Be on the Lookout for These Emerging Invasive Species in Pennsylvania!

Online Resources
- Pennsylvania Invasive Species Resources: "Be on the Lookout" and "Clean Your Gear"
  https://www.paimapinvasives.org/getinformed-resources
- Pennsylvania Sea Grant: Invasive Species
  https://www.playcleango.org/index.html
- Pennsylvania Department of Conservation and Natural Resources > Invasive Plants:
  http://www.dcnr.state.pa.us/FishWildlife/plants/invasiveplants/

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Cover—Nanci Milner. (Left) A. M. C. O. Chinese privet: Mark Zweifel, Bugwood.org; Policeman's helmet: thistle: Peter O'Connor; Swamp stonecrop: Takahiro Yamaguchi; Diffuse knapweed: Matt Lavin, Montana State University; Marsh thistle: Andy Nguyen; Water primrose: Jörg Hempel; Water soldier: Jardin des Plantes, Paris; Asian sand sedge: Joseph Lynn; Sonnia Hill; Water primrose: Jardin des Plantes, Paris; Chinese privet: © 2017, Pennsylvania Natural Heritage Program; Pennsylvania Sea Grant; Invasive Species; "Be on the Lookout" and "Clean Your Gear"; Pennsylvania iMapInvasives; PA iMapInvasives Resources; Pennsylvania Sea Grant > Invasive Species: http://www.playcleango.org/index.html

Be an Early Detector

Protect Pennsylvania from these Emerging Invasive Species

- "Be on the Lookout" and "Clean Your Gear"
- "Protect the Keystone State"
- Pennsylvania Invasive Species Resources
- Pennsylvania Sea Grant: Invasive Species
- Pennsylvania iMapInvasives Resources

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An Invasive Species is Introduced Outside its Native Range and Known to Cause Harm in the Environment, or Human Health. Unfortunately, Many Invasive Species are Exceptionally Difficult and Costly to Control. Ideally, Newly Arrived Invasive Species can Be Controlled Before They Become Established. To Help in This Effort, Staff from the Pennsylvania Natural Heritage Program Initiated a Project in 2016, Funded by the Wild Resource Conservation Program, to Determine Invasive Plants Likely to Arrive in the Commonwealth over the Next 10 Years. After Combing Through Information about Invasive Species in North America, Many of Which Are Not Yet Known to Occur in Pennsylvania, Emerging Threats Were Chosen Based on Invasive Characteristics, Proximity to or Rarity in Pennsylvania, and the Ability to Colonize Habitats in Pennsylvania. By Using This New Information About Potential Plant Invaders, Land Managers, Invasive Species Coordinators, and Citizen Scientists Can Refine Their Invasive Species Management Strategies. To View a More Complete List of Emerging Invasive Species and a Full Report on This Project, Visit the "Be on the Lookout" and "Clean Your Gear" Resources.

Be an Early Detector

By Using This New Information About Potential Plant Invaders, Land Managers, Invasive Species Coordinators, and Citizen Scientists Can Refine Their Invasive Species Management Strategies. To View a More Complete List of Emerging Invasive Species and a Full Report on This Project, Visit the "Be on the Lookout" and "Clean Your Gear" Resources.
Ecological Impact: Forms dense mats of intertwining vines that can severally overwhelm native vegetation. In cold weather, it can break and freeze, creating dense thickets which prevent desirable species from establishing. In water, treesheds and branches supporting hardy kiwi vines will break under excess weight caused by snow and ice. This species can tolerate a wide range of cold temperatures (-25°C or lower) and is able to grow 20 feet or more per year.

Look-Alikes: Other species of Actinidia are also known, including certain Carica species and Cyperus species.

Nearby Locations: Occurs in maritime areas from Massachusetts to North Carolina.

Java Dropwort (Oenanthe javanica)

Native Range: East Asia and Queensland, Australia.

Habitat: Terrestrial. Prefers damp soil in moist areas, along streams, and on the edges of ponds. It prefers slow-moving or stagnant water.

History: First discovered in 1935 in cultivated rice paddies of South Carolina. It escaped cultivation to become established in natural habitats.

Ecological Impact: This herbaceous plant outcompetes native species by forming dense mats which crowd out native species and decrease biodiversity. The sharp serrated leaves of Java dropwort can cause cyanide poisoning in cattle. It can potentially alter water chemistry which may harm phytoplankton and other aquatic plants.

Look-Alikes: Upon first glance, water soldier may be confused with marsh marigold and C.C. liliaceus.

Nearby Locations: Water primrose is found in the southern U.S., but also in New Jersey, New York, Connecticut, Rhode Island, and Massachusetts.

Policeman’s Helmet (Impatiens glandulifera)

Native Range: Himalayas.

