

# Invasive Animals In New Jersey

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# Asian Longhorn Beetle (*Anoplophora glabripennis*)

- This species has been introduced to the US in packing materials arriving in several different ports including NJ
- It attacks and kills at least 18 species of hardwood trees including maple, birch, horse chestnut, elm, ash, poplar, willow and black locust
- Adult beetles are about 1 to 1 ½ inches long with black and shiny bodies with white spots, and long stripy antennae. However, you are more likely to see their distinctive exit holes and oviposition sites
- Control currently involves cutting, chipping and burning affected trees



# European Starling (*Sturnus vulgaris*)



<http://gallery.photo.net/photo/5556483-lg.jpg>

- 100 starlings were introduced to North America in New York City in 1890. An estimated 200 million birds are now found over most of North America, Mexico and parts of the Caribbean
- Because starlings are so aggressive and gregarious, they force out many native species many of which are important predators on insect pests
- Although they too eat insect pests, they also feed on the crops themselves, with a net negative effects on those crops
- Starlings are now too abundant for effective management. Control usually involves exclusion nets or frightening using noise to exclude them from specific areas or crops

# Asian Shore Crab (*Hemigrapsus sanguineus*)

- First recorded in the US in Cape May NJ in 1988, this species has now spread along the Atlantic Coast from Nova Scotia to North Carolina
- This crab can live in almost any near-shore habitat across a wide variety of salinities. It also eats almost anything and, as a result, has the potential to compete with a wide variety of native species of crab, fish and shellfish. It may also prey directly on native species
- Recent trends show numbers of shore crabs are steadily increasing while native crab populations are declining
- No control mechanism is currently available for this species



<http://nyis.info/images/Asian%20shore%20crab2.jpg>



[http://farm4.static.flickr.com/3261/3136809634\\_1919fdc661\\_o.jpg](http://farm4.static.flickr.com/3261/3136809634_1919fdc661_o.jpg)

# Asian Tiger Mosquito (*Aedes albopictus*)



<http://gersarsutut.files.wordpress.com/2009/06/aedes-albopictus-1.jpg>



[http://www.alexanderwild.com/photos/532989799\\_av28A-L.jpg](http://www.alexanderwild.com/photos/532989799_av28A-L.jpg)

- Characterized by black and white stripes on its legs and body, this mosquito prefers to live close to humans and bites throughout the day, not just at dusk and dawn
- Introduced to the US in Texas in 1985, it has now spread into 27 states including NJ
- Cautious feeders, they often bite several hosts to get enough blood for egg-formation. This makes them efficient transmitters of diseases such as Dengue and West Nile Fevers. They also bite hosts from multiple species, and can thus carry viruses from one species to another
- Because this species is a weak flyer, removing the standing water where it breeds (puddles, old tires, sagging gutters etc.) within 200 yards of a home is the best protection from this species

# Mute Swan (*Cygnus olor*)

- Mute swans are one of the world's most aggressive bird species. Their aggressive behavior often results in displacement of native birds from nesting and feeding areas.
- They also feed heavily on submerged aquatic vegetation, uprooting the plants and damaging the river and lake bottoms that other species depend on for food and habitat
- Because they are such a charismatic species, control of mute swans has been controversial. However, the damage they do is incontrovertible, and control of these animals (such as egg addling, culling or hunting) is urgently needed in the State



# Chinese Mitten Crab (*Eriocheir sinensis*)



Photo Credit: Lee Mecum  
[http://fl.biology.usgs.gov/posters/Nonindigenous/Nonindigenous\\_Crustaceans/crab2a.jpg](http://fl.biology.usgs.gov/posters/Nonindigenous/Nonindigenous_Crustaceans/crab2a.jpg)



<http://www.biolib.cz/IMG/GAL/76491.jpg>

- This crab grows to the size of a human hand and can be distinguished by its hairy claws
- One of the newest additions to New Jersey's invasive species list, it's not yet clear if this species has yet become established within the State
- Mitten crabs spend most of their life in fresh water, but they must return to the sea to breed
- Their omnivorous diet may allow them to outcompete native species
- In other areas where it has invaded, burrowing by these crabs has also caused problems by increasing river and stream bank erosion

