

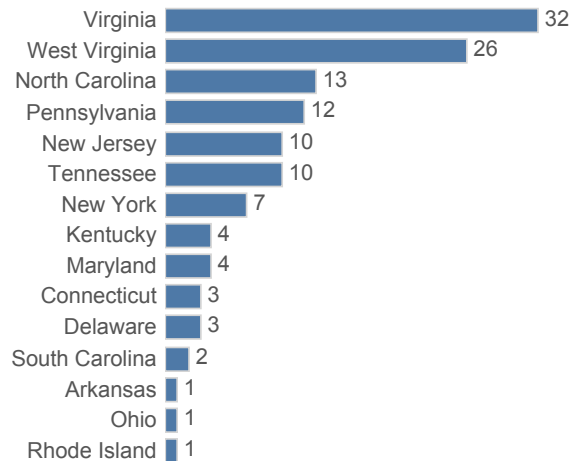
National *Haemaphysalis longicornis* (Asian longhorned tick) Situation Report

As of May 12, 2021

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.

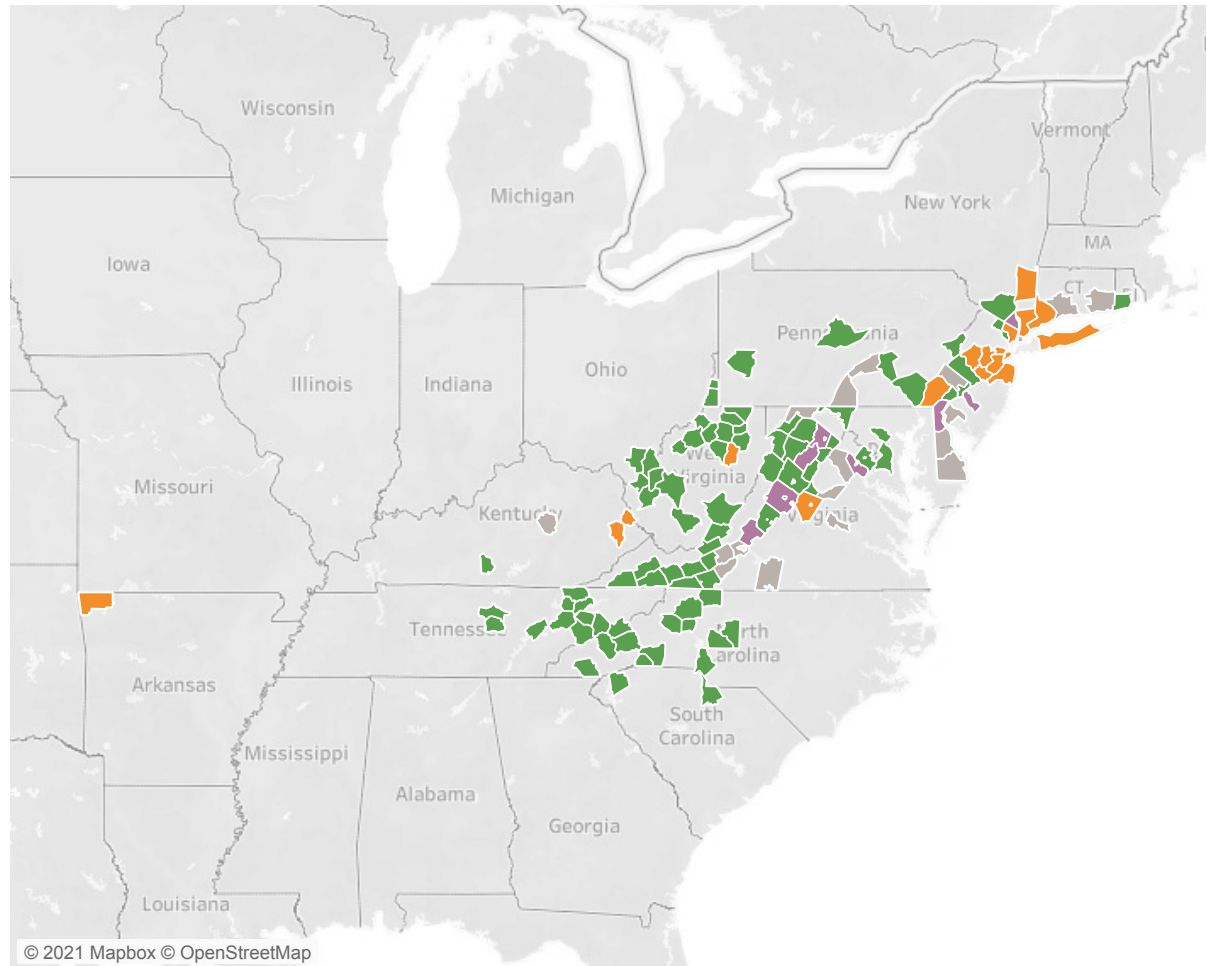
The tick can reproduce parthenogenetically (without a male); as such, a single fed female tick can create a population. It is also a known/suspected vector of several viral, bacterial, and protozoan agents of livestock and human diseases. This three-host tick can spread pathogens among a diverse host 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



