AQUATIC INVADERS

COMMON NAME: Purple loosestrife

SCIENTIFIC NAME: *Lythrum salicaria* (Linnaeus, 1753)

NATIVE DISTRIBUTION: *Lythrum salicaria* is native to Europe (extending from Great Britain to central Russia), Japan, Manchuria China, southeastern Asia, and northern India.

U.S. distribution: According to the U.S. Fish and Wildlife Service, purple loosestrife now occurs in every state except Florida. It has also been reported in Canada, Ethiopia, Australia, and New Zealand.

Habitat: Purple loosestrife is an erect perennial emergent herb that occurs in freshwater wetlands. In its native range, insect herbivores and disease control populations. As a result, it typically remains an innocuous member of a diverse wetland plant community. It grows best in highly organic soils and in full sun, but it can survive in partial shade and in a wide range of soils including sand, clay and silt.

Life cycle: Reproduction occurs primarily by seed, which is spread by water currents but also adheres to humans, wetland fauna, and boats. Mature plants can develop a root stalk heaver than 1 kg and produce up to 2.5 million seeds per year, which accumulate in an extensive seed bank. Seed can remain dormant for many years, and survival can be as high as 70%.

Cool facts:

- Tonics made from loosestrife were used to treat dysentery, internal and external bleeding, and in the healing of wounds, sore throats, and ulcers.
- Purple loosestrife's generic name, Lythrum, is derived from the Greek root for blood (Lytron), possibly because of its medicinal properties.
- Individual plants can live 22 years or more.
- Special tissue with air spaces between the cells forms in the plants roots which help withstand flooding. Mature plants can also tolerate a few dry years.

Pathways of invasion: Seeds from purple loosestrife were possibly brought in the early 1800s to North America in ballast water and/or attached to cargo. It may also have been introduced intentionally for ornamental and medicinal uses. Since these initial introductions, loosestrife has been widely used as an ornamental species in water gardens and has been spread by currents, boating activities and wildlife throughout most of the United States.

Impacts: Debris buildup around the roots enables purple loosestrife to expand into deeper water and form dense stands that shade out other vegetation. Loosestrife can also disrupt the reproductive success of native plants by competing for pollinators and by crowding out native seedlings.

Damage to irrigation systems invaded by purple loosestrife can cause economic losses that exceed $2.6 million annually.

Ways to prevent its spread:

- Never release any non-native organism into the environment.
- Make sure that in the event of a flood, the plants from your water garden will not be washed in to adjacent aquatic environments. Water runs down hill!
- Good boat hygiene is critical – boats that have been washed with warm, soapy water or mild bleach are less likely to spread non-natives.
- Report invasive species to local officials and the USGS online at http://nas.er.usgs.gov/ or by calling 877-7867-267 (877-STOP-ANS).

These tips apply to ALL non-native species.

Don't forget: Use native plants in your water gardens and clean your boat after each use.
