



Summary of Activities

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To: Ian Kitch & Laureen Janusz
Sustainable Development -
Fisheries Branch

From: Holly Urban, Brock Koutecky,
Megan Paterson - Swan Valley Sport
Fishing Technical Staff
Contact: svsfe@mymts.net

cc. Lloyd Rowe, Jonathon Stephens

Subject: 2016 Zebra Mussel Early Detection Program

Location: DUCK MOUNTAIN PROVINCIAL PARK, and PORCUPINE PROVINCIAL FOREST MB

Summary: In 2016, SVSFE initiated an "Early Zebra Mussel Detection Program" in efforts to closely monitor potential local zebra mussel invasions. As these extremely invasive species continue to creep in throughout the province, it becomes imperative that efforts to closely monitor the spread be of utmost importance. Zebra mussels are known to cling on to boats during transport and can survive out-of-water for approximately 7 days (up to 30 days). Zebra mussels are aggressive filter feeders and threaten to deplete the micro-organisms which make up the base of the aquatic food chain. In some cases, these extensive filter feeders have also lead to decreased turbidity therefore an increase of sunlight penetration and promotion of aquatic plant growth, limiting recreational activity, and clogging water intake pipes, amongst other ecological and recreational effects.

Methods: This program has been designed to be extremely effective while at the same time requiring little effort and money in terms of early detection. The PVC zebra mussel settlement samplers were supplied by the Province of Manitoba (Figure). In spring/early summer, the samplers are "hung" from at the end of docks nearest to the most popular boat launches. Depth, turbidity (secchi), and coordinates were recorded. Samplers were fastened at mid-depth and checked regularly throughout the summer. In fall, before Park's staff removed docks for the winter, samplers were removed, inspected, and bagged for further analysis in Winnipeg. Results are as follows;

SVSFE Zebra Mussel Early Detection Program 2016

Lake	Sampler Location (UTM)	Data Installed	Date Removed	Depth (m)	Secchi (m)	Comments
Child's Lake	14U 353397 5716162	2016-07-23	2016-09-20	1.1m	>1.1m	Not Present (Stolen or Lost)
Laurie Lake	14U 356343 5714327	2016-07-23	2016-09-20	1.5m	>1.5m	No Adult Mussels Present
Gull Lake	14U 357334 5714006	2016-07-23	2016-09-20	1.4m	>1.4m	No Adult Mussels Present
Beautiful Lake	14U 361406 5713741	2016-07-23	2016-09-20	1.0m	1.3m	Not Present (Stolen or Lost)
Singush Lake	14U 375269 5718591	2016-07-23	2016-09-20	1.0m	>1.0m	No Adult Mussels Present
East Blue Lake	14U 367518 5718895	2016-07-23	2016-09-20	1.25m	>1.25m	No Adult Mussels Present
Two Mile Lake	14U 368325 5737864	2016-07-23	2016-10-28	2.8m	>2.8m	No Adult Mussels Present
Glad Lake	14U 369140 5739604	2016-07-23	2016-09-22	2.0m	>2.0m	No Adult Mussels Present
Wellman Lake	14U 369264 5741897	2016-07-23	2016-09-22	2.4m	>2.4m	No Adult Mussels Present
North Steeprock Lake	14U 339672 5832061	2016-07-27	2016-10-13	2.35m	2.1m	No Adult Mussels Present
Bell Lake	14U 348061 5823467	2016-07-27	2016-10-04	1.5m	>1.5m	No Adult Mussels Present

In summary, no adults were observed on any sampler in 2016.

Unfortunately, 2 samplers were missing at the time of retrieval. In 2017 samplers will be fastened with cable as opposed to rope. Final inspection by provincial staff is expected to be completed over the winter of 2016/17.

