



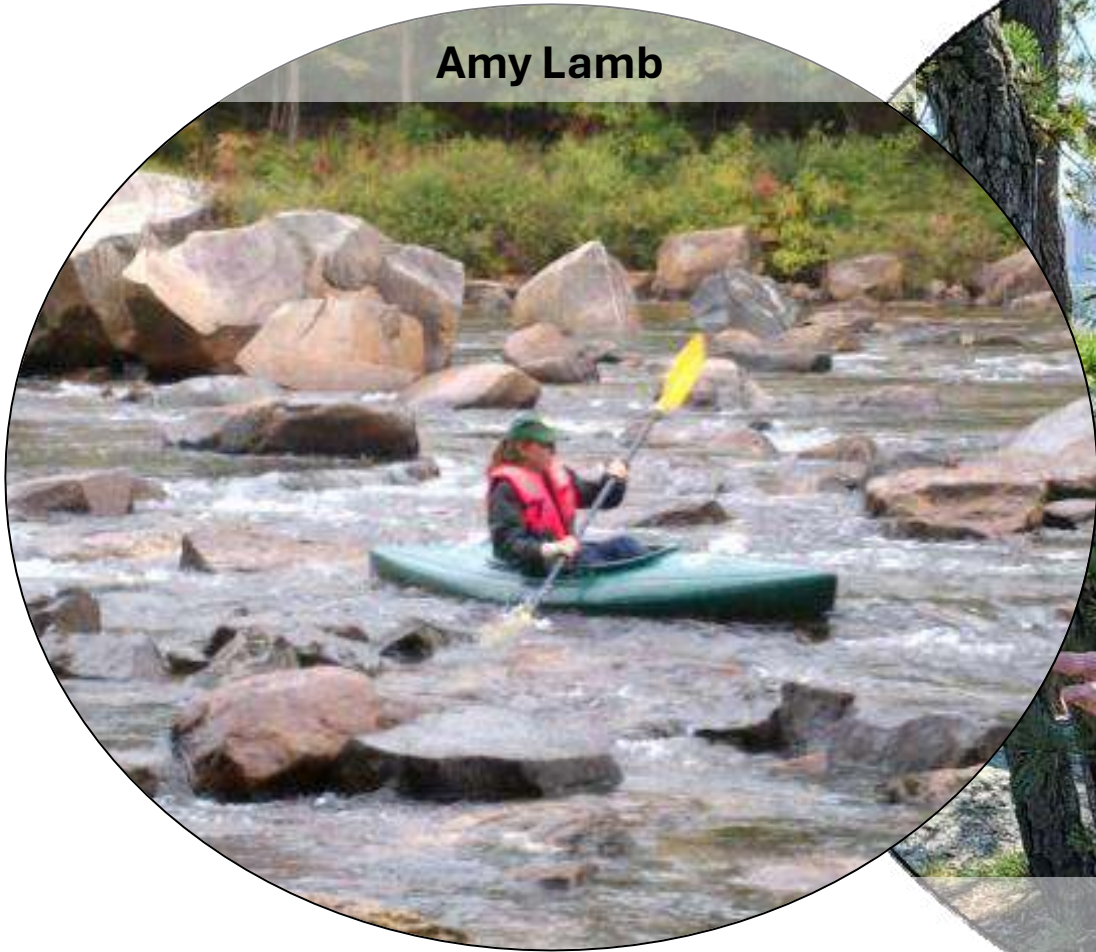
Informing Salt Marsh Restoration and Conservation Initiatives with Rare Plant and Exemplary Natural Community Data

NH Natural Heritage Bureau

Who We Are

- Dept. of Natural & Cultural Resources (DNCR)
 - Division of Forests & Lands
 - **Natural Heritage Bureau**

