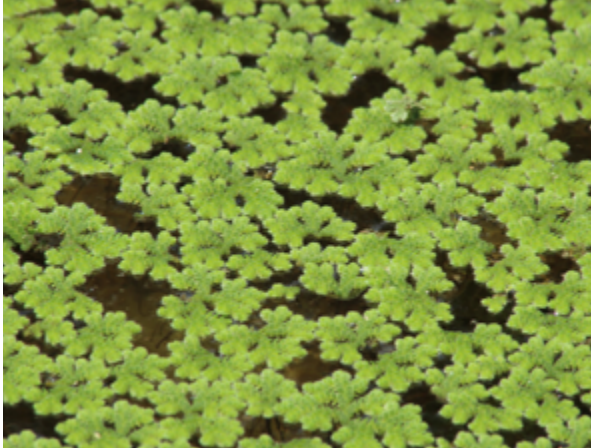


Mosquito Fern | *Azolla* spp.



Mosquito fern.



Mixed stand of mosquito fern and duckweed.



Stressed mosquito fern turns reddish.

Mosquito fern is a tiny native aquatic fern that floats on the water surface. It is most common in sheltered ponds with limited wind exposure. Under optimal conditions, it can completely cover a waterbody and eliminate sunlight penetration.

Individual plants of mosquito fern are generally less than 1 inch wide. The leaves are in **two alternating rows along the stem**, and are divided into an upper green lobe that floats and a lower white to transparent lobe under the water.

Mosquito fern is green when actively growing and is easily mistaken for duckweed (*Lemna* spp.) or watermeal (*Wolffia* spp.) when viewed from a distance. When it is stressed, mosquito fern turns **red or brown** and is easily distinguishable.

Management Value

Mosquito fern is a native species and has some value as wildlife food and habitat. Fish, amphibians, reptiles, and ducks may eat the plants on occasion, and dense colonies provide habitat for some insect species. However, because mosquito fern can quickly cover a pond and block out sunlight, it is not recommended for any management purpose.

Mosquito Fern | *Azolla* spp.

Recommended Controls

Option 1: Flumioxazin (4-pound formulation). For each gallon of water, mix 0.1 ounce flumioxazin and 1.3 ounces nonionic surfactant. Use a buffering agent when mixing with water with pH greater than 7.0. Spray to wet all plants. Do not exceed annual herbicide rate limits as stated on the product label.

Option 2: Diquat (3.73-pound formulation). For each gallon of water, mix 1.28 ounces diquat and 1.3 ounces non-ionic surfactant. Spray to wet all plants. Do not exceed annual herbicide rate limits as stated on the product label.

Multiple herbicide applications may be necessary to eradicate plants.

■ Read and follow all chemical label instructions, especially the section on the use of personal protection equipment.

Funding provided by the Aquatic Nuisance Species Program of the U.S. Fish and Wildlife Service, Grant Award F18AP00260 to the Mississippi Department of Environmental Quality. Additional funding and support provided by the MSU Extension Service.



The information given here is for educational purposes only. References to commercial products, trade names, or suppliers are made with the understanding that no endorsement is implied and that no discrimination against other products or suppliers is intended.

Publication 3735-43 (POD-11-23)

By **Wes Neal**, PhD, Extension/Research Professor, Wildlife, Fisheries, and Aquaculture; **Dennis Riecke**, Fisheries Coordinator, Mississippi Department of Wildlife, Fisheries, and Parks; and **Gray Turnage**, PhD, Assistant Research/Extension Professor, GeoSystems Research Institute.

Copyright 2023 by Mississippi State University. All rights reserved. This publication may be copied and distributed without alteration for nonprofit educational purposes provided that credit is given to the Mississippi State University Extension Service.

Produced by Agricultural Communications.

Mississippi State University is an equal opportunity institution. Discrimination in university employment, programs, or activities based on race, color, ethnicity, sex, pregnancy, religion, national origin, disability, age, sexual orientation, gender identity, genetic information, status as a U.S. veteran, or any other status protected by applicable law is prohibited.

Extension Service of Mississippi State University, cooperating with U.S. Department of Agriculture. Published in furtherance of Acts of Congress, May 8 and June 30, 1914. ANGUS L. CATCHOT JR., Director