	1.15	0.99	1.60	0.69
199	2.84	ND	2.17	3.25	3.25	4.61	3.49
170,190	14.47	16.72	6.42	23.50	19.92	34.73	13.88
198	1.03	1.00	0.63	1.73	1.69	2.29	1.20
201	10.87	11.54	6.54	19.80	18.26	25.90	13.41
203,196	16.49	17.82	9.57	29.86	26.82	39.59	18.69
189	0.39	0.44	0.25	0.70	0.66	1.00	0.48
208,195	13.03	10.55	1.47	21.85	21.43	28.16	15.63
207	2.40	1.66	1.48	4.23	4.00	4.80	3.16

Field ID	4CC CC1F	4CC CC2F	4CC CC3F	4CC CC4F	4CC CC5F	4CC CC1-5F	5SED CC1F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	4	4	4	4	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet	Individual Fillet
Replicate analysis?							
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	420	401	337	394	376		472
Fish Length (mm)	385	375	338	326	365		385
Fish Sex	M	M	M	F	F		F
Average Fish Age (yrs)	7	8	11	10	9		6
Lipid Content (%)	2.79%	1.78%	5.37%	2.47%	2.91%	3.09%	2.46%
194	5.80	5.43	3.12	10.17	8.22	13.69	5.69
205	0.49	0.37	0.23	0.68	0.61	0.96	0.41
206	22.09	16.97	12.23	37.88	37.22	47.28	25.94
209	11.79	7.77	6.68	20.43	20.71	24.05	13.75
T PCBs	623	636	382	721	775	1132	626
Recovery							
14	145%	130%	629%	109%	154%	180%	137%
65	NM	NM	NM	NM	NM	NM	NM
166	67%	92%	71%	66%	79%	94%	73%

Table A-4. PCB concentrati

Field ID	5SED CC2F	5SED CC3F	5SED CC4F	5SED CC5F	5SED CC1-5F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?					
Analyzed by	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	357	589	174	513	
Fish Length (mm)	360	387	275	390	
Fish Sex	M	F	M	M	
Average Fish Age (yrs)	6	7	4	8	
Lipid Content (%)	2.77%	5.09%	3.34%	3.81%	3.45%
1	0.14	0.12	0.77	0.16	0.19
3	0.93	1.32	5.68	0.66	0.44
4,10	0.35	0.53	0.40	0.59	0.27
7,9	0.05	0.05	0.02	0.10	0.05
6	0.01	0.01	0.06	0.09	0.02
8,5	3.50	5.29	2.37	4.06	3.38
19	0.13	0.18	0.10	0.23	0.11
12,13	0.06	0.06	0.06	0.10	0.04
18	1.48	1.53	0.45	1.97	1.18
17	0.76	0.96	0.34	1.05	0.65
24	0.06	0.06	0.03	0.09	0.05
16,32	0.73	0.91	0.22	1.06	0.58
29	0.07	0.07	0.05	0.09	0.05
26	ND	0.21	0.11	0.09	0.09
25	ND	ND	ND	ND	ND
31, 28	1.11	1.82	0.69	1.29	1.29
33,21,53	1.21	1.50	0.41	1.84	0.97
51	0.30	0.50	0.07	0.35	0.30
22	0.19	ND	0.47	0.26	ND
45	1.27	1.84	0.75	1.48	1.18
46	0.67	0.91	0.44	0.74	0.58
52	2.64	3.81	0.84	3.20	2.54
49	ND	ND	ND	ND	ND
47,48	2.76	6.73	0.95	5.28	4.25
44	1.87	3.27	0.37	2.39	1.83
37,42	1.61	2.72	0.33	1.90	1.61
41,64,71	3.28	4.84	0.88	3.99	2.94
40	0.40	0.77	0.24	0.64	0.47
100	0.80	1.17	0.42	0.95	0.70
63	0.38	0.84	0.26	0.68	0.44
74	1.98	3.10	0.77	2.58	1.91
70,76	0.29	1.01	0.24	0.98	0.55
66,95	7.75	12.53	2.80	10.53	8.20
91	1.06	2.30	0.53	1.67	1.36
56,60/92,84	4.15	6.92	1.87	5.50	3.94
89	5.71	13.28	2.98	8.08	6.88
101	5.87	8.75	2.40	6.78	5.59
99	4.85	6.77	1.98	5.24	4.30

Field ID	5SED CC2F	5SED CC3F	5SED CC4F	5SED CC5F	5SED CC1-5F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?					
Analyzed by	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	357	589	174	513	
Fish Length (mm)	360	387	275	390	
Fish Sex	M	F	M	M	
Average Fish Age (yrs)	6	7	4	8	
Lipid Content (%)	2.77%	5.09%	3.34%	3.81%	3.45%
119	1.01	1.63	0.54	1.24	0.90
83	0.97	1.79	0.38	1.26	0.91
97	9.35	14.07	2.98	11.34	8.88
81,87	0.53	0.73	0.11	0.49	0.41
85	1.80	2.70	0.71	2.01	1.86
136	0.26	0.37	0.13	0.47	0.26
77,110	9.71	16.19	1.34	10.84	8.85
82, 151	0.75	1.16	0.34	0.89	0.73
135,144	1.69	2.69	0.94	2.06	1.67
107	0.91	1.44	0.26	1.00	0.79
123,149	8.93	13.32	3.58	9.85	8.38
118	6.69	9.45	2.58	7.40	6.07
134	0.92	1.45	0.35	1.22	0.75
146	5.11	7.27	2.04	5.36	4.51
132,105,153	33.54	44.75	13.34	35.17	29.75
141	4.19	6.74	1.85	4.77	4.06
137,130,176	1.38	2.09	0.54	1.42	1.21
163,138	22.73	32.21	8.13	22.84	19.79
158	0.78	1.01	0.38	0.98	0.69
129,178	2.78	4.33	1.21	2.92	2.55
187,182	11.43	16.61	5.07	11.89	10.35
183	5.23	7.02	2.24	5.60	4.60
128	2.01	2.87	0.82	1.93	1.64
185	0.78	1.34	0.45	0.91	0.80
174	4.32	6.81	2.33	4.78	4.15
177	3.48	6.11	0.75	3.69	3.10
202,171,156	4.17	6.65	2.18	4.77	3.85
157,200	2.32	3.65	1.17	2.29	1.99
172,197	2.28	3.77	1.11	2.54	2.05
180	16.99	26.80	7.80	18.43	15.80
193	3.70	5.43	1.43	4.86	3.49
191	0.33	0.46	0.14	0.41	0.29
199	2.32	3.47	2.47	ND	2.10
170,190	6.72	11.17	3.22	7.26	6.28
198	0.60	1.14	0.40	0.66	0.60
201	7.16	12.42	4.29	7.70	6.88
203,196	10.09	16.98	6.09	11.36	9.62
189	0.23	0.35	0.15	0.22	0.18
208,195	8.34	16.27	6.95	9.41	8.87
207	1.94	3.49	1.62	2.14	1.95

Field ID	5SED CC2F	5SED CC3F	5SED CC4F	5SED CC5F	5SED CC1-5F
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Composite fillet
Replicate analysis?					
Analyzed by	CBL	CBL	CBL	CBL	CBL
Fish Mass (g)	357	589	174	513	
Fish Length (mm)	360	387	275	390	
Fish Sex	M	F	M	M	
Average Fish Age (yrs)	6	7	4	8	
Lipid Content (%)	2.77%	5.09%	3.34%	3.81%	3.45%
194	2.68	5.44	1.38	2.97	2.63
205	0.19	0.38	0.24	0.21	0.19
206	13.08	27.22	11.90	15.29	14.99
209	7.29	15.18	7.94	8.60	8.91
T PCBs	290	463	145	328	277
Recovery					
14	98%	150%	123%	120%	101%
65	NM	NM	NM	NM	NM
166	50%	78%	48%	68%	51%

Table A-5. PCB concentrations in White Perch (ng/g) from Fall 2001 Core Study

Field ID	2 CORE WPF	2 CORE WPF	2 CORE WPR	2 CORE Whole Fish	3 CORE WPF	3 CORE WPR	3 Core Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	2	3	3	3
Description	Fillet Composite	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?	rep A	rep B					
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	4.55%	3.70%	6.41%	5.93%	5.25%	8.29%	7.65%
1	ND	ND	ND	ND	ND	ND	ND
3	0.99	0.92	0.60	0.68	1.57	2.35	2.19
4,10	0.12	0.10	0.13	0.13	0.15	0.19	0.18
7,9	0.05	0.04	0.06	0.06	0.10	0.12	0.11
6	ND	ND	ND	0.00	0.06	0.08	0.08
8,5	2.42	1.89	3.95	3.57	4.33	6.88	6.34
19	0.25	0.18	0.40	0.36	0.42	0.70	0.64
12,13	0.07	0.04	0.10	0.09	0.18	0.21	0.20
18	1.17	0.82	1.45	1.36	2.55	3.93	3.64
17	1.15	0.80	1.48	1.37	2.20	3.46	3.19
24	0.06	0.05	0.08	0.07	0.10	0.16	0.14
16,32	1.84	1.52	2.52	2.34	4.19	6.95	6.37
29	ND	ND	ND	ND	ND	ND	ND
26	0.77	0.54	0.94	0.88	1.32	2.20	2.01
25	0.42	0.31	0.53	0.50	0.77	1.24	1.14
31, 28	5.14	3.76	7.17	6.60	13.17	23.87	21.61
33,21,53	3.03	2.23	4.32	3.97	7.43	12.82	11.68
51	1.05	0.76	1.48	1.36	3.24	5.33	4.89
22	0.53	0.40	0.73	0.67	1.60	2.85	2.59
45	1.88	1.36	2.80	2.55	3.28	5.14	4.75
46	1.19	0.89	1.79	1.63	2.04	3.30	3.04
52	6.29	4.57	ND	1.13	14.36	23.53	21.60
49	6.26	4.49	8.36	7.74	13.92	22.85	20.97
47,48	9.15	6.66	8.64	8.49	21.36	36.15	33.03
44	5.15	3.72	6.97	6.44	12.31	21.12	19.26
37,42	3.41	2.07	5.00	4.53	6.67	13.78	12.28
41,64,71	7.05	6.98	13.65	12.27	22.62	38.70	35.31
40	1.77	1.27	2.29	2.13	3.77	6.52	5.94
100	1.97	1.40	3.37	3.02	4.13	6.96	6.36
63	0.56	0.41	0.79	0.73	1.06	1.88	1.71
74	4.56	3.21	6.12	5.66	9.78	17.44	15.83
70,76	9.73	6.83	13.05	12.06	23.71	41.22	37.53
66,95	19.68	18.88	26.88	25.30	41.97	72.96	66.42
91	3.48	2.43	5.00	4.57	6.64	11.09	10.15
56,60/92,84	27.82	19.36	37.36	34.49	51.78	86.60	79.25
89	NA	NA	NA	NA	NA	NA	NA
101	16.03	11.05	21.30	19.69	28.82	47.20	43.33

Field ID	2 CORE WPF	2 CORE WPF	2 CORE WPR	2 CORE Whole Fish	3 CORE WPF	3 CORE WPR	3 Core Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	2	3	3	3
Description	Fillet Composite	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?	rep A	rep B					
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	4.55%	3.70%	6.41%	5.93%	5.25%	8.29%	7.65%
99	10.95	7.63	15.04	13.85	19.31	33.27	30.32
119	NA	NA	NA	NA	NA	NA	NA
83	1.79	1.22	2.61	2.38	3.25	6.26	5.63
97	4.10	2.81	5.68	5.22	8.01	13.53	12.37
81,87	1.25	1.00	2.04	1.85	2.99	5.26	4.78
85	3.55	ND	ND	0.74	ND	ND	ND
136	2.28	1.56	3.20	2.93	4.04	6.61	6.07
77,110	28.27	19.22	38.93	35.77	54.39	92.05	84.10
82, 151	13.37	8.98	18.92	17.31	21.69	36.39	33.29
135,144	6.32	4.22	9.08	8.29	10.33	17.39	15.90
107	2.34	1.57	3.60	3.26	4.29	7.55	6.86
123,149	19.39	13.45	27.61	25.28	28.69	46.33	42.61
118	15.21	10.22	22.27	20.29	23.23	48.65	43.29
134				0.00			0.00
146	5.64	3.64	8.28	7.53	7.41	12.43	11.37
132,105,153	62.14	41.80	87.75	80.30	77.86	127.31	116.87
141	3.15	2.20	4.86	4.41	4.76	7.91	7.25
137,130,176	2.22	1.57	3.37	3.06	3.30	5.65	5.15
163,138	50.01	32.95	70.54	64.49	71.06	119.98	109.66
158	0.88	0.58	1.29	1.17	1.31	2.32	2.11
129,178	5.27	3.53	7.91	7.18	7.40	12.75	11.63
187,182	14.04	9.41	20.79	18.90	17.11	28.64	26.21
183	10.42	6.71	15.49	14.05	12.31	21.19	19.31
128	5.41	2.64	7.88	7.08	8.52	15.36	13.92
185	1.72	1.18	2.64	2.39	2.36	4.06	3.70
174	6.42	4.39	9.75	8.84	10.38	17.75	16.20
177	4.17	2.94	6.41	5.82	6.48	11.24	10.23
202,171,156	7.26	4.72	10.57	9.61	9.56	16.87	15.33
157,200	2.97	1.98	3.56	3.34	4.20	7.25	6.61
172,197	1.90	1.24	2.76	2.52	2.48	4.28	3.90
180	32.78	21.70	47.90	43.60	41.71	72.17	65.75
193	4.75	ND	1.78	2.39	2.32	ND	ND
191	0.58	0.44	0.83	0.77	0.79	1.38	1.25
199	0.18	0.13	0.29	0.26	0.31	0.53	0.49
170,190	21.05	13.00	29.31	26.76	28.14	50.53	45.80
198	0.41	0.28	0.61	0.55	0.63	1.15	1.04
201	8.77	5.86	13.13	11.92	12.11	21.20	19.28
203,196	12.60	8.12	18.70	16.96	15.49	27.59	25.04
189	1.01	0.64	1.35	1.24	1.14	1.96	1.79

Field ID	2 CORE WPF	2 CORE WPF	2 CORE WPR	2 CORE Whole Fish	3 CORE WPF	3 CORE WPR	3 Core Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	2	3	3	3
Description	Fillet Composite	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?	rep A	rep B					
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	4.55%	3.70%	6.41%	5.93%	5.25%	8.29%	7.65%
208,195	4.32	2.42	5.89	5.37	4.67	8.52	7.71
207	0.61	0.42	0.89	0.81	0.79	1.31	1.20
194	4.12	2.63	5.87	5.35	5.32	9.22	8.40
205	0.27	0.16	0.30	0.29	0.28	0.48	0.44
206	8.02	5.57	11.38	10.43	11.19	18.73	17.14
209	0.48	0.34	0.63	0.58	0.60	0.93	0.86
T PCBs	537	365	741	702	864	1474	1303
Recovery							
14	126%	113%	107%	113%	97%	NM	97%
65	83%	73%	NM	78%	74%	88%	81%
166	83%	72%	92%	85%	80%	102%	91%

Table A-5. PCB concn

*Based on Fillet/Whole Fish Ratio

Field ID	4 CORE WPF	4 CORE WPR	4 CORE Whole Fish*	5 CORE WPF	5 CORE WPR	5 CORE Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	4	4	5	5	5
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?						
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	3.30%	8.00%	7.29%	7.24%	11.43%	10.31%
1	ND	Sample Lost	ND	ND	ND	ND
3	0.91		1.94	0.55	0.89	0.80
4,10	0.10		0.21	0.04	0.03	0.03
7,9	0.06		0.13	0.02	0.02	0.02
6	0.06		0.12	ND	ND	ND
8,5	2.45		5.20	1.44	1.48	1.47
19	0.21		0.44	0.07	0.09	0.09
12,13	ND		ND	0.03	0.03	0.03
18	1.33		2.82	0.46	0.48	0.48
17	1.06		2.25	0.42	0.44	0.43
24	0.05		0.11	0.02	0.03	0.02
16,32	1.88		4.00	0.73	0.84	0.81
29	ND		ND	ND	ND	ND
26	0.69		1.48	0.31	0.32	0.32
25	0.44		0.92	0.13	0.14	0.14
31, 28	6.32		13.42	2.28	2.67	2.56
33,21,53	2.73		5.80	1.54	1.64	1.61
51	0.98		2.08	0.60	0.67	0.65
22	0.98		2.08	0.28	0.29	0.29
45	1.35		2.88	1.37	1.22	1.26
46	0.79		1.69	0.62	0.63	0.63
52	5.15		10.94	3.65	3.96	3.88
49	4.83		10.26	3.55	3.91	3.81
47,48	6.64		14.11	5.09	5.79	5.60
44	4.37		9.29	3.00	3.39	3.29
37,42	2.95		6.28	2.16	2.07	2.09
41,64,71	7.59		16.11	5.60	6.55	6.29
40	1.29		2.74	1.06	1.24	1.20
100	1.73		3.68	1.26	1.44	1.39
63	0.70		1.49	0.27	0.33	0.31
74	3.73		7.92	2.31	2.75	2.63
70,76	8.13		17.26	4.90	5.87	5.61
66,95	16.71		35.50	11.88	16.99	15.62
91	2.17		4.61	1.97	2.21	2.14
56,60/92,84	11.39		24.19	14.73	17.12	16.48
89	NA		NA	NA	NA	NA
101	9.27		19.70	8.29	9.12	8.90

*Based on Fillet/Whole Fish Ratio

Field ID	4 CORE WPF	4 CORE WPR	4 CORE Whole Fish*	5 CORE WPF	5 CORE WPR	5 CORE Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	4	4	5	5	5
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?						
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	3.30%	8.00%	7.29%	7.24%	11.43%	10.31%
99	6.37		13.53	6.54	7.54	7.27
119	NA		NA	NA	NA	NA
83	1.08		2.29	1.60	1.79	1.74
97	2.51		5.33	2.22	2.55	2.46
81,87	0.85		1.81	0.72	0.87	0.83
85	ND		ND	ND	ND	ND
136	1.27		2.69	1.11	1.26	1.22
77,110	15.87		33.71	16.19	18.26	17.70
82, 151	6.17		13.10	6.38	7.42	7.14
135,144	2.79		5.93	3.04	3.58	3.44
107	1.34		2.84	1.32	1.66	1.57
123,149	9.53		20.24	9.04	10.03	9.76
118	8.21		17.44	7.46	8.88	8.50
134						
146	2.34		4.97	3.43	4.22	4.01
132,105,153	26.47		56.23	28.46	31.80	30.90
141	1.51		3.21	1.42	1.67	1.61
137,130,176	1.08		2.30	1.03	1.25	1.19
163,138	22.61		48.03	23.34	26.97	25.99
158	0.36		0.76	ND	ND	ND
129,178	2.35		5.00	2.61	3.11	2.98
187,182	5.88		12.48	7.31	8.24	7.99
183	3.72		7.91	4.69	5.62	5.37
128	2.47		5.24	2.62	3.31	3.12
185	0.76		1.61	0.92	1.09	1.05
174	3.25		6.91	3.16	3.78	3.61
177	2.17		4.61	2.03	2.42	2.31
202,171,156	3.07		6.52	3.85	4.63	4.42
157,200	0.92		1.95	1.92	2.21	2.13
172,197	0.84		1.78	0.99	1.19	1.14
180	12.67		26.92	15.93	19.29	18.39
193	ND		ND	0.92	0.63	0.71
191	0.21		0.44	0.28	0.36	0.34
199	0.13		0.28	0.16	0.15	0.16
170,190	8.44		17.93	10.49	13.19	12.46
198	0.26		0.54	0.34	0.40	0.39
201	4.54		9.64	7.17	8.37	8.04
203,196	5.18		11.01	8.05	9.77	9.31
189	0.39		0.83	0.44	0.56	0.52

*Based on Fillet/Whole Fish Ratio

Field ID	4 CORE WPF	4 CORE WPR	4 CORE Whole Fish*	5 CORE WPF	5 CORE WPR	5 CORE Whole Fish
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	4	4	5	5	5
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?						
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	3.30%	8.00%	7.29%	7.24%	11.43%	10.31%
208,195	5.54		11.77	11.05	12.49	12.10
207	0.41		0.86	1.01	1.10	1.07
194	1.92		4.08	2.36	2.94	2.78
205	0.16		0.35	0.13	0.14	0.14
206	6.32		13.43	15.25	17.13	16.62
209	0.45		0.95	1.11	1.17	1.15
T PCBs	291		619	299	348	335
Recovery						
14	119%		119%	NM	NM	NM
65	68%		68%	NM	NM	NM
166	68%		68%	NM	NM	NM

Table A-6. PCB concentrations in White Perch (ng/g) from Fall 2001 Variability Study 1

Field ID	5 VAR1 WP1	5 VAR1 WP2	5 VAR1 WP3	5 VAR1 WP4	5 VAR1 WP5	5 VAR1 WP1-5F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite
Replicate analysis?						
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	161.38	92.93	129.27	125.3	100.9	
Fish Length (mm)	223	186	203	199	190	
Fish Sex	M	M	F	M	M	
Average Fish Age (yrs)	6	3	7	6	6	
Lipid Content (%)	5.7%	2.8%	6.9%	4.9%	3.7%	7.2%
1	ND	ND	ND	ND	ND	ND
3	1.21	1.25	0.58	0.57	0.47	0.55
4,10	0.06	0.06	0.05	ND	0.03	0.04
7,9	0.03	0.04	0.03	0.01	0.02	0.02
6	ND	ND	ND	ND	ND	ND
8,5	2.16	ND	1.71	0.68	1.25	1.44
19	0.11	0.18	0.10	0.05	0.06	0.07
12,13	0.06	0.06	0.03	0.20	0.02	0.03
18	0.68	1.19	0.54	0.15	0.52	0.46
17	0.58	0.91	0.60	0.14	0.45	0.42
24	0.04	0.06	0.03	ND	0.02	0.02
16,32	0.80	1.96	0.96	0.25	0.81	0.73
29	ND	ND	ND	ND	ND	ND
26	0.45	0.64	0.33	0.20	0.34	0.31
25	0.16	0.33	0.16	0.06	0.16	0.13
31, 28	1.55	5.45	3.19	0.56	2.78	2.28
33,21,53	2.13	4.24	1.49	0.48	1.69	1.54
51	0.71	1.67	0.59	0.14	0.70	0.60
22	0.28	0.61	0.32	ND	0.32	0.28
45	1.78	2.66	1.27	0.56	1.27	1.37
46	1.03	1.35	0.61	0.15	0.55	0.62
52	5.76	9.25	3.43	1.18	3.77	3.65
49	5.72	8.83	3.51	1.08	3.63	3.55
47,48	7.81	13.53	4.85	1.34	5.66	5.09
44	4.29	7.67	2.97	0.88	3.19	3.00
37,42	3.29	5.34	2.04	0.64	2.25	2.16
41,64,71	7.95	15.16	5.49	1.45	5.95	5.60
40	1.65	2.77	0.91	0.35	1.10	1.06
100	1.86	3.07	1.17	0.29	1.24	1.26
63	0.44	0.69	0.27	0.11	0.26	0.27
74	2.97	5.76	2.47	0.63	2.47	2.31
70,76	6.07	13.44	5.32	1.25	5.12	4.90