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	
		Human	8/21/2018		Molecular	
	New Haven	Environment	6/9/2020		Taxonomic	
Delaware	New London	Environment	9/27/2019		Taxonomic	
	Kent	Environment	7/26/2019		Taxonomic	
		Dog	6/27/2020		Taxonomic	
	Sussex	Environment	6/22/2019		Molecular	
Red-tailed Hawk		9/9/2020		Taxonomic		
Kentucky	Floyd	Black bear	6/2/2017	4/21/2020	Molecular and NVSL	
	Madison	Human	7/15/2020		Taxonomic	
	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	
		Peromyscus leucopus	4/6/2021		No identification provided	
	Prince George's	White-tailed Deer	3/11/2020		No identification provided	
		Human	4/7/2019	5/3/2019	NVSL	
New Jersey	Bergen	Washington	White-tailed Deer	6/25/2018	7/26/2018	NVSL
		Brown Booby	5/4/2020		NVSL	
		Dog	8/25/2017		Molecular	
		Environment	7/12/2018	7/16/2018	NVSL	
		Human	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
	Hunterdon	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	
	Mercer	Environment	5/10/2018	6/4/2018	Molecular and NVSL	
		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	
		Sheep	5/17/2018	5/23/2018	NVSL	
		Monmouth	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	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				
		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	
		Gray Squirrel	6/1/2020			Taxonomic	
		Groundhog	6/1/2020			Taxonomic	
		Striped Skunk	6/1/2020			Taxonomic	
		White-tailed Deer	6/3/2018			Molecular	
	Rockland	Dog	6/12/2020			Taxonomic	
		Environment	6/21/2018	8/27/2018		Molecular	
		Human	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	
Human		6/4/2018	6/28/2018		Molecular and NVSL		
North Carolina	Alexander	Dog	7/12/2019	7/25/2019		NVSL	
		Environment	5/31/2020			NVSL	
	Caldwell	White-tailed Deer	9/2/2020	12/4/2020		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	
		Environment	5/16/2020			NVSL	
	Mecklenburg	Environment	5/17/2020			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	
	Ohio	Wilkes	Dog	7/26/2019	12/31/2019		NVSL
		Gallia	Dog	5/28/2020	7/29/2020		NVSL
		Environment	8/7/2020	10/29/2020		NVSL	
Pennsylvania	Allegheny	Human	6/18/2019			Taxonomic	
		Environment	5/23/2018	9/4/2018		NVSL	
	Bucks	Human	4/7/2020			Taxonomic	
		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	Red-tailed Hawk	9/14/2020			Taxonomic	
		Environment	4/28/2020	10/29/2020		NVSL	
	Delaware	Environment	9/9/2019	12/6/2019		NVSL	
	Franklin	Environment	4/19/2019			Taxonomic	
	Lancaster	Environment	5/28/2020	10/29/2020		NVSL	
	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	
	Rhode Island	Washington	Environment	6/21/2018			NVSL
	South Carolina	Lancaster	Dog	8/24/2020	12/15/2020		NVSL
Pickens		Dog	8/12/2020	9/25/2020		NVSL	
Tennessee	Claiborne	Dog	7/29/2019	9/10/2019		NVSL	
		Environment	3/19/2021			Taxonomic	
	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		



