Preamble

The New York Natural Heritage Program is by statute a program of the New York State Department of Environmental Conservation (NYS DEC) and is implemented as a partnership between NYS DEC, the State University of New York College of Environmental Science and Forestry (SUNY ESF) and the Research Foundation for SUNY, which provides operational support for the program and its employees. The Program is funded entirely by grants and contracts from state and federal agencies whose missions involve natural resource management, private organizations involved in land protection and stewardship, and both government and private organizations interested in advancing the conservation of biodiversity.

The New York Natural Heritage Program (NYNHP) is an active participant in the NatureServe Network – an international network of biodiversity data centers overseen by a Washington D.C. based non-profit organization. There are currently Natural Heritage Programs in all 50 states and several interstate regions. There are also 9 Conservation Data Centers, the international equivalent of Natural Heritage Programs, in Canada, and around 21 biodiversity data centers in Latin America. Through membership in the NatureServe network, member programs develop biodiversity data, maintain compatible standards for data management, and provide information about rare species and natural communities that is consistent across many geographic scales. This information is rolled up into a national database maintained at NatureServe headquarters. Collectively, the NatureServe network tracks the rarity of species and natural communities at state, provincial, national, and global scales and provides a variety of data products that support science-based decision-making from local to global scales.

In New York, our program gathers data on state rare plants, animals and significant natural communities from a wide variety of sources: state, federal and local government agencies and programs; conservation organizations working across New York State; and with our own field staff assigned to both government- and privately-funded projects. Like our sister programs in the United States, Canada, and Latin America, the New York Natural Heritage Program serves as a primary source of data on rare species and natural communities in the state. In the last decade, our mission has expanded to include membership in a national invasive species database partnership (iMapInvasives), ecological modeling, landscape condition assessments, maintenance of a statewide geodatabase of conservation lands (NYPAD), and statewide wetland monitoring. Our data and products are used by federal, state, and local government agencies; the environmental conservation community; developers; and others to aid in land-use decisions. They are also used by educators at many levels, researchers, and by Natural Heritage Programs and Conservation Data Centers across the country and in Canada.

This strategic plan will help direct our activities and accomplishments for the next five years. It was developed through a series of internal staff meetings and was reviewed and enhanced by a small group of New York Natural Heritage Program key partners in government agencies, universities, and the non-profit sector. The plan identifies 4 major goals of the program and then outlines a series of supporting objectives, strategies and actions that will promote innovation and build on our existing strengths to achieve our goals and those of our partners.
Our Mission is to facilitate the conservation of New York’s biodiversity by providing comprehensive information and scientific expertise on rare species and natural ecosystems to resource managers and other conservation partners.

Our Vision in achieving success is to work collaboratively with partners inside and outside New York to support stewardship of New York’s rare plants, rare animals, and significant natural communities, and to reduce the threat of invasive species to native ecosystems. We will combine thorough field inventories, scientific analyses, expert interpretation, and comprehensive databases on New York’s flora and fauna to deliver quality information to partners working in natural resource conservation. The end result of our actions will be more compatible management activities around our most imperiled species, ecosystems, and high-quality natural areas, in order to have significant and lasting effects on the preservation of New York’s biodiversity.

Goals

1. Data Collection
   We will conduct biological field inventories to document the current status and distribution of New York’s rare species and natural communities and will undertake scientific analyses to better understand the determinants of and threats to biodiversity at local and regional scales.

2. Data Development and Availability
   We will build and maintain the databases that have made our program a strong partner in conservation with state and federal agencies, local governments, private landowners, land conservancies, and land trusts for over 25 years, and will interpret and provide data in a variety of formats to maximize the utility of the information for natural resource planning.

3. Communication and Partnerships
   We will continue to build recognition of the role and utility of our program and will work with partners to fund critical work to preserve New York’s biodiversity and foster biodiversity conservation.

4. People
   We will provide a healthy, flexible work environment that attracts and retains high quality staff, will reward creative thinking and outstanding work, and will give staff the training and equipment they need to succeed.
Key Objectives and Strategies

GOAL 1: DATA COLLECTION

OBJECTIVES:

1. INVENTORY MORE PLACES
Fill gaps in coverage and knowledge of understudied areas of the state and continue existing partnerships with NYS DEC Division of Lands and Forests and NYS OPRHP to provide Heritage inventory and science support for conservation planning on state forests, forest preserves, and state parks.

Strategies:
A. Pursue partnerships and funding to conduct surveys on under-surveyed public and private land.
B. Explore the use of regional assessments, watershed assessments, or county inventory to fill in gaps in under-surveyed geographies.
C. Conduct surveys within areas predicted to be biologically rich or to support rare species targets.

2. INVENTORY MORE THINGS
Identify and fill gaps in knowledge of various taxa, ecosystems, and other biodiversity elements.

Strategies:
A. Inventory and database a broader spectrum of biodiversity including under-represented taxa and species believed to be in rapid decline.
B. Increase our understanding of freshwater lakes, streams, and marine ecosystems.
C. Work on under-documented or more restricted ecosystems or natural community types.
D. Identify and assemble data on groups of both plant and animal species that may serve as indicators of ecosystem change and help advance our understanding of both local and regional changes in ecosystems as a result of climate change.