Field ID	5 VAR1 WP1	5 VAR1 WP2	5 VAR1 WP3	5 VAR1 WP4	5 VAR1 WP5	5 VAR1 WP1-5F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite
Replicate analysis?						
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	161.38	92.93	129.27	125.3	100.9	
Fish Length (mm)	223	186	203	199	190	
Fish Sex	M	M	F	M	M	
Average Fish Age (yrs)	6	3	7	6	6	
Lipid Content (%)	5.7%	2.8%	6.9%	4.9%	3.7%	7.2%
66,95	17.92	44.85	14.08	4.34	14.24	11.88
91	3.65	4.96	1.73	0.71	1.81	1.97
56,60/92,84	23.61	40.35	13.43	4.57	14.48	14.73
89	NA	NA	NA	NA	NA	NA
101	15.20	22.22	7.06	2.71	8.14	8.29
99	11.37	15.01	5.71	2.27	6.16	6.54
119	NA	NA	NA	NA	NA	NA
83	1.62	2.73	1.50	0.70	1.49	1.60
97	3.86	6.17	1.88	0.63	2.20	2.22
81,87	1.08	2.23	0.66	0.16	0.72	0.72
85	ND	ND	ND	ND	ND	ND
136	2.08	3.06	0.99	0.33	1.04	1.11
77,110	26.76	41.57	14.23	5.14	15.21	16.19
82, 151	11.76	16.83	5.39	1.86	6.29	6.38
135,144	5.57	8.38	2.63	0.89	2.85	3.04
107	2.51	3.38	1.08	0.45	1.16	1.32
123,149	17.88	23.06	8.46	3.30	8.69	9.04
118	11.88	20.79	7.18	2.14	7.19	7.46
134	ND	ND	ND	ND	ND	ND
146	6.48	6.85	2.89	1.70	3.19	3.43
132,105,153	57.81	65.87	25.05	11.38	27.84	28.46
141	2.87	3.65	1.37	0.50	1.32	1.42
137,130,176	1.95	2.64	1.02	0.37	0.89	1.03
163,138	43.24	58.21	20.21	8.07	23.05	23.34
158	0.65	1.05	0.34	0.11	0.36	ND
129,178	5.39	5.96	2.20	1.02	2.52	2.61
187,182	16.05	14.16	5.61	3.29	7.31	7.31
183	9.35	10.93	3.94	1.68	4.62	4.69
128	4.57	7.13	2.00	0.84	2.60	2.62
185	1.48	1.85	0.89	0.36	0.85	0.92
174	6.06	7.90	2.93	1.05	2.92	3.16
177	3.89	4.80	2.06	0.73	1.64	2.03
202,171,156	8.02	8.01	3.04	1.58	3.64	3.85
157,200	4.62	3.46	1.36	0.93	1.68	1.92

Field ID	5 VAR1 WP1	5 VAR1 WP2	5 VAR1 WP3	5 VAR1 WP4	5 VAR1 WP5	5 VAR1 WP1-5F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite
Replicate analysis?						
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	161.38	92.93	129.27	125.3	100.9	
Fish Length (mm)	223	186	203	199	190	
Fish Sex	M	M	F	M	M	
Average Fish Age (yrs)	6	3	7	6	6	
Lipid Content (%)	5.7%	2.8%	6.9%	4.9%	3.7%	7.2%
172,197	2.02	2.06	0.74	0.38	0.99	0.99
180	30.99	36.04	12.57	5.49	16.42	15.93
193	ND	4.99	0.53	0.39	1.28	0.92
191	0.43	0.67	0.21	0.08	0.30	0.28
199	0.48	0.26	0.10	0.09	0.13	0.16
170,190	19.73	24.02	7.92	3.53	10.72	10.49
198	0.86	0.51	0.22	0.19	0.28	0.34
201	17.61	10.74	4.65	3.85	6.43	7.17
203,196	17.83	13.44	5.71	3.70	7.51	8.05
189	0.89	0.85	0.33	0.22	0.43	0.44
208,195	31.68	12.64	6.07	7.07	8.57	11.05
207	2.97	1.02	0.48	0.73	0.79	1.01
194	4.96	4.19	1.65	0.98	2.26	2.36
205	0.30	0.21	0.08	0.08	0.13	0.13
206	42.91	14.39	6.94	9.79	11.79	15.25
209	3.28	0.91	0.48	0.79	0.78	1.11
T PCBs	568	693	255	115	291	299
	9908	24935	3690	2353	7822	4126
Recovery						
14	116%	127%	NM	NM	NM	NM
65	71%	79%	NM	NM	NM	NM
166	73%	81%	NM	NM	NM	NM

Table A-7. PCB concentrations in White Perch (ng/g) from Fall 2001 Variability Study 2

Field ID	5 VAR2 WP1	5 VAR2 WP2	5 VAR2 WP3	5 VAR2 WP4	5 VAR2 WP5	5 VAR2 WP6	5 VAR2 WP1-6F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite
Replicate analysis?							
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	84.27	75.03	55.79	66.25	44.88	27.39	
Fish Length (mm)	185	230	162	175	153	135	
Fish Sex	M	F	F	M	M	F	
Average Fish Age (yrs)	4	3	2	5	3	2	
Lipid Content (%)	6.8%	2.6%	4.7%	5.1%	2.5%	1.4%	3.9%
1	ND	9.10	ND	ND	ND	ND	0.41
3	0.85	3.91	1.68	2.03	0.22	0.80	0.64
4,10	0.05	0.62	0.04	0.07	0.03	0.05	0.06
7,9	0.03	0.47	0.02	0.03	0.02	0.03	0.04
6	0.07	0.78	ND	ND	0.04	ND	0.06
8,5	2.10	13.43	2.50	5.83	ND	ND	ND
19	0.14	ND	0.08	0.28	0.04	0.11	0.18
12,13	0.03	0.28	0.05	0.07	0.01	0.03	0.03
18	0.80	3.08	0.61	1.42	0.38	0.54	0.98
17	1.05	2.31	0.46	1.24	0.41	0.54	1.05
24	0.06	0.22	0.02	0.08	ND	0.03	ND
16,32	1.47	3.32	0.91	2.84	0.56	0.94	1.64
29	ND	0.09	ND	ND	ND	0.01	ND
26	0.76	ND	0.39	1.00	0.33	0.34	0.94
25	0.38	ND	0.18	0.46	0.17	0.18	0.52
31, 28	4.20	8.74	3.57	10.06	2.07	2.77	7.51
33,21,53	2.51	3.68	1.38	5.09	0.88	1.84	3.11
51	0.82	1.02	0.40	2.32	0.17	0.66	1.14
22	0.44	1.34	0.63	0.81	0.27	0.31	0.76
45	1.86	1.14	0.91	3.77	0.48	1.17	1.21
46	0.75	0.48	0.33	1.98	0.15	0.67	0.81
52	5.76	6.28	2.69	12.10	1.98	3.85	7.21
49	5.94	6.01	2.30	12.15	1.83	3.77	7.40
47,48	8.24	6.97	0.81	17.42	2.52	6.33	10.90
44	4.81	4.61	2.40	17.90	1.85	3.28	5.74
37,42	3.80	2.99	1.72	ND	1.25	2.33	4.14
41,64,71	9.42	6.78	3.71	21.59	2.88	6.22	10.61
40	1.70	1.64	0.74	4.27	0.50	1.15	1.78
100	1.52	1.42	ND	4.70	0.25	1.23	1.97
63	0.60	0.45	0.20	1.05	0.16	0.40	0.72
74	3.92	3.30	2.05	9.10	1.40	2.77	5.66
70,76	7.41	7.02	3.76	20.09	3.04	6.08	12.82

Field ID	5 VAR2 WP1	5 VAR2 WP2	5 VAR2 WP3	5 VAR2 WP4	5 VAR2 WP5	5 VAR2 WP6	5 VAR2 WP1-6F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite
Replicate analysis?							
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	84.27	75.03	55.79	66.25	44.88	27.39	
Fish Length (mm)	185	230	162	175	153	135	
Fish Sex	M	F	F	M	M	F	
Average Fish Age (yrs)	4	3	2	5	3	2	
Lipid Content (%)	6.8%	2.6%	4.7%	5.1%	2.5%	1.4%	3.9%
66,95	18.09	17.02	8.41	45.95	13.21	34.42	59.73
91	2.69	5.73	0.93	6.01	0.56	1.90	3.10
56,60/92,84	20.63	6.12	ND	50.21	ND	ND	25.93
89	NA	NA	NA	NA	NA	NA	NA
101	10.15	7.86	3.95	24.95	2.26	8.34	14.28
99	8.65	5.62	2.49	21.70	1.84	6.45	10.26
119	NA	NA	NA	NA	NA	NA	NA
83	2.61	1.31	ND	7.11	0.38	1.23	1.68
97	2.90	1.25	1.05	7.18	0.67	2.35	3.79
81,87	0.97	1.36	0.36	2.61	0.18	0.84	1.35
85	ND	2.31	0.78	ND	0.48	1.30	3.07
136	1.31	ND	0.42	3.49	0.20	1.08	1.65
77,110	20.85	14.25	7.65	51.40	4.02	16.09	22.92
82, 151	7.15	5.22	2.15	19.14	1.15	6.21	7.97
135,144	3.53	2.47	0.95	9.44	0.51	2.93	4.12
107	1.74	1.27	0.48	4.38	0.26	1.32	2.15
123,149	9.89	10.48	3.22	31.74	1.68	8.54	11.94
118	9.54	4.97	3.68	29.91	2.16	8.48	14.98
134	13.08	3.01	5.96	28.82	2.39	6.05	7.70
146	3.75	4.09	1.04	12.38	0.52	2.54	4.59
132,105,153	32.03	31.99	11.56	90.12	5.48	26.41	44.05
141	1.66	2.77	0.39	5.68	0.24	1.39	1.89
137,130,176	1.37	0.56	0.44	4.65	0.18	1.06	1.70
163,138	26.79	21.22	10.52	84.55	4.21	22.71	34.53
158	ND	2.75	ND	ND	ND	ND	ND
129,178	3.04	2.26	0.97	9.85	0.44	2.29	3.15
187,182	7.16	7.27	2.23	21.11	0.94	5.49	7.53
183	4.84	4.34	1.39	15.11	0.62	4.00	5.84
128	3.42	2.19	1.23	11.28	0.48	2.71	3.55
185	1.14	0.70	0.23	4.35	0.12	0.72	1.06
174	3.70	3.14	0.99	14.02	0.53	2.84	4.30
177	2.55	2.13	1.10	9.68	0.37	2.12	2.97
202,171,156	4.33	3.23	1.23	12.97	0.62	3.02	2.78
157,200	2.34	0.65	0.53	6.45	0.27	1.26	2.34

Field ID	5 VAR2 WP1	5 VAR2 WP2	5 VAR2 WP3	5 VAR2 WP4	5 VAR2 WP5	5 VAR2 WP6	5 VAR2 WP1-6F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite
Replicate analysis?							
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	84.27	75.03	55.79	66.25	44.88	27.39	
Fish Length (mm)	185	230	162	175	153	135	
Fish Sex	M	F	F	M	M	F	
Average Fish Age (yrs)	4	3	2	5	3	2	
Lipid Content (%)	6.8%	2.6%	4.7%	5.1%	2.5%	1.4%	3.9%
172,197	1.14	ND	0.37	3.93	0.16	0.75	1.51
180	17.54	10.86	5.40	61.80	2.08	12.83	25.27
193	0.65	11.44	0.16	1.61	0.12	0.44	0.49
191	0.29	0.27	0.10	0.96	0.04	0.22	0.32
199	0.25	ND	0.05	0.65	0.04	0.09	0.21
170,190	11.86	7.11	3.89	44.60	1.39	8.37	15.36
198	0.49	0.15	0.11	1.28	0.07	0.18	0.42
201	9.31	3.32	2.18	25.17	1.30	3.86	7.85
203,196	9.59	4.31	2.15	27.53	1.19	4.85	9.68
189	0.52	0.37	0.16	1.71	0.07	0.36	0.68
208,195	15.56	3.32	3.16	36.86	2.27	4.13	11.67
207	1.38	0.23	0.21	2.47	0.19	0.29	1.06
194	2.94	1.18	0.84	11.18	0.34	1.61	4.05
205	0.16	ND	0.06	0.75	0.02	0.10	0.26
206	23.84	3.04	3.64	48.87	2.98	4.04	19.10
209	1.67	0.30	0.27	3.16	0.21	0.26	1.14
T PCBs	401	327	134	1079	83	277	506
Recovery							
14	NM	121%	NM	NM	NM	113%	94%
65	NM	79%	NM	NM	NM	89%	49%
166	NM	90%	NM	NM	NM	89%	68%

Table A-8. PCB concentrations in White Perch (ng/g) from Fall 2001 Variability Study 3

Field ID	5 VAR3 WP1	5 VAR3 WP2	5 VAR3 WP3	5 VAR3 WP5	5 VAR3 WP6	5 VAR3 WP1-6F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite
Replicate analysis?						
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	91.98	68.24	52.24	51.11	53.32	
Fish Length (mm)	186	173	162	158	163	
Fish Sex	M	M	F	M	F	
Average Fish Age (yrs)	5	3	2	3	4	
Lipid Content (%)	3.1%	2.5%	NA	3.0%	5.1%	2.9%
1	0.78	7.17	0.41	ND	ND	0.30
3	1.90	ND	1.01	1.36	2.12	1.03
4,10	0.10	0.97	0.04	0.07	0.09	0.06
7,9	0.05	0.32	0.02	0.03	0.05	0.04
6	0.08	0.50	ND	0.03	0.20	0.04
8,5	5.00	10.70	ND	ND	7.28	3.19
19	0.32	ND	ND	0.59	0.36	0.18
12,13	0.07	0.26	0.02	0.04	0.09	0.05
18	1.86	3.78	0.65	0.97	2.11	0.95
17	1.71	2.42	0.53	1.02	1.75	0.83
24	ND	0.13	ND	ND	0.12	0.06
16,32	3.44	3.99	1.15	1.83	3.97	1.68
29	ND	0.08	ND	ND	ND	0.01
26	1.33	ND	0.36	0.54	1.34	0.58
25	0.61	ND	0.17	0.31	0.63	0.28
31, 28	10.94	5.33	2.63	5.07	12.60	4.74
33,21,53	6.67	5.15	2.54	2.94	6.78	3.01
51	2.38	0.63	0.85	1.11	2.80	1.14
22	1.14	1.42	0.32	0.58	1.17	0.57
45	3.87	1.51	1.65	1.92	4.66	2.15
46	2.28	0.60	0.69	1.16	2.54	1.09
52	14.69	4.19	5.02	4.84	15.75	6.72
49	14.68	4.83	4.46	4.84	15.31	6.48
47,48	21.40	6.10	6.52	7.91	21.34	9.53
44	21.13	3.36	4.20	4.31	14.38	5.86
37,42	ND	2.47	2.75	3.20	10.73	4.12
41,64,71	26.54	6.00	7.67	7.71	27.83	11.04
40	4.89	1.18	1.46	1.49	5.18	2.07
100	4.67	1.28	1.37	1.64	4.92	2.08
63	1.35	0.43	0.32	0.46	1.29	0.55
74	10.66	2.20	2.48	3.75	10.89	4.32
70,76	21.73	4.25	5.56	8.32	23.72	9.36

Field ID	5 VAR3 WP1	5 VAR3 WP2	5 VAR3 WP3	5 VAR3 WP5	5 VAR3 WP6	5 VAR3 WP1-6F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite
Replicate analysis?						
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	91.98	68.24	52.24	51.11	53.32	
Fish Length (mm)	186	173	162	158	163	
Fish Sex	M	M	F	M	F	
Average Fish Age (yrs)	5	3	2	3	4	
Lipid Content (%)	3.1%	2.5%	NA	3.0%	5.1%	2.9%
66,95	146.22	15.66	41.87	35.28	81.74	35.06
91	7.92	8.12	2.28	2.28	7.68	3.35
56,60/92,84	62.53	8.40	16.67	9.71	62.48	22.19
89	NA	NA	NA	NA	NA	NA
101	31.63	5.39	9.64	10.25	32.34	14.09
99	25.72	3.67	7.24	8.02	27.66	11.36
119	NA	NA	NA	NA	NA	NA
83	6.35	1.46	ND	2.06	8.41	3.19
97	9.02	0.36	2.64	2.84	9.19	3.95
81,87	3.33	0.62	0.90	1.05	3.34	1.40
85	ND	1.52	ND	ND	ND	ND
136	4.44	ND	1.24	1.33	4.41	1.90
77,110	66.16	11.31	19.73	19.99	66.39	28.90
82, 151	25.12	4.48	6.66	7.86	24.30	10.62
135,144	12.29	1.98	3.21	3.45	11.96	5.14
107	5.70	0.88	1.28	1.42	5.35	2.25
123,149	29.01	7.36	9.64	10.88	30.92	14.38
118	27.78	1.33	7.92	11.05	29.40	13.17
134	27.40	0.69	9.06	10.34	30.50	13.09
146	9.75	3.06	3.03	2.83	10.08	4.48
132,105,153	84.27	25.61	25.62	31.55	89.75	42.00
141	4.77	3.09	1.78	1.42	5.26	2.32
137,130,176	3.98	0.92	1.12	1.18	4.29	1.81
163,138	76.09	15.87	22.54	28.01	80.91	36.75
158	ND	ND	ND	ND	ND	ND
129,178	8.27	ND	2.23	2.52	8.87	3.82
187,182	19.13	7.07	5.48	6.79	20.44	9.68
183	14.23	3.56	3.89	4.48	14.59	6.59
128	10.40	1.91	2.64	3.12	9.98	4.40
185	3.01	0.57	0.75	0.86	3.06	1.15
174	11.08	2.45	3.13	3.63	12.48	5.16
177	7.24	1.74	2.14	2.47	8.41	3.50
202,171,156	11.76	2.74	3.07	3.58	12.33	5.29
157,200	5.46	0.22	1.42	ND	6.03	2.50

Field ID	5 VAR3 WP1	5 VAR3 WP2	5 VAR3 WP3	5 VAR3 WP5	5 VAR3 WP6	5 VAR3 WP1-6F
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	5	5	5	5	5	5
Description	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Individual Fillet	Fillet Composite
Replicate analysis?						
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS
Fish Mass (g)	91.98	68.24	52.24	51.11	53.32	
Fish Length (mm)	186	173	162	158	163	
Fish Sex	M	M	F	M	F	
Average Fish Age (yrs)	5	3	2	3	4	
Lipid Content (%)	3.1%	2.5%	NA	3.0%	5.1%	2.9%
172,197	3.01	ND	0.69	0.85	3.34	1.32
180	48.15	8.97	12.23	14.63	55.52	22.53
193	1.95	8.44	0.64	ND	1.92	0.83
191	0.99	0.10	0.21	0.25	0.92	0.38
199	0.43	ND	0.12	0.11	0.60	0.21
170,190	34.03	6.01	8.07	9.83	38.10	14.97
198	0.90	0.13	0.40	0.16	1.11	0.41
201	17.41	3.80	4.37	3.98	22.01	8.46
203,196	21.24	4.42	5.05	5.31	25.23	9.75
189	1.42	0.33	0.30	0.45	1.55	0.60
208,195	21.90	5.30	5.61	1.87	30.99	11.15
207	1.79	0.46	0.45	0.22	2.24	0.92
194	6.61	1.09	1.31	1.95	8.71	3.02
205	0.35	0.09	0.09	0.12	0.59	0.18
206	27.60	5.37	6.04	3.26	40.33	13.61
209	1.62	0.97	0.38	0.20	2.55	0.88
T PCBs	1136	269	320	341	1160	487
Recovery						
14	107%	74%	92%	105%	122%	107%
65	108%	60%	69%	87%	105%	87%
166	112%	61%	64%	80%	109%	84%

Table A-9. PCB concentrations in White Perch (ng/g) from Spring 2002 Core Study

*Based on Fillet/Whole Fish Ratio

Field ID	2 CORE WPF	2 CORE WPR	2 CORE Whole Fish*	3 CORE WPF	3 CORE WPR	3 CORE Whole Fish	4 CORE WPF
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	3	3	3	4
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite
Replicate analysis?							
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	3.70%	7.08%	6.02%	5.12%	7.94%	7.06%	5.09%
1	ND	sample lost	ND	16.86	20.64	19.46	10.98
3	ND		ND	10.00	12.10	11.44	8.21
4,10	1.41		2.30	1.78	1.90	1.86	1.27
7,9	ND		ND	1.36	1.73	1.62	1.03
6	0.04		0.07	2.62	3.37	3.14	1.93
8,5	0.54		0.88	30.37	37.36	35.18	23.92
19	ND		ND	1.10	1.18	1.16	ND
12,13	ND		ND	1.21	1.80	1.62	0.88
18	0.68		1.10	13.74	17.64	16.42	12.64
17	0.56		0.91	11.39	14.61	13.61	9.24
24	0.16		0.26	0.24	0.25	0.25	0.20
16,32	1.32		2.14	14.81	18.34	17.24	12.37
29	ND		ND	0.16	0.18	0.18	0.12
26	0.57		0.92	1.60	2.08	1.93	1.38
25	0.32		0.51	ND	1.50	ND	ND
31, 28	4.42		7.19	24.67	31.05	29.06	17.72
33,21,53	0.44		0.71	21.84	27.70	25.87	18.26
51	0.91		1.48	2.75	3.13	3.01	2.39
22	0.75		1.22	3.57	4.91	4.49	4.00
45	0.69		1.12	5.30	6.48	6.11	5.11
46	0.40		0.65	1.77	2.23	2.09	1.73
52	5.72		9.30	14.68	18.70	17.45	13.67
49	5.29		8.60	15.08	18.95	17.74	13.90
47,48	7.85		12.77	23.46	29.71	27.76	20.36
44	4.63		7.54	13.25	16.66	15.60	12.18
37,42	1.93		3.14	9.77	12.70	11.79	9.48
41,64,71	8.56		13.92	25.76	33.87	31.34	23.44
40	1.66		2.71	4.27	5.50	5.12	4.30
100	1.47		2.39	4.38	5.29	5.01	3.90
63	0.44		0.72	1.21	1.54	1.44	1.01
74	4.17		6.79	9.51	15.13	13.37	6.78
70,76	7.62		12.39	21.28	29.42	26.87	14.48
66,95	20.30		33.02	58.75	76.71	71.11	52.64
91	2.72		4.42	25.58	37.60	33.84	18.35
56,60/92,84	10.92		17.76	25.78	18.46	20.77	12.33
89	NA		NA	NA	NA	NA	NA

