

CASE STUDY of MIDDLE RANGE POND

Manual Control of Variable Leaf Milfoil in the Range Ponds Chain

By Bob Limoges

Waterbody: Middle Range Pond (MIDAS: 3762)

Association(s): Range Ponds Environmental Association (RPEA)

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Town(s) Waterbody Located In: Poland **County Waterbody Located In:** Androscoggin

Waterbody History: The Range (pronounced Rang) Ponds chain consists of three ponds: Upper Range Pond, Middle Range Pond and Lower Range Pond. Upper Range Pond is the most “upstream” pond, and the water flows northerly from Upper Range to Middle Range, to Lower Range. There are two public boat launches on the Ranges: one off of Range Hill Road on Upper Range Pond (in the vicinity of the narrows), and the second at Range Pond State Park on Lower Range Pond. There is a private boat ramp at the Flying Lobster Restaurant and Marina on Middle Range Pond.

Invasive Species Distribution: Variable leaf water-milfoil (*Myriophyllum heterophyllum*) was first discovered in 2001 in the “old boat channel” area at the southern end of Middle Range Pond, and confirmed in 2004 when flowering structures were observed. The “patchy” infestation appears to be limited to this relatively small area. The old boat channel, which now sees little boat activity, is just west of the current channel used by boaters to travel between Middle Range and Upper Range Ponds. No variable leaf milfoil has been found in the current boat channel. Also, no invasive milfoil has been found in Upper Range Pond as of 2006. (Lower Range Pond has not yet been survey for the presence of invasive aquatic plants.)

Management Objectives: Management of the milfoil population in Middle Range Pond.

Management Timeline:

2001-2005 - Manual harvesting was the primary management method used to control the infestation in Middle Range Pond through 2005. Using this method, the population was reduced to only four widely spaced patches. Invasive milfoil signs designate the infested area and boaters are encouraged to keep out of the area.

Surveillance of the Middle Range Pond infestation is done two to three times each season, starting the end of June and finishing in late August. The surveys extend beyond the immediate infested area, to include the entire area known as “the narrows,” from the causeway between Upper and Middle Range Pond, northerly to where the narrows widen into the main basin of Middle Range Pond. Spot checks of the shallow areas on Upper Range are also done. Lakeside property owners have also been encouraged to check areas near their property.

2006 – Benthic mats were incorporated into the management strategy. Several 5' x 5' benthic barriers were placed over observed patches of milfoil. The mats were left for 60 days at which time all growth appeared to be eradicated at three sites and small new growth was observed adjacent to the barriers at two sites. The barriers were moved over to cover the new growth and will be left in place over the winter.

The Maine Department of Inland Fisheries and Wildlife (DIFW) listed all three Range Ponds as “No Seining” areas. (Seines are nets used for capture bait fish.)

Prevention Strategies: Courtesy Boat Inspectors (CBIs) are hired each season for public launches, via the Lakes Environmental Association. Owners of the private boat ramp at the Flying Lobster Restaurant and Marina on Middle Range Pond provide boat inspections and information at their ramp.

Project Successes:

Prevention of the spread of water-milfoil from the initial site of detection in Middle Range Pond.

Early detection and repeat harvesting have kept the plant’s annual growth to a minimum.

Project Challenges:

Volunteer labor for control activity (manual removal and benthic mat installation) is limited. Though the smaller 5' x 5' benthic barriers are easily handled by two people, it is still challenging to handle all of the work with only two volunteers.

Lack of volunteers also limits other IAP activity, such as attending workshops, doing screening surveys and . . . *enlisting volunteers!*

Project Costs:

2006 - Costs include SCUBA tank rental, benthic mat materials, and paid CBIs. Volunteers contribute labor to the control efforts. The materials cost for the barriers was approximately \$50. Tank rental for diving was \$10. Labor was about 4 hours including fabrication of the barriers and dive time.

Funding Sources:

2001-2006 – Volunteers rented scuba tanks out of pocket, and donated labor

2006 – RPEA funds paid for benthic mat materials, and a Maine DEP Cost Share Grant (administered by Lakes Environmental Association) paid for CBIs.