# Gypsy Moth (*Lymantria dispar*)

- Released accidentally by a scientist studying it as a potential source of silk, this animal has become one of North America's most devastating forest pests
- Larvae of this moth feed on many different species of plants, but most commonly oak and aspen. Population sizes pulse annually, but when they reach very high levels, affected trees may become completely defoliated.
- Although placing a sticky band around the trunk can help protect specific trees, the biological insecticide, *Bacillus thuringiensis*, (B.t.) is the preferred mechanism for controlling larger gypsy moth outbreaks



<http://wihort.uwex.edu/Phenology/images/Gypsy%20Moth%20Larva.jpg>



[http://www.afpmb.org/pubs/Field\\_Guide/Images/originals/Fig.%20146.jpg](http://www.afpmb.org/pubs/Field_Guide/Images/originals/Fig.%20146.jpg)

# Domestic (rock) pigeon (*Columba livia*)



[http://upload.wikimedia.org/wikipedia/commons/4/49/Pigeon\\_Columba\\_livia\\_amk.jpg](http://upload.wikimedia.org/wikipedia/commons/4/49/Pigeon_Columba_livia_amk.jpg)

- Native to Europe, this bird has been introduced worldwide, largely as a food source
- Preferring to live near humans, these birds cause problems for us because they can transmit a variety of diseases to humans and domestic poultry as well as to native wildlife.
- Corrosive substances in their droppings can damage buildings and monuments
- Too abundant to eliminate, control of this species focuses on modifying habitat in areas where they are particularly unwelcome to make it unsuitable for their use (e.g. physically altering roosting and nesting sites and removing food and water sources)

# Hemlock Woolly Adelgid (*Adelges tsugae*)

- Accidentally introduced to the US in 1924, more than half the range of the Eastern Hemlock is now infested by this pest
- Hemlock is a vital component of the NE US, protecting stream banks from erosion, as well as providing food and habitat for wildlife
- Adelgids feed by sucking sap from hemlock trees, weakening or killing them
- Currently there are no real options for controlling this pest, but research is being conducted on a variety of biological control mechanisms



# House sparrow (*Passer domesticus*)



[http://www.tariquesani.net/albums/userpics/DSCN4628\\_fk.jpg](http://www.tariquesani.net/albums/userpics/DSCN4628_fk.jpg)



[http://tolweb.org/tree/ToLimages/housesparrow\(passerdomesticus\)female.jpg](http://tolweb.org/tree/ToLimages/housesparrow(passerdomesticus)female.jpg)

- Released into Central Park NY by the same genius who introduced starlings there, this species has also spread across the continent
- House sparrows evict native birds from their nests and out-compete them for food. As a result, their presence is associated with declines in population of many native bird species. They can also be a pest in agricultural crops (mostly grains and fruits)
- Limiting sparrow access to nest sites is the best control option. This is best done in the fall, when competition for nest sites begins for the following spring. Consistent removal of house sparrow nests from boxes built for native birds eventually dissuades them from nesting there

# Multicolored Asian Lady Beetle (*Harmonia axyridis*)

- Native to Asia, this beetle has been introduced around the world for biological control of various aphid species
- Larger than most ladybird species, its wing covers are variable both in color and number of spots. The segment behind the head usually has a pattern of black and white spots that often form an “M” shape
- This species appears to decrease the diversity of native lady beetles. It can also be a nuisance to humans when it seeks shelter for the winter in the walls and insulation of houses and other structures
- Breeding programs are currently underway to try to rebuild populations of native lady beetles displaced by this species



[http://www.naturephoto-cz.eu/pic/krasensky/harmonia-axyridis-2008\\_062.jpg](http://www.naturephoto-cz.eu/pic/krasensky/harmonia-axyridis-2008_062.jpg)



[http://upload.wikimedia.org/wikipedia/commons/7/7d/Harmonia\\_axyridis01.jpg](http://upload.wikimedia.org/wikipedia/commons/7/7d/Harmonia_axyridis01.jpg)

# Invasive Animal Web Resources

- Rutgers University Long Horn Beetle Information and Reporting: <http://njaes.rutgers.edu/alb/>
- The Lost Ladybug Project: <http://www.lostladybug.org/>
- Take the pledge: Don't transport firewood: <http://www.ucsusa.org/action/alerts/tell-me-more/firewood.html>
- US Forest Service Invasive Species Program: Prevention: <http://www.fs.fed.us/invasivespecies/prevention/index.shtml>