*Based on Fillet/Whole Fish Ratio

Field ID	2 CORE WPF	2 CORE WPR	2 CORE Whole Fish*	3 CORE WPF	3 CORE WPR	3 CORE Whole Fish	4 CORE WPF
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	3	3	3	4
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite
Replicate analysis?							
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	3.70%	7.08%	6.02%	5.12%	7.94%	7.06%	5.09%
101	12.38		20.14	18.68	24.66	22.79	16.88
99	11.00		17.90	12.35	17.01	15.55	10.81
119	NA		NA	NA	NA	NA	NA
83	1.49		2.42	4.04	5.65	5.15	ND
97	3.33		5.41	1.79	2.31	2.15	1.70
81,87	3.68		5.99	2.22	2.96	2.73	14.53
85	ND		ND	6.95	10.01	9.06	5.28
136	1.81		2.94	2.87	3.59	3.37	2.81
77,110	23.08		37.53	39.33	55.84	50.68	35.27
82, 151	9.00		14.63	15.96	21.22	19.58	15.12
135,144	4.17		6.79	6.65	8.68	8.05	6.67
107	2.09		3.39	2.60	3.54	3.25	2.59
123,149	12.84		20.88	23.29	29.51	27.57	22.40
118	10.77		17.51	5.83	8.84	7.89	4.12
134	8.44		13.72	2.47	3.82	3.40	2.14
146	7.22		11.74	8.50	10.45	9.85	8.81
132,105,153	40.02		65.10	79.07	98.29	92.31	72.12
141	1.88		3.05	13.03	16.90	15.69	11.61
137,130,176	ND		ND	3.13	4.18	3.86	2.99
163,138	32.36		52.63	58.52	77.35	71.48	51.15
158	2.02		3.29	ND	ND	ND	ND
129,178	3.20		5.20	6.48	8.69	8.00	6.04
187,182	10.90		17.74	21.05	25.84	24.35	18.95
183	6.36		10.34	11.53	15.31	14.13	10.61
128	3.90		6.34	6.77	10.38	9.25	5.95
185	1.02		1.65	2.32	4.17	3.59	2.33
174	4.30		6.99	9.63	13.19	12.07	8.84
177	2.89		4.70	5.96	8.32	7.58	5.10
202,171,156	ND		ND	9.27	13.47	12.15	8.16
157,200	2.07		3.36	0.70	1.22	1.06	0.64
172,197	1.67		2.72	ND	ND	ND	ND
180	18.46		30.03	32.16	42.21	39.08	29.34
193	21.98		35.76	30.59	38.78	36.23	26.77
191	0.25		0.40	0.72	ND	ND	0.34
199	ND		ND	ND	ND	ND	ND
170,190	13.33		21.68	23.51	31.01	28.67	20.60
198	0.25		0.41	0.38	ND	ND	0.39
201	6.11		9.94	10.68	14.05	13.00	10.32

*Based on Fillet/Whole Fish Ratio

Field ID	2 CORE WPF	2 CORE WPR	2 CORE Whole Fish*	3 CORE WPF	3 CORE WPR	3 CORE Whole Fish	4 CORE WPF
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	3	3	3	4
Description	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish	Fillet Composite
Replicate analysis?							
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	3.70%	7.08%	6.02%	5.12%	7.94%	7.06%	5.09%
203,196	7.63		12.41	13.59	17.33	16.16	12.73
189	0.86		1.40	1.32	1.78	1.63	1.38
208,195	6.34		10.32	11.83	14.24	13.49	12.99
207	0.42		0.68	0.82	0.82	0.82	1.02
194	2.58		4.20	4.12	5.20	4.87	3.56
205	0.17		0.28	0.29	0.27	0.28	0.31
206	6.55		10.66	9.80	11.28	10.82	12.87
209	0.41		0.67	1.30	1.43	1.39	1.75
T PCBs	406		660	942	1214	1128	828
Recovery							
14	138%		138%	89%	81%	NM	171%
65	94%		94%	68%	59%	NM	55%
166	89%		89%	66%	56%	NM	55%

Table A-9. PCB concn

Field ID	4 CORE WPR	4 CORE Whole Fish	5 CORE WPF	5 CORE WPR	5 CORE Whole Fish
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	5	5	5
Description	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?					
Analyzed by	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	7.24%	7.06%	4.63%	4.16%	4.26%
1	13.47	13.47	ND	ND	ND
3	8.69	8.94	ND	ND	ND
4,10	1.16	1.24	ND	ND	ND
7,9	1.52	1.47	0.02	ND	ND
6	3.18	3.03	0.02	0.06	0.05
8,5	33.63	32.83	0.59	0.93	0.86
19	ND	ND	0.37	0.48	0.46
12,13	1.37	1.32	ND	ND	ND
18	17.72	17.31	0.78	1.16	1.08
17	15.45	14.69	0.75	1.19	1.10
24	0.21	0.21	0.15	0.25	0.23
16,32	16.29	16.09	1.68	2.62	2.44
29	0.13	0.13	ND	ND	ND
26	2.10	2.02	0.68	1.09	1.01
25	1.29	ND	0.49	0.70	0.66
31, 28	28.48	27.24	1.72	3.21	2.92
33,21,53	25.53	24.95	ND	ND	ND
51	2.99	2.98	1.78	2.79	2.60
22	4.42	4.51	0.97	1.68	1.54
45	6.66	6.59	0.83	1.36	1.25
46	2.01	2.03	0.45	0.69	0.64
52	19.33	18.86	8.43	13.46	12.48
49	21.07	20.33	8.54	14.22	13.12
47,48	28.29	27.67	12.92	21.12	19.53
44	18.46	17.81	6.40	11.29	10.34
37,42	14.61	14.06	3.21	6.42	5.79
41,64,71	36.03	34.69	11.02	21.53	19.48
40	6.71	6.44	2.08	3.67	3.36
100	5.61	5.45	2.48	4.39	4.02
63	1.55	1.49	0.58	1.07	0.97
74	10.10	9.77	6.08	11.46	10.41
70,76	20.56	20.04	13.94	24.50	22.45
66,95	76.69	74.45	22.81	44.04	39.91
91	32.02	30.26	4.08	7.34	6.70
56,60/92,84	42.61	37.55	17.91	33.14	30.17
89	NA	NA	NA	NA	NA

Field ID	4 CORE WPR	4 CORE Whole Fish	5 CORE WPF	5 CORE WPR	5 CORE Whole Fish
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	5	5	5
Description	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?					
Analyzed by	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	7.24%	7.06%	4.63%	4.16%	4.26%
101	23.54	23.01	18.07	29.64	27.39
99	15.23	14.86	15.79	19.81	19.04
119	NA	NA	NA	NA	NA
83	5.68	ND	4.14	8.70	7.81
97	3.03	2.85	4.82	8.51	7.79
81,87	2.56	5.37	5.69	10.72	9.74
85	7.65	7.43	ND	ND	ND
136	4.06	3.95	2.58	4.64	4.24
77,110	51.16	49.70	33.98	61.58	56.21
82, 151	21.69	21.11	12.17	22.55	20.53
135,144	9.51	9.27	5.84	10.99	9.99
107	3.60	3.52	2.61	5.87	5.24
123,149	30.50	29.94	24.43	39.33	36.43
118	5.63	5.52	20.31	33.63	31.04
134	3.47	3.32	16.64	38.14	33.95
146	13.06	12.64	11.76	26.88	23.93
132,105,153	100.59	98.35	72.58	117.55	108.81
141	18.26	17.52	3.22	6.03	5.48
137,130,176	4.91	4.68	ND	ND	ND
163,138	75.08	72.80	59.57	98.05	90.57
158	ND	ND	4.88	10.22	9.18
129,178	9.96	9.49	5.06	9.99	9.03
187,182	28.19	27.28	20.70	37.38	34.13
183	16.55	15.89	11.01	21.69	19.61
128	8.91	8.61	6.58	13.93	12.50
185	3.88	3.69	1.40	4.00	3.49
174	14.95	14.19	7.99	14.98	13.62
177	8.11	7.77	4.73	9.14	8.28
202,171,156	12.59	12.11	8.89	18.09	16.29
157,200	1.18	1.11	3.27	7.62	6.77
172,197	ND	ND	2.63	6.21	5.51
180	45.87	44.04	31.26	62.44	56.37
193	43.90	41.86	39.89	66.80	61.57
191	0.57	0.54	0.56	0.91	0.84
199	2.10	ND	ND	0.46	ND
170,190	31.81	30.60	23.94	48.44	43.67
198	0.67	0.64	0.45	1.04	0.93
201	17.44	16.56	12.21	26.10	23.39

Field ID	4 CORE WPR	4 CORE Whole Fish	5 CORE WPF	5 CORE WPR	5 CORE Whole Fish
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	5	5	5
Description	Remains Composite	Whole Fish	Fillet Composite	Remains Composite	Whole Fish
Replicate analysis?					
Analyzed by	ANS	ANS	ANS	ANS	ANS
Lipid Content (%)	7.24%	7.06%	4.63%	4.16%	4.26%
203,196	22.48	21.21	14.15	31.87	28.41
189	3.61	3.26	0.69	0.92	0.88
208,195	25.40	23.66	3.38	ND	ND
207	2.53	2.30	1.40	3.96	3.46
194	6.57	6.17	8.39	9.61	9.38
205	1.34	1.16	0.71	0.40	0.46
206	22.34	21.13	22.78	47.31	42.53
209	3.23	3.03	1.75	3.51	3.16
T PCBs	1253	1202	685	1235	1127
Recovery					
14	418%	NM	130%	121%	NM
65	63%	NM	73%	98%	NM
166	63%	NM	83%	117%	NM

Table A-10. PCB concentrations in Prey Fish (ng/g) from Fall 2001 Core Study

Field ID	3SD1SFA	3SD1SFB	3SED2SFA	3SED2SFB	3SED2SFC	3 CORE SF	4SD1SFA	4SD1SFB	4SD1SFC
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	3	3	3	3	3	3	4	4	4
Description	4 YOY Catfish	1 Hogchoker	YOY Catfish	YOY Catfish	YOY Catfish	Prey Fish	16 Croaker	15 Croaker	5 Hogchoker
Replicate analysis?			Rep A	Rep B	Rep C				
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.54	0.86	2.53	2.41	2.60	2.59%	1.990	1.137	3.206
1	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	10.33	1.98	0.93	2.87	4.40	4.10	0.98	0.60	6.71
4,10	ND	ND	ND	ND	ND	ND	ND	ND	ND
7,9	0.42	0.10	0.25	0.29	0.23	0.26	0.10	0.06	0.28
6	0.57	0.08	0.27	0.37	0.24	0.31	0.14	0.06	0.30
8,5	18.28	2.10	13.59	12.95	13.68	12.12	3.28	1.83	9.49
19	0.50	ND	ND	ND	ND	0.50	ND	ND	ND
12,13	0.61	0.06	0.30	0.46	0.27	0.34	0.10	0.06	0.30
18	7.03	1.35	5.86	5.80	5.62	5.13	1.97	1.12	4.88
17	3.69	0.58	2.73	2.67	2.59	2.45	0.90	0.51	2.23
24	0.25	0.05	0.21	0.20	0.19	0.18	0.08	0.05	0.15
16,32	5.54	0.85	4.13	3.78	3.82	3.62	1.46	0.83	3.44
29	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	0.55	0.07	0.21	0.27	0.25	0.27	0.17	0.09	0.49
25	0.29	0.06	0.79	0.18	0.14	0.29	0.08	0.04	0.24
31, 28	5.69	1.06	3.68	3.64	3.69	3.55	0.85	0.45	3.26
33,21,53	8.18	1.04	6.11	5.68	5.75	5.35	2.25	1.30	4.84
51	2.42	0.20	1.62	1.53	1.62	1.48	0.39	0.22	1.01
22	1.44	ND	0.85	0.76	0.89	0.98	0.33	0.16	0.60
45	5.32	0.90	4.05	4.01	4.23	3.70	1.21	0.65	4.14
46	3.31	0.42	2.25	1.95	2.29	2.04	0.55	0.28	1.66
52	10.39	1.49	7.35	7.13	7.25	6.72	3.01	1.62	9.00
49	8.68	4.26	7.16	5.69	6.12	6.38	2.34	1.32	5.55
47,48	10.01	2.97	12.92	12.27	12.29	10.09	4.13	2.28	10.41
44	8.35	1.00	6.08	6.01	5.89	5.46	1.92	1.09	4.51
37,42	5.86	0.68	5.11	4.96	4.91	4.31	1.45	0.82	3.92
41,64,71	15.49	1.81	9.04	10.46	8.74	9.11	2.70	1.53	8.46
40	2.61	0.32	1.86	1.68	1.77	1.65	0.64	0.36	1.72
100	3.49	0.45	2.21	2.34	2.34	2.16	0.76	0.39	2.09
63	1.62	0.26	1.18	1.31	1.21	1.12	0.16	0.09	0.72
74	8.10	0.94	5.09	5.27	5.86	5.05	1.45	0.79	4.69

Field ID	3SD1SFA	3SD1SFB	3SED2SFA	3SED2SFB	3SED2SFC	3 CORE SF	4SD1SFA	4SD1SFB	4SD1SFC
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	3	3	3	3	3	3	4	4	4
Description	4 YOY Catfish	1 Hogchoker	YOY Catfish	YOY Catfish	YOY Catfish	Prey Fish	16 Croaker	15 Croaker	5 Hogchoker
Replicate analysis?			Rep A	Rep B	Rep C				
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.54	0.86	2.53	2.41	2.60	2.59%	1.990	1.137	3.206
70,76	3.53	1.35	3.00	2.90	3.01	2.76	1.56	0.94	7.81
66,95	38.16	4.77	26.23	25.82	25.84	24.16	10.69	6.05	26.67
91	4.73	0.46	3.24	3.23	3.25	2.98	1.15	0.68	2.73
56,60/92,84	18.35	2.09	12.87	12.96	13.92	12.04	2.68	1.48	8.83
89	9.51	1.44	34.73	33.33	36.18	23.04	3.71	2.95	42.94
101	18.98	2.38	13.11	12.74	12.93	12.03	5.24	2.90	13.90
99	13.51	1.53	8.65	8.22	8.47	8.08	3.01	1.64	7.90
119	1.92	0.31	1.44	1.42	1.45	1.31	0.39	0.21	1.11
83	4.16	0.30	2.57	2.77	2.89	2.54	0.67	0.37	2.95
97	16.00	4.56	25.81	23.89	25.12	19.08	8.57	4.81	26.67
81,87	1.71	ND	1.36	1.29	1.40	1.44	0.45	0.21	1.20
85	8.53	0.83	4.84	4.85	141.50	32.11	1.38	0.76	2.98
136	1.51	0.25	0.92	0.89	0.93	0.90	0.85	0.47	1.72
77,110	38.12	2.43	25.59	24.76	25.63	23.31	8.33	4.96	19.18
82, 151	3.09	0.40	2.09	2.03	1.59	1.84	0.73	0.41	1.52
135,144	6.25	0.70	4.10	3.95	4.09	3.82	1.44	0.81	4.77
107	3.58	0.39	2.21	2.17	2.20	2.11	0.63	0.36	1.85
123,149	27.26	2.95	19.69	18.76	19.40	17.61	8.08	4.50	19.29
118	31.93	2.67	18.12	17.49	18.11	17.67	4.69	2.66	13.83
134	1.25	0.13	0.91	0.98	1.11	0.88	0.35	0.19	1.12
146	10.13	1.52	7.29	7.08	7.35	6.67	2.79	1.59	6.64
132,105,153	92.50	11.39	64.49	62.91	65.78	59.42	20.60	11.41	52.01
141	15.65	1.49	10.01	9.64	10.38	9.44	2.71	1.38	9.10
137,130,176	3.81	ND	2.64	2.54	2.70	2.92	0.89	0.50	2.90
163,138	67.94	8.02	48.46	46.82	49.20	44.09	14.49	7.85	40.24
158	2.20	ND	1.63	1.54	1.65	1.76	0.68	ND	1.28
129,178	6.17	0.95	4.90	4.55	5.47	4.41	1.57	0.76	5.46
187,182	23.88	3.58	19.31	18.52	19.61	16.98	6.50	3.53	16.67
183	14.98	1.79	10.10	10.06	10.29	9.44	3.51	1.82	8.16
128	6.02	0.62	4.03	4.02	5.18	3.97	1.14	0.61	4.33
185	2.74	0.38	1.90	1.75	1.96	1.74	0.61	0.32	2.15
174	12.82	1.09	8.96	8.49	9.16	8.11	2.56	1.35	9.37
177	11.66	1.42	8.09	7.82	8.28	7.45	1.72	0.96	8.53

Field ID	3SD1SFA	3SD1SFB	3SED2SFA	3SED2SFB	3SED2SFC	3 CORE SF	4SD1SFA	4SD1SFB	4SD1SFC
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	3	3	3	3	3	3	4	4	4
Description	4 YOY Catfish	1 Hogchoker	YOY Catfish	YOY Catfish	YOY Catfish	Prey Fish	16 Croaker	15 Croaker	5 Hogchoker
Replicate analysis?			Rep A	Rep B	Rep C				
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.54	0.86	2.53	2.41	2.60	2.59%	1.990	1.137	3.206
202,171,156	11.72	1.26	7.55	7.27	7.76	7.11	2.87	1.54	7.40
157,200	3.96	0.36	2.46	2.53	2.53	2.37	1.31	0.64	3.50
172,197	5.63	0.67	3.53	3.46	3.54	3.36	1.00	0.49	4.15
180	53.90	4.91	35.20	34.15	36.18	32.87	9.29	4.33	34.16
193	10.19	1.27	7.06	6.47	7.30	6.46	2.06	1.10	6.38
191	1.41	0.14	0.91	0.94	0.91	0.86	0.20	0.10	0.51
199	ND	ND	ND	ND	ND	ND	ND	ND	ND
170,190	24.79	2.18	15.92	15.26	16.49	14.93	3.79	1.79	15.65
198	0.97	0.13	0.69	0.66	0.74	0.64	0.25	0.14	1.33
201	12.06	1.30	7.69	7.21	7.98	7.25	3.29	1.68	13.05
203,196	22.81	2.23	14.70	13.93	15.48	13.83	6.26	3.00	18.84
189	0.70	0.06	0.40	0.44	0.44	0.41	0.10	0.05	0.50
208,195	4.26	0.94	2.89	4.61	2.92	3.12	4.11	2.15	16.01
207	1.30	0.14	0.80	0.74	0.82	0.76	0.99	0.50	3.09
194	7.96	0.68	4.67	4.41	4.94	4.53	1.36	0.59	7.07
205	0.54	0.05	0.32	0.35	0.28	0.31	0.06	0.05	0.45
206	9.97	0.98	5.04	4.81	5.34	5.23	6.26	3.00	24.95
209	4.03	0.47	2.04	1.96	2.22	2.14	3.30	1.64	13.17
T PCBs	848	105	621	604	768	591	204	111	641
Recovery									
14	256%	70%	158%	151%	171%	161%	125%	78%	233%
65	NM	NM	NM	NM	NM	NM	NM	NM	NM
166	116%	55%	97%	95%	102%	93%	94%	60%	94%

Table A-10. PCB conce

Field ID	4SD1SFD	4SD1SFE	4SD1SFF	4SD1SFG	4 CORE SF	5CCSFA	5CCSFB	5 CORE SF
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	4	4	4	4	5	5	5
Description	10 YOY Catfish	1 Spotted Shiner	Tesselated Darter	4 White perch	Prey Fish	3 American Eels	4 Hogchoaker	Prey Fish
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	5.481	5.704	0.316	2.384	2.89%	2.66%	3.83%	4.21%
1	ND	ND	ND	ND	ND	ND	ND	ND
3	5.82	9.94	0.84	4.21	4.16	1.89	0.41	1.15
4,10	ND	ND	ND	ND	ND	ND	ND	ND
7,9	0.23	0.37	0.13	0.18	0.19	0.11	0.02	0.07
6	0.23	0.21	0.16	0.25	0.19	0.11	0.02	0.07
8,5	13.16	21.66	3.05	7.14	8.52	3.46	0.52	1.99
19	0.44	ND	ND	0.33	0.39	ND	ND	ND
12,13	0.15	0.58	0.13	0.22	0.22	0.12	0.02	0.07
18	4.35	8.17	2.08	3.55	3.73	1.16	0.28	0.72
17	2.38	3.66	0.85	1.57	1.73	0.65	0.15	0.40
24	0.18	0.32	0.10	0.16	0.15	0.03	0.01	0.02
16,32	3.55	5.19	1.70	2.72	2.70	1.52	0.27	0.90
29	ND	ND	ND	ND	ND	ND	ND	ND
26	0.35	1.42	0.07	0.40	0.43	0.08	0.01	0.04
25	0.17	0.54	0.05	0.15	0.18	0.03	0.01	0.02
31, 28	2.80	7.28	0.47	1.57	2.38	0.21	0.22	0.21
33,21,53	5.35	8.67	2.51	4.59	4.22	1.62	0.32	0.97
51	1.25	1.08	0.31	0.97	0.75	0.14	0.04	0.09
22	0.43	2.56	ND	0.42	0.75	0.26	ND	0.26
45	3.77	6.94	1.22	2.51	2.92	0.90	0.22	0.56
46	1.76	2.55	0.92	1.29	1.29	0.34	0.08	0.21
52	8.55	17.85	1.15	5.79	6.71	1.11	0.48	0.79
49	5.45	9.45	ND	3.40	4.59	ND	0.63	0.63
47,48	11.51	17.32	5.37	7.10	8.30	4.14	0.69	2.41
44	6.07	13.63	0.92	4.24	4.63	0.81	0.23	0.52
37,42	4.29	9.63	1.20	3.14	3.49	0.97	0.21	0.59
41,64,71	10.37	16.01	4.00	5.34	6.92	2.57	0.46	1.51
40	1.87	4.52	0.71	1.61	1.63	0.52	0.11	0.32
100	2.27	2.53	0.82	1.55	1.49	0.41	0.08	0.25
63	0.95	0.80	0.17	0.48	0.48	0.34	0.05	0.20
74	5.24	7.04	1.49	3.04	3.39	1.66	0.25	0.95

Field ID	4SD1SFD	4SD1SFE	4SD1SFF	4SD1SFG	4 CORE SF	5CCSFA	5CCSFB	5 CORE SF
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	4	4	4	4	5	5	5
Description	10 YOY Catfish	1 Spotted Shiner	Tesselated Darter	4 White perch	Prey Fish	3 American Eels	4 Hogchoaker	Prey Fish
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	5.481	5.704	0.316	2.384	2.89%	2.66%	3.83%	4.21%
70,76	1.88	15.09	1.45	5.00	4.82	0.21	0.30	0.25
66,95	27.35	55.64	6.78	22.77	22.28	4.70	1.41	3.06
91	3.36	5.73	1.17	2.49	2.47	0.49	0.20	0.34
56,60/92,84	11.38	22.66	2.61	6.32	8.00	1.56	0.46	1.01
89	31.31	73.62	4.87	19.97	25.63	1.96	1.38	1.67
101	14.82	23.65	6.95	10.14	11.09	2.71	0.73	1.72
99	9.90	12.21	3.99	5.68	6.33	2.69	0.51	1.60
119	1.30	1.74	0.45	0.81	0.86	0.39	0.07	0.23
83	3.87	6.45	0.67	1.96	2.42	0.52	0.07	0.29
97	26.02	41.76	8.05	17.56	19.06	8.04	0.87	4.45
81,87	1.20	2.23	ND	0.93	1.04	0.33	ND	0.33
85	4.86	6.66	1.94	2.89	3.07	0.99	0.17	0.58
136	1.14	3.32	0.96	1.60	1.44	0.40	0.12	0.26
77,110	26.84	44.31	10.58	19.29	19.07	4.15	0.91	2.53
82, 151	2.05	2.25	1.01	1.53	1.36	0.21	0.08	0.15
135,144	4.71	7.61	2.13	3.74	3.60	0.76	0.23	0.49
107	2.19	2.70	1.08	1.36	1.45	1.23	0.10	0.67
123,149	19.96	32.04	14.12	14.71	16.10	6.39	1.12	3.75
118	18.97	22.69	7.13	10.22	11.46	3.09	0.45	1.77
134	1.38	2.05	0.67	0.57	0.90	1.22	0.15	0.68
146	7.91	9.89	5.78	4.64	5.61	7.06	0.52	3.79
132,105,153	62.30	87.57	42.99	35.44	44.62	31.91	3.06	17.48
141	10.01	14.58	6.71	5.63	7.16	2.30	0.33	1.31
137,130,176	2.83	4.74	2.10	1.44	2.20	1.76	0.24	1.00
163,138	46.71	64.09	29.64	25.71	32.68	23.79	1.84	12.81
158	1.44	2.18	ND	0.89	1.29	1.11	ND	1.11
129,178	5.15	7.37	3.82	2.96	3.87	4.92	0.44	2.68
187,182	18.11	21.85	14.26	10.07	13.00	31.96	1.24	16.60
183	9.55	14.39	7.94	6.09	7.35	6.64	0.51	3.57
128	4.21	5.89	2.44	2.47	3.01	2.02	0.15	1.09
185	2.26	3.04	1.49	1.05	1.56	0.48	0.12	0.30
174	9.81	15.26	7.62	4.27	7.18	4.08	0.75	2.42
177	7.14	11.73	5.25	2.60	5.42	5.87	0.48	3.18