Amy Lamb



Bill Nichols



Pete Bowman



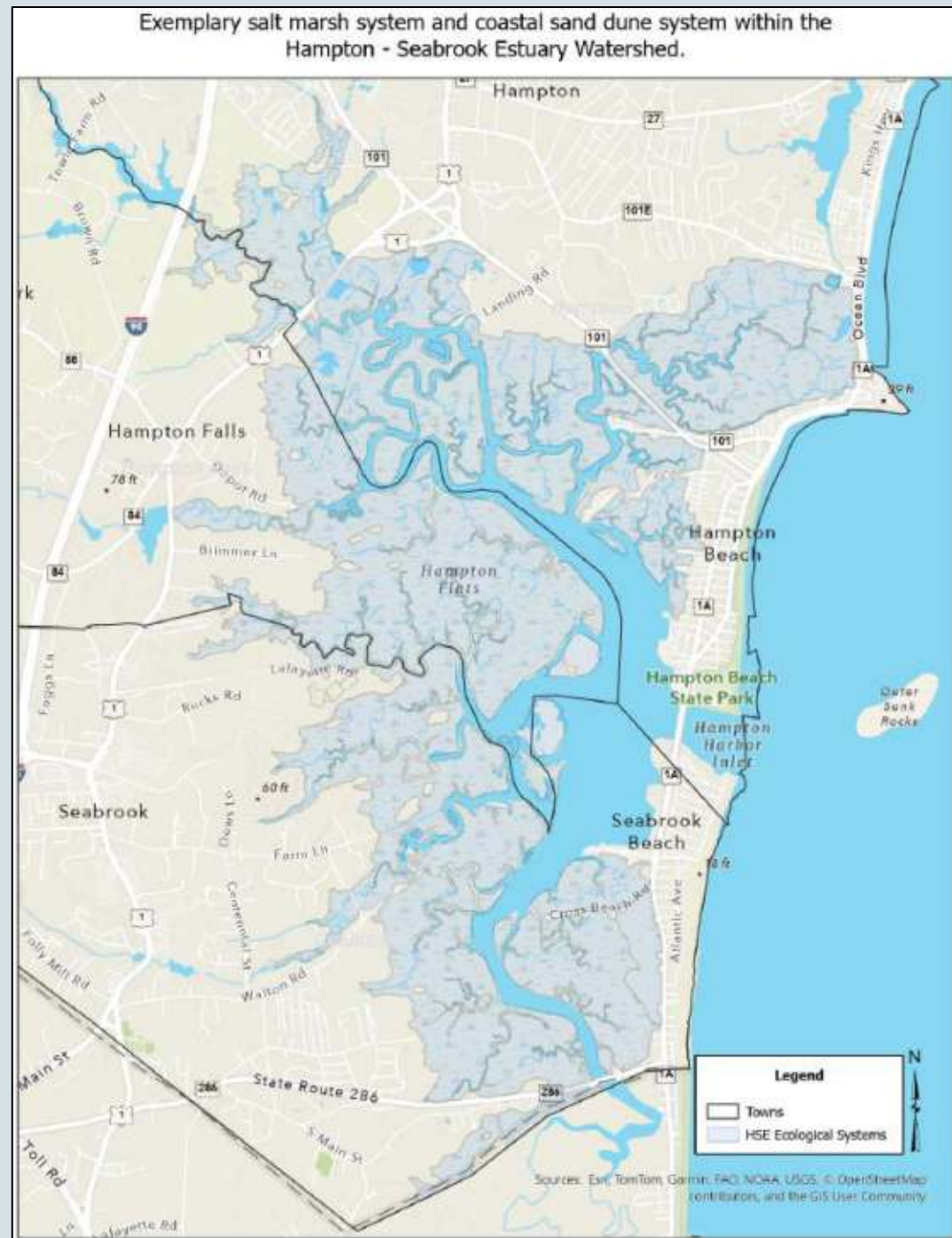
Sabrina Stanwood



What We Do

- Identify & track NH's rare plants, exemplary natural communities & ecological systems.
- Monitor the condition & distribution of rare plant species & habitats.
- Maintain the state's official database of rare species, natural communities, & ecological systems.
- Provide scientifically-based information to support conservation, restoration, ecological review, mitigation, & land management.

EMP Small Grants Project



NHB Project & EMP Goal Alignment

Goal 5, Objective 5.6

- Action: 5.6-7 Conduct natural resource surveys to understand the status of biogenic landforms (salt marsh and dune).
- Action: 5.6-10 Update rare plant and exemplary community surveys.
 - Survey & document vegetation in each natural community type within salt marsh & dune system.
 - Resurvey known rare plant & exemplary natural community occurrences; identify new occurrences.

Goal 1, Objective 1.3

- Action: 1.3-1 Evaluate the extent and distribution of invasive species of plants, insects, and animals in the watershed towns, including but not limited to Phragmites, Pepperweed, Japanese Knotweed, Purple Loosestrife...
 - Identify & document invasive plant species observed during surveys.

Project Rationale/Need

- Information gap on rare plant and natural community data in the HSE salt marsh and Seabrook Back Dunes.
- Need for updated biodiversity data to guide conservation and restoration decisions.
- Climate change driven northward shifts of native plant species (“neonatives” or “climate change range shifters”) require monitoring to understand their ecological significance.
- Builds on >30 years of NHB ecological monitoring statewide and previous surveys.



Photo Credit: Martin Johnson Heade/
Yale University Art Gallery

Methods/Approach

Field Surveys

- Prioritization of outdated records, new records, & previously understudied areas.
- Systematic botanical & ecological surveys using Natural Heritage methodologies.

Data Collected

- Natural community classification.
- Plant species ID & percent cover estimates.
- Descriptive notes on site characteristics, evidence of disturbance, etc.
- Photographs & location documented using GPS.

Outreach

Planned Activities

- Webinar: Project background, findings, highlighting application of findings for conservation and restoration applications.
- Field Trips: Separate salt marsh and dune trips highlighting plant species composition, shifts in vegetation patterns from historical use and climate change, etc.

Goals

- Educate on plant species and natural community types.
- Increase awareness of ecological importance, threats, and biodiversity.
- Provide actionable data for restoration practitioners and conservation planners.

Deliverables

- New & updated rare species & exemplary natural community records
- EIA to assess condition of salt marsh & dune systems
- Outreach webinar
- Two site walk events
- Final report

Outcomes

Up-to-date:

- Rare plant, natural community/system data available for projects, data-sharing.
- Assessment of the condition of ecological systems to inform conservation, restoration, mitigation.

Improved understanding of:

- Biodiversity & conservation value.
- Neonative species.
- Invasive plant distributions.

Stakeholders to gain:

- Enhanced ability to make data-driven decisions.
- Increased awareness of conservation & restoration priorities within the HSE.

Project Partners



NH DES Coastal Program

- Parcel mapper, shapefiles, documents
- Contact & land access info

UNH Jackson Estuarine Lab

- Share data
- Identify survey leads

Surveys & Land Ownership in the HSE Watershed

Public lands

- State & Municipal

Privately-owned land

- Known ownership, high confidence location/boundaries, & permission granted

Data Sources

- Rockingham Planning Commission parcel mapper
- NH GRANIT Conservation Lands
- Town tax maps

