

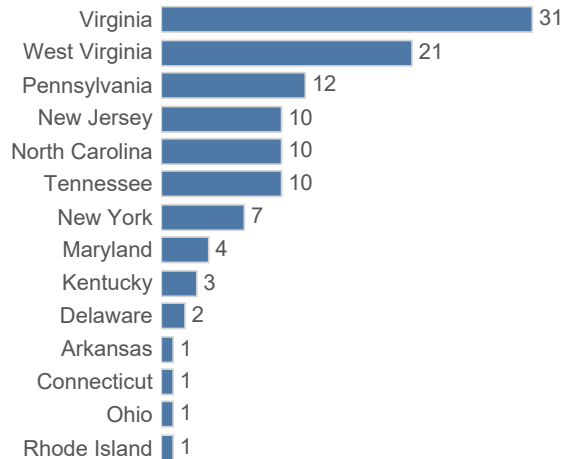
National *Haemaphysalis longicornis* (Asian longhorned tick) Situation Report

As of September 14, 2020

Haemaphysalis longicornis (Asian longhorned tick), an exotic East Asian tick, has never previously established a population in the United States. It is a known serious pest of livestock in the Australasian and Western Pacific Regions where it occurs. It is an aggressive biter and frequently builds intense infestations on domestic hosts causing great stress, reduced growth and production, and severe blood loss.

The tick can reproduce parthenogenetically (without a male); as such, a single fed female tick can create a population. It is also a known/suspected vector of several viral, bacterial, and protozoan agents of livestock and human diseases. This three-host tick can spread pathogens among a diverse host range, on which it feeds side-by-side with other tick species. The detections detailed here are the first reports of this tick out of quarantine in the United States.

States with confirmed local Asian longhorned tick populations with number of counties in each state