Field ID	4SD1SFD	4SD1SFE	4SD1SFF	4SD1SFG	4 CORE SF	5CCSFA	5CCSFB	5 CORE SF
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	4	4	4	4	5	5	5
Description	10 YOY Catfish	1 Spotted Shiner	Tesselated Darter	4 White perch	Prey Fish	3 American Eels	4 Hogchoaker	Prey Fish
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	5.481	5.704	0.316	2.384	2.89%	2.66%	3.83%	4.21%
202,171,156	8.52	11.46	5.75	4.81	6.05	7.98	0.77	4.37
157,200	4.36	5.32	2.21	1.82	2.74	4.52	0.68	2.60
172,197	4.42	6.08	2.65	1.84	2.95	3.94	0.39	2.16
180	38.16	48.80	24.80	15.77	25.04	24.30	1.56	12.93
193	5.79	12.45	3.22	4.65	5.09	2.03	0.18	1.11
191	0.77	1.38	0.53	0.42	0.56	0.54	0.02	0.28
199	4.59	ND	ND	ND	4.59	ND	ND	ND
170,190	17.91	22.78	10.04	6.89	11.26	10.80	0.72	5.76
198	1.41	1.71	0.65	0.36	0.84	1.51	0.18	0.84
201	14.45	16.78	7.18	4.53	8.71	16.88	1.68	9.28
203,196	22.88	29.92	11.90	8.77	14.51	20.91	2.18	11.55
189	0.49	0.73	0.27	0.18	0.33	0.34	0.04	0.19
208,195	18.69	19.53	6.31	4.20	10.14	22.99	3.42	13.21
207	3.65	4.48	1.11	1.07	2.13	4.76	0.89	2.83
194	7.45	9.77	3.27	1.81	4.48	5.23	0.47	2.85
205	0.51	0.73	0.17	0.09	0.29	0.37	0.07	0.22
206	31.40	30.40	8.20	6.50	15.82	33.66	5.59	19.63
209	15.33	16.02	3.60	2.93	8.00	17.60	3.44	10.52
T PCBs	706	1065	329	387	497	369	47	209
Recovery								
14	256%	343%	82%	94%	173%	131%	54%	92%
65	NM	NM	NM	NM	NM	NM	NM	NM
166	102%	98%	69%	56%	82%	102%	28%	65%

Table A-11. PCB concentrations in Prey Fish (ng/g) from Fall 2001 Variability Study

Field ID	4CCSFA	5 SD2 SFA	5 SD2 SFB	5 SD2 SFC	5 SD2 SF
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	5	5	5	5
Description	Prey Fish	1 YOY Catfish	Croaker	Croaker	Prey Fish
Replicate analysis?					
Analyzed by	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.1%	1.29%	1.50%	0.14%	0.98%
1	ND	ND	ND	ND	ND
3	4.04	0.77	ND	1.51	1.14
4,10	ND	ND	ND	ND	ND
7,9	0.17	0.07	0.06	ND	0.07
6	0.25	0.14	0.12	0.03	0.10
8,5	10.88	1.96	1.79	ND	1.88
19	0.31	ND	ND	ND	ND
12,13	0.23	0.08	0.06	ND	0.07
18	3.72	1.03	1.13	0.41	0.85
17	1.96	0.63	0.60	0.30	0.51
24	0.15	0.05	0.06	0.06	0.06
16,32	3.05	1.01	0.80	ND	0.91
29	ND	ND	ND	ND	ND
26	0.31	0.02	0.08	ND	0.05
25	0.10	0.04	0.03	0.16	0.08
31, 28	2.39	0.44	0.55	0.46	0.48
33,21,53	4.11	1.16	1.25	0.71	1.04
51	1.04	0.14	0.18	0.07	0.13
22	0.50	0.16	0.28	ND	0.22
45	2.96	0.63	0.66	0.24	0.51
46	1.32	0.32	0.34	ND	0.33
52	6.50	0.89	1.67	0.59	1.05
49	4.09	1.52	1.99	ND	1.76
47,48	5.16	2.83	2.76	1.46	2.35
44	4.86	0.94	0.94	0.53	0.80
37,42	3.34	0.98	0.81	0.49	0.76
41,64,71	8.20	2.24	1.84	1.49	1.86
40	1.51	0.29	0.38	0.18	0.28
100	1.58	0.33	0.43	0.20	0.32
63	0.81	0.40	0.13	0.11	0.21
74	3.51	1.14	0.90	0.50	0.84
70,76	1.46	0.31	0.79	0.43	0.51
66,95	19.53	4.14	6.27	2.66	4.36
91	2.53	0.71	0.79	0.34	0.61
56,60/92,84	7.12	1.88	1.42	2.28	1.86
89	4.31	2.78	2.49	1.21	2.16
101	10.69	2.54	3.16	1.61	2.43
99	7.07	2.42	2.07	1.03	1.84
119	0.98	0.25	0.24	ND	0.25
83	3.07	0.32	0.34	0.11	0.26
97	7.29	3.63	5.58	ND	4.60
81,87	1.01	0.26	ND	ND	0.26
85	4.08	1.04	0.79	0.33	0.72
136	0.80	0.18	0.52	0.15	0.29
77,110	19.91	5.24	4.76	2.10	4.03

Field ID	4CCSFA	5 SD2 SFA	5 SD2 SFB	5 SD2 SFC	5 SD2 SF
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	5	5	5	5
Description	Prey Fish	1 YOY Catfish	Croaker	Croaker	Prey Fish
Replicate analysis?					
Analyzed by	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	4.1%	1.29%	1.50%	0.14%	0.98%
82, 151	1.43	0.40	0.42	0.16	0.33
135,144	3.39	0.84	0.88	0.36	0.70
107	1.65	0.53	0.45	0.26	0.41
123,149	14.18	4.33	5.01	2.43	3.92
118	12.98	3.29	2.75	1.01	2.35
134	1.09	0.42	0.27	0.15	0.28
146	6.02	2.44	2.04	1.65	2.04
132,105,153	32.53	16.07	13.47	7.97	12.50
141	7.53	2.41	1.64	0.65	1.57
137,130,176	2.33	0.81	0.62	ND	0.71
163,138	35.84	11.54	8.77	3.99	8.10
158	1.09	0.63	ND	ND	0.63
129,178	3.19	1.63	0.91	0.33	0.96
187,182	13.97	7.36	4.57	2.35	4.76
183	7.70	2.81	2.19	1.05	2.01
128	3.46	0.99	0.60	0.25	0.62
185	1.75	0.60	0.38	0.13	0.37
174	8.05	3.23	1.79	0.68	1.90
177	5.85	1.98	1.20	0.41	1.20
202,171,156	4.40	2.69	2.09	0.89	1.89
157,200	4.22	1.89	1.06	0.34	1.10
172,197	3.93	1.42	0.77	0.39	0.86
180	31.36	9.62	5.46	2.30	5.79
193	4.58	1.06	1.14	0.49	0.90
191	0.57	0.19	0.12	ND	0.15
199	4.66	ND	ND	ND	ND
170,190	11.68	4.18	2.14	0.91	2.41
198	1.49	0.64	0.22	0.07	0.31
201	13.90	6.16	2.74	1.16	3.36
203,196	21.13	8.77	4.39	1.91	5.02
189	0.47	0.13	0.07	ND	0.10
208,195	20.32	9.36	3.97	0.05	4.46
207	4.14	2.17	0.98	0.43	1.19
194	7.23	1.89	0.86	0.31	1.02
205	0.54	0.14	0.04	ND	0.09
206	35.04	14.86	5.80	2.33	7.66
209	17.76	7.76	3.58	1.39	4.25
T PCBs	518	181	132	59	129
Recovery					
14	178%	70%	133%	67%	90%
65	NM	NM	NM	NM	NM
166	80%	49%	98%	57%	68%

Table A-12. PCB concentrations in Prey Fish (ng/g) from Spring 2002 Core Study

Field ID	2 CORE SFA	2 CORE SFB	2 CORE SFC	2 CORE SF	3 CORE SFA	3 CORE SFB	3 CORE SF	4 SED2 SFA1
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	2	3	3	3	4
Description	Spot-tailed Shiners	Tessalated Darter	Banded Killifish	Prey Fish	YOY Channel Catfish	Juvenile White Perch	Prey Fish	Juvenile White Perch
Replicate analysis?								Rep A
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	3.23%	2.68%	2.23%	2.7%	1.46%	2.52%	2.0%	2.65%
1	ND	0.03	0.16	0.10	1.86	ND	1.86	ND
3	ND	0.13	1.10	0.61	0.96	2.73	1.85	2.26
4,10	1.02	0.85	0.68	0.85	1.04	0.62	0.83	0.38
7,9	ND	0.05	0.08	0.07	0.24	0.19	0.22	0.09
6	0.05	0.03	0.04	0.04	0.20	0.47	0.34	0.04
8,5	2.17	1.54	3.90	2.54	7.88	8.53	8.21	8.61
19	0.10	0.06	0.14	0.10	0.40	0.31	0.35	0.22
12,13	0.07	0.04	0.07	0.06	0.35	0.21	0.28	0.17
18	0.82	0.90	1.96	1.23	8.62	3.62	6.12	2.62
17	0.28	0.40	0.72	0.47	2.70	1.75	2.22	1.41
24	0.03	0.04	0.07	0.04	0.28	0.12	0.20	0.11
16,32	0.33	0.64	0.87	0.61	3.48	2.30	2.89	2.15
29	0.04	0.04	0.07	0.05	0.40	0.13	0.26	0.10
26	0.06	0.11	0.07	0.08	0.19	0.57	0.38	0.69
25	ND	ND	ND	ND	ND	ND	ND	ND
31, 28	1.19	1.03	1.08	1.10	2.02	3.74	2.88	4.12
33,21,53	0.77	0.80	1.78	1.12	6.13	4.63	5.38	4.50
51	0.12	0.15	0.31	0.20	1.38	1.63	1.50	2.01
22	0.37	0.29	ND	0.33	0.50	0.63	0.56	0.82
45	0.60	0.61	1.16	0.79	4.36	3.62	3.99	3.62
46	0.02	0.45	0.39	0.28	1.62	2.02	1.82	2.65
52	1.43	1.31	2.19	1.65	4.46	8.04	6.25	9.08
49	ND	ND	ND	ND	ND	ND	ND	ND
47,48	1.70	1.25	4.03	2.33	16.76	10.41	13.59	10.86
44	1.09	1.00	0.92	1.00	3.61	5.92	4.76	6.64
37,42	0.66	0.78	1.13	0.86	3.73	4.49	4.11	4.63
41,64,71	1.30	1.23	2.91	1.81	9.98	6.49	8.23	7.01
40	0.17	0.27	0.27	0.24	1.39	1.97	1.68	2.22
100	0.29	0.34	0.71	0.45	2.24	2.40	2.32	2.88
63	0.20	0.18	0.19	0.19	0.83	0.99	0.91	1.05
74	0.99	0.97	1.73	1.23	6.03	4.70	5.36	5.24

Field ID	2 CORE SFA	2 CORE SFB	2 CORE SFC	2 CORE SF	3 CORE SFA	3 CORE SFB	3 CORE SF	4 SED2 SFA1
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	2	3	3	3	4
Description	Spot-tailed Shiners	Tessalated Darter	Banded Killifish	Prey Fish	YOY Channel Catfish	Juvenile White Perch	Prey Fish	Juvenile White Perch
Replicate analysis?								Rep A
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	3.23%	2.68%	2.23%	2.7%	1.46%	2.52%	2.0%	2.65%
70,76	1.44	1.51	1.03	1.33	1.85	8.60	5.23	10.69
66,95	4.08	4.08	8.76	5.64	20.49	28.29	24.39	33.35
91	0.46	0.51	1.08	0.68	3.06	3.38	3.22	4.08
56,60/92,84	2.49	2.03	3.88	2.80	9.03	11.91	10.47	13.46
89	3.04	3.83	2.01	2.96	23.03	45.22	34.12	58.57
101	2.45	2.54	4.92	3.30	13.81	14.75	14.28	18.15
99	1.24	1.44	2.62	1.77	9.92	8.29	9.11	10.43
119	0.42	0.48	1.17	0.69	2.05	2.24	2.15	3.03
83	0.33	0.31	0.43	0.36	1.79	2.81	2.30	3.55
97	4.11	4.68	5.92	4.90	17.59	22.19	19.89	25.50
81,87	0.21	0.30	0.44	0.31	1.39	1.29	1.34	1.72
85	0.83	0.78	1.36	0.99	5.10	5.23	5.17	5.84
136	0.20	0.27	0.35	4.53	0.77	2.09	14.53	2.63
77,110	3.51	3.67	7.89	5.03	22.48	24.26	23.37	32.07
82, 151	0.21	0.21	0.65	0.36	2.12	2.11	2.11	2.78
135,144	0.66	0.66	0.86	0.72	4.60	4.83	4.72	6.68
107	0.29	0.29	0.56	0.38	2.41	1.85	2.13	2.62
123,149	3.41	3.57	7.19	4.72	22.49	19.33	20.91	24.65
118	2.75	2.61	4.71	3.36	18.54	14.68	16.61	21.85
134	0.26	0.22	0.72	0.40	1.88	1.80	1.84	1.55
146	1.42	1.48	2.53	1.81	12.23	7.44	9.84	8.95
132,105,153	11.93	11.50	20.40	14.61	92.42	53.59	73.01	65.74
141	1.21	1.47	1.39	1.36	14.22	8.35	11.28	11.50
137,130,176	0.47	0.47	0.79	0.58	3.72	2.29	3.01	2.93
163,138	7.68	8.05	14.27	10.00	66.47	39.57	53.02	49.07
158	0.45	0.46	0.68	0.53	2.73	1.46	2.10	1.88
129,178	0.76	0.88	1.22	0.95	8.43	4.51	6.47	5.38
187,182	3.34	3.64	6.41	4.47	28.32	15.42	21.87	18.12
183	1.81	1.87	2.95	2.21	15.66	8.74	12.20	11.22
128	0.63	0.72	1.36	0.90	6.22	4.05	5.14	5.47
185	0.30	0.33	0.12	0.25	2.68	1.62	2.15	1.98
174	1.22	1.37	2.23	1.61	13.06	6.15	9.61	8.09
177	1.31	0.99	1.85	1.38	11.48	4.22	7.85	5.53

Field ID	2 CORE SFA	2 CORE SFB	2 CORE SFC	2 CORE SF	3 CORE SFA	3 CORE SFB	3 CORE SF	4 SED2 SFA1
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	2	2	2	3	3	3	4
Description	Spot-tailed Shiners	Tessalated Darter	Banded Killifish	Prey Fish	YOY Channel Catfish	Juvenile White Perch	Prey Fish	Juvenile White Perch
Replicate analysis?								Rep A
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	3.23%	2.68%	2.23%	2.7%	1.46%	2.52%	2.0%	2.65%
202,171,156	1.35	1.43	1.90	1.56	10.73	6.86	8.80	9.43
157,200	0.40	0.43	0.64	0.49	4.25	2.25	3.25	2.84
172,197	0.61	0.57	0.78	0.65	5.62	2.99	4.30	3.99
180	4.91	5.06	5.80	5.26	54.97	25.24	40.10	33.06
193	5.24	3.57	5.79	4.87	10.97	15.69	13.33	24.20
191	0.14	0.11	0.21	0.16	1.25	0.67	0.96	0.87
199	ND	ND	ND	ND	ND	ND	ND	ND
170,190	2.02	2.08	2.73	2.27	22.35	11.28	16.81	15.74
198	0.12	0.11	0.05	0.09	0.98	0.56	0.77	0.62
201	1.33	1.41	2.04	1.60	12.38	6.58	9.48	8.06
203,196	2.61	2.65	1.83	2.36	21.54	12.12	16.83	15.36
189	0.10	0.06	0.11	0.09	0.58	0.29	0.44	0.43
208,195	0.84	0.81	1.06	0.90	8.18	5.16	6.67	6.38
207	0.16	0.15	0.19	0.17	1.30	0.99	1.14	1.15
194	0.79	0.74	0.89	0.81	7.79	3.63	5.71	4.75
205	0.08	0.05	0.06	0.06	0.50	0.21	0.35	0.26
206	0.90	0.87	0.72	0.83	9.80	7.76	8.78	9.87
209	0.36	0.34	0.41	0.37	4.11	3.84	3.98	4.68
T PCBs	103	103	167	129	733	572	666	707
Recovery								
14	103%	82%	75%	86%	106%	179%	142%	143%
65	NM	NM	NM	NM	NM	NM	NM	NM
166	51%	51%	53%	52%	80%	86%	83%	86%

Table A-12. PCB concn

Field ID	4 SED2 SFA2	4 SED2 SFA3	4 SED2 SFB	4 SED2 SFC	4 CORE SF	5 SED3 SFA	5 SED3 SFB	5 CORE SF
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	4	4	4	5	5	5
Description	Juvenile White Perch	Juvenile White Perch	YOY Channel Catfish	Spottail shiner	Prey Fish	Juvenile White Perch	YOY Channel Catfish	Prey Fish
Replicate analysis?	Rep B	Rep C						
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	2.71%	2.66%	1.84%	4.97%	3.0%	2.36%	1.91%	2.1%
1	ND	0.12	0.08	0.29	0.16	ND	0.06	0.06
3	0.20	1.67	0.82	2.34	1.46	0.97	0.81	0.89
4,10	0.46	0.39	0.40	1.10	0.55	0.36	0.33	0.34
7,9	0.11	0.13	0.10	0.04	0.09	0.08	0.05	0.07
6	0.06	0.07	0.05	0.07	0.06	0.03	0.04	0.04
8,5	10.08	8.92	5.84	11.78	9.05	2.00	2.56	2.28
19	0.24	0.21	0.06	0.13	0.17	0.11	0.11	0.11
12,13	0.16	0.15	0.16	0.25	0.18	0.08	0.07	0.07
18	2.84	3.46	3.28	3.34	3.11	1.12	1.09	1.11
17	1.56	1.61	1.24	1.65	1.50	0.63	0.68	0.65
24	0.16	0.14	0.11	0.19	0.14	0.04	0.05	0.05
16,32	2.35	2.36	1.44	1.71	2.00	0.70	0.72	0.71
29	0.13	0.15	0.13	0.17	0.14	0.05	0.06	0.05
26	0.61	0.60	ND	0.83	0.68	0.11	0.17	0.14
25	ND	ND	ND	ND	ND	ND	ND	ND
31, 28	4.13	4.02	1.80	7.83	4.38	0.62	0.62	0.62
33,21,53	4.74	5.15	2.62	4.09	4.22	1.18	1.07	1.13
51	2.07	2.15	0.72	0.47	1.48	0.24	0.31	0.27
22	0.68	0.79	ND	1.22	0.88	0.25	0.22	0.23
45	3.71	4.10	2.64	4.53	3.72	0.75	1.00	0.88
46	2.87	2.42	1.31	0.73	2.00	0.32	0.37	0.35
52	9.53	9.32	5.55	14.94	9.68	1.85	1.78	1.82
49	ND	ND	ND	ND	ND	ND	ND	ND
47,48	11.37	11.80	5.93	13.28	10.65	2.62	3.21	2.92
44	6.86	6.76	3.21	10.26	6.75	1.27	1.23	1.25
37,42	4.96	4.82	2.97	6.43	4.76	0.90	1.14	1.02
41,64,71	9.42	7.17	6.25	10.12	8.00	1.29	2.31	1.80
40	2.11	2.30	0.89	3.05	2.11	0.46	0.43	0.45
100	3.03	2.91	1.66	2.28	2.55	0.39	0.50	0.45
63	1.09	0.97	0.72	1.05	0.98	0.22	0.44	0.33
74	5.49	5.31	3.67	5.58	5.06	1.00	1.16	1.08

Field ID	4 SED2 SFA2	4 SED2 SFA3	4 SED2 SFB	4 SED2 SFC	4 CORE SF	5 SED3 SFA	5 SED3 SFB	5 CORE SF
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	4	4	4	5	5	5
Description	Juvenile White Perch	Juvenile White Perch	YOY Channel Catfish	Spottail shiner	Prey Fish	Juvenile White Perch	YOY Channel Catfish	Prey Fish
Replicate analysis?	Rep B	Rep C						
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	2.71%	2.66%	1.84%	4.97%	3.0%	2.36%	1.91%	2.1%
70,76	11.28	10.63	1.26	12.60	9.29	1.34	0.34	0.84
66,95	34.82	33.77	17.35	47.50	33.36	6.03	5.58	5.81
91	4.24	4.13	3.01	5.51	4.19	0.82	1.08	0.95
56,60/92,84	14.03	13.28	6.47	19.09	13.27	2.17	3.17	2.67
89	58.49	53.87	16.82	61.60	49.87	5.06	5.93	5.49
101	18.47	18.29	13.82	24.70	18.69	3.53	3.99	3.76
99	10.48	10.46	9.46	12.94	10.76	2.44	3.43	2.93
119	2.92	2.88	1.63	2.31	2.55	0.52	0.64	0.58
83	3.75	3.35	1.88	5.31	3.57	0.48	0.70	0.59
97	26.32	27.06	23.11	35.07	27.41	6.50	5.22	5.86
81,87	1.73	1.63	1.07	2.46	1.72	0.20	0.34	0.27
85	6.62	6.00	4.31	6.76	5.91	0.82	1.23	1.02
136	2.73	2.69	0.67	3.01	24.00	0.46	0.26	4.71
77,110	33.28	32.10	22.02	44.86	32.86	4.69	6.77	5.73
82, 151	2.80	2.71	1.80	2.51	2.52	0.44	0.55	0.49
135,144	6.60	6.54	4.59	6.80	6.24	1.08	1.29	1.19
107	2.52	2.50	1.89	2.44	2.39	0.42	0.70	0.56
123,149	24.83	24.96	20.94	28.38	24.75	5.27	6.47	5.87
118	21.79	21.24	14.99	23.96	20.76	2.30	3.95	3.13
134	1.82	1.70	1.43	3.00	1.90	0.47	0.74	0.60
146	8.80	8.83	10.49	8.92	9.20	2.59	3.88	3.23
132,105,153	67.11	66.42	71.04	77.63	69.59	11.56	21.80	16.68
141	11.24	11.02	11.14	12.50	11.48	1.82	2.85	2.33
137,130,176	2.90	2.87	3.06	4.05	3.16	0.64	1.09	0.87
163,138	49.47	49.07	51.74	57.57	51.38	9.50	14.85	12.18
158	1.79	1.77	1.68	2.10	1.84	0.67	0.66	0.67
129,178	5.24	5.32	6.42	5.72	5.62	1.47	2.30	1.89
187,182	17.74	17.91	22.08	14.32	18.03	5.31	10.47	7.89
183	10.67	10.81	11.29	9.69	10.74	2.60	3.56	3.08
128	5.62	5.16	4.64	6.20	5.42	0.79	1.30	1.04
185	1.95	1.93	2.32	1.95	2.03	0.44	0.69	0.56
174	8.05	7.98	11.19	10.36	9.14	2.01	3.67	2.84
177	5.44	5.34	7.74	7.46	6.30	1.16	2.75	1.95