Habitat: Wetland. Prefers riparian areas including river edges, moist forests, and wet meadows.

History: Introduced to North America in the early 1800s as an ornamental. Has since escaped cultivation into natural areas.

Ecological Impact: This plant outcompetes native species by creating dense thickets that prevent desirable species from establishing. It draws away pollinators from nearby native species and soils in wetlands, reducing or eliminating populations of desirable species. It spreads vegetatively from small fragments, establishing in new locations is facilitated by its ability to form new plants from fragments.

Look-Alikes: Common privet (Ligustrum sinense) and reed canary grass (Phalaris arundinacea).

Nearby Locations: Chinese privet has been found mainly in the southeastern U.S., but also in New Jersey, New York, Connecticut, Rhode Island, and Massachusetts.

Polskin’s Helmet (Impatiens capensis)

Native Range: East Asia and SE Asia.

Habitat: Terrestrial. Prefers damp soil in moist areas, along streams, and on the edges of ponds. It prefers slow-moving or stagnant water.

History: First discovered in 1858 in cultivated rice paddies of South Carolina. It escaped cultivation to become established in natural habitats.

Ecological Impact: This herbaceous plant outcompetes native species by forming dense mats which crowd out native species and decrease biodiversity. The sharp serrated leaves of Polskin’s Helmet are known to cause cyanide poisoning in cattle. It can potentially affect water chemistry which may harm phytoplankton and other aquatic plants.

Look-Alikes: Upon first glance, water soldier may be confused with marsh marigold and C.C. liliaceus.

Nearby Locations: Water primrose is found in the southern U.S., but also in New Jersey, New York, Connecticut, Rhode Island, and Massachusetts.

Red Mangnass (Glycina maxima)

Native Range: Europe and temperate Asia.

Habitat: Wetland. Grows in wet areas including riverbanks, swamps, ponds, and wet pastures.

History: In 1975, reed mangnass was first discovered in the U.S. in Racine County, Wisconsin.

Ecological Impact: Outside its native range, this tall grass crowds out native species. It spreads vegetatively from small fragments, creating monotypic stands which deplete soil and water resources, reduce native species, and decrease biodiversity. Its ability to degrade wetland habitats causes these areas to be unsuitable for nesting and provides little nutrition for wildlife. Its tolerance to flooding makes it difficult for the plant’s ability to trap sediment and clog small waterways. Its ability to spread on land and water surfaces. It rapidly forms a dense mat which crowds out native species and decreases biodiversity. The sharp serrated leaves of Java dropwort can cause cyanide poisoning in cattle.

Look-Alikes: American mangnass (Glycina grandiflora), rattlesnake mangnass (Glycina canadensis), and reed candy grass (Phalaris arundinacea).

Nearby Locations: Mangnass has been found in Ontario, Quebec, Massachusetts, Connecticut, Wisconsin, and Illinois.

Water Primrose (Ludwigia grandiflora)

Native Range: South and Central America and parts of the United States.

Habitat: Aquatic. Prefers riparian and lacustrine habitats.

History: In North America, water primrose was first introduced outside its native range in Pennsylvania, and Kentucky with the collection of specimens occurring in 1968 and 1988 respectively.

Ecological Impact: Water primrose is a rooted aquatic species that invades natural areas via stolons (i., runners) that spread on land and water surfaces. It forms a floating mass that prevents native flora and fauna from moving or stagnant water. Its ability to spread on land and water surfaces. It rapidly forms a dense mat which crowds out native species and decreases biodiversity. The sharp serrated leaves of Java dropwort can cause cyanide poisoning in cattle. It can potentially affect water chemistry which may harm phytoplankton and other aquatic plants.

Look-Alikes: Depending on its life stage, water primrose may be confused with marsh marigold and emergent Ludwigia species.

Nearby Locations: Water primrose is found in the southern U.S., but also in Pennsylvania where it’s been reported in Berks County.

Water Soldier (Stratiotes aloides)

Native Range: Europe.

Habitat: Aquatic. Found in inlets of lakes, rivers, and large lakes. Prefers backwaters, sluggish canals, ponds, and ditches.

History: Likely introduced as an ornamental. In 2008, it was first found outside its native range in the Trent River in Ontario, Canada.

Ecological Impact: This invasive species forms dense mats which crowd out native species and decrease biodiversity. The sharp serrated leaves of Java dropwort are a danger to swimmers and other animals that may contact the plant. It can potentially alter water chemistry which may harm phytoplankton and other aquatic plants.

Look-Alikes: Upon first glance, water soldier may resemble plants such as arrowhead. Duckweeds may form a highly submerged eel-grass, however; the sharp serrated leaves and rossette growing habit should aid observers in distinguishing it from other plants.

Nearby Locations: In N.A., water soldier is only found in Ontario.