

Hydrilla Early Detection/Rapid Response Survey

Background

The Hydrilla Early Detection/Rapid Response (ED/RR) survey was created in 2007 as a way of determining the preparedness of states and provinces within the NEANS Panel region for dealing with the introduction of the invasive aquatic plant *Hydrilla verticillata*. The survey was developed using the ED/RR protocol developed by Jay Baker, and was sent out in the form of a spreadsheet to the freshwater aquatic species contacts for the NEANS Panel. Each respondent was asked to answer and annotate a series of yes/no questions covering Detecting, Delineation, Quarantine, Assessment, Implementation, and Monitoring for pre-invasion and post-invasion conditions. As of January 2008, Hydrilla has been recorded in the wild in the states of Connecticut, Maine, and Massachusetts; respondents from other states and provinces were asked to fill out only to the pre-invasion part of the survey. Responses were received from the following:

- **Connecticut** (Nancy Murray, CT DEP)
- **Maine** (John McPhedran, ME DEP)
- **Massachusetts** (Jim Straub, MA DCR)
- **New York** (Tim Preddice, NYS DEC)
- **New Hampshire** (Amy Smagula, NH DES)
- **Rhode Island** (Hope Leeson [RI Natural History Survey], with review by RI DEM)
- **Vermont** (Ann Bove, VT DEC)
- **New Brunswick** (Lucie Lavoie, Fish and Wildlife Branch, Natural Resources, NB)
- **Nova Scotia** (Marian Munro, NS Museum)

Respondents were sent a draft of the survey results in January 2008 and were asked to review their original responses.

Survey Results

Several states within the region already have strong programs in place for monitoring freshwater ecosystems for the presence of non-native aquatic plants. In addition, several states, including those where Hydrilla has not been found, have investigated control options and/or permitting requirements for dealing with introductions of freshwater aquatic plants considered to be invasive. However, while some states (Maine, which has already had an occurrence of Hydrilla, and Vermont, which has not) have very strong ED/RR protocols in place, there is no state or province that can claim 100% preparedness for dealing with a Hydrilla introduction.

Two survey items in particular revealed areas where clarification or perhaps even legislation may be warranted:

- 1) Quarantine: The ability to quarantine an area infested with Hydrilla remains unclear for most states and provinces. For some the ability is undefined, while for others it is defined but is restricted in a way that could impede the ability to deal with the invasion. Issues of property rights may play a role in some cases.
- 2) Trigger list criteria: While five states in the region do maintain “trigger lists” of non-native species for which they would engage rapid response protocols if such species were discovered, only New Hampshire and Vermont have clear criteria for how a species is placed on that list. While this may seem like a minor issue, it is important to back up the actions involved (and resources expended) in ED/RR protocols with evidence for why such a response is warranted. This may be a particular issue when dealing with issues of quarantine where it is not clear whether the state or province has jurisdiction (see #1 above).

Survey results were confounded by the difficulty in finding respondents for all states and provinces in the NEANS region. This was due in part to a lack of contacts from the Panel, in particular for Quebec and PEI. However, in some cases the contacts themselves were unclear on what the survey answers were, or who was the right person to answer them. This is likely to change in the near future as the response of government agencies to invasive species issues is still evolving; while many states have well-developed roles for agencies involved in invasive species management, other states and particularly Canada are just forming these roles.

Recommendations

- One strength of the NEANS Panel is its connection to all states and provinces within the region. This connection should continue to be used to promote the use of ED/RR protocols. The survey results, in some form, may be useful for member states and provinces who wish to look more closely at their preparedness for dealing with non-native freshwater aquatic plant introductions.
- The states of Connecticut, Maine and Massachusetts, which are currently dealing with Hydrilla invasions, should be used as a source of insight. Connecticut and Maine in particular have each tackled the majority of the post-invasion ED/RR steps and may be able to provide further advice to allow those member states and provinces still at the “pre-invasion” stage to be more proactive.
- While the focus of this survey was on Hydrilla, the survey results can be applied equally well to determine preparedness for other invasive aquatic plants, and perhaps could be used as a starting point to inform Panel members regarding invasive species issues in general.