Field ID	4 SED2 SFA2	4 SED2 SFA3	4 SED2 SFB	4 SED2 SFC	4 CORE SF	5 SED3 SFA	5 SED3 SFB	5 CORE SF
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	4	4	4	4	4	5	5	5
Description	Juvenile White Perch	Juvenile White Perch	YOY Channel Catfish	Spottail shiner	Prey Fish	Juvenile White Perch	YOY Channel Catfish	Prey Fish
Replicate analysis?	Rep B	Rep C						
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	2.71%	2.66%	1.84%	4.97%	3.0%	2.36%	1.91%	2.1%
202,171,156	8.86	8.78	8.93	8.82	8.96	2.45	3.60	3.03
157,200	2.70	2.76	4.52	3.56	3.28	1.43	2.53	1.98
172,197	3.59	3.58	4.90	4.00	4.01	1.17	1.97	1.57
180	30.97	31.07	41.96	30.71	33.55	7.07	12.21	9.64
193	21.71	21.75	7.44	9.61	16.94	1.70	2.11	1.91
191	0.78	0.80	0.81	0.93	0.84	0.12	0.22	0.17
199	ND	ND	ND	ND	ND	ND	ND	ND
170,190	14.37	14.22	17.03	14.63	15.20	2.72	5.10	3.91
198	0.59	0.59	1.29	1.00	0.82	0.35	0.84	0.59
201	7.33	7.35	14.22	10.00	9.39	3.89	8.21	6.05
203,196	13.73	13.83	21.55	16.27	16.15	6.19	10.74	8.46
189	0.37	0.38	0.43	0.39	0.40	0.09	0.16	0.12
208,195	5.69	5.59	15.34	11.16	8.83	5.19	12.20	8.69
207	1.02	1.04	2.87	2.34	1.68	1.61	2.86	2.24
194	4.08	4.13	7.16	4.99	5.02	1.22	2.54	1.88
205	0.23	0.22	0.49	0.41	0.32	0.13	0.19	0.16
206	8.45	8.33	25.79	18.34	14.16	9.55	21.21	15.38
209	3.97	3.87	13.13	9.13	6.96	5.57	12.58	9.08
T PCBs	705	692	625	825	733	156	244	204
Recovery								
14	144%	130%	106%	180%	141%	122%	114%	118%
65	NM	NM	NM	NM	NM	NM	NM	NM
166	86%	76%	78%	72%	80%	54%	59%	57%

Table A-13. PCB concentrations in Prey Fish (ng/g) from Spring 2002 Variability Study

Field ID	2 CC SFA	5 SED1 SFA	5 SED1 SFB	5 SED1 SFC	5 SED1 SF
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	5	5	5	5
Description	Gizzard shad	Juvenile White Perch	Hogchoker	YOY Channel Catfish	Prey Fish
Replicate analysis?					
Analyzed by	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	1.80%	2.88%	1.83%	1.67%	2.0%
1	0.06	ND	0.12	0.08	0.10
3	0.21	ND	0.13	1.29	0.71
4,10	0.48	0.34	0.36	0.32	0.34
7,9	0.12	0.08	0.03	0.08	0.06
6	0.02	0.06	0.02	0.02	0.03
8,5	22.46	3.36	0.68	4.26	2.77
19	0.19	0.07	0.06	0.22	0.12
12,13	0.10	0.06	0.02	0.12	0.07
18	3.29	1.23	0.53	1.97	1.24
17	1.56	0.77	0.21	0.94	0.64
24	0.14	0.05	0.03	0.08	0.05
16,32	2.24	0.75	0.28	1.20	0.74
29	0.14	0.06	0.03	0.09	0.06
26	0.92	0.21	ND	0.08	0.15
25	0.63	ND	ND	ND	ND
31, 28	6.67	1.25	0.25	1.19	0.90
33,21,53	4.07	2.13	0.40	1.87	1.47
51	0.71	0.48	0.06	0.57	0.37
22	1.49	0.57	ND	0.23	0.40
45	2.11	1.50	0.39	2.09	1.33
46	0.77	0.64	0.10	0.51	0.42
52	6.36	4.92	0.74	3.61	3.09
49	ND	ND	ND	ND	ND
47,48	6.29	2.49	1.21	3.56	2.42
44	5.48	3.24	0.31	2.63	2.06
37,42	3.72	2.20	0.27	2.44	1.64
41,64,71	5.64	3.28	0.68	4.75	2.90
40	1.49	0.86	0.13	0.74	0.58
100	1.60	0.80	0.17	1.07	0.68
63	0.60	0.50	0.05	0.60	0.39
74	4.46	2.46	0.42	2.67	1.85
70,76	7.93	5.11	0.50	0.87	2.16
66,95	18.97	16.71	2.21	11.95	10.29
91	1.90	2.02	0.37	2.07	1.49
56,60/92,84	11.86	6.18	1.91	6.05	4.71
89	12.34	13.96	2.33	14.48	10.26
101	8.15	9.25	1.34	8.52	6.37
99	4.29	6.09	1.08	6.37	4.52
119	4.01	0.96	0.22	1.26	0.81
83	1.66	1.43	0.19	1.43	1.02
97	13.26	12.74	1.91	15.60	10.08
81,87	0.92	0.77	0.23	0.76	0.59
85	2.90	2.99	0.26	2.99	2.08
136	1.21	1.00	0.12	0.52	6.41
77,110	14.25	14.37	1.64	14.84	10.28

Field ID	2 CC SFA	5 SED1 SFA	5 SED1 SFB	5 SED1 SFC	5 SED1 SF
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	5	5	5	5
Description	Gizzard shad	Juvenile White Perch	Hogchoker	YOY Channel Catfish	Prey Fish
Replicate analysis?					
Analyzed by	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	1.80%	2.88%	1.83%	1.67%	2.0%
82, 151	1.12	1.02	0.15	1.07	0.74
135,144	2.55	2.53	0.40	2.69	1.87
107	0.92	1.10	0.18	1.23	0.83
123,149	11.14	10.42	2.19	12.75	8.46
118	8.34	9.68	0.88	10.03	6.86
134	1.34	1.08	0.33	1.22	0.87
146	3.68	5.03	1.23	6.66	4.31
132,105,153	31.16	33.25	6.67	45.81	28.58
141	4.53	4.56	0.61	6.14	3.77
137,130,176	1.55	1.44	0.34	3.41	1.73
163,138	22.56	24.40	3.69	33.02	20.37
158	0.89	0.88	0.63	1.12	0.88
129,178	2.61	2.63	0.76	4.40	2.60
187,182	7.80	8.74	2.55	14.29	8.53
183	4.66	4.73	1.04	7.18	4.31
128	2.30	2.52	0.26	3.08	1.95
185	1.00	0.66	0.20	1.46	0.77
174	4.79	3.36	1.27	6.92	3.85
177	3.25	2.23	0.94	6.04	3.07
202,171,156	4.91	4.69	1.49	6.56	4.25
157,200	1.34	1.85	1.25	3.80	2.30
172,197	1.69	2.07	0.74	3.43	2.08
180	13.74	14.26	2.85	27.92	15.01
193	5.08	3.12	0.42	4.61	2.72
191	0.41	0.32	0.05	0.35	0.24
199	ND	2.31	2.54	3.41	2.75
170,190	6.01	6.19	1.26	12.08	6.51
198	0.32	0.60	0.30	1.28	0.73
201	3.85	6.87	2.88	13.25	7.67
203,196	6.96	10.07	3.68	19.46	11.07
189	0.27	0.18	0.04	0.37	0.20
208,195	2.43	7.80	5.37	19.37	10.85
207	0.47	1.99	1.44	3.99	2.47
194	2.34	2.25	0.82	6.08	3.05
205	0.15	0.16	0.06	0.49	0.24
206	2.74	15.77	9.67	37.14	20.86
209	1.32	8.08	5.96	20.13	11.39
T PCBs	358	337	87	479	307
Recovery					
14	136%	127%	98%	95%	107%
65	NM	NM	NM	NM	NM
166	51%	78%	59%	66%	68%

Table A-14. PCB concentrations in Invertebrates (ng/g) from Fall 2001 Core Study

Field ID	2 CORE INV	3 CORE INV	4 CORE INV	5 CORE INV	5 CORE MACRO INV
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	3	4	5	5
Description	Amphipods	Amphipods	Amphipods	Amphipods	Grass shrimp
Replicate analysis?					
Analyzed by	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	0.57%	0.44%	0.81%	0.61%	1.10%
1	ND	ND	ND	ND	ND
3	ND	ND	ND	ND	ND
4,10	ND	ND	ND	ND	ND
7,9	ND	ND	ND	ND	ND
6	ND	0.12	0.05	ND	ND
8,5	ND	ND	4.16	ND	ND
19	ND	ND	ND	ND	ND
12,13	ND	0.08	0.08	ND	0.02
18	0.45	0.45	1.38	0.12	0.11
17	0.33	0.42	0.71	ND	0.12
24	0.11	0.21	0.11	0.18	0.03
16,32	ND	ND	1.66	ND	ND
29	ND	ND	ND	ND	ND
26	ND	ND	0.15	ND	ND
25	0.12	0.20	0.17	0.37	ND
31, 28	1.07	1.78	1.52	ND	0.36
33,21,53	1.10	1.74	2.36	0.92	0.36
51	0.19	0.32	0.43	ND	0.04
22	ND	ND	ND	ND	ND
45	0.36	0.42	0.96	0.27	0.10
46	ND	ND	ND	ND	ND
52	0.63	0.70	2.01	0.24	0.14
49	ND	ND	ND	ND	ND
47,48	1.51	2.75	1.83	1.87	0.92
44	0.52	0.68	1.41	0.36	0.13
37,42	0.35	0.78	0.61	0.46	0.09
41,64,71	1.74	3.17	3.69	ND	0.54
40	0.19	0.22	0.47	ND	0.05
100	0.31	0.32	0.53	ND	0.08
63	0.24	0.29	0.13	ND	0.05
74	0.65	1.55	1.20	0.50	0.36
70,76	0.74	ND	2.07	ND	0.16
66,95	2.61	3.65	10.95	1.58	0.74
91	0.27	0.35	0.93	0.21	0.06
56,60/92,84	1.98	3.83	5.49	1.85	0.76
89	1.26	1.57	4.66	0.81	0.26
101	1.09	1.87	3.90	0.79	0.40
99	0.43	0.68	1.96	0.28	0.82
119	ND	ND	0.56	ND	ND
83	0.58	0.28	0.49	0.08	0.03
97	ND	3.95	5.97	ND	1.28
81,87	ND	ND	ND	ND	ND
85	ND	ND	0.98	ND	0.21
136	0.14	0.17	0.73	0.13	0.04
77,110	1.55	1.65	7.13	0.92	0.52
82, 151	0.15	0.29	0.42	0.09	0.04

Field ID	2 CORE INV	3 CORE INV	4 CORE INV	5 CORE INV	5 CORE MACRO INV
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	3	4	5	5
Description	Amphipods	Amphipods	Amphipods	Amphipods	Grass shrimp
Replicate analysis?					
Analyzed by	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	0.57%	0.44%	0.81%	0.61%	1.10%
135,144	0.37	0.56	1.47	0.33	0.09
107	0.16	0.64	0.62	0.26	0.17
123,149	1.53	2.23	6.21	1.42	0.58
118	1.23	1.75	3.41	0.48	1.02
134	0.24	0.38	0.27	0.32	0.08
146	ND	4.66	3.06	ND	1.21
132,105,153	6.79	20.04	17.80	7.79	5.73
141	0.41	0.82	1.54	0.21	0.22
137,130,176	ND	ND	ND	ND	ND
163,138	2.27	9.21	10.41	1.58	2.82
158	ND	ND	ND	ND	ND
129,178	0.19	0.78	1.17	0.23	0.26
187,182	1.51	7.03	5.18	2.18	2.83
183	0.47	2.09	1.29	ND	0.79
128	0.10	0.20	0.79	ND	0.17
185	0.18	0.18	0.45	0.18	0.05
174	0.50	0.76	1.88	0.40	0.29
177	0.49	2.23	1.97	0.36	0.52
202,171,156	0.43	1.59	1.87	0.77	0.70
157,200	0.08	0.40	0.73	0.30	0.21
172,197	ND	1.28	1.07	0.91	0.41
180	1.22	7.13	5.21	1.43	2.17
193	0.61	1.34	1.22	ND	0.26
191	ND	ND	ND	ND	ND
199	ND	ND	ND	ND	ND
170,190	0.45	3.09	2.25	0.63	0.62
198	ND	0.16	0.24	0.20	0.06
201	0.28	2.17	2.10	1.85	1.15
203,196	0.69	2.85	3.31	2.35	1.40
189	ND	ND	ND	ND	ND
208,195	0.23	1.92	2.70	3.85	1.09
207	ND	0.31	0.56	0.95	0.25
194	ND	0.88	0.72	0.41	0.19
205	ND	ND	0.12	ND	ND
206	0.16	1.90	3.42	6.09	1.13
209	ND	1.52	2.39	4.88	1.02
T PCBs	41	115	157	52	36
Recovery					
14	107%	98%	101%	83%	73%
65	NM	NM	NM	NM	NM
166	92%	84%	91%	73%	64%

Table A-15. PCB concentrations in Invertebrates (ng/g) from Fall 2001 Variability Study

Field ID	2 CC INV	2 CC MACRO INV	4 CC INV	5 SD2 INV
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	4	5
Description	Amphipods	Blue crab	Amphipods	Grass Shrimp
Replicate analysis?				
Analyzed by	CBL	CBL	CBL	CBL
Lipid Content (%)	0.59%	2.14%	0.62%	0.80%
1	ND	ND	ND	ND
3	ND	0.54	1.04	ND
4,10	ND	ND	ND	ND
7,9	0.22	0.07	ND	ND
6	0.04	0.04	ND	0.03
8,5	1.74	1.77	ND	ND
19	ND	ND	ND	ND
12,13	0.03	0.07	ND	ND
18	0.43	1.07	0.45	0.16
17	0.20	0.62	0.23	ND
24	0.04	0.02	0.06	0.06
16,32	0.51	0.34	0.66	ND
29	ND	ND	ND	ND
26	ND	0.04	ND	ND
25	0.04	0.05	0.04	ND
31, 28	0.57	1.44	0.39	0.44
33,21,53	0.74	1.03	0.77	0.49
51	0.14	0.07	0.14	ND
22	0.51	0.20	ND	ND
45	0.36	0.47	0.36	0.16
46	0.31	0.23	ND	ND
52	0.77	0.07	0.86	0.55
49	ND	ND	ND	ND
47,48	1.13	1.78	1.34	0.82
44	0.64	0.21	0.58	0.34
37,42	0.51	0.28	0.36	0.26
41,64,71	1.27	0.92	1.23	0.89
40	0.21	0.12	0.19	0.07
100	0.15	0.53	0.24	0.09
63	0.06	0.04	0.09	0.04
74	0.49	1.76	0.37	0.37
70,76	0.74	0.34	0.54	ND
66,95	3.15	3.33	3.58	1.22
91	0.31	0.06	0.33	0.05
56,60/92,84	1.13	2.56	2.36	1.26
89	1.78	0.63	1.65	0.28
101	1.14	0.71	1.30	0.47
99	0.57	2.97	0.61	0.41
119	0.23	0.29	ND	ND
83	0.18	0.20	0.17	0.07
97	1.97	2.32	1.82	1.38
81,87	ND	ND	ND	ND
85	0.33	1.19	0.29	ND
136	0.22	0.09	0.24	0.06
77,110	2.07	1.02	2.10	0.38

Field ID	2 CC INV	2 CC MACRO INV	4 CC INV	5 SD2 INV
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	4	5
Description	Amphipods	Blue crab	Amphipods	Grass Shrimp
Replicate analysis?				
Analyzed by	CBL	CBL	CBL	CBL
Lipid Content (%)	0.59%	2.14%	0.62%	0.80%
82, 151	0.21	0.07	0.21	0.11
135,144	0.47	0.14	0.50	0.14
107	0.18	0.21	0.17	0.13
123,149	2.04	0.87	2.05	0.54
118	1.11	4.73	1.16	0.89
134	0.09	0.14	0.11	0.15
146	0.85	1.87	1.24	1.50
132,105,153	5.36	15.69	5.84	4.70
141	0.67	0.20	0.46	0.39
137,130,176	ND	ND	ND	ND
163,138	3.08	8.75	2.81	1.89
158	ND	ND	ND	ND
129,178	0.36	1.10	0.35	0.38
187,182	1.57	3.89	1.71	2.25
183	0.62	2.37	0.63	0.36
128	0.16	0.70	0.01	ND
185	0.19	0.10	0.16	0.12
174	0.79	0.41	0.57	0.61
177	0.70	0.14	0.58	0.49
202,171,156	0.64	2.42	0.57	0.84
157,200	0.08	0.93	0.16	0.29
172,197	0.22	0.51	0.21	0.69
180	1.63	3.89	1.14	2.25
193	0.74	1.06	0.38	0.26
191	ND	0.10	ND	ND
199	ND	ND	ND	ND
170,190	0.67	1.58	0.50	0.77
198	0.05	0.22	0.05	0.13
201	0.45	1.48	0.50	1.38
203,196	0.90	3.43	0.82	1.77
189	ND	0.05	ND	ND
208,195	0.28	3.30	0.59	1.99
207	0.06	0.82	0.13	0.39
194	0.21	0.47	0.14	0.43
205	0.03	0.03	ND	ND
206	0.27	3.71	0.67	2.97
209	0.17	2.92	0.46	1.81
T PCBs	50	98	49	41
Recovery				
14	105%	119%	68%	77%
65	NM	NM	NM	NM
166	92%	96%	66%	68%

Table A-16. PCB concentrations in Invertebrates (ng/g) from Spring 2002 Core Study

Field ID	2 CORE INV	3 CORE INVA	3 COR INVC	3 CORE INV	3 CORE MACRO INV	4 CORE INV	4 CORE MACRO INV	5 CORE INV
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	3	3	3	4	4	4	5
Description	Amphipods	Amphipods	Amphipods	Amphipods	Crayfish	Amphipods	Crayfish	Amphipods
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	1.65%	2.24%	0.86%	1.6%	1.79%	1.28%	1.08%	1.21%
1	ND	ND	ND	ND	0.09	0.11	0.10	0.13
3	ND	2.09	1.85	1.97	0.22	2.63	ND	ND
4,10	2.63	0.96	0.70	0.83	0.20	0.53	0.21	0.57
7,9	ND	0.19	0.10	0.15	0.04	ND	0.04	0.06
6	0.14	0.01	0.02	0.02	0.03	ND	0.02	0.09
8,5	5.58	5.30	2.79	4.04	0.44	1.42	0.27	5.14
19	0.25	0.17	0.13	0.15	0.04	0.07	0.03	0.10
12,13	0.18	0.04	ND	0.04	0.04	ND	0.02	ND
18	2.11	2.31	1.11	1.71	0.40	0.44	0.31	1.08
17	0.72	0.79	0.47	0.63	0.22	0.22	0.09	0.41
24	0.07	0.08	0.05	0.07	0.01	0.03	0.01	0.03
16,32	0.85	1.22	0.85	1.04	0.14	0.41	0.15	0.80
29	0.10	0.07	0.04	0.06	0.03	0.03	0.02	0.03
26	0.15	0.26	0.15	0.21	0.04	ND	0.10	ND
25	ND	ND	ND	ND	ND	ND	ND	ND
31, 28	3.06	2.39	1.26	1.83	1.00	0.80	0.68	1.30
33,21,53	1.98	2.14	1.27	1.71	0.38	0.55	0.34	1.35
51	0.32	0.72	0.45	0.58	0.06	0.20	0.03	0.46
22	0.95	0.57	ND	0.57	0.12	0.38	ND	ND
45	1.53	1.51	0.88	1.19	0.14	0.49	0.09	1.10
46	0.04	0.65	0.51	0.58	0.07	0.24	0.04	0.54
52	3.67	4.30	2.32	3.31	0.80	1.33	1.00	2.24
49	ND	ND	ND	ND	ND	ND	ND	ND
47,48	4.36	3.93	1.04	2.48	0.63	1.03	0.68	1.19
44	2.80	2.60	1.67	2.14	0.17	0.93	0.25	1.62
37,42	1.70	1.61	1.00	1.30	0.12	0.40	0.13	0.97
41,64,71	3.35	2.53	2.21	2.37	0.46	1.18	0.25	1.94
40	0.45	0.69	0.52	0.61	0.07	0.31	0.04	0.56
100	0.74	0.72	0.43	0.57	0.19	1.54	0.06	0.45
63	0.51	0.27	0.22	0.24	0.20	0.20	0.06	0.21
74	2.54	1.96	1.03	1.50	0.95	0.67	0.42	1.05
70,76	3.70	3.43	1.95	2.69	0.63	1.03	0.42	1.82
66,95	10.49	12.26	6.09	9.17	2.44	3.24	1.68	6.19
91	1.19	1.22	0.60	0.91	0.05	0.25	0.07	0.71
56,60/92,84	6.40	5.84	2.62	4.23	1.02	1.53	1.28	6.23
89	7.81	8.32	3.84	6.08	0.35	2.22	0.15	4.47