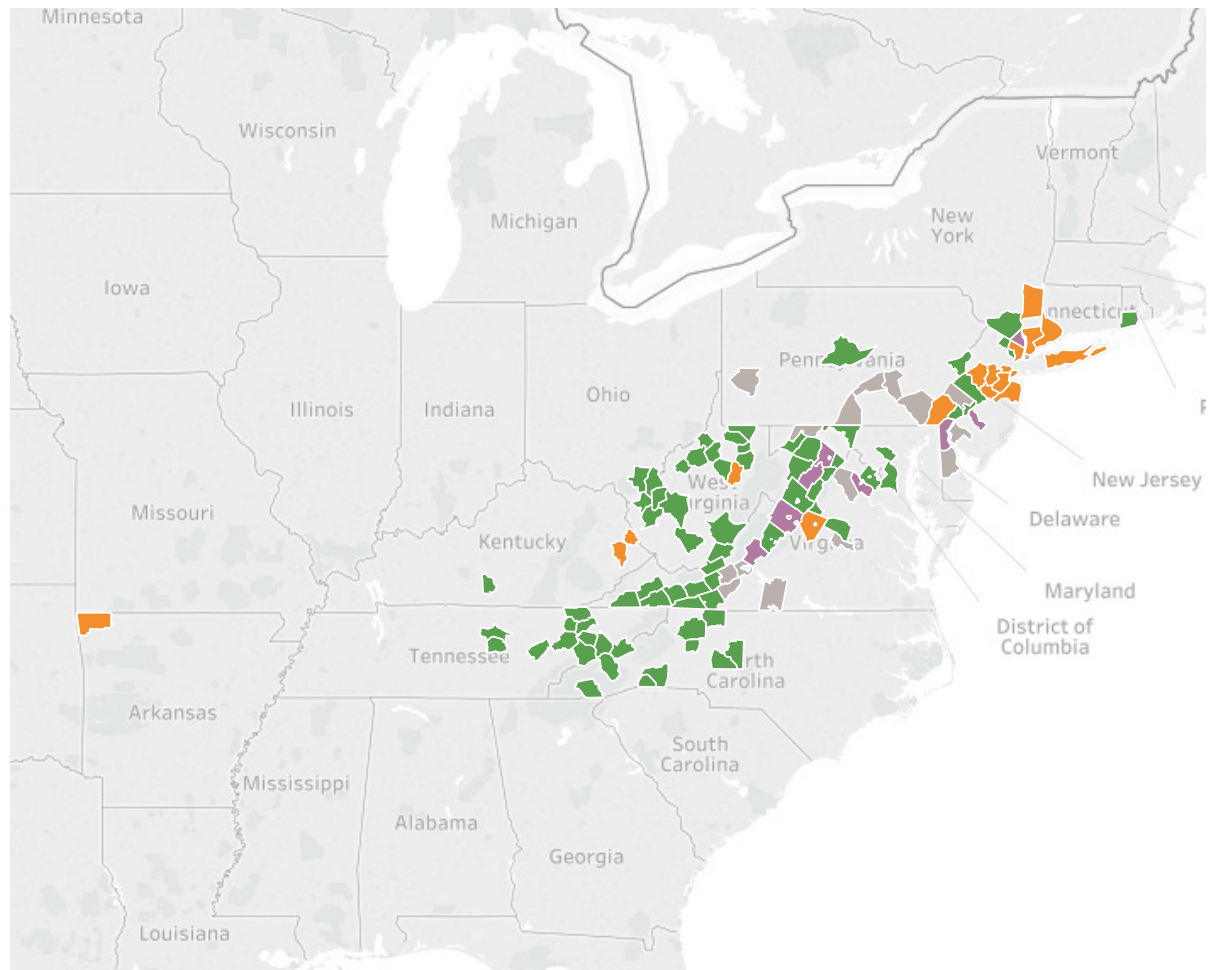
Type of identification*

■ Molecular and NVSL

■ NVSL

■ Molecular

■ Taxonomic



* *H. longicornis* identification: NVSL= USDA, National Veterinary Services Laboratories. NVSL performs taxonomic identifications and is the preferred lab for confirmation of new states, counties, and hosts. Molecular= Confirmation of tick species by polymerase chain reaction (PCR) or other DNA-based technology. Taxonomic= Identif..

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First date of Asian longhorned tick detections by state, county, and host

| State | County | Host | Earliest collected | Earliest confirmed | | |
|--------------------|-------------------|--------------------|--------------------|--------------------|----------------------------|--------------------|
| Arkansas | Benton | Dog | 5/1/2018 | 6/5/2018 | Molecular | |
| | | Environment | 4/5/2019 | 4/10/2019 | NVSL | |
| Connecticut | Fairfield | Environment | 7/3/2018 | 8/28/2018 | Molecular and NVSL | |
| Delaware | Kent | Environment | 7/26/2019 | | Taxonomic | |
| | | New Castle | Dog | 6/27/2020 | | Taxonomic |
| | | | Environment | 6/22/2019 | | Molecular |
| Kentucky | Floyd | Black bear | 6/2/2017 | 4/21/2020 | Molecular and NVSL | |
| | Martin | Elk | 7/15/2018 | 3/7/2019 | Molecular and NVSL | |
| | Metcalfe | Cow | 5/25/2020 | | NVSL | |
| Maryland | Allegany | Cow | 6/4/2020 | | No identification provided | |
| | | Environment | 6/12/2019 | | Taxonomic | |
| | Howard | Environment | 5/27/2020 | 6/19/2020 | NVSL | |
| | Prince George's | Human | 4/7/2019 | 5/3/2019 | NVSL | |
| | Washington | White-tailed Deer | 6/25/2018 | 7/26/2018 | NVSL | |
| New Jersey | Bergen | Dog | 8/25/2017 | | Molecular | |
| | | Environment | 7/12/2018 | 7/16/2018 | NVSL | |
| | | Human (unattached) | 7/5/2018 | 7/25/2018 | Molecular | |
| | | Red Fox | 7/31/2018 | | Taxonomic | |
| | Camden | Human | 8/2/2019 | | Molecular | |
| | | Hunterdon | Dog | 6/11/2019 | 7/19/2019 | NVSL |
| | Environment | | 5/10/2018 | 6/8/2018 | NVSL | |
| | Raccoon | | 5/3/2018 | 5/25/2018 | NVSL | |
| | Sheep | | 8/1/2017 | 11/9/2017 | Molecular and NVSL | |
| | Virginia opossum | | 5/3/2018 | 5/25/2018 | NVSL | |
| | White-tailed Deer | | 4/19/2018 | 4/24/2018 | Molecular and NVSL | |
| | Environment | | 5/10/2018 | 6/4/2018 | Molecular and NVSL | |
| | Mercer | Dog | 9/6/2018 | 9/26/2018 | NVSL | |
| | | Middlesex | Environment | 5/10/2018 | 5/14/2018 | Molecular and NVSL |
| | | | Goat | 5/24/2018 | 6/4/2018 | NVSL |
| | Monmouth | Sheep | 5/17/2018 | 5/23/2018 | NVSL | |
| | | Environment | 8/7/2018 | 8/17/2018 | Molecular and NVSL | |
| | Passaic | Dog | | | No identification provided | |
| | | Environment | 10/28/2019 | 11/12/2019 | NVSL | |
| | Salem | Environment | 5/27/2020 | | Taxonomic | |
| | Somerset | Cat | 9/28/2018 | 10/26/2018 | NVSL | |
| | | Dog | 7/31/2018 | 9/6/2018 | Molecular and NVSL | |
| | | Human | 6/6/2019 | 7/9/2019 | NVSL | |
| | | White-tailed Deer | 5/27/2018 | | Molecular | |
| | Union | Dog | 5/30/2013 | 6/4/2018 | Molecular and NVSL | |
| | | Environment | 5/1/2017 | 4/23/2018 | Molecular and NVSL | |
| | | Groundhog | 8/4/2018 | 9/4/2018 | NVSL | |
| | | Horse | 5/1/2018 | 6/1/2018 | NVSL | |
| Human (unattached) | | 8/3/2018 | | Molecular | | |
| Raccoon | | 5/6/2018 | | Molecular and NVSL | | |
| Virginia Opossum | | 8/1/2018 | | Molecular | | |

