***What is an Invasive Species?***

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| An alien species, also called non-native, non-indigenous, or exotic, is one that is introduced, accidentally or purposefully, into an ecosystem in which it did not evolve. Alien or exotic species can come from other continents, other countries and even other parts of the United States. Exotic species are not automatically "bad." Most of our important food crops and domesticated animals are exotic. But both exotic and native species (ones that evolved in Maryland) become problems when they are invasive. Invasive species often exhibit certain characteristics: they spread aggressively, reproduce quickly, have short juvenile periods, tolerate a wide range of climatic conditions and habitats, compete efficiently against other species, and thrive in disturbed areas. Unfortunately, the pests and diseases that keep these exotic populations under control in their regions of origin are not present in Maryland. Most of Maryland's invasive species come from somewhere else in the world. Invasive species cause ecological damage by outcompeting native species, reducing biological diversity, and changing ecosystem functions such as flood and fire regimes or nutrient cycling. The Asian vine kudzu quickly climbs over trees and shrubs and can kill them by strangling and shading. Some invasive species, like the aggressive stinging red imported fire ant, can present serious human health risks. Invasive species also have major economic consequences, ranging from the loss of economically valuable species to the costs of controlling or managing infestations on public lands. Populations of the predominant forest tree in Maryland, the American chestnut, were decimated by the chestnut blight, an exotic fungus accidentally introduced in the 1880s. The state of Maryland spent 1.8 million dollars in 2000 on activities related to exotic invasive species. spacer | spacer |

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| spacer | **Invasive species are "alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health"** (Presidential Executive Order 13112, 2/3/99).  | spacer | spacer |
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http://www.sciencedaily.com/images/2007/06/070604123727.jpg |
| **News Releases** |

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| Jul 12, 2007**Tiny Weevils Released to Slow the Invasive Mile-A-Minute Weed*****Howard County project tests bio-control research protocol***

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ANNAPOLIS, MD – July 12, 2007 – The Maryland Department of Agriculture (MDA) in partnership with the Howard County Department of Recreation and Parks is today releasing 500 tiny insects called the mile-a-minute weevil (Rhinoncomimus latipes Korotyaev) to try to control the spread of an invasive vine from Asia known as the mile-a-minute weed (Polygonum perfoliatum L.).  The insects will be released in a test plot located in Meadowbrook Park near Columbia.  The release is part of a mile-a-minute biocontrol study being conducted by researchers at the University of Delaware Department of Entomology and Wildlife Biology.“MDA’s weed management program tries to find the most effective, lowest cost, long-term way to control problem weeds,” says Assistant Secretary for Plant Industries and Pest Management Mary Ellen Setting.  “One of the best tools is often a biological control, if we can find an appropriate one.  The research on this insect shows great promise as a host-specific control against mile-a-minute weed.” Mile-a-minute weed is a prickly annual vine originally from Asia that invades a wide range of habitats in the North East United States.  It is generally found choking out trees and other plants in forested floodplains, streamside herbaceous wetlands, and upland forests. “This weed is a significant problem in landscaping and road rights of ways,” said Robert Trumbule, an MDA entomologist heading up the research project in Maryland. “It’s pretty exciting to find an effective bio-control like the weevil to keep this kind of weed in check. We will be collecting monthly data on the weevils and the weed in test and control plots and are hoping for success. Our goal is that the weed and the weevil create a balance and that they are in eternal combat.”According to University of Delaware materials, Adult R. latipes are about two millimeters long, and are black, but may be covered by an orange film derived from plant exudates once they start feeding. Adult weevils eat small holes in young leaves of P. perfoliatum and lay eggs on leaves and stems. After hatching, larvae bore into the stem where they complete development, then exit the stem and drop to the soil for pupation. Development from egg to adult takes about 26 days under laboratory conditions.  Releases have been underway since 2004. The first releases of this insect suggests that it will establish easily, producing multiple generations per year, and that adult feeding on small plants can kill mile-a-minute plants. It remains to be seen whether weevil populations will develop in high enough numbers to significantly impact survival, seed production, and spread of this invasive weed. |

http://www.mdinvasivesp.org/index.html

**Furry-clawed Asian Crabs Found In Delaware And Chesapeake Bays**

*ScienceDaily (Jun. 6, 2007)* — Chinese mitten crabs, first reported in the Chesapeake Bay, are more widespread than initially thought. Four crabs have now been caught in Delaware Bay during the last week of May 2007, and may occur in other waters of the U.S. east coast.

In total, seven adult male mitten crabs have been documented from the two bays since 2005. Prior to this, the potentially invasive species had never been recorded from coastal waters of the eastern United States.

The mitten crab is native to eastern Asia and has already invaded Europe and the western United States, where it has established reproductive populations. The crab occurs in both freshwater and saltwater. Young crabs spend their lives in freshwater and migrate to saltwater estuaries for reproduction.

Named for the unusual thick fur-like coating on its claws, the mitten crab looks very different than native crabs and is easily recognized. It is listed as injurious wildlife under the Federal Lacey Act, due to its potential to cause ecological and economic damage.

"We don't know the present status of this crab along the eastern U.S. coast" said Gregory Ruiz, senior scientist at the Smithsonian Environmental Research Center. "At the moment, it is not clear whether these crabs are reproducing or established in the Mid-Atlantic region, or whether the captured crabs are just a few individuals that originated elsewhere." These crabs may have arrived in the ballast water of ships or through live trade.

A Mitten Crab Network has been established to examine the abundance, distribution, and reproductive status of crabs in Chesapeake Bay, Delaware Bay and other estuaries along the eastern United States. The initial partnership between the Smithsonian lab, Maryland Department of Natural Resources, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration and Delaware Division of Fish and Wildlife, is now being expanded to include resource managers, commercial fishermen, research organizations and citizens along the east coast.

 Smithsonian (2007, June 6). Furry-clawed Asian Crabs Found In Delaware And Chesapeake Bays. *ScienceDaily*. Retrieved October 31, 2007, from http://www.sciencedaily.com­ /releases/2007/06/070604123727.htm

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*The "furry-looking" claws distinguish the Chinese mitten crab from native crabs. The Chinese mitten crab in the photo inset was caught by a waterman fishing for Blue crabs in the Upper Chesapeake Bay on May 18. (Credit: Greg Ruiz, Smithsonian)*