Field ID	2 CORE INV	3 CORE INVA	3 COR INVC	3 CORE INV	3 CORE MACRO INV	4 CORE INV	4 CORE MACRO INV	5 CORE INV
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	3	3	3	4	4	4	5
Description	Amphipods	Amphipods	Amphipods	Amphipods	Crayfish	Amphipods	Crayfish	Amphipods
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	1.65%	2.24%	0.86%	1.6%	1.79%	1.28%	1.08%	1.21%
101	6.29	4.29	2.47	3.38	1.94	1.40	1.06	2.64
99	3.19	2.23	1.28	1.75	1.12	0.81	0.40	1.54
119	1.08	0.81	0.49	0.65	0.10	0.24	0.04	0.58
83	0.85	0.72	0.45	0.59	0.16	0.27	0.05	0.43
97	10.56	5.19	3.48	4.34	1.28	0.97	0.56	3.97
81,87	0.53	0.44	0.47	0.46	0.09	0.15	ND	0.25
85	2.14	1.00	0.60	0.80	0.31	0.25	0.08	0.59
136	0.52	0.83	0.42	0.62	0.05	0.24	0.03	0.44
77,110	9.01	6.68	3.95	5.31	0.44	2.48	0.21	4.42
82, 151	0.54	0.68	0.31	0.50	0.15	0.18	0.07	0.36
135,144	1.69	1.70	0.76	1.23	0.27	0.53	0.17	0.89
107	0.74	0.63	0.26	0.44	0.25	0.19	0.11	0.31
123,149	8.76	6.74	3.18	4.96	1.24	2.00	0.60	3.74
118	7.07	3.55	1.80	2.67	2.50	1.24	0.98	2.06
134	0.67	0.56	0.23	0.40	0.05	0.15	0.07	0.17
146	3.65	2.35	1.28	1.81	1.11	0.72	0.69	1.59
132,105,153	30.65	16.96	8.39	12.68	7.03	4.86	4.02	11.11
141	3.12	2.51	1.03	1.77	1.12	0.67	0.79	1.25
137,130,176	1.21	0.81	ND	0.81	0.23	0.26	0.14	0.49
163,138	19.73	9.27	4.71	6.99	5.39	2.95	2.70	5.68
158	1.15	1.01	0.93	0.97	0.19	ND	0.27	0.81
129,178	1.96	1.30	0.51	0.90	0.57	0.36	0.29	0.74
187,182	8.59	4.58	2.02	3.30	2.45	1.30	1.22	2.93
183	4.64	2.27	0.98	1.62	0.49	0.61	0.29	1.28
128	1.62	0.78	0.38	0.58	0.14	0.23	0.05	0.46
185	0.77	0.50	0.18	0.34	0.11	0.11	0.08	0.25
174	3.13	2.29	1.00	1.64	0.75	0.59	0.55	1.26
177	3.35	1.89	0.78	1.33	0.83	0.49	0.41	0.99
202,171,156	3.47	1.54	0.77	1.15	0.20	0.46	0.11	1.06
157,200	1.02	0.40	0.21	0.30	0.17	0.13	0.10	0.34
172,197	1.56	0.57	0.37	0.47	0.25	0.17	0.15	0.47
180	12.61	5.21	2.30	3.75	3.25	1.45	1.71	3.10
193	13.46	4.89	1.97	3.43	0.69	1.07	0.22	3.07
191	0.36	0.09	ND	0.09	0.06	ND	0.03	ND
199	ND	ND	ND	ND	ND	ND	ND	ND
170,190	5.19	2.32	1.00	1.66	1.01	0.61	0.57	1.30
198	0.31	0.10	0.06	0.08	0.03	0.04	0.02	0.11
201	3.41	1.36	0.76	1.06	0.67	0.51	0.39	1.19

Field ID	2 CORE INV	3 CORE INVA	3 COR INVC	3 CORE INV	3 CORE MACRO INV	4 CORE INV	4 CORE MACRO INV	5 CORE INV
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	3	3	3	4	4	4	5
Description	Amphipods	Amphipods	Amphipods	Amphipods	Crayfish	Amphipods	Crayfish	Amphipods
Replicate analysis?								
Analyzed by	CBL	CBL	CBL	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	1.65%	2.24%	0.86%	1.6%	1.79%	1.28%	1.08%	1.21%
203,196	6.71	2.32	1.15	1.73	0.53	0.76	0.29	1.84
189	0.25	0.05	0.03	0.04	0.03	0.02	0.02	0.03
208,195	2.16	0.72	0.62	0.67	0.29	0.39	0.23	1.06
207	0.41	0.13	0.14	0.13	0.05	0.09	0.04	0.23
194	2.04	0.56	0.25	0.41	0.29	0.20	0.15	0.37
205	0.21	ND	ND	ND	0.02	0.05	0.01	ND
206	2.31	0.74	0.88	0.81	0.17	0.59	0.17	1.35
209	0.94	0.39	0.39	0.39	0.13	0.28	0.10	0.43
T PCBs	264	175	91	134	50	55	29	110
Recovery								
14	164%	108%	111%	109%	118%	57%	52%	124%
65	NM	NM	NM	NM	NM	NM	NM	NM
166	82%	65%	81%	73%	58%	37%	39%	64%

Table A-17. PCB concentrations in Invertebrates (ng/g) from Spring 2002 Variability Study

Field ID	2 CC INV	5 SED1 INVB1	5 SED1 INVB2	5 SED1 INVB3	5 SED1 MACRO INV
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	5	5	5	5
Description	Amphipods	Amphipods	Amphipods	Amphipods	White fingered mud crab
Replicate analysis?		Rep A	Rep B	Rep C	
Analyzed by	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	1.02%	1.35%	1.32%	1.22%	1.42%
1	0.19	0.34	0.06	0.06	0.40
3	0.79	0.37	0.08	0.24	ND
4,10	0.83	0.41	0.15	0.11	0.55
7,9	0.07	0.04	0.02	0.02	0.06
6	0.02	0.01	0.00	ND	0.02
8,5	1.71	1.35	0.73	0.64	0.80
19	0.06	0.06	0.03	0.02	0.04
12,13	0.05	ND	ND	ND	0.03
18	0.49	0.52	0.18	0.14	0.41
17	0.17	0.40	0.40	0.24	0.17
24	0.03	0.03	0.01	0.01	0.03
16,32	0.26	0.33	0.15	0.10	0.28
29	0.02	0.03	0.01	0.01	0.03
26	ND	0.10	0.07	0.08	ND
25	ND	ND	ND	ND	ND
31, 28	0.56	0.53	0.21	0.19	0.20
33,21,53	0.52	0.56	0.24	0.20	0.43
51	0.13	0.14	0.08	0.08	ND
22	ND	0.24	0.15	0.14	ND
45	0.35	0.33	0.16	0.15	0.16
46	0.22	0.17	0.08	0.08	0.08
52	0.91	0.97	0.63	0.57	0.41
49	ND	ND	ND	ND	ND
47,48	ND	0.97	0.47	0.41	1.08
44	0.52	0.65	0.41	0.37	0.21
37,42	0.32	0.44	0.26	0.25	0.25
41,64,71	0.82	0.67	0.46	0.41	0.76
40	0.13	0.26	0.13	0.11	0.08
100	0.13	9.44	9.67	6.54	0.11
63	0.02	0.13	0.04	0.05	0.07
74	0.45	0.45	0.20	0.19	0.68
70,76	0.59	0.72	0.44	0.39	0.30
66,95	3.31	2.78	1.69	1.49	1.15
91	0.28	0.38	0.23	0.20	0.24
56,60/92,84	1.12	1.37	0.91	0.84	0.58
89	2.12	1.57	1.05	0.76	0.36
101	1.08	1.13	0.72	0.64	1.14
99	0.56	0.73	0.48	0.44	0.71
119	0.32	0.23	0.15	0.13	0.21
83	0.16	0.19	0.11	0.11	0.09
97	1.24	1.65	0.74	0.60	2.01
81,87	0.38	0.20	0.05	ND	0.23
85	0.28	0.22	0.16	0.17	0.22
136	0.20	0.18	0.12	0.09	0.05
77,110	1.59	1.90	1.28	1.13	1.80

Field ID	2 CC INV	5 SED1 INVB1	5 SED1 INVB2	5 SED1 INVB3	5 SED1 MACRO INV
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Zone	2	5	5	5	5
Description	Amphipods	Amphipods	Amphipods	Amphipods	White fingered mud crab
Replicate analysis?		Rep A	Rep B	Rep C	
Analyzed by	CBL	CBL	CBL	CBL	CBL
Lipid Content (%)	1.02%	1.35%	1.32%	1.22%	1.42%
82, 151	0.16	0.15	0.09	0.08	0.08
135,144	0.49	0.41	0.27	0.24	0.28
107	0.16	0.17	0.11	0.10	0.26
123,149	1.96	1.70	1.09	0.99	1.09
118	0.95	0.87	0.57	0.49	1.09
134	0.11	0.20	0.10	0.11	0.15
146	0.93	0.84	0.51	0.45	1.55
132,105,153	5.61	4.68	2.76	2.57	7.60
141	0.72	0.49	0.31	0.28	0.54
137,130,176	ND	ND	0.09	ND	0.27
163,138	2.40	2.54	1.62	1.49	3.71
158	ND	0.42	ND	ND	0.81
129,178	0.26	0.35	0.20	0.18	0.68
187,182	1.43	1.51	0.92	0.85	3.60
183	0.70	0.58	0.34	0.32	1.01
128	0.23	0.20	0.11	0.12	0.32
185	0.15	0.09	0.05	0.06	0.10
174	0.67	0.53	0.32	0.30	0.67
177	0.55	0.44	0.29	0.27	0.84
202,171,156	0.42	0.56	0.35	0.33	1.19
157,200	0.06	0.19	0.10	0.08	0.61
172,197	ND	0.32	0.19	0.16	0.56
180	1.27	1.54	0.94	0.85	2.75
193	1.63	0.88	0.54	0.49	0.49
191	ND	ND	0.02	ND	0.04
199	ND	ND	ND	ND	ND
170,190	0.57	0.60	0.36	0.35	0.86
198	0.07	0.07	0.04	0.04	0.16
201	0.36	0.78	0.47	0.42	1.94
203,196	0.61	1.13	0.65	0.59	2.36
189	0.03	0.02	0.01	0.02	0.03
208,195	0.18	0.74	0.43	0.38	2.29
207	0.07	0.17	0.10	0.09	0.60
194	0.13	0.22	0.12	0.11	0.41
205	ND	0.01	ND	ND	ND
206	0.12	1.15	0.66	0.56	2.56
209	ND	0.54	0.29	0.25	1.87
T PCBs	46	58	38	32	60
Recovery					
14	46%	111%	75%	68%	80%
65	NM	NM	NM	NM	NM
166	35%	66%	43%	41%	61%

Table A-18. PCB concentrations in Sediments (ng/g) from Fall 2001 Core Study

Field ID	02sed1	02sed1	02sed1	2 CORE	03sed1	03sed1	03sed1	3 CORE	04sed1	04sed1	04sed2
ANS Chem ID	7310A	7310B	7310C		7311A	7311B	7311C		7312	7312dup	7313
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	2	3	3	3	3	4	4	4
Description	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Replicate analysis?	Rep A	Rep B	Rep C		Rep A	Rep B	Rep C		Rep A	Rep B	
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	42	40	41	41	41	42	39	40	54	55	72
Sediment % Water	58	60	59	59	59	58	61	60	46	45	28
Sediment % Org Carbon	3.69	3.69	3.69	3.69	6.27	6.27	6.27	6.27	1.75	1.75	6.59
1	ND	Sample Lost	ND	ND	0.23	ND	ND	0.23	0.53	ND	ND
3	ND		ND	ND	ND	ND	ND	ND	ND	0.87	0.46
4,10	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
7,9	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
6	0.11		0.04	0.08	0.08	0.09	0.13	0.10	0.03	0.03	0.02
8,5	0.71		0.89	0.80	0.60	0.45	0.57	0.54	0.47	0.39	0.32
19	0.09		0.05	0.07	0.06	0.09	0.29	0.15	0.03	0.04	0.05
12,13	0.02		0.03	0.02	0.31	0.07	0.02	0.14	0.01	0.01	0.01
18	0.19		0.28	0.23	1.34	1.23	1.73	1.43	0.21	0.22	0.17
17	0.36		0.42	0.39	0.72	0.66	0.88	0.75	0.23	0.24	0.27
24	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
16,32	0.42		0.30	0.36	1.04	0.96	1.36	1.12	0.25	0.24	0.17
29	ND		ND	ND	ND	ND	ND	ND	0.01	ND	0.00
26	ND		0.02	0.02	0.37	0.39	0.56	0.44	0.16	0.13	0.16
25	ND		ND	ND	0.37	0.22	0.27	0.29	0.10	0.11	0.09
31, 28	0.93		0.99	0.96	8.36	4.55	6.43	6.45	0.80	1.20	1.34
33,21,53	0.57		0.34	0.45	2.02	1.93	2.64	2.20	0.54	0.39	0.27
51	0.07		0.07	0.07	0.26	0.26	0.31	0.28	0.08	0.07	0.05
22	0.25		0.22	0.23	0.93	0.89	1.24	1.02	0.23	0.16	0.19
45	0.19		0.11	0.15	0.49	0.45	0.60	0.51	0.16	0.12	0.08
46	0.08		0.11	0.09	0.24	0.22	0.30	0.25	0.06	0.06	0.03
52	0.74		1.84	1.29	3.37	3.21	4.55	3.71	1.09	0.79	0.78
49	0.82		1.06	0.94	2.95	2.84	3.88	3.22	0.92	0.69	0.61
47,48	1.17		1.06	1.11	3.98	3.71	5.30	4.33	1.08	0.77	0.56
44	0.72		1.22	0.97	3.65	3.43	4.98	4.02	1.08	0.68	0.59
37,42	0.56		0.56	0.56	2.17	2.06	2.93	2.39	0.67	0.45	0.36
41,64,71	0.93		0.93	0.93	5.26	3.48	6.94	5.22	1.45	1.03	0.52
40	0.14		0.26	0.20	0.65	0.67	0.84	0.72	0.25	0.13	0.11
100	ND		ND	ND	0.10	0.11	0.16	0.12	ND	ND	ND
63	ND		ND	ND	0.12	0.14	0.19	0.15	ND	ND	0.03
74	0.29		0.50	0.39	2.19	2.10	2.98	2.42	0.67	0.32	0.36
70,76	1.02		2.43	1.73	6.32	6.20	8.76	7.09	2.30	1.25	1.53
66,95	3.60		5.68	4.64	15.63	13.66	19.97	16.42	4.02	2.24	3.23

Field ID	02sed1	02sed1	02sed1	2 CORE	03sed1	03sed1	03sed1	3 CORE	04sed1	04sed1	04sed2
ANS Chem ID	7310A	7310B	7310C		7311A	7311B	7311C		7312	7312dup	7313
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	2	3	3	3	3	4	4	4
Description	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Replicate analysis?	Rep A	Rep B	Rep C		Rep A	Rep B	Rep C		Rep A	Rep B	
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	42	40	41	41	41	42	39	40	54	55	72
Sediment % Water	58	60	59	59	59	58	61	60	46	45	28
Sediment % Org Carbon	3.69	3.69	3.69	3.69	6.27	6.27	6.27	6.27	1.75	1.75	6.59
91	0.20		0.36	0.28	0.52	0.55	0.81	0.63	0.29	0.20	0.14
56,60/92,84	2.93		1.70	2.31	4.82	7.99	10.79	7.87	3.48	2.03	2.15
89	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
101	1.07		2.22	1.65	3.35	3.38	4.72	3.82	1.28	0.90	0.85
99	0.71		1.14	0.93	1.47	1.52	2.03	1.67	0.72	0.48	0.45
119	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
83	0.12		0.16	0.14	0.19	0.20	0.26	0.22	0.13	0.10	0.07
97	0.41		0.77	0.59	0.78	0.74	1.06	0.86	0.44	0.28	0.26
81,87	ND		ND	ND	0.23	0.23	0.32	0.26	0.13	ND	ND
85	0.23		0.30	0.27	0.49	0.48	0.68	0.55	0.27	0.18	0.12
136	0.19		0.26	0.22	0.60	0.59	0.81	0.67	0.14	0.12	0.09
77,110	2.04		4.27	3.15	5.24	5.53	7.50	6.09	2.56	1.78	1.71
82, 151	0.93		1.29	1.11	2.75	2.71	3.63	3.03	0.77	0.56	0.47
135,144	0.43		0.67	0.55	1.40	1.37	1.84	1.53	0.40	0.31	0.24
107	0.11		0.19	0.15	0.35	0.35	0.51	0.40	0.13	0.08	0.08
123,149	1.88		2.76	2.32	6.65	6.81	9.00	7.49	1.48	1.23	0.93
118	1.12		2.58	1.85	2.66	2.87	3.83	3.12	1.40	0.83	0.96
134	ND		0.02	0.02	0.03	ND	0.06	0.04	0.02	0.03	0.01
146	0.22		0.29	0.25	0.77	0.78	0.12	0.55	0.23	0.16	0.12
132,105,153	3.83		5.35	4.59	14.32	14.32	19.06	15.90	2.80	2.22	1.84
141	0.40		0.38	0.39	1.17	1.10	1.39	1.22	0.25	0.20	0.15
137,130,176	0.12		0.34	0.23	0.57	0.56	0.71	0.61	0.16	0.11	0.08
163,138	3.74		6.12	4.93	12.48	12.92	17.12	14.17	2.94	2.22	1.85
158	0.03		0.04	0.04	0.06	0.06	0.08	0.07	0.02	0.01	ND
129,178	0.36		0.43	0.39	0.90	0.84	1.14	0.96	0.27	0.20	0.14
187,182	1.63		1.64	1.63	4.11	3.95	5.14	4.40	1.00	0.76	0.55
183	0.84		0.69	0.76	2.52	2.43	3.04	2.66	0.40	0.31	0.26
128	0.20		0.38	0.29	0.47	0.49	0.62	0.53	0.18	0.13	0.10
185	0.23		0.20	0.22	0.45	0.41	0.53	0.46	0.07	0.06	0.07
174	0.88		0.95	0.91	3.10	3.04	3.92	3.35	0.57	0.45	0.38
177	0.89		0.93	0.91	2.49	2.34	2.96	2.60	0.54	0.40	0.32
202,171,156	0.73		0.89	0.81	3.20	3.04	4.25	3.50	0.51	0.36	0.26
157,200	0.29		0.33	0.31	0.85	0.82	1.13	0.93	0.19	0.12	0.08
172,197	0.16		0.16	0.16	0.42	0.39	0.49	0.43	0.08	0.09	0.06
180	3.00		3.56	3.28	11.83	11.29	14.69	12.60	1.86	1.39	1.23

Field ID	02sed1	02sed1	02sed1	2 CORE	03sed1	03sed1	03sed1	3 CORE	04sed1	04sed1	04sed2
ANS Chem ID	7310A	7310B	7310C		7311A	7311B	7311C		7312	7312dup	7313
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	2	2	2	2	3	3	3	3	4	4	4
Description	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Replicate analysis?	Rep A	Rep B	Rep C		Rep A	Rep B	Rep C		Rep A	Rep B	
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	42	40	41	41	41	42	39	40	54	55	72
Sediment % Water	58	60	59	59	59	58	61	60	46	45	28
Sediment % Org Carbon	3.69	3.69	3.69	3.69	6.27	6.27	6.27	6.27	1.75	1.75	6.59
193	0.22		0.31	0.26	0.90	0.76	1.11	0.92	0.16	0.07	0.03
191	0.05		0.03	0.04	0.17	0.11	0.17	0.15	0.02	0.03	0.03
199	0.08		0.09	0.08	0.24	0.21	0.29	0.25	0.05	0.04	0.03
170,190	2.38		2.53	2.45	8.51	8.07	10.43	9.01	1.26	1.13	1.01
198	0.06		0.10	0.08	0.43	0.40	0.59	0.47	0.06	0.04	0.02
201	1.72		3.53	2.63	8.45	7.98	11.62	9.35	1.24	1.03	0.54
203,196	1.93		4.56	3.25	8.20	7.72	11.18	9.03	1.23	0.95	0.59
189	0.08		0.16	0.12	0.30	0.34	0.35	0.33	0.09	0.03	0.05
208,195	0.65		0.85	0.75	2.55	1.39	3.45	2.46	0.23	0.19	0.20
207	0.13		0.30	0.21	1.84	1.56	2.41	1.94	0.18	0.18	0.06
194	0.87		2.28	1.57	2.76	2.50	3.63	2.96	0.52	0.35	0.28
205	0.14		0.04	0.09	0.11	0.13	0.21	0.15	0.03	0.01	0.02
206	1.81		9.34	5.58	27.52	26.87	39.09	31.16	3.69	3.77	1.06
209	0.13		0.21	0.17	4.09	3.72	5.75	4.52	0.39	0.36	0.11
T PCBs (ng/g wet weight)	54		85	70	221	210	293	242	52	39	32
Recovery											
14	132%		127%	129%	110%	123%	150%	128%	141%	142%	148%
65	111%		103%	107%	82%	92%	112%	95%	115%	112%	116%
166	111%		107%	109%	86%	103%	125%	105%	123%	121%	121%

Table A-18. PCB concentrat

Field ID	4 CORE	05sed2	05sed2	05sed2	05sed3	05sed3	5 CORE
ANS Chem ID		7316A	7316B	7316C	7317A	7317B	
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	5	5	5	5	5	5
Description	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Replicate analysis?		Rep A	Rep B	Rep C	Rep A	Rep B	
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	61	69	73	72	71	69	60
Sediment % Water	39	31	27	28	29	31	40
Sediment % Org Carbon	4.17	0.76	0.76	0.76	0.67	0.67	1.09
1	0.38	ND	ND	ND	ND	ND	ND
3	0.66	ND	0.46	ND	ND	0.48	0.47
4,10	ND	ND	ND	ND	ND	ND	ND
7,9	ND	ND	ND	ND	ND	ND	ND
6	0.04	ND	ND	ND	ND	0.04	0.02
8,5	0.39	ND	ND	ND	ND	0.29	0.18
19	0.06	ND	ND	0.02	0.02	0.01	0.02
12,13	0.03	0.01	0.00	0.08	0.01	0.08	0.03
18	0.40	0.17	0.13	0.20	0.03	0.07	0.17
17	0.34	0.02	0.06	0.05	0.07	0.11	0.05
24	ND	ND	ND	ND	ND	ND	ND
16,32	0.35	ND	0.05	0.04	0.05	0.05	0.05
29	ND	ND	ND	ND	ND	0.00	0.00
26	0.20	0.04	0.05	0.03	0.03	0.05	0.03
25	0.13	0.09	0.04	0.06	0.07	0.07	0.08
31, 28	2.08	0.18	0.23	0.18	0.27	0.43	0.24
33,21,53	0.66	0.08	0.10	0.07	0.08	0.17	0.08
51	0.09	0.00	0.01	0.01	0.01	0.01	0.01
22	0.33	ND	ND	0.07	0.05	0.09	0.07
45	0.17	0.01	0.04	0.01	0.02	0.03	0.04
46	0.08	0.01	0.01	0.01	0.01	0.01	0.01
52	1.32	0.13	0.26	0.12	0.16	0.18	0.14
49	1.11	0.13	0.22	0.11	0.19	0.45	0.18
47,48	1.31	0.10	0.18	0.16	0.16	0.15	0.18
44	1.26	0.08	0.18	0.15	0.14	0.15	0.12
37,42	0.77	0.06	0.10	0.05	0.10	0.25	0.10
41,64,71	1.55	0.23	0.27	0.14	0.27	0.18	0.19
40	0.24	0.01	0.04	0.03	0.03	0.04	0.03
100	0.12	ND	ND	ND	ND	ND	ND
63	0.09	ND	ND	ND	ND	ND	ND
74	0.75	0.09	0.07	0.06	0.08	0.11	0.06
70,76	2.54	0.22	0.31	0.20	0.30	0.35	0.19
66,95	5.40	0.49	0.67	0.47	0.78	0.77	0.46