First date of Asian longhorned tick detections by state, county, and host

| State | County | Host | Earliest collected | Earliest confirmed | Taxonomic | |
|--------------|-------------------|--------------------|--------------------|--------------------|----------------------------|--------------------|
| New York | Bronx | Environment | 6/18/2018 | | Taxonomic | |
| | Dutchess | Environment | 8/1/2018 | 3/25/2019 | Molecular and NVSL | |
| | Orange | Environment | 5/17/2020 | | NVSL | |
| | Richmond | Environment | 6/3/2017 | 8/14/2018 | Molecular and NVSL | |
| | | White-tailed Deer | 6/3/2018 | | Molecular | |
| | Rockland | Dog | 6/12/2020 | | Taxonomic | |
| | | Environment | 6/21/2018 | 8/27/2018 | Molecular | |
| | | Human (unattached) | 6/14/2020 | | Taxonomic | |
| | Suffolk | Environment | 8/24/2018 | 10/4/2018 | Molecular and NVSL | |
| | Unknown | Canada Goose | 5/21/2019 | 7/19/2019 | Molecular and NVSL | |
| | Westchester | Dog | 5/19/2020 | | No identification provided | |
| | | Environment | 6/2/2017 | | Taxonomic | |
| | North Carolina | Alexander | Human | 6/4/2018 | 6/28/2018 | Molecular and NVSL |
| | | | Dog | 7/12/2019 | 7/25/2019 | NVSL |
| Davidson | | Human | 8/1/2018 | 9/20/2018 | NVSL | |
| Haywood | | Dog | 3/28/2019 | 11/22/2019 | NVSL | |
| | | Environment | 5/1/2019 | | Taxonomic | |
| Macon | | Cow | 6/30/2020 | 7/10/2020 | NVSL | |
| Madison | | Dog | 3/28/2018 | | NVSL | |
| Polk | | Virginia opossum | 9/15/2017 | 6/25/2018 | NVSL | |
| Rowan | | Elk | 6/10/2020 | 7/10/2020 | NVSL | |
| Rutherford | | Dog | 8/14/2018 | 9/14/2018 | NVSL | |
| Surry | | Cow | 6/20/2019 | 7/3/2019 | NVSL | |
| | | Environment | 3/9/2020 | | Taxonomic | |
| Wilkes | | Dog | 7/26/2019 | 12/31/2019 | NVSL | |
| Pennsylvania | | Allegheny | Human | 6/18/2019 | | Taxonomic |
| | Bucks | Environment | 5/23/2018 | 9/4/2018 | NVSL | |
| | | Human | 4/7/2020 | | Taxonomic | |
| | Centre | White-tailed Deer | 7/10/2018 | 7/26/2018 | NVSL | |
| | Chester | Chicken | 7/5/2019 | | Molecular | |
| | | Environment | 5/3/2019 | 12/6/2019 | NVSL | |
| | Dauphin | Environment | 4/28/2020 | | Taxonomic | |
| | Delaware | Environment | 9/9/2019 | 12/6/2019 | NVSL | |
| | Franklin | Environment | 4/19/2019 | | Taxonomic | |
| | Lancaster | Environment | 5/28/2020 | | Taxonomic | |
| | Montgomery | Environment | 5/3/2019 | | Taxonomic | |
| | | Human | 7/19/2019 | | Taxonomic | |
| | Northampton | Environment | 9/27/2019 | 12/6/2019 | NVSL | |
| | Perry | Dog | 5/12/2019 | | Taxonomic | |
| | Philadelphia | Environment | 5/3/2019 | 12/6/2019 | NVSL | |
| | Claiborne | Dog | 7/29/2019 | 9/10/2019 | NVSL | |
| | Cocke | Cow | 8/24/2019 | 8/29/2019 | NVSL | |
| Environment | | 10/17/2019 | | Taxonomic | | |
| Grainger | Cat | 7/18/2020 | 7/30/2020 | NVSL | | |
| Jefferson | Dog | 7/19/2019 | 7/22/2019 | NVSL | | |
| Knox | Cow | 6/7/2019 | 6/11/2019 | NVSL | | |
| | White-tailed Deer | 6/7/2019 | 6/11/2019 | NVSL | | |
| Putnam | Dog | 9/17/2019 | 9/27/2019 | NVSL | | |
| Roane | Cow | 5/22/2019 | 5/24/2019 | NVSL | | |
| | Environment | 6/14/2019 | | Taxonomic | | |
| Sevier | Cow | 8/31/2019 | 9/10/2019 | NVSL | | |
| Union | Dog | 5/13/2019 | 5/21/2019 | NVSL | | |
| White | Dog | 5/15/2020 | 7/10/2020 | NVSL | | |

