EURASIAN WATERMILFOIL

Eurasian watermilfoil is native to Europe, Asia, and Northern Africa (Couch and Nelson 1985). The genus *Myriophyllum* is cosmopolitan comprised of some 40 species belonging to the Watermilfoil Family (Haloragidaceae) (White and Haber 1992). *Myriophyllum spicatum* was introduced into North America in the 1940's causing ecological damage to rivers, lakes, wetlands, and estuaries (Creed 1998). It is considered the most widely managed aquatic weed in the United States.

Eurasian watermilfoil is an invasive, submersed aquatic perennial with smooth stems that branch near the surface. It grows from 1.8 to 2.7 m in length with vine like stems and featherlike leaves that are whorled about the stem in fours growing to 35 mm long. Leaves on the primary stem are in pairs, rigid, linear, and are kidney shaped. The terminal spike is about 2 to 10 cm long often standing above the water. Stems and leaves are a dark to medium green.

Eurasian watermilfoil produces seeds, however spreads primarily by plant fragments that grow roots, stems and leaves as they float. Stems can reach the waters surface from up to 7 meters of water growing in any type of aquatic substrate, including silt, sand or rocks. Eurasian watermilfoil will root in varying depths of water to 3 meters but rarely to 5 meters never extending beyond the water level. In winter, upper portions of the stems break off and are capable of starting new populations in new habitats. Lower portions of the plant remain alive and green throughout the winter and send up new shoots in the spring and summer growing 57 cm per day.

Eurasian watermilfoil will outcompete or eliminate native aquatic and wetland plants reducing overall biological diversity. Eurasian watermilfoil establishes in dense bands along riparian areas making fishing, boating and swimming impossible. The plant has replaced the native northern watermilfoil over much of the North American range.

Ecological impacts include suppression of macrophytes, macroinvertebrates, fish spawning and growth, and that waterfowl avoid aquatic areas infested by plant. Waterfowl prefer wetlands dominated by native vegetation over those dominated by invasive plants such as hydrilla and Eurasian watermilfoil. Eurasian watermilfoil can reduce water quality by increasing nutrient loading, reducing dissolved oxygen and changing water temperature.

Eurasian water milfoil has yet to be found in Alberta, but in British Columbia, the ecological impacts from Eurasian watermilfoil invasions have included replacing native plant communities; obstructing swimming, boating, waterskiing and fishing; reducing the appeal of beach areas due to the accumulation of plant debris; impeding flood control, water conservation, drainage and irrigation works; and reducing the economic benefits of tourism where dense growth limits recreation.

Human recreational activities are thought to be the major introduction vector. Plant materials caught upon boat motors, trailers, nets, boat propellers, and fishing gear are most likely transported between waterbodies. Cross boundary boat traffic is a significant dispersal mechanism in the further spread of invasive plants in general into new watersheds. Dispersal was also linked to the aquarium and aquatic nursery trade, as it is a popular aquarium plant that gets dumped when the aquarium is unwanted. It is now a prohibited noxious species

and cannot be sold in Alberta.