Field ID	4 CORE	05sed2	05sed2	05sed2	05sed3	05sed3	5 CORE
ANS Chem ID		7316A	7316B	7316C	7317A	7317B	
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	5	5	5	5	5	5
Description	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Replicate analysis?		Rep A	Rep B	Rep C	Rep A	Rep B	
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	61	69	73	72	71	69	60
Sediment % Water	39	31	27	28	29	31	40
Sediment % Org Carbon	4.17	0.76	0.76	0.76	0.67	0.67	1.09
91	0.26	0.03	0.07	0.04	0.03	0.04	0.04
56,60/92,84	3.31	0.57	1.39	0.48	0.56	0.75	0.74
89	NA	NA	NA	NA	NA	NA	NA
101	1.43	0.14	0.28	0.15	0.17	0.19	0.15
99	0.70	0.09	0.14	0.09	0.10	0.11	0.09
119	NA	NA	NA	NA	NA	NA	NA
83	0.11	0.02	0.02	0.01	0.02	0.02	0.02
97	0.39	0.05	0.07	0.05	0.06	0.06	0.05
81,87	0.19	ND	ND	ND	ND	ND	ND
85	0.22	ND	0.03	0.02	0.03	0.02	0.03
136	0.20	0.01	0.05	0.02	0.02	0.03	0.04
77,110	2.59	0.24	0.46	0.28	0.34	0.39	0.22
82, 151	0.96	0.08	0.22	0.08	0.09	0.11	0.08
135,144	0.49	0.06	0.12	0.05	0.06	0.06	0.05
107	0.14	0.03	0.02	0.01	0.01	0.02	0.02
123,149	2.17	0.15	0.47	0.19	0.22	0.25	0.21
118	1.37	0.11	0.18	0.13	0.17	0.20	0.12
134	0.02	ND	ND	ND	ND	ND	0.03
146	0.22	0.02	0.05	0.03	0.03	0.04	0.06
132,105,153	4.41	0.33	0.89	0.38	0.44	0.50	0.37
141	0.35	0.04	0.09	0.04	0.04	0.05	0.06
137,130,176	0.19	0.03	0.03	0.01	0.02	0.02	0.02
163,138	4.15	0.26	0.72	0.35	0.39	0.47	0.30
158	0.03	ND	ND	ND	ND	ND	ND
129,178	0.31	0.07	0.08	0.03	0.04	0.04	0.07
187,182	1.30	0.15	0.28	0.15	0.21	0.27	0.38
183	0.69	0.10	0.15	0.08	0.07	0.07	0.18
128	0.19	0.07	0.02	0.04	0.03	0.03	0.03
185	0.14	0.02	0.04	0.02	0.02	0.02	0.03
174	0.92	0.08	0.20	0.06	0.07	0.10	0.14
177	0.75	0.07	0.18	0.10	0.09	0.09	0.08
202,171,156	0.86	0.08	0.12	0.07	0.08	0.10	0.57
157,200	0.25	0.04	0.05	0.06	0.02	0.04	0.39
172,197	0.13	ND	0.04	0.02	0.02	0.02	0.04
180	3.26	0.19	0.62	0.25	0.27	0.31	0.24

Field ID	4 CORE	05sed2	05sed2	05sed2	05sed3	05sed3	5 CORE
ANS Chem ID		7316A	7316B	7316C	7317A	7317B	
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Zone	4	5	5	5	5	5	5
Description	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Replicate analysis?		Rep A	Rep B	Rep C	Rep A	Rep B	
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	61	69	73	72	71	69	60
Sediment % Water	39	31	27	28	29	31	40
Sediment % Org Carbon	4.17	0.76	0.76	0.76	0.67	0.67	1.09
193	0.21	ND	0.06	0.02	0.02	0.02	0.03
191	0.05	0.01	ND	ND	ND	ND	0.01
199	0.07	0.02	0.02	0.01	0.01	0.01	0.05
170,190	2.40	0.31	0.48	0.19	0.23	0.33	0.20
198	0.11	ND	0.01	0.01	0.02	0.01	0.15
201	2.20	0.23	0.34	0.25	0.29	0.38	3.08
203,196	2.16	0.26	0.34	0.22	0.29	0.25	2.44
189	0.10	0.06	0.04	0.02	0.00	0.03	0.03
208,195	0.58	ND	ND	ND	ND	ND	0.49
207	0.41	0.04	0.08	0.06	0.06	0.06	1.13
194	0.78	0.06	0.14	0.07	0.09	0.10	0.25
205	0.04	0.01	0.00	0.00	0.01	0.01	0.04
206	6.97	0.93	0.95	1.09	1.21	1.17	21.44
209	0.93	0.10	0.11	0.13	0.12	0.11	1.68
T PCBs (ng/g wet weight)	73	7	13	8	9	12	39
Recovery							
14	148%	145%	136%	NM	139%	138%	131%
65	116%	115%	110%	125%	114%	112%	109%
166	121%	117%	117%	131%	126%	121%	120%

Table A-19. PCB concentrations in Sediments (ng/g) from Fall 2001 Variability Study

Field ID	4 CC	05sed1	05sed1	05sed1	05sedvar1	05sedvar1	05sedvar1	05sedvar2	05sedvar2	05sedvar2
ANS Chem ID	7314	7315A	7315B	7315C	7318A	7318B		7319A	7319Adup	7319B
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	4	5	5	5	5	5	5	5	5	5
Replicate analysis?		Rep A	Rep B	Rep C	Rep A	Rep B	Average	Rep A	Rep A dup	Rep B
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	65	65	63	63	46	46	46	50	51	53
Sediment % Water	35	35	37	37	54	54	54	50	49	47
Sediment % Org Cart	1.118	1.844	1.844	1.844	1.981	1.981	1.981	1.791	1.791	1.791
1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3	0.49	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
7,9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6	ND	ND	ND	ND	ND	0.01	0.01	ND	ND	ND
8,5	ND	ND	ND	ND	0.07	ND	0.07	ND	ND	ND
19	0.02	0.03	ND	0.02	0.02	ND	0.02	ND	ND	ND
12,13	0.01	0.01	0.01	0.02	ND	ND	ND	ND	0.00	ND
18	ND	0.05	0.22	0.69	ND	0.13	0.13	ND	0.18	0.51
17	0.03	0.04	0.04	ND	0.03	0.02	0.03	0.02	0.02	0.02
24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
16,32	0.04	0.04	ND	ND	ND	ND	ND	ND	ND	ND
29	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
26	0.02	0.03	0.02	0.02	0.01	ND	0.01	0.02	0.02	ND
25	ND	ND	ND	0.10	0.07	0.07	0.07	ND	0.08	ND
31, 28	0.05	0.12	0.26	0.18	ND	ND	ND	ND	ND	ND
33,21,53	0.03	0.07	0.11	0.06	ND	0.04	0.04	0.04	ND	ND
51	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	ND	ND
22	ND	ND	ND	ND	ND	ND	ND	ND	0.14	ND
45	0.02	0.02	0.02	0.19	ND	ND	ND	ND	ND	0.01
46	0.01	0.01	ND	0.01	ND	ND	ND	ND	ND	0.01
52	0.14	0.12	0.15	0.13	0.09	ND	0.09	0.08	0.09	ND
49	0.11	0.13	0.18	0.17	0.09	0.06	0.07	0.06	0.06	0.04
47,48	0.16	0.30	0.19	0.22	0.17	0.16	0.16	0.14	0.14	0.15
44	0.09	0.07	0.10	0.09	ND	ND	ND	ND	ND	ND
37,42	0.05	0.04	0.09	0.05	ND	ND	ND	ND	ND	ND
41,64,71	0.19	0.09	0.19	0.13	ND	0.17	0.17	0.18	0.21	0.04
40	0.03	0.03	0.04	0.05	ND	ND	ND	ND	ND	ND
100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
63	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
74	0.05	0.03	0.06	0.04	0.04	0.04	0.04	0.02	0.02	ND
70,76	0.14	0.14	0.18	0.14	0.06	0.04	0.05	0.03	0.04	0.03
66,95	261.56	0.42	0.38	0.38	0.17	0.11	0.14	0.14	0.32	0.08

Field ID	4 CC	05sed1	05sed1	05sed1	05sedvar1	05sedvar1	05sedvar1	05sedvar2	05sedvar2	05sedvar2
ANS Chem ID	7314	7315A	7315B	7315C	7318A	7318B		7319A	7319A dup	7319B
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	4	5	5	5	5	5	5	5	5	5
Replicate analysis?		Rep A	Rep B	Rep C	Rep A	Rep B	Average	Rep A	Rep A dup	Rep B
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	65	65	63	63	46	46	46	50	51	53
Sediment % Water	35	35	37	37	54	54	54	50	49	47
Sediment % Org Car	1.118	1.844	1.844	1.844	1.981	1.981	1.981	1.791	1.791	1.791
91	0.04	0.02	0.03	0.03	ND	ND	ND	0.01	ND	ND
56,60/92,84	0.30	ND	ND	ND	ND	ND	ND	ND	ND	ND
89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
101	0.12	0.09	0.08	0.08	ND	ND	ND	ND	ND	ND
99	0.07	0.06	0.07	0.06	ND	ND	ND	0.03	ND	ND
119	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
83	0.01	0.01	0.01	ND	ND	ND	ND	ND	ND	ND
97	0.04	0.03	0.02	0.03	ND	ND	ND	ND	ND	ND
81,87	0.00	ND	ND	ND	ND	ND	ND	ND	ND	ND
85	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
136	0.01	0.05	0.06	0.05	ND	ND	ND	ND	ND	ND
77,110	0.23	0.12	0.12	0.11	0.08	0.06	0.07	ND	ND	ND
82, 151	0.06	0.06	0.05	0.07	0.03	0.02	0.03	0.02	0.02	0.01
135,144	0.04	0.05	0.06	0.06	0.01	0.01	0.01	ND	ND	ND
107	0.01	0.02	0.02	0.02	0.01	ND	0.01	0.01	ND	ND
123,149	0.16	0.26	0.29	0.29	0.06	ND	0.06	ND	ND	ND
118	0.10	0.06	0.05	0.03	ND	ND	ND	ND	ND	ND
134	ND	0.03	0.04	ND	ND	ND	ND	ND	ND	ND
146	ND	0.10	0.13	0.11	ND	ND	ND	ND	ND	ND
132,105,153	0.30	0.33	0.38	0.34	0.15	0.12	0.13	ND	ND	ND
141	0.02	0.12	0.14	0.13	0.02	0.01	0.02	ND	ND	ND
137,130,176	0.02	0.03	0.04	0.02	0.01	ND	0.01	0.01	0.01	ND
163,138	0.27	0.17	0.16	0.15	0.17	0.14	0.16	0.11	0.11	0.10
158	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
129,178	0.02	0.12	0.17	0.13	0.05	0.05	0.05	0.03	0.02	0.02
187,182	0.10	0.61	0.88	0.65	ND	ND	ND	ND	ND	ND
183	0.05	0.39	0.57	0.45	0.06	0.06	0.06	0.06	0.05	0.05
128	0.01	0.00	0.03	0.02	0.02	0.02	0.02	0.03	0.03	0.02
185	0.01	0.03	0.07	0.04	ND	ND	ND	ND	ND	ND
174	0.04	0.23	0.26	0.16	ND	ND	ND	ND	ND	ND
177	0.06	0.08	0.08	0.06	0.04	0.03	0.03	0.04	0.11	0.06
202,171,156	0.03	2.00	2.39	1.85	0.02	0.03	0.02	0.01	0.04	0.02
157,200	ND	1.02	1.25	1.03	ND	ND	ND	ND	ND	ND
172,197	ND	0.05	0.06	0.05	ND	ND	ND	ND	ND	ND
180	0.13	0.26	0.29	0.26	0.05	0.04	0.04	0.02	0.02	0.02

Field ID	4 CC	05sed1	05sed1	05sed1	05sedvar1	05sedvar1	05sedvar1	05sedvar2	05sedvar2	05sedvar2
ANS Chem ID	7314	7315A	7315B	7315C	7318A	7318B		7319A	7319Adup	7319B
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	4	5	5	5	5	5	5	5	5	5
Replicate analysis?		Rep A	Rep B	Rep C	Rep A	Rep B	Average	Rep A	Rep A dup	Rep B
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	65	65	63	63	46	46	46	50	51	53
Sediment % Water	35	35	37	37	54	54	54	50	49	47
Sediment % Org Car	1.118	1.844	1.844	1.844	1.981	1.981	1.981	1.791	1.791	1.791
193	ND	0.01	0.02	0.01	ND	ND	ND	ND	ND	ND
191	ND	ND	0.00	ND	ND	ND	ND	ND	ND	ND
199	0.00	0.18	0.22	0.13	0.01	0.01	0.01	0.01	0.01	ND
170,190	0.11	0.15	0.23	0.11	0.05	0.03	0.04	0.01	0.02	0.03
198	0.02	0.43	0.51	0.38	ND	ND	ND	ND	ND	ND
201	0.13	10.61	13.65	10.72	0.06	0.05	0.05	0.02	0.02	0.01
203,196	0.16	8.50	10.53	8.43	0.05	0.06	0.05	0.03	0.04	0.03
189	0.01	0.02	0.02	0.03	ND	ND	ND	ND	0.03	0.04
208,195	0.03	0.49	ND	ND	ND	ND	ND	ND	ND	ND
207	0.03	3.07	3.91	2.82	ND	ND	ND	ND	ND	ND
194	0.05	0.75	0.90	0.76	0.02	0.01	0.01	0.01	0.01	0.01
205	ND	0.07	0.15	0.07	ND	ND	ND	ND	ND	ND
206	0.58	74.80	98.24	77.14	0.26	0.14	0.20	0.12	0.08	0.07
209	0.07	6.04	7.65	5.78	0.03	0.01	0.02	0.02	0.01	0.01
PCBs (ng/g wet weight)	267	113	146	115	2	2	2	1	2	1
Recovery										
14	135%	145%	144%	140%	126%	120%	123%	122%	129%	105%
65	108%	114%	117%	111%	109%	103%	106%	103%	108%	91%
166	118%	118%	124%	115%	120%	113%	116%	111%	117%	101%

Table A-19. PCB conc

Field ID	05sedvar2	05sedvar3	05sedvar3	05sedvar3	05sedvar4	05sedvar4	05sedvar4	05sedvar4
ANS Chem ID	7319	7320A	7320B	7320	7321A	7321Adup	7321B	7321
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	5	5	5	5	5	5	5	5
Replicate analysis?	Average	Rep A	Rep B	Average	Rep A	Rep A dup	Rep B	Average
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	52	76	74	75	80	80	83	81
Sediment % Water	48	24	26	25	20	20	17	19
Sediment % Org Cart	1.791	0.187	0.187	0.187	0.113	0.113	0.113	0.113
1	ND	ND	ND	ND	ND	ND	ND	ND
3	ND	ND	ND	ND	ND	ND	ND	ND
4,10	ND	ND	ND	ND	ND	ND	ND	ND
7,9	ND	ND	ND	ND	ND	ND	ND	ND
6	ND	ND	0.00	0.00	0.00	0.00	ND	ND
8,5	ND	ND	ND	ND	ND	ND	ND	ND
19	ND	ND	ND	ND	ND	ND	ND	ND
12,13	0.00	ND	0.00	0.00	ND	ND	ND	ND
18	0.35	ND	ND	ND	0.08	0.08	0.08	0.08
17	0.02	ND	0.01	0.01	0.01	0.01	ND	0.01
24	ND	ND	ND	ND	ND	ND	ND	ND
16,32	ND	ND	ND	ND	ND	ND	ND	ND
29	ND	ND	ND	ND	ND	ND	ND	ND
26	0.02	0.01	0.00	0.01	0.01	0.00	0.00	0.00
25	0.08	ND	ND	ND	0.03	ND	ND	0.03
31, 28	ND	0.04	ND	0.04	ND	ND	ND	ND
33,21,53	0.04	ND	0.02	0.02	ND	ND	ND	ND
51	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
22	0.14	ND	ND	ND	ND	ND	ND	ND
45	0.01	ND	ND	ND	ND	ND	ND	ND
46	0.01	0.01	ND	0.01	ND	ND	ND	ND
52	0.08	0.07	0.05	0.06	ND	0.04	ND	0.04
49	0.05	0.09	0.05	0.07	0.03	0.05	0.02	0.03
47,48	0.15	0.21	0.07	0.14	0.07	0.06	0.07	0.07
44	ND	ND	ND	ND	ND	ND	ND	ND
37,42	ND	0.04	ND	0.04	0.02	ND	ND	0.02
41,64,71	0.12	0.02	0.09	0.05	0.00	0.03	ND	0.01
40	ND	ND	ND	ND	ND	ND	ND	ND
100	ND	ND	ND	ND	ND	ND	ND	ND
63	ND	ND	ND	ND	ND	ND	ND	ND
74	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01
70,76	0.03	0.10	0.06	0.08	0.04	0.04	0.03	0.04
66,95	0.15	0.31	0.13	0.22	0.10	0.11	0.05	0.08

Field ID	05sedvar2	05sedvar3	05sedvar3	05sedvar3	05sedvar4	05sedvar4	05sedvar4	05sedvar4
ANS Chem ID	7319	7320A	7320B	7320	7321A	7321Adup	7321B	7321
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	5	5	5	5	5	5	5	5
Replicate analysis?	Average	Rep A	Rep B	Average	Rep A	Rep A dup	Rep B	Average
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	52	76	74	75	80	80	83	81
Sediment % Water	48	24	26	25	20	20	17	19
Sediment % Org Cart	1.791	0.187	0.187	0.187	0.113	0.113	0.113	0.113
91	0.01	0.01	0.01	0.01	0.01	0.01	ND	0.01
56,60/92,84	ND	0.24	ND	0.24	ND	ND	ND	ND
89	NA	NA	NA	NA	NA	NA	NA	NA
101	ND	0.07	0.04	0.06	0.03	0.03	ND	0.03
99	0.03	0.04	0.03	0.03	0.02	0.02	ND	0.02
119	NA	NA	NA	NA	NA	NA	NA	NA
83	ND	0.01	ND	0.01	ND	ND	ND	ND
97	ND	0.02	ND	0.02	ND	ND	ND	ND
81,87	ND	ND	ND	ND	ND	ND	ND	ND
85	ND	ND	ND	ND	ND	ND	ND	ND
136	ND	0.01	ND	0.01	ND	ND	ND	ND
77,110	ND	0.13	0.07	0.10	0.06	0.06	0.04	0.05
82, 151	0.01	0.04	0.03	0.03	0.03	0.02	0.01	0.02
135,144	ND	0.03	0.02	0.02	0.01	0.01	0.01	0.01
107	0.01	0.01	ND	0.01	0.00	0.00	ND	0.00
123,149	ND	0.09	0.07	0.08	0.05	0.04	0.03	0.04
118	ND	0.06	0.02	0.04	0.03	0.02	ND	0.03
134	ND	ND	ND	ND	ND	ND	ND	ND
146	ND	ND	ND	ND	ND	ND	ND	ND
132,105,153	ND	0.18	0.14	0.16	0.12	0.10	0.08	0.10
141	ND	0.01	0.01	0.01	0.01	0.01	0.01	0.01
137,130,176	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
163,138	0.11	0.19	0.11	0.15	0.10	0.08	0.06	0.07
158	ND	ND	ND	ND	ND	ND	ND	ND
129,178	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
187,182	ND	0.11	0.09	0.10	0.08	0.09	ND	0.08
183	0.05	0.03	0.02	0.03	0.02	0.02	0.01	0.02
128	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00
185	ND	ND	ND	ND	ND	0.01	ND	0.01
174	ND	0.04	0.02	0.03	0.02	0.02	0.01	0.02
177	0.07	0.04	0.02	0.03	0.02	0.02	0.01	0.02
202,171,156	0.02	0.04	0.02	0.03	0.02	0.02	0.01	0.02
157,200	ND	ND	ND	ND	0.01	ND	ND	0.01
172,197	ND	0.03	ND	0.03	ND	ND	ND	ND
180	0.02	0.13	0.08	0.11	0.08	0.06	0.04	0.06

Field ID	05sedvar2	05sedvar3	05sedvar3	05sedvar3	05sedvar4	05sedvar4	05sedvar4	05sedvar4
ANS Chem ID	7319	7320A	7320B	7320	7321A	7321Adup	7321B	7321
Collected	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001	Fall 2001
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	5	5	5	5	5	5	5	5
Replicate analysis?	Average	Rep A	Rep B	Average	Rep A	Rep A dup	Rep B	Average
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	52	76	74	75	80	80	83	81
Sediment % Water	48	24	26	25	20	20	17	19
Sediment % Org Car:	1.791	0.187	0.187	0.187	0.113	0.113	0.113	0.113
193	ND	ND	ND	ND	ND	ND	0.00	0.00
191	ND	ND	ND	ND	0.00	ND	ND	0.00
199	0.01	0.00	0.00	0.00	0.00	ND	0.00	0.00
170,190	0.02	0.10	0.06	0.08	0.07	0.06	0.05	0.05
198	ND	0.00	ND	0.00	0.00	0.01	ND	0.01
201	0.02	0.10	0.06	0.08	0.07	0.06	0.05	0.06
203,196	0.03	0.10	0.06	0.08	0.07	0.06	0.05	0.06
189	0.03	0.01	ND	0.01	ND	ND	0.01	0.01
208,195	ND	ND	ND	ND	ND	ND	ND	ND
207	ND	0.02	0.01	0.02	0.01	0.01	0.01	0.01
194	0.01	0.04	0.02	0.03	0.02	0.03	0.01	0.02
205	ND	ND	ND	ND	ND	ND	ND	ND
206	0.08	0.38	0.22	0.30	0.32	0.25	0.21	0.25
209	0.01	0.05	0.03	0.04	0.03	0.03	0.02	0.03
PCBs (ng/g wet weight)	2	3	2	3	2	2	1	2
Recovery								
14	115%	113%	85%	99%	118%	121%	115%	117%
65	98%	99%	72%	86%	105%	105%	102%	103%
166	108%	109%	75%	92%	112%	114%	112%	113%