First date of Asian longhorned tick detections by state, county, and host

| State | County | Host | Earliest collected | Earliest confirmed | | |
|---------------|---------------------------|---------------------------|--------------------|--------------------|--------------------|-----------|
| Virginia | Albemarle | Cow | 3/1/2018 | 5/14/2018 | NVSL | |
| | | Coyote | 9/8/2019 | | Taxonomic | |
| | | Eastern cottontail rabbit | 7/8/2020 | | Taxonomic | |
| | | Environment | 6/6/2018 | 7/3/2018 | NVSL | |
| | | Groundhog | 7/19/2019 | | Taxonomic | |
| | | Human (attached) | 7/7/2020 | | Taxonomic | |
| | | Peromyscus | 7/13/2020 | | Taxonomic | |
| | | Raccoon | 7/11/2019 | | Taxonomic | |
| | | Striped Skunk | 6/10/2018 | 11/30/2018 | NVSL | |
| | | Virginia opossum | 7/10/2019 | | Taxonomic | |
| | | White-tailed Deer | 6/2/2018 | | Molecular and NVSL | |
| | | Augusta | White-tailed Deer | 6/23/2018 | | Molecular |
| | | Botetourt | Environment | 10/4/2018 | | Molecular |
| | Carroll | Dog | 7/1/2018 | 8/31/2018 | NVSL | |
| | | Environment | 6/3/2019 | 8/14/2019 | NVSL | |
| | Clarke | Great horned owl | 6/1/2020 | 8/12/2020 | NVSL | |
| | | Red Fox | 7/4/2018 | | NVSL | |
| | Fairfax | Environment | 3/27/2017 | 6/7/2018 | NVSL | |
| | | Human | 9/20/2018 | 7/18/2019 | Taxonomic | |
| | Fauquier | Environment | 8/5/2018 | | Taxonomic | |
| | | Red Fox | 5/7/2019 | | Taxonomic | |
| | Floyd | Environment | 5/26/2020 | | Taxonomic | |
| | Frederick | Gray fox | 6/21/2018 | | Molecular | |
| | Galax City | Environment | 6/21/2019 | | Taxonomic | |
| | Giles | Environment | 6/23/2018 | 7/27/2018 | NVSL | |
| | Goochland | Environment | 9/13/2019 | | Taxonomic | |
| | Grayson | Environment | 5/8/2018 | 7/27/2018 | NVSL | |
| | Greene | Red Fox | 7/11/2018 | | NVSL | |
| | Louisa | Goat | 6/12/2018 | 6/28/2018 | NVSL | |
| | Montgomery | Environment | 6/24/2019 | | Taxonomic | |
| | Page | Cow | 6/25/2018 | 6/29/2018 | NVSL | |
| | | Red-tailed hawk | 9/17/2018 | | NVSL | |
| | Pittsylvania | Environment | 6/5/2019 | | Taxonomic | |
| | Prince William | Environment | 8/5/2019 | | Molecular | |
| | Pulaski | Cow | 7/5/2018 | 7/11/2018 | NVSL | |
| | | Environment | 8/15/2019 | 7/10/2020 | NVSL | |
| | | Gray Fox | 6/13/2018 | 9/13/2018 | NVSL | |
| | Roanoke | Dog | 4/10/2019 | | Taxonomic | |
| | Rockbridge | White-tailed Deer | 5/25/2018 | 9/13/2018 | NVSL | |
| | Rockingham | White-tailed Deer | 7/25/2018 | | NVSL | |
| | Russell | Dog | 6/1/2018 | 8/31/2018 | NVSL | |
| | Scott | Dog | 7/1/2018 | 8/31/2018 | NVSL | |
| Shenandoah | Eastern cottontail rabbit | 6/15/2018 | | Molecular | | |
| Smyth | Environment | 6/7/2018 | 6/28/2018 | NVSL | | |
| Staunton City | White-tailed Deer | 6/15/2018 | 9/13/2018 | NVSL | | |
| Warren | Horse | 5/10/2018 | 5/25/2018 | NVSL | | |
| Washington | Environment | 5/17/2019 | | NVSL | | |
| Wythe | Environment | 6/23/2018 | 7/23/2018 | NVSL | | |

