



MUDMAT

Glossostigma cleistanthum

Mudmat is a relative newcomer to North America. It is a low-growing, mat-forming, invasive aquatic plant that has remained largely under the radar due to its small size and the public's lack of familiarity with it.



Photo courtesy of USGS.

SPECIES DESCRIPTION

Mudmat is characterized by tiny plants, usually less than 2 cm (0.8 in) high. Leaves are bright green, narrow and paired; resembling tiny green rabbit ears. They can range in size from 1-4 cm (0.4-1.6 in) long. Flower color can range from mauve, lilac, blue, and bluish-white, to white. Be cautious when identifying mudmat, it closely resembles some native mudwort species and can also be confused with emergent leaf forms of some members of bladderwort.

NATIVE & INTRODUCED RANGES

Native to Australia, New Zealand, India, and East Africa, mudmat was not discovered in the United States until 1992 when it was found at a single location in southern Connecticut. It has since spread to several abandoned ponds and quarries in Connecticut, New Jersey, Rhode Island, and Pennsylvania. In Pennsylvania, mudmat has only been found

in Lake Galena in Bucks County; however, because of its small size, mudmat probably has a wider distribution than is currently known.

BIOLOGY & SPREAD

Initial introduction of mudmat probably occurred by aquarium release and its subsequent spread may have been mediated by both human activities, such as recreational boating, and by natural means, such as hitchhiking on migrating geese or other waterfowl.

HABITAT

Mudmat prefers shallow waters, swamps, and periodically flooded areas along sandy to muddy shorelines with little wave action. Most plants are anchored in the soil (submerged); however, some may float at the water's surface (emergent). Emergent plants behave as annuals—flowering, fruiting, and then dying back each winter. Submerged plants are hardy perennials, remaining green and growing year round. Mudmat prefers conditions with low pH, alkalinity, conductivity, and phosphorus. In these conditions, and where water clarity is high, mudmat can grow up to four meters deep.



Photo courtesy of Robert Capers.

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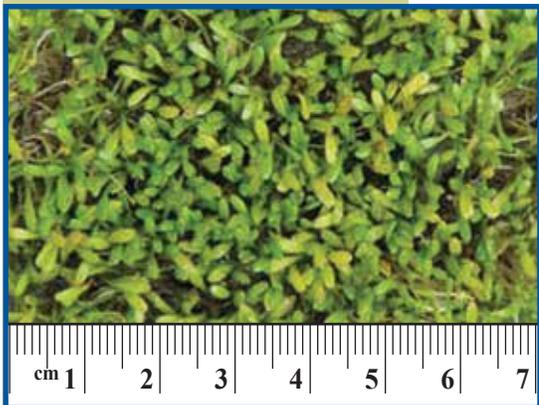


Photo courtesy of Robert Capers.



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IMPACTS

Once mudmat is established it can form dense monotypic stands which can be made up of 10,000 to 25,000 individual plants per square meter. These mats form thick carpets, covering the lake bottom from the shoreline to depths often greater than 6.5 ft (2 m). Mudmat spreads very rapidly, covering prime shoreline habitat. Because of its small size, this invader is not considered a large threat to recreational activities; however, the monoculture formed by this species reduces biodiversity, making it an ecological threat to native plant and animal communities.

PREVENTION & CONTROL

The best way to control mudmat is to prevent its introduction and spread into new waterways. The following steps are provided to prevent the spread of aquatic invasive species:

1. **check** for and remove plants, mud, and aquatic life before transporting;
2. **drain** water from boat, live well, bilge, and bait bucket before transporting;
3. **clean** boat and gear with hot water, OR
4. **dry** everything for at least five days.

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Photo courtesy of Colette Jacono, USGS.

References:

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