

## Water Chestnut

*Trapa natans* L.

**Alternate Common Names:** Water Caltrop; European Water Chestnut; Bull Nut; Jesuit Nut

- **annual; rooted water plant;** plants die each year and re-grow from seeds
- **floating leaves nearly triangular to 4-sided;** grouped in a whorl as large as 1' diameter
- **floating leaves up to 2" wide,** waxy; **with sharp teeth** on the edges
- **stalk of floating leaf up to 6" long with a bladder of spongy tissue and air near the middle**
- floating leaves attached to the top of a long, cord-like stem rooted in the mud
- **underwater "leaves" feathery;** in pairs or whorls of 3
- **fruit is woody,** about 1 1/4" to 1 1/2" wide, **with 4 sharp, horn-like spines**

Water chestnut is easily recognized by its fruits and its whorls of floating leaves. In July-Sept., tiny, white flowers (with petals about 1/3" long) grow beneath the inner whorls of leaves. After pollination, the flower stems bend down and the fruit develops underwater. When mature (in about a month), the fruits have a fleshy, green to greenish-brown outside layer which wears off to reveal a hard, stoutly-spined, black seed. The seeds remain viable in the mud underwater for 1-5 years (or more). Floating black seeds will not sprout.

Water chestnut typically grows in shallow water a few inches (occasionally mudflats or muck) to 6 feet (or up to 15 feet) deep in freshwater lakes, ponds, slow-moving streams, and rivers (particularly in shallow river coves). Extensive mats of floating leaves shade the water beneath them and may exclude native plants from the water column below (causing loss of habitat value for birds and fish). When large infestations of water chestnut are frost-killed all at once, their decay has the potential to harm fish and other organisms by taking oxygen out of the water.



*Text and photos by: Charlotte Pyle, October 2002  
Helpful review provided by: Lillian Willis*