First date of Asian longhorned tick detections by state, county, and host

| State | County | Host | Earliest collected | Earliest confirmed | |
|---------------|------------|-------------------|--------------------|--------------------|--------------------|
| West Virginia | Barbour | Dog | 8/31/2018 | 11/16/2018 | NVSL |
| | Cabell | Dog | 7/10/2018 | 8/7/2018 | NVSL |
| | Doddridge | Dog | 9/18/2019 | 10/21/2019 | NVSL |
| | Greenbrier | Environment | 5/27/2020 | 7/14/2020 | NVSL |
| | Hampshire | White-tailed Deer | 8/1/2018 | 5/1/2019 | NVSL |
| | | Cat | 6/21/2018 | 7/10/2018 | NVSL |
| | Hardy | Cow | 5/18/2018 | 5/21/2018 | NVSL |
| | | Dog | 6/21/2018 | 7/23/2018 | NVSL |
| | | White-tailed Deer | 9/4/2019 | | Taxonomic |
| | Kanawha | Environment | 4/11/2020 | 4/14/2020 | NVSL |
| | Lewis | White-tailed Deer | 8/30/2018 | 4/17/2019 | NVSL |
| | Lincoln | Dog | 4/19/2018 | 6/27/2018 | NVSL |
| | Marion | Cat | 6/7/2018 | 7/6/2018 | NVSL |
| | Mason | Dog | 7/7/2018 | 7/11/2018 | NVSL |
| | Mineral | White-tailed Deer | 8/27/2019 | 3/2/2020 | NVSL |
| | Monongalia | Cat | 7/25/2019 | 8/13/2019 | NVSL |
| | Monroe | Environment | 7/2/2018 | 7/9/2018 | NVSL |
| | Putnam | Dog | 5/2/2018 | 6/18/2018 | NVSL |
| | Raleigh | Environment | 6/3/2020 | 7/13/2020 | NVSL |
| | | Cow | 6/2/2019 | 6/11/2019 | NVSL |
| | Ritchie | Dog | 5/26/2018 | 6/19/2018 | NVSL |
| | | Environment | 7/6/2018 | 7/23/2018 | NVSL |
| | Taylor | White-tailed Deer | 9/1/2017 | 6/28/2018 | NVSL |
| | Tyler | White-tailed Deer | 8/31/2010 | 6/25/2018 | NVSL |
| | Upshur | Coyote | 6/22/2018 | 8/24/2018 | Molecular and NVSL |
| | Wirt | White-tailed Deer | 8/28/2018 | 5/1/2019 | NVSL |

