SLELO – PRISM

St. Lawrence - Eastern Lake Ontario Partnership for Regional Invasive Species Management

Identifying Highly Probable Areas (HPAs)

Efficient methods for invasive species early detection on a large scale

Timing is critical when responding to the initial detection of an emerging invasive species in an area. Early Detection and Rapid Response – spotting and responding to the invasion of an unwanted plant, animal or other organism before it can gain a foothold – is often the key first step in effectively managing and possibly eradicating a newly-arriving invasive species.

However, the amount of time we can realistically spend monitoring our vulnerable waterbodies, wetlands and upland areas is often limited. When the sheer size of a land area or body of water makes it unfeasible to conduct a full survey of an area, it makes sense to focus investigative efforts on those areas where invasions are most likely to occur.

In order to quickly, consistently and effectively monitor large areas for the emergence of invasive species, SLELO-PRISM has developed protocols for identifying **Highly Probable Areas (HPAs)** – locations where invasive species are most likely to arrive and/or establish themselves.

About SLELO – PRISM

The **St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management** is one of eight partnerships in New York State, encompassing St. Lawrence, Jefferson, Oneida, Lewis and Oswego counties outside of the Adirondack Park.

Our mission is to protect native habitats, biodiversity, natural areas, parks and refuges, freshwater resources, farmland and open space by using a collaborative and integrated approach to invasive species management. The emphasis of these activities will be on prevention, early detection, rapid response and education.

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Identifying Highly Probable Areas

HPAs include those areas where human activities or site conditions increase the probability an invasive species becoming established. Conditions and activities at these HPAs may facilitate invasion in several ways:

1. **Human movement** through the area may provide a pathway for the arrival of an invasive species.
2. **Disturbances** caused by concentrated human activities may provide suitable habitat for some invasive species to establish themselves.
3. **Site conditions** meet the specific requirements necessary for the establishment of a targeted invasive species.

HPA examples: Aquatic

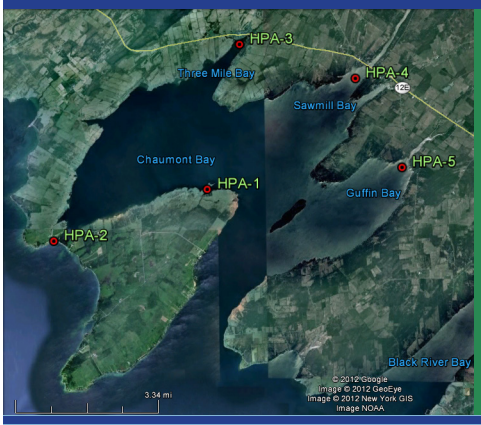
SLELO-PRISM has identified several broad categories of aquatic places that may be considered HPAs:

- **Public boat launch sites, including car-top launches, unimproved ramps and improved concrete ramps**
- **Public Fishing Access locations**
- **Quiet coves and shallow slow waters where plants may easily become established**

HPA examples: Terrestrial

SLELO-PRISM has identified several broad categories of terrestrial places that may be considered HPAs:

- **Trailheads (hiking, snowmobile, ATVs, etc.)**
- **Parking areas (including Pubic Fishing Access sites or informal parking for Public Fishing Streams)**
- **Campgrounds and campsites**
- **Disturbed areas (i.e. logging platforms)**
- **Homogenous stands of trees (such as Ash or Hemlock) required for specific forest pests (such as Emerald Ash Borer, Hemlock Wooly Adelgid)**



Working Example: Chaumont Bay, NY

Chaumont Bay is a large, sheltered bay in Jefferson County, New York. Due to its large size, a full survey would not be realistically possible.

In order to conduct surveys for Water Chestnut and Hydrilla, five separate HPAs were identified: Four boat launches of various types and their nearby bays, and Guffin Bay, a quiet cove in the southeastern portion of the larger Chaumont Bay region. Using this HPA strategy, this large area was able to be effectively surveyed in 3 - 4 days.

The strategy paid off when a previously unknown, but small, infestation of Water Chestnuts was found in Guffin Bay. Comprised of fewer than 200 plants, eradication is a real possibility at this location due to this Early Detection and the follow-up Rapid Response event.

For more information, please contact:

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