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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	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	
		Albermarle	Red Fox	4/15/2019		Taxonomic
		Augusta	Red-tailed Hawk	5/17/2020		Taxonomic
			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	
	Montgomery	Environment	6/24/2019		Taxonomic	
	Orange	Environment	10/27/2020		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	Virginia opossum	5/20/2020		No identification provided	
		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
	Grant	Dog	8/26/2020	10/29/2020	NVSL
		White-tailed Deer	10/3/2018		No identification provided
	Greenbrier	Environment	5/27/2020	7/14/2020	NVSL
	Hampshire	White-tailed Deer	8/1/2018	5/1/2019	NVSL
	Hardy	Cat	6/21/2018	7/10/2018	NVSL
		Cow	5/18/2018	5/21/2018	NVSL
		Dog	6/21/2018	7/23/2018	NVSL
		White-tailed Deer	9/20/2018		Taxonomic
	Harrison	Environment	8/19/2020	9/16/2020	NVSL
	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
	Marshall	Environment	9/15/2020	3/5/2021	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
	Ohio	Environment	9/17/2020	3/5/2021	NVSL
	Pendleton	Dog	9/12/2020	10/5/2020	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 & 2020	USDA, Wildlife Services	SCWDS	Tufts et al., 2019 & 2020	USDA, Wildlife Services
Bird	American Crow	1					
	American Robin	7	11				
	American Yellow Warbler		1				
	Bald Eagle	8					
	Baltimore Oriole	4					
	Barred Owl	1					
	Black Vulture	1					
	Blue Jay	2					
	Broad-winged Hawk	1					
	Brown Booby	1					
	Brown Thrasher	3					
	Brown-headed Cowbird	3					
	Canada Goose	2					
	Carolina Wren	14					
	Chipping Sparrow	1					
	Common Grackle	3					
	Common Yellowthroat	3	1				
	Cooper's Hawk	4					
	Eastern Phoebe	2					
	Eastern Screech Owl	1					
	Forster's Tern	2					
	Grackle	2					
	Gray Catbird	17	20				
	Great Blue Heron	2					
	Great-horned Owl	5					
	House Sparrow	1					
	House Wren	3	2				
	Indigo Bunting		1				
	Northern Cardinal	16	3				
	Ovenbird	3					
	Red-eyed Vireo	2					
	Red-shouldered Hawk	2					
	Red-tailed Hawk	9					
	Ruffed Grouse	1					
	Screech Owl	1					
	Sparrow, Unknown Spp.	3					
	Swainson's Thrush	1					
	Veery	1					
	Warbler	3					
	White-throated Sparrow	2					
	Wild Turkey	86					
	Wood Thrush	4					
	Yellow Warbler	4					
Grand Total		232	39				

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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Animal groups	Host	Number of animals			Number confirmed		
		SCWDS	Tufts et al., 2019 & 2020	USDA, Wildlife Services	SCWDS	Tufts et al., 2019 & 2020	USDA, Wildlife Services
Mammal	Black Bear	300					
	Bobcat	16					
	Brown Rat		1				
	Canada Goose	1					
	Cotton Rat	7					
	Coyote	20			6		
	Desert Big Horned Sheep	1					
	Domestic Dog	13			4		
	Eastern Chipmunk	2	2				
	Eastern Cottontail	75		1	1		1
	Eastern Gray Squirrel	9					
	Eastern Woodrat	6					
	Elk	69			5		
	Fox	4					
	Gray Fox	9			3		
	Hispid Cotton Rat	6					
	Hog	3					
	Human	29			3		
	Human (Attached)	1					
	Meadow Vole	2					
	Mexican Free-tailed Bat	1					
	Mule Deer	74					
	Northern Short-tailed Shrew		14				
	Peromyscus Leucopus		87				
	Peromyscus Sp.	239					
	Raccoon	210	39	5	37	36	5
	Red Deer	1					
	Red Fox	31			3		
Skunk	1						
Southern Red-backed Vole	1						
Striped Skunk	12	2	1		2	1	
Virginia Opossum	201	21	3	11	20	3	
White-footed Mouse	1						
White-tailed Deer	1,189	16	2	49	16	2	
Woodchuck	33			2			
Woodland Jumping Mouse	2						
Grand Total		2,569	182	12	124	12	

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Tufts, D. M., Goodman, L. B., Benedict, M. C., Davis, A. D., VanAcker, M. C., Diuk-Wasser, M. A. (Preprint posted 2020). Association of the invasive *Haemaphysalis longicornis* tick with vertebrate hosts, other native tick vectors, and tick-borne pathogens in New York City. *bioRxiv* 2020.07.01.182626; doi: <https://doi.org/10.1101/2020.07.01.182626>.

