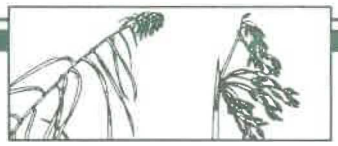


Aquatic Plant Identification and Management Workbook, *Series 3*

The Aquatic Plant Identification and Management Workbook Series is designed to acquaint pond owners in Maryland with naturally-growing aquatic plants and the general means for managing their growth. Aquatic plants play an important role in the natural ecology of ponds: they provide food and shelter for many fish, aquatic animals and other wildlife, and they provide oxygen, which can benefit fish production.

Sometimes, however, growth gets out of hand and the plants become so numerous they interfere with the intended use of the pond, for example, fishing, swimming, boating — they are then called aquatic weeds. When this occurs, control measures often become necessary.

The suggested chemical controls in this workbook series are intended as guidelines and must not replace directions on chemical labels. Separate fact sheets display each of the aquatic plants in this series and are available from the Maryland Sea Grant Extension Program or your local Cooperative Extension Office.

EMERGENT VEGETATION

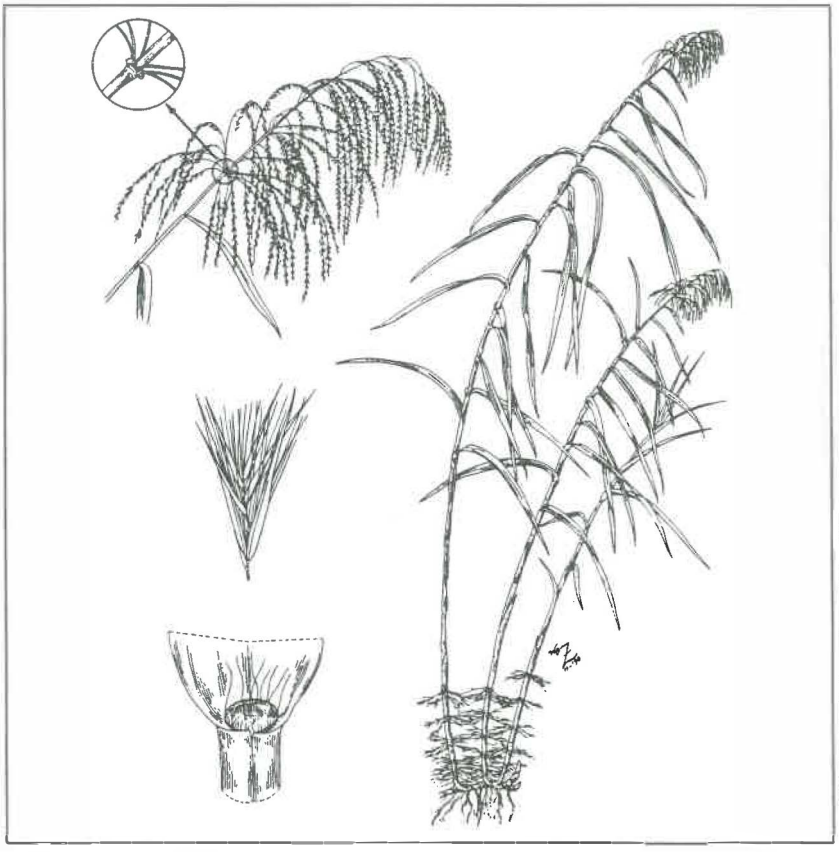
Common Reed

Reginal M. Harrell and Richard E. Bohn

University of Maryland Cooperative Extension Service, Sea Grant Extension Program

Vascular flowering aquatic plants are seedbearing and are characterized by a system of conductive and supportive tissue. They can be classified into several broad categories of vegetation: floating, submersed, emergent, and terrestrial. This fact sheet focuses on common reed, an emergent plant.

As a group, emergent plants are usually found rooted in shallow waters and all or part of the plant extends above the water line or hydrated soil. They are usually rooted to the bottom of a pond, have a rigid cell structure, and are not dependent on the water column for support. However, some emergent plants such as common reed are not truly aquatic, but are in fact grasses, sedges, or rushes, and may be found in dry fields completely removed from a water source.



Credit: IFAS, University of Florida, Gainesville

Emergent Vegetation: Common Reed

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COMMON REED

(Phragmites australis)

Common reed is a tall, perennial grass which may grow as tall as 13 feet, and is sometimes equated to or confused with giant reed, *Arundo donax*, which has a larger lighter or tawny colored inflorescence (clustered flowers) than common reed. Both plants are found in swamps, marshes, and along the shorelines of ditches and canals in fresh or brackish waters. Common reed can establish itself in water several feet deep or on high ground where soil with the rhizomes (horizontal underground stems) were moved with fill.

This plant is one of a few species of giant reeds that have a worldwide distribution. In Maryland, it is currently under consideration to be listed as a noxious weed, which would require landowners to control the plant. Because of its rapidly growing rhizomes and its success in growing in all types of soils, this plant can establish dense growths within one or two growing seasons. In addition, its stout rhizomes make it very difficult to pull up. In shallow water ditches or canals, the dense growth can completely block the drainage and waterway access, including disrupting fishing access.

