Participants:

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The New Zealand Mud Snail (NZMS) Collaborative

Meeting Minutes
Meeting date: May 23, 2018, 12:00pm – 2:00pm

Location: Society for Freshwater Science 2018 Annual Meeting
Detroit Michigan – Cobo Arena, Room 320

Welcome and introductions made.

Scott Tiegs (OU) remarks: OU project goal to evaluate decontamination procedures. Results of spraying and soaking procedures reveal Formula 409 most effective for NZMS mortality rates when comparing Bleach, Virkon Aquatic, Formula 409 and water (control). Group mentioning of obtaining specific composition (active ingredient, etc.) information from DEQ toxicologist concerning formula 409.

Seth Herbst (MIDNR) remarks: intention to meet with MDEQ to discuss further applications and endorsements of Formula 409. Concerns over State and Dept. of Agriculture reluctance to advertise Formula 409 for this use. Will follow up.

Group remarks: investigation into formula 409 interactions with waders. Outreach to wader manufacturers possibility. River integrity vs. wader integrity commented.

Additional misc. studies investigations of NZMS effects in Au Sable conducted by OU described. (e.g., current NZMS densities do not impact leaf decomposition rates. Snails grow well with cottonwood and ash leaves).

Doug Wendell (OU) remarks: water may need to be added to boost eDNA signal. Currently at 200 mL. Issues with determining fragment length and position in watershed.

Draft decontamination video played. Decontamination video feedback included: using “non-native species” in place of “invasive species” term for describing the >180 count in Great Lakes Region. Consider adding rinsing step to the cleaning/decontamination steps. Other suggestions comments provided via email. OU to revise/edit and share with group when finalized.

Jeremy Geist (TU/OU) remarks: TU received EPA funding (2017) to establish NZMS collaborative. TU working with OU, University of Wisconsin - Extension, MIDNR, WIDNR, MI DEQ and others. Goals include the establishment of a regional network for NZMS information sharing such as develop NZMS Collaborative website - domain name ideas include: Mudsnail.org, and create NZMS review paper describing current impacts/status. Further goals include monitoring/research such as population monitoring and to establish standardized quantitative sampling protocol - work with partners (e.g., WIDNR, MIDNR/DEQ, OU, MSU, GVSU, etc.). Maureen Ferry and WIDNR interested in sampling protocol development. Maureen unable to attend due to travel delays. Education/outreach goals include public presentations,

create informational and decontamination handout materials. Work with Tim Campbell (UWEX) on regional educational materials and handouts. Tim unable to join via phone due to technical interruptions.

Update on Trout diet and NZMS investigation: trout feeding on NZMS in the Au Sable up to >50 -70% of diet content. Gastric lavage in field removes snails from fore-gut, laboratory dissection needed for hind-gut content. No physiological impacts detected at current densities. Continuation of study into 2018-19.

Mark Luttenton (GVSU) remarks: The Au Sable East Branch has observed over-wintering, approximately 50% of the NZMS population. Idea to survey fish gut content in areas outside of the infected reaches, above Grayling suggested.

Sara LeSage (MIDEQ) remarks: Maurine Ferry (WIDNR) has updated lists concerning Wisconsin distribution data. Will follow up and share.

Bill Keiper (MIDEQ) remarks: NZMS detected in upper Manistee (above 612) as of Fall 2017. Working on expanding sampling to rivers that have yet to be assessed. To coordinate with OU/TU summer 2018. Survey of inland lakes, not targeted benthic sampling.

Sam Stanton (MSU) remarks: Forward eDNA protocols. 227 surveys in 2017, of 13 different streams. 82% detection rate of one person in 20 min search, 97% detection with two people. 308 participant Angler survey revealed half aware of NZMS invasion, but only half of those aware take steps to decontaminate. Anglers use bleach, freezing, visual inspection, and some use formula 409. Some use river specific waders.

Mention of stove pipe sampler used for NZMS sampling. Low density of NZMS in sculpin and trout in Pere Marquette River. Master's presentation to occur July 27th 1PM. Suggested and possibility of viewing via Skype.

Sarah LeSage (MIDEQ) remarks: Mike Fagan leads aquatic species invasion division, could incorporate law aspects into the group, fill jurisdiction gaps. Great Lakes and St. Lawrence put NZMS on least wanted list. Suggested document development to inform Collaborative partners of participant expectations. Suggestion to write an official project goal form for foundational documentation. Will forward example docs created/utilized by Great Lakes Commission.

Group remarks and future actions: continue to outline group goals/purpose (e.g., information and communications sharing). Define goals/purpose in written terms (can help broaden group).

Additional mentions: create a NZMS habitat preference/suitability assessment (relate observed densities with habitat type). Possible collaboration with other partners in the GL region and Canada. Can share project information and contact information with Geist. Work with outreach groups, offer them management practices, involvement in citizen science opportunities/NZMS monitoring.

NZMS Collaborative meeting to occur quarterly suggested. Can modify meeting frequency based on group opinion/needs. Communicate during summer to coordinate sampling/share findings, and to give updates on NZMS Collaborative progress and other activities.

Meeting adjourn at 2:00pm.