

Eurasian watermilfoil

Colorado Dept. of
Agriculture,
Conservation
Services Division
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Key ID Points

1. Usually 12+ pairs on each leaf.
2. Grows in water only.
3. Mature leaves are arranged in whorls of 4 around the stem.

Eurasian watermilfoil Identification and Management



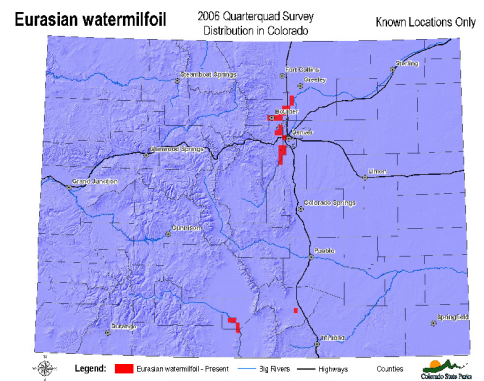
Identification and Impacts

Eurasian watermilfoil (*Myriophyllum spicatum*) is an attractive plant with feathery underwater foliage that is native to Northern Europe and Asia. Eurasian watermilfoil spreads most commonly by stem fragmentation and runners. The plant roots on the bottom, but survives and is spread as free floating plants waiting to take root. Eurasian watermilfoil also spreads by seeds. The leaves each have 12 to 21 pairs of leaflets and are 1 inch long. The plant is typically submersed with stems to 4 m long, becoming emerged only while flowering or after stream or canal draw down when moisture is present. The flowers occur from June to September and are pinkish and whorled with emerged bract like leaves just below each whorl. The leaves are bract like, opposite, 1 to 3 mm long, lanceolate, smooth margined to finely toothed. Fruits are 4 ribbed or grooved and ultimately break apart into 4, one seeded nutlets. Eurasian watermilfoil starts spring growth before other native aquatic plants making it very invasive. The plant forms very dense mats of vegetation on the surface of the water that interferes with power generation and irrigation by clogging water intakes. These mats also interfere with recreational activities (e.g. swimming, fishing, skiing, boating, etc.) and creates a mosquito habitat and reduces native vegetation.

Habitats for Eurasian watermilfoil include: ponds, lakes, rivers, streams, canals, and ditches. Usually the plant inhabits slow moving water areas but can infest fast moving water, such as streams and rivers.

The key to effective control of Eurasian watermilfoil is typically prevention of uncontrolled monocultures of this aquatic weed. Chemical and mechanical controls are well developed, but provide short to medium-term control. Monitoring of waterways and the recreational use are keys to slowing the spread of Eurasian watermilfoil. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Eurasian watermilfoil is designated as a "List B" species in the Colorado Noxious Weed Act. It is required to be either eradicated, contained, or suppressed depending on the local infestations. For more information visit www.colorado.gov/ag/csd and click on the Noxious Weed Management Program. Or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.



Photos © Kelly Uhing, Colorado Department of Agriculture; and map above by Crystal Andrews, Colorado Department of Agriculture.

Myriophyllum spicatum

**CULTURAL**

Prevention of Eurasian watermilfoil is the best cultural control. Other methods of cultural controls are possible in theory, but are very time consuming and expensive.

**BIOLOGICAL**

There is biological control available for Eurasian watermilfoil, but it is not yet approved for Colorado. The biological control is reared on a different strand of watermilfoil than found in Colorado. For more information, contact the Palisade Insectary of the Colorado Department of Agriculture at 970-464-7916.

**MECHANICAL**

Hand pulling, raking, harvesting are effective at reducing current abundance of plants and is useful to clear channels or maintain access. However; it is not a very good long term control and is very expensive, labor intensive, and several removals are needed each year.

Integrated Weed Management:

Prevention of uncontrolled monocultures of this aquatic weed is the best control method. Chemical and mechanical control are well developed, but provide short to medium-term control. Monitoring of waterways and the recreational use are keys to slowing the spread of Eurasian watermilfoil.

HERBICIDES

NOTE: The following are recommendations for herbicides that can be applied to bodies of water. Recommendations are unique with aquatic weed species, and need to be based on water body type, and water volume. Please read label for exact rates. **Always read, understand, and follow the label directions. The herbicide label is the LAW!**

HERBICIDE	RATE	APPLICATION TIMING
2-4-D (Aqua-kleen, Navigate or DMA 4 IVM, * Aquatic approved*)	Determined by herbicide concentration within the water column. *Read the Label*	Actively growing plants or manufacturers specified recommendations. *Read the Label*
Fluridone (Sonar or Avast)	Determined by herbicide concentration within the water column. *Read the Label*	Actively growing plants or manufacturers specified recommendations. *Read the Label*
Triclopyr (Renovate 3)	Determined by herbicide concentration within the water column. *Read the Label*	Actively growing plants or manufacturers specified recommendations. *Read the Label*

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