



Delaware Water Gap National Recreation Area

WHAT WE ARE DOING

The Eastern Rivers and Mountains Network and member parks have developed lists of invasive species to detect, report, and manage as part of its early detection and rapid response (EDRR) program. Detecting and eradicating invasive species early is an economically and ecologically efficient way to combat these problematic plants and pests. Most of these species have not been found in the park or are not widely distributed and therefore still practical to treat each time they are encountered. In Delaware Water Gap NRA (DEWA), plants such as mile-a-minute (*Polygonum perfoliatum*), linden viburnum (*Viburnum dilatatum*), and phragmites (*Phragmites australis*) [Banner photo] have been present in the park for several years, but EDRR is helping to keep the populations low.



Fig. 1: NJ Dept. of Ag. Entomologist, Mark Mayer, releasing Chinese weevils on mile-a-minute. Photo by: Jeffrey Shreiner

WHAT WE ARE FINDING

During invasive species early detection surveillance monitoring in 2011 and 2012, four new invasive plant occurrences and one pest occurrence were documented in DEWA (Table 1). In response to the mile-a-minute vines, the New Jersey Department of Agriculture in collaboration with DEWA resource managers, released 1,700 Chinese weevils (*Rhyncomimus latipes*) [Fig. 1] at an infested site near the Walpack Bend. These weevils feed almost exclusively on mile-a-minute and can damage or in some cases even kill the vines.

Table of ISED Plants Encountered for 2011 and 2012 in DEWA			
ISED Plants & Pests Encountered		Year(s) Detected	Response
Scientific Name	Common Name		
<i>Didymosphenia geminata</i>	didymo	2012	Monitoring spread and impacts
<i>Polygonum perfoliatum</i>	mile-a-minute	2011, 2012	Treated using pre-emergent herbicide, Chinese weevils
<i>Phragmites australis</i>	phragmites	2011	Treated with herbicide
<i>Viburnum dilatatum</i>	viburnum leaf beetle		No samples obtained, continuing monitoring efforts
<i>Pyrrhalta viburni</i>	beetle	2011	

CONTACT INFORMATION

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Banner photo: Barry Rice, sarracenia.com, [Bugwood.org](http://bugwood.org)



SPECIES SPOTLIGHT: DIDYMO

In April of 2012, Aquatic Ecologist Eric Silldorff of the Delaware River Basin Commission found didymo (*Didymosphenia geminata*) in DEWA. First detected in the Delaware River in 2007, this was the first time it was observed as a dense algal bloom in the park [Fig. 2].

Didymo, also known as "rock snot", is an invasive freshwater diatom, (a type of single-celled algae that has silicon cell walls), native to northern regions of Europe, Asia, and North America. Its range has been rapidly expanding to new waters in North America, Europe, Asia, and New Zealand. Didymo can be distinguished from other algae because it feels like wet cotton despite its slimy appearance.



Fig. 2: Didymo in the Delaware River. Photo by: Eric Silldorff

Didymo has the potential to cause serious ecological and economic impacts. The algae attaches to streambed substrate by stalks and can form dense mats as thick as 20 cm (8 in) that can cover streambeds for months and impact aquatic species. Currently, there is no way to control didymo, but people who use the river are asked to clean any equipment after coming in contact with didymo infested water to avoid spreading the algae. In DEWA, didymo is being monitored to study its spread and impact on the Delaware River and its tributaries.

For more information on didymo scan the QR code, contact the ISED Coordinator, or contact DEWA Ecologist Rich Evans at Richard_Evans@nps.gov.