Table A-20. PCB concentrations in Sediments (ng/g) from Spring 2002 Core Study

Field ID	2 Sed1	2 Sed3	2 Sed4	2 CORE	3 Sed1	3 Sed1	3 Sed2	3 CORE	4 Sed1	4 Sed2
ANS Chem ID	7538	7540	7542		7544	7544dup	7545		7546	7547
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	2	2	2	2	3	3	3	3	4	4
Replicate analysis?					Rep A	Rep B				
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	63	46	80	63	51	52	74	74	44	73
Sediment % Water	37	54	20	37	49	48	26	26	56	27
Sediment % Org Carb	2.315	4.798	0.207	3.5565	7.781	7.781	1.400	4.591	1.965	1.414
1	ND	ND	ND	0.20	ND	ND	0.15	0.15	1.43	ND
3	ND	1.19	ND	1.19	ND	ND	ND	ND	ND	ND
4,10	ND	0.06	ND	0.05	0.17	0.15	0.03	0.09	0.04	0.02
7,9	0.02	0.09	ND	0.05	0.02	0.03	0.03	0.03	ND	0.02
6	0.02	0.27	0.01	0.08	0.19	0.21	0.03	0.12	0.09	0.00
8,5	0.24	1.66	ND	0.97	0.91	0.95	0.66	0.79	0.33	0.56
19	0.25	ND	ND	0.25	ND	ND	ND	ND	ND	ND
12,13	ND	0.10	ND	0.06	ND	0.07	0.02	0.05	0.20	0.03
18	0.78	ND	ND	0.81	8.72	8.46	0.15	4.37	0.16	0.11
17	ND	0.89	ND	0.47	ND	2.00	0.10	1.05	0.25	0.09
24	0.02	0.11	ND	0.05	0.08	0.08	0.01	0.05	0.08	0.01
16,32	0.24	0.79	ND	0.40	2.76	3.12	0.18	1.56	0.31	0.16
29	ND	0.02	ND	0.02	0.04	0.04	ND	0.04	ND	ND
26	ND	ND	ND	ND	1.49	1.70	ND	1.60	ND	ND
25	ND	ND	ND	ND	ND	1.71	ND	1.71	ND	ND
31, 28	0.33	0.63	ND	0.42	10.52	20.96	0.16	7.95	0.94	0.67
33,21,53	0.14	0.27	ND	0.22	3.96	2.81	0.34	1.86	0.19	0.32
51	0.04	0.23	ND	0.11	2.40	2.78	0.03	1.31	0.11	0.03
22	0.16	0.42	ND	0.25	2.85	3.32	0.21	1.65	0.17	0.24
45	0.03	0.05	ND	0.08	1.67	1.89	0.07	0.93	0.09	0.08
46	0.08	0.38	0.01	0.12	0.56	0.64	0.02	0.31	0.03	0.02
52	0.41	0.67	ND	0.40	6.93	8.08	0.33	3.92	0.54	0.36
49	0.39	0.81	ND	0.45	7.23	8.25	0.28	4.01	0.58	0.45
47,48	1.21	1.82	0.60	1.21	4.82	12.78	0.28	4.54	2.14	ND
44	0.36	0.49	ND	0.32	10.00	10.14	0.29	5.18	0.51	0.26
37,42	0.18	0.36	ND	0.20	6.19	5.34	0.12	2.94	0.34	0.16
41,64,71	0.58	1.23	ND	0.68	16.72	6.04	0.47	5.92	0.25	0.48
40	0.15	0.39	ND	0.20	4.02	2.81	0.07	1.74	0.17	0.10
100	ND	ND	ND	0.03	ND	ND	0.05	0.05	0.07	0.06
63	0.04	0.04	ND	0.03	ND	ND	0.05	0.05	0.06	ND
74	0.20	0.40	ND	0.22	5.08	5.39	0.12	2.68	0.34	0.19
70,76	0.61	1.11	ND	0.62	12.54	13.88	0.27	6.74	0.91	0.51
66,95	0.71	1.10	ND	0.72	25.55	31.06	1.01	14.66	0.94	1.15

Field ID	2 Sed1	2 Sed3	2 Sed4	2 CORE	3 Sed1	3 Sed1	3 Sed2	3 CORE	4 Sed1	4 Sed2
ANS Chem ID	7538	7540	7542		7544	7544dup	7545		7546	7547
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	2	2	2	2	3	3	3	3	4	4
Replicate analysis?					Rep A	Rep B				
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	63	46	80	63	51	52	74	74	44	73
Sediment % Water	37	54	20	37	49	48	26	26	56	27
Sediment % Org Carb ^b	2.315	4.798	0.207	3.5565	7.781	7.781	1.400	4.591	1.965	1.414
91	0.13	0.29	0.01	0.18	1.21	1.33	0.52	0.89	0.21	0.70
56,60/92,84	1.23	1.84	ND	1.20	15.59	17.95	0.24	8.50	1.00	0.22
89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
101	0.63	0.73	ND	0.49	6.43	7.31	0.28	3.57	0.66	0.26
99	0.44	0.58	0.03	0.28	2.84	3.20	0.16	1.59	0.06	0.17
119	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
83	0.20	0.17	0.01	0.11	3.27	2.34	0.05	1.43	0.21	0.00
97	0.19	0.25	ND	0.16	1.36	1.57	0.02	0.74	0.20	0.03
81,87	0.24	0.33	ND	0.23	1.34	1.56	0.14	0.79	0.18	0.15
85	ND	ND	ND	ND	1.61	2.74	ND	2.18	1.51	ND
136	ND	ND	ND	ND	1.25	1.35	ND	1.30	ND	ND
77,110	1.43	1.97	ND	1.23	9.60	10.52	0.56	5.31	1.45	0.68
82, 151	0.41	0.49	0.05	0.26	3.35	4.78	0.15	2.11	0.31	0.16
135,144	0.19	0.22	0.01	0.12	1.75	2.33	0.12	1.08	0.30	0.12
107	0.09	0.10	ND	0.07	1.26	1.32	0.05	0.67	0.09	0.03
123,149	0.90	0.96	ND	0.69	6.54	9.55	0.33	4.19	1.05	0.40
118	0.66	0.86	ND	0.54	3.50	8.43	0.07	3.02	1.94	0.05
134	1.19	1.51	0.06	0.75	3.15	7.01	0.04	2.56	2.28	0.03
146	0.28	0.33	ND	0.23	1.99	3.95	0.15	1.56	1.19	0.16
132,105,153	2.24	2.47	ND	1.73	15.25	26.99	1.09	11.10	4.38	1.20
141	0.18	0.22	0.02	0.12	1.30	2.06	0.04	0.86	0.19	0.20
137,130,176	0.16	ND	ND	0.16	ND	ND	ND	ND	0.31	0.08
163,138	2.19	2.38	0.08	1.25	12.89	17.89	0.44	7.91	1.90	0.91
158	ND	ND	ND	ND	ND	1.10	ND	1.10	ND	ND
129,178	ND	ND	ND	ND	1.35	2.38	ND	1.86	ND	ND
187,182	0.64	0.82	0.07	0.41	4.81	6.76	0.32	3.05	0.70	0.28
183	0.35	0.39	0.01	0.20	3.75	5.35	0.01	2.28	0.44	0.15
128	0.26	0.28	ND	0.22	0.78	2.20	0.28	0.88	0.33	0.13
185	0.08	0.14	ND	0.08	0.67	0.23	0.01	0.23	0.14	0.04
174	0.40	0.54	0.04	0.26	3.63	6.27	0.09	2.52	0.74	0.27
177	0.28	0.34	0.01	0.18	2.21	3.71	0.09	1.53	0.76	0.17
202,171,156	0.39	0.48	0.03	0.25	2.88	4.16	0.04	1.78	0.49	0.18
157,200	0.17	0.21	ND	0.13	0.82	1.16	ND	0.99	ND	ND
172,197	ND	ND	ND	ND	0.88	ND	ND	0.88	ND	ND
180	1.16	1.31	ND	1.24	10.48	11.40	0.36	5.65	0.58	0.50

Field ID	2 Sed1	2 Sed3	2 Sed4	2 CORE	3 Sed1	3 Sed1	3 Sed2	3 CORE	4 Sed1	4 Sed2
ANS Chem ID	7538	7540	7542		7544	7544dup	7545		7546	7547
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	2	2	2	2	3	3	3	3	4	4
Replicate analysis?					Rep A	Rep B				
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	63	46	80	63	51	52	74	74	44	73
Sediment % Water	37	54	20	37	49	48	26	26	56	27
Sediment % Org Carb ^a	2.315	4.798	0.207	3.5565	7.781	7.781	1.400	4.591	1.965	1.414
193	1.81	3.25	0.38	1.81	0.32	0.93	ND	0.63	0.26	ND
191	0.02	ND	0.04	0.03	ND	1.84	0.09	0.97	1.05	0.02
199	ND	ND	ND	ND	ND	1.76	ND	1.76	0.55	0.29
170,190	1.18	1.11	0.02	0.62	6.86	ND	0.14	3.50	1.05	0.31
198	0.15	0.07	0.02	0.08	0.35	8.46	0.01	2.21	3.70	0.02
201	0.57	0.80	0.05	0.39	6.93	9.68	0.11	4.21	3.60	0.28
203,196	0.60	0.88	0.02	0.41	6.84	9.14	0.14	4.07	3.59	0.33
189	0.03	ND	ND	0.03	0.20	10.19	ND	5.20	10.15	ND
208,195	0.25	0.72	ND	0.34	9.08	ND	0.07	4.58	1.01	ND
207	0.03	0.07	ND	0.04	0.68	3.38	0.03	1.03	ND	0.11
194	0.24	1.35	ND	0.65	4.35	ND	0.07	2.21	49.06	0.09
205	0.21	ND	ND	0.14	ND	ND	ND	ND	76.43	ND
206	0.51	0.71	ND	0.47	12.34	13.87	0.17	6.64	31.02	0.77
209	0.05	0.10	ND	0.06	2.01	3.11	0.03	1.29	ND	0.24
PCBs (ng/g wet weigh	30	45	2	29	313	396	12	200	216	16
Recovery										
14	124%	108%	84%	106%	103%	94%	69%	69%	231%	82%
65	109%	96%	67%	91%	69%	96%	64%	64%	109%	67%
166	113%	100%	47%	87%	77%	124%	65%	65%	137%	68%

Table A-20. PCB conce

Field ID	4 CORE	5 Sed1	5 Sed2	5 Sed3	5 Sed2 AMP	5 Sed3 AMP	5 Sed3 AMP	5 CORE
ANS Chem ID		7549	7550	7552	7551	7553	7553dup	
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	4	5	5		5	5	5	5
Replicate analysis?						Rep A	Rep B	
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	60	61	78	57	50	80	30	63
Sediment % Water	40	39	22	43	50	20	70	37
Sediment % Org Carb	1.689	1.864	0.412	1.949	1.852	No Data	No Data	1.9005
1	1.43	ND	ND		ND	ND	ND	ND
3	ND	ND	ND	sample lost	ND	ND	ND	ND
4,10	0.03	ND	ND		0.07	ND	0.05	0.06
7,9	0.02	ND	ND		0.38	ND	ND	0.38
6	0.05	ND	ND		0.05	ND	0.02	0.03
8,5	0.67	ND	ND		0.59	ND	ND	0.59
19	ND	ND	ND		ND	ND	ND	ND
12,13	0.10	ND	ND		0.08	ND	0.06	0.07
18	0.26	ND	ND		ND	ND	ND	ND
17	0.55	0.20	0.06		0.12	ND	ND	0.13
24	0.04	ND	ND		0.02	ND	0.04	0.03
16,32	0.26	ND	ND		ND	ND	ND	ND
29	8.81	ND	ND		ND	ND	ND	ND
26	0.32	ND	ND		ND	ND	ND	ND
25	ND	ND	ND		ND	ND	ND	ND
31, 28	3.55	ND	0.42		0.28	0.19	0.17	0.29
33,21,53	0.35	ND	ND		ND	ND	ND	ND
51	0.21	0.09	ND		0.04	ND	0.04	0.06
22	0.72	ND	ND		ND	ND	ND	ND
45	0.20	0.10	0.02		ND	0.01	ND	0.04
46	0.03	ND	0.00		0.03	0.00	0.01	0.02
52	1.00	ND	0.19		0.26	0.07	0.19	0.20
49	1.06	0.16	0.39		ND	0.19	0.24	0.26
47,48	2.14	0.86	ND		ND	ND	ND	0.86
44	0.95	ND	0.15		0.18	0.05	0.12	0.14
37,42	0.62	0.07	0.09		0.15	0.04	0.11	0.10
41,64,71	0.74	ND	0.11		ND	0.05	0.12	0.10
40	0.32	ND	0.05		0.07	0.02	0.05	0.05
100	0.07	5.71	0.09		ND	0.02	0.06	1.95
63	0.25	ND	0.04		0.07	0.02	0.04	0.05
74	0.64	ND	0.06		ND	0.03	0.11	0.06
70,76	3.39	ND	0.23		0.29	0.06	0.22	0.22
66,95	2.86	0.14	0.55		0.39	ND	0.31	0.35

Field ID	4 CORE	5 Sed1	5 Sed2	5 Sed3	5 Sed2 AMP	5 Sed3 AMP	5 Sed3 AMP	5 CORE
ANS Chem ID		7549	7550	7552	7551	7553	7553dup	
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	4	5	5		5	5	5	5
Replicate analysis?						Rep A	Rep B	
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	60	61	78	57	50	80	30	63
Sediment % Water	40	39	22	43	50	20	70	37
Sediment % Org Carb ^a	1.689	1.864	0.412	1.949	1.852	No Data	No Data	1.9005
91	3.11	ND	1.37		0.09	0.17	0.07	0.53
56,60/92,84	1.49	0.82	ND		0.81	0.09	0.58	0.66
89	NA	NA	NA		NA	NA	NA	NA
101	0.96	0.06	0.14		0.28	0.06	0.23	0.16
99	0.54	0.07	0.11		0.23	0.06	ND	0.12
119	NA	NA	NA		NA	NA	NA	NA
83	0.88	0.04	0.04		0.15	0.03	0.11	0.08
97	0.12	ND	ND		0.09	ND	0.07	0.08
81,87	0.56	ND	ND		ND	0.05	0.08	0.07
85	1.15	ND	ND		0.76	ND	0.65	0.71
136	0.45	ND	ND		ND	ND	ND	ND
77,110	2.33	0.14	0.43		0.83	0.19	0.57	0.45
82, 151	0.83	0.03	0.07		0.21	0.05	0.12	0.10
135,144	0.55	0.11	0.06		0.22	0.03	0.09	0.11
107	0.39	0.11	0.05		0.14	0.01	0.05	0.08
123,149	1.31	ND	0.21		0.66	0.11	0.42	0.38
118	0.88	0.36	ND		0.44	ND	0.27	0.36
134	0.81	0.09	ND		0.77	ND	0.48	0.45
146	0.60	0.35	0.07		0.28	0.04	0.20	0.20
132,105,153	3.30	0.45	0.47		1.40	0.26	1.04	0.74
141	0.47	0.16	0.06		0.08	0.03	0.06	0.09
137,130,176	0.22	ND	ND		ND	ND	ND	ND
163,138	2.46	0.16	0.35		1.06	0.17	0.67	0.50
158	ND	ND	ND		ND	ND	ND	ND
129,178	ND	ND	ND		ND	ND	ND	ND
187,182	0.79	0.95	0.10		0.44	0.07	0.30	0.42
183	0.50	0.58	0.06		0.19	0.03	0.15	0.23
128	0.35	0.03	0.07		0.17	0.02	0.05	0.07
185	0.12	0.02	0.05		ND	0.02	ND	0.03
174	0.75	0.14	0.10		0.20	0.04	0.12	0.13
177	0.53	0.05	0.08		0.17	0.04	0.14	0.10
202,171,156	0.56	2.52	0.10		0.23	0.06	0.12	0.73
157,200	ND	1.17	0.01		0.08	0.01	0.07	0.32
172,197	ND	ND	ND		ND	ND	ND	ND
180	1.22	ND	ND		ND	ND	ND	ND

Field ID	4 CORE	5 Sed1	5 Sed2	5 Sed3	5 Sed2 AMP	5 Sed3 AMP	5 Sed3 AMP	5 CORE
ANS Chem ID		7549	7550	7552	7551	7553	7553dup	
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	4	5	5		5	5	5	5
Replicate analysis?						Rep A	Rep B	
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	60	61	78	57	50	80	30	63
Sediment % Water	40	39	22	43	50	20	70	37
Sediment % Org Carb ^a	1.689	1.864	0.412	1.949	1.852	No Data	No Data	1.9005
193	0.55	ND	ND		0.21	0.03	0.19	0.16
191	0.38	0.03	0.02		0.05	0.01	0.01	0.03
199	0.42	ND	ND		ND	ND	ND	ND
170,190	1.18	0.08	0.15		0.38	0.08	0.29	0.20
198	1.31	0.84	0.01		0.19	0.01	0.02	0.26
201	2.18	14.08	0.23		0.62	0.15	0.44	3.80
203,196	2.28	9.91	0.18		0.57	0.13	0.35	2.73
189	5.21	0.02	ND		0.22	ND	0.01	0.08
208,195	1.01	58.17	ND		1.36	0.46	1.15	1.08
207	0.26	2.92	0.06		0.16	0.04	0.09	0.80
194	16.56	0.88	0.07		ND	0.03	0.10	0.34
205	38.23	0.09	ND		ND	ND	ND	0.09
206	13.66	ND	0.67		3.06	0.49	1.67	1.60
209	1.40	12.07	0.18		0.50	0.15	0.31	3.25
PCBs (ng/g wet weigh	144	115	8		20	4	13	28
Recovery								
14	139%	161%	71%		186%	86%	199%	139%
65	79%	103%	61%		98%	63%	103%	87%
166	90%	135%	61%		132%	63%	126%	110%

Table A-21. PCB concentrations in Sediments (ng/g) from Spring 2002 Variability Study

Field ID	2 CC	2 CC	4 CC	5 Sed1	2 Sed3 VAR1	2 Sed3 VAR2	2 Sed3 VAR3
ANS Chem ID	7543	7543redo	7548	7549	7540	7539	7541
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	2	2	4	5	2	2	2
Replicate analysis?	Rep A	Rep B					
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	75	74	62	61	46	62	52
Sediment % Water	25	26	38	39	54	38	48
Sediment % Org Carbo	0.769	0.769	7.359	1.864	4.798	5.332	3.613
1	ND	0.20	ND	ND	ND	0.73	0.75
3	ND	ND	ND	ND	1.19	ND	ND
4,10	0.02	0.05	ND	ND	0.06	ND	ND
7,9	0.02	0.02	ND	ND	0.09	0.05	ND
6	ND	0.01	0.04	ND	0.27	0.03	0.05
8,5	ND	1.02	1.13	ND	1.66	0.54	0.33
19	ND	ND	ND	ND	ND	ND	ND
12,13	ND	0.02	0.08	ND	0.10	ND	ND
18	0.83	ND	0.52	ND	ND	0.47	ND
17	ND	0.06	1.33	0.20	0.89	0.42	0.34
24	0.03	0.02	ND	ND	0.11	0.02	0.04
16,32	0.18	0.15	0.31	ND	0.79	0.31	0.39
29	ND	ND	8.81	ND	0.02	ND	0.02
26	ND	ND	0.32	ND	ND	ND	ND
25	ND	ND	ND	ND	ND	ND	ND
31, 28	ND	0.30	9.05	ND	0.63	0.36	0.29
33,21,53	ND	0.24	0.53	ND	0.27	0.16	0.14
51	0.08	0.01	0.47	0.09	0.23	0.07	0.16
22	0.17	0.16	1.76	ND	0.42	0.21	0.29
45	0.24	0.05	0.42	0.10	0.05	0.20	ND
46	0.03	0.03	0.04	ND	0.38	0.01	0.08
52	0.12	0.13	2.08	ND	0.67	0.48	0.48
49	0.13	0.15	2.15	0.16	0.81	0.59	0.78
47,48	ND	ND	ND	0.86	1.82	0.82	1.52
44	0.09	0.13	2.09	ND	0.49	0.34	0.36
37,42	0.05	0.07	1.38	0.07	0.36	0.25	0.22
41,64,71	0.21	0.26	1.48	ND	1.23	0.50	0.58
40	0.04	0.05	0.70	ND	0.39	0.12	0.34
100	ND	0.03	ND	5.71	ND	0.03	0.06
63	0.02	ND	0.44	ND	0.04	ND	0.09
74	0.07	0.07	1.39	ND	0.40	0.26	0.32
70,76	0.12	ND	8.75	ND	1.11	0.68	0.61
66,95	0.36	0.36	6.48	0.14	1.10	0.63	0.71
91	0.03	0.53	8.40	ND	0.29	0.23	0.18
56,60/92,84	0.53	ND	3.26	0.82	1.84	1.21	1.88
89	NA	NA	NA	NA	NA	NA	NA
101	0.11	0.10	1.95	0.06	0.73	0.43	0.59
99	0.08	0.05	1.38	0.07	0.58	0.24	0.40
119	NA	NA	NA	NA	NA	NA	NA
83	0.06	ND	2.43	0.04	0.17	0.14	0.14
97	0.04	0.02	ND	ND	0.25	0.10	0.19
81,87	0.08	0.14	1.36	ND	0.33	0.18	0.25
85	ND	ND	0.80	ND	ND	ND	ND
136	ND	ND	0.45	ND	ND	ND	ND
77,110	0.34	0.24	4.86	0.14	1.97	0.65	1.25
82, 151	0.14	0.06	2.01	0.03	0.49	0.30	0.46

Field ID	2 CC	2 CC	4 CC	5 Sed1	2 Sed3 VAR1	2 Sed3 VAR2	2 Sed3 VAR3
ANS Chem ID	7543	7543redo	7548	7549	7540	7539	7541
Collected	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002	Spring 2002
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Zone	2	2	4	5	2	2	2
Replicate analysis?	Rep A	Rep B					
Analyzed by	ANS	ANS	ANS	ANS	ANS	ANS	ANS
Sediment % Solid	75	74	62	61	46	62	52
Sediment % Water	25	26	38	39	54	38	48
Sediment % Org Carbo	0.769	0.769	7.359	1.864	4.798	5.332	3.613
135,144	0.05	0.04	1.22	0.11	0.22	0.13	0.14
107	0.05	0.01	1.04	0.11	0.10	0.10	0.11
123,149	0.24	0.14	2.48	ND	0.96	0.54	0.68
118	0.16	0.02	0.65	0.36	0.86	0.40	0.52
134	0.48	0.03	0.10	0.09	1.51	3.04	1.57
146	0.06	0.08	0.46	0.35	0.33	0.16	0.18
132,105,153	0.43	0.51	4.33	0.45	2.47	1.23	1.77
141	0.04	0.05	1.01	0.16	0.22	0.13	0.22
137,130,176	ND	ND	0.28	ND	ND	ND	0.14
163,138	0.38	0.31	4.57	0.16	2.38	1.10	1.57
158	ND	ND	ND	ND	ND	ND	ND
129,178	ND	ND	ND	ND	ND	ND	ND
187,182	0.11	0.13	1.40	0.95	0.82	0.53	0.67
183	0.09	0.04	0.91	0.58	0.39	0.20	0.32
128	0.08	0.16	0.58	0.03	0.28	0.17	0.29
185	0.02	0.01	0.18	0.02	0.14	0.15	0.16
174	0.07	0.06	1.24	0.14	0.54	0.25	0.33
177	0.15	0.04	0.65	0.05	0.34	0.18	0.29
202,171,156	0.09	ND	1.00	2.52	0.48	0.25	0.37
157,200	0.01	0.01	ND	1.17	0.21	0.06	0.07
172,197	ND	ND	ND	ND	ND	ND	ND
180	ND	ND	2.57	ND	1.31	0.67	0.73
193	ND	ND	0.84	ND	3.25	1.38	2.73
191	ND	0.02	0.07	0.03	ND	0.01	ND
199	ND	ND	ND	ND	ND	ND	ND
170,190	0.22	0.12	2.17	0.08	1.11	0.63	0.65
198	ND	ND	0.21	0.84	0.07	0.26	0.31
201	0.15	0.12	2.65	14.08	0.80	0.48	0.44
203,196	0.17	0.14	2.91	9.91	0.88	0.49	0.47
189	ND	ND	0.27	0.02	ND	0.02	0.01
208,195	0.05	0.03	ND	58.17	0.72	0.36	ND
207	0.02	0.02	0.41	2.92	0.07	0.04	0.04
194	0.68	0.04	0.52	0.88	1.35	0.19	0.23
205	0.07	ND	0.03	0.09	ND	ND	ND
206	0.22	0.16	9.19	ND	0.71	0.47	0.29
209	0.02	0.03	2.56	12.07	0.10	0.02	0.03
PCBs (ng/g wet weight)	8	7	125	115	45	25	30
Recovery							
14	82%	65%	105%	161%	108%	114%	114%
65	79%	64%	60%	103%	96%	98%	94%
166	74%	62%	65%	135%	100%	104%	99%