Both common and giant reed have some importance for wildlife in that they provide excellent roosting sites and cover for birds, small mammals, and snakes. American Indians used the stems for making rope, mats, and arrow shafts. In other parts of the world, the plant has been used to make fishing rods, and mouthpieces for musical instruments; giant reed pulp has been used to produce wood products such as printing paper, cardboard, and fiberboard.

IDENTIFICATION

Common reed has stiff erect stems that can grow 10-13 feet tall and has flat, blue-green to green lance-shaped leaves that are up to 2 inches wide and 1 foot long. Silky white hairs, 1/4 inch or more in length, can be found where the leaf sheath and blade are joined (giant reed has a large clasping flange where the leaf sheath and blade join). The stems are leafy all the way up to the flower. The plant blooms from mid-summer into the fall, and the flower, 3 inches to over a foot in length, is known as a panicle, a compound inflorescence in which the axis is branched one or more times. The panicle can be silvery, tawny, brown, or purplish in color. The individual flowers, or spikelets, of the panicle become more of a silver-silk with age due to the long hairs of the spikelets. Spikelets of common reed are compressed with 5-8 flowers each while giant reed spikelets, also compressed, have only 3-4 flowers. Reproduction of both plants is by seeds and from the thick creeping rhizomes.

CONTROL

When chemicals are used to control aquatic vegetation, certain precautions must be followed. Always read the label and follow the directions. It is best to spot treat areas where common or giant reed are first sighted, or wait until the late summer or fall when the plant is in bloom. Determine the water uses and any use restrictions associated with the chemical control. Obtain all necessary permits. Make sure you have properly identified the aquatic plant and have chosen the correct chemical control. Mix and apply the chemical according to the label directions. Keep the necessary records – they are required by law. Finally, monitor the water for dissolved oxygen and pH shifts after treatment to determine the effectiveness of the treatment and whether any fish kill occurs. Heavy plant die-off can cause oxygen depletion, while heavy growth can cause pH shifts on a daily cycle.

CHEMICAL CONTROL. The following is a table of chemicals labeled to treat the common reed. The table was compiled from information gathered from the aquatic chemical industry. *Inclusion in the table does not imply endorsement by the University of Maryland nor by the authors*. Omission of chemicals is a result of oversight on the authors part or of new label registration. The table is for comparison purposes only and is not intended to replace the chemical label. Labels are subject to change; therefore, always check the label for treatment sites, rates, and precautions before purchasing or applying any chemical. **Do not use the table for treating aquatic plant problems.**

Common Reed (*Phragmites* spp.)

Chemical Name	Chemical Type	Application	Restriction	Comments
Rodeo	Glyphosate	4-6 pts/acre as a 0.75% solution with ionic surfactant in water	do not apply within 1/4 mile of potable water intakes	treat in late summer

REFERENCES AND FURTHER READING

Aulbach-Smith, Cynthia A., Steven J. de Kozlowski, and Lawrence A. Dyck. 1990. Aquatic and wetland plants of South Carolina. South Carolina Aquatic Plant Management Council and South Carolina Water Resources Commission, Columbia.

Radford, Albert E., Harry E. Ahles, and C. Ritchie Bell. 1968. Manual of the vascular flora of the Carolinas. The University of North Carolina Press, Chapel Hill.

Riemer, Donald N. 1984. Introduction to freshwater vegetation. The AVI Publishing Company, Westport, Connecticut.

Traver, David P., John A. Rodgers, Michael J. Mahler, and Robert L. Lazor. 1978. Aquatic and wetland plants of Florida. Special Publication, Florida Department of Natural Resources, Bureau of Aquatic Plant Research and Control. Tallahassee, Florida.

NOTE: Because of the ecological role and sensitivity of aquatic vegetation, as well as Baywide efforts to restore this important resource, the state does not permit the use of chemical control in tidal waters, and greatly restricts their use in nontidal, flowing waters. Acquaint yourself with all regulations governing plant control activities, and obtain all necessary permits. Non-chemical means should be utilized where practicable.

FOR FURTHER INFORMATION

For general information about the Maryland Sea Grant Extension Program, visit the web:

http://www.mdsg.umd.edu/MDSG/Extension/index.html

For technical questions, contact an extension agent or specialist at one of these locations:

Maryland Sea Grant Extension
University of Maryland
Wye Research and Education Center
P.O. Box 169
Queenstown, MD 21658
Telephone: (410) 827-8056

Maryland Sea Grant Extension
University of Maryland
Chesapeake Biological Laboratory
P.O. Box 38
Solomons, MD 20688
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Maryland Sea Grant Extension
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FOR ADDITIONAL COPIES

Copies of Maryland Sea Grant Extension workbooks on aquatic plants, including color photographs for use in identifying species, are available on the web at:

http://www.mdsg.umd.edu/MDSG/Extension/Workbooks

Additional copies of printed workbooks are available from the Maryland Sea Grant College Program, 0112 Skinner Hall, University of Maryland, College Park, MD 20742-7640.

Illustration on page 1 provided by the Information Office of the University of Florida, IFAS, Center for Aquatic Plants (Gainesville) 1990.

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