Summary of wildlife sampling for Asian longhorned tick

| Animal groups | Host | Number of animals | | | Number confirmed | | |
|----------------|-------------------------|-------------------|--------------------|-------------------------|------------------|--------------------|-------------------------|
| | | SCWDS | Tufts et al., 2019 | USDA, Wildlife Services | SCWDS | Tufts et al., 2019 | USDA, Wildlife Services |
| Bird | American robin | 3 | 11 | | | | |
| | American yellow warbler | | 1 | | | | |
| | Baltimore oriole | 2 | | | | | |
| | Brown thrasher | 1 | | | | | |
| | Brown-headed cowbird | 1 | | | | | |
| | Canada Goose | 1 | | | | | |
| | Carolina wren | 4 | | | | | |
| | Common yellowthroat | 1 | 1 | | | | |
| | Eastern phoebe | 1 | | | | | |
| | Forster's tern | 1 | | | | | |
| | Grackle | 1 | | | | | |
| | Gray catbird | 7 | 20 | | | | |
| | House wren | 1 | 2 | | | | |
| | Indigo Bunting | | 1 | | | | |
| | Northern cardinal | 6 | 3 | | | | |
| | Ovenbird | 1 | | | | | |
| | Red-eyed vireo | 1 | | | | | |
| | Red-tailed Hawk | 1 | | | 1 | | |
| | Warbler | 1 | | | | | |
| | Wild turkey | 40 | | | | | |
| Wood thrush | 2 | | | | | | |
| Yellow warbler | 2 | | | | | | |
| Grand Total | | 78 | 39 | | 1 | | |

Tufts, D. M., VanAcker, M. C., Fernandez, M. P., DeNicola, A., Egizi, A., & Diuk-Wasser, M. A. (2019). Distribution, Host-Seeking Phenology, and Host and Habitat Associations of *Haemaphysalis longicornis* Ticks, Staten Island, New York, USA. *Emerging Infectious Diseases*, 25(4), 792-796.



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Summary of wildlife sampling for Asian longhorned tick

| Animal groups | Host | Number of animals | | | Number confirmed | | |
|-------------------|-----------------------------|-------------------|--------------------|-------------------------|------------------|--------------------|-------------------------|
| | | SCWDS | Tufts et al., 2019 | USDA, Wildlife Services | SCWDS | Tufts et al., 2019 | USDA, Wildlife Services |
| Mammal | Black bear | 110 | | | | | |
| | Bobcat | 2 | | | | | |
| | Brown rat | | 1 | | | | |
| | Coyote | 7 | | | 2 | | |
| | Domestic dog | 2 | | | | | |
| | Eastern chipmunk | 1 | 2 | | | | |
| | Eastern cottontail | 16 | | 1 | | | 1 |
| | Eastern woodrat | 2 | | | | | |
| | Elk | 13 | | | | | |
| | Fox | 2 | | | | | |
| | Gray fox | 3 | | | 1 | | |
| | Gray squirrel | 1 | | | | | |
| | Groundhog | 26 | | 4 | 1 | | 4 |
| | Hispid cotton rat | 2 | | | | | |
| | Hog | 1 | | | | | |
| | Human | 9 | | | 1 | | |
| | Meadow vole | 1 | | | | | |
| | Mule Deer | 10 | | | | | |
| | Northern short-tailed shrew | | 14 | | | | |
| | Peromyscus leucopus | | 87 | | | | |
| Peromyscus sp. | 56 | | | | | | |
| Raccoon | 81 | | 5 | 16 | | 5 | |
| Red fox | 4 | | | 1 | | | |
| Striped skunk | 4 | | 1 | | | 1 | |
| Virginia Opossum | 80 | | 3 | 5 | | 3 | |
| White-tailed deer | 300 | 16 | 2 | 14 | 16 | 2 | |
| Grand Total | | 733 | 120 | 16 | 41 | 16 | 16 |

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