3. ENSURE THAT DATA ARE CURRENT AND ACCURATE
Ensure that our data and data products reflect the current status of biodiversity or selected elements through conducting regular surveys, actively pursuing and digitizing all existing data, offering various forms of digital data submission, and enlisting outside parties to participate in keeping data current.

Strategies:
A. Conduct periodic assessments to evaluate and prioritize needs for updating data and information generated from the data.
B. Pursue and process outside sources of species and natural community data into our database of at-risk species locations (Biotics) and/or New York’s Invasive Species Database (iMapInvasives).
C. Seek, locate, acquire, and manage different types of data that are relevant to the conservation of New York’s biodiversity.
D. Make General Manual Files (GMF) data accessible electronically.
E. Enlist outside parties in keeping data current.
F. Provide various avenues for data submission by partners and citizen scientists.
   Actions:

4. **Field Data Collection Methods**
   Expand the collection of information and data resources to accommodate a broader data analysis and understanding of our natural world.
   Strategies:
   A. Work with neighboring states, provinces, and regional organizations (e.g., Great Lakes Commission) to address regional issues in data collection, compilation, and storage.
   B. Incorporate sampling methods and population assessments that take into account species detectability (and what non-detection means in the context of ranking and environmental review).
   C. Continue to incorporate sampling that will improve our understanding of population change over time for single species.
   D. Incorporate sampling or mapping techniques that will improve our understanding of habitat, ecosystems, and ecosystem change.

**GOAL 2: DATA STORAGE, DEVELOPMENT, AND AVAILABILITY**

**OBJECTIVES:**

1. **Maintain and Manage New York’s Biodiversity and Invasive Species Databases**
   Build and maintain the databases that are used by natural resource professionals and conservation partners across New York and our neighboring states and provinces.
   Strategies:
   A. Develop an Information Systems Strategy (IS Strategy) that incorporates use of mobile and web technologies to make data and data products more accessible to staff, partners, and the public.
   B. Develop methods for automating and further streamlining data collection, entry, storage use, and retrieval for staff scientists, contractors, and partners collecting and contributing data.
   C. Develop query-able on-line resources that allow users to view and download various NYNHP data products.

2. **Facilitate Use of Biodiversity Data**
   Interpret and distribute information resulting in informed site level decisions for conservation and resource management.
   Strategies:
   A. Continue providing staff expertise to state agency and other information requestors consistently and comprehensively.
   B. Continue conducting environmental review for NYS DEC and looking for ways to improve the project review process.
   C. Conduct outreach to relevant partner organizations and citizen scientists on using NYNHP datasets.
D. Use and synthesize NYNHP data to develop new publications and enhance existing publications.
E. Provide broader and easier access to a set of statewide products for land use planning and other conservation needs, including Important Areas Models, Species Distribution Models, Predicted Richness Overlays, NYS Conservation Lands Layer, Invasive Species Prevention Zones (ISPZs), Spatial Prioritization Tool, Riparian Opportunity Assessment Tools and more (see also Goal 2: Objective 1C).
F. Help landowners manage their properties effectively for biodiversity conservation.

3. **Analyze Information to Meet Needs of Conservation Community**
   Analyze data to address broad-scale concerns of the conservation community.
   
   **Strategies:**
   A. Identify (and anticipate) emerging and dynamic issues to support conservation action.
   B. Develop multi-jurisdictional products and assessments that can be used across state and province boundaries, providing a broader context to inform finer jurisdictions.

**GOAL 3: COMMUNICATION AND PARTNERSHIPS**

**OBJECTIVES:**

1. **Reach Out to a Broader Audience and Improve Recognition of the Program**
   Build recognition of the role and utility of the New York Natural Heritage Program.
   
   **Strategies:**
   A. Improve program recognition and identity.
   B. Increase public awareness of our activities, services, successes, and new products.

2. **Maintain Current and Seek New Partnerships**
   
   **Strategies:**
   A. Work with Federal partners on initiatives within New York, regionally, and nationally.
   B. Maintain and establish long-term working relationships with state agency partners that focus on protection, conservation, and restoration of rare species and their habitats.
   C. Expand academic partnerships.
   D. Network with Northeast regional partners to increase collaboration. Some examples of existing connections include: NatureServe Network (including other state natural heritage programs), The Nature Conservancy, New England Interstate Water Pollution Control Commission, New England Wildflower Society, Wildlife Management Institute.

3. **Support the NatureServe Network of Natural Heritage Programs**
   
   **Strategies:**
   A. Support NatureServe by participating in Network organizations and activities.
   B. Work with NatureServe to develop methods, products, and tools for the Network.
GOAL 4: PEOPLE

OBJECTIVES:

1. FACILITATE STAFF DEVELOPMENT AND STAFF INNOVATION
   Foster a creative work environment that encourages the exchange of ideas among staff and provides opportunities for professional development.
   - A. Provide staff with opportunities for professional development.
   - B. Reward innovation, longevity, and outstanding work.
   - C. Ensure staff access to the environment and equipment necessary to succeed in their work.

2. FACILITATE STRONG COMMUNICATION AND TEAMWORK
   Ensure regular and effective internal communication, promote a high level of teamwork and frequent communication among teams, and nurture a collaborative environment where everyone feels supported.

   Strategies:
   - A. Ensure internal communication that engages staff at all levels.
   - B. Encourage teamwork and cross-program collaboration.
   - C. Continue to offer flexible work schedules and remote work options to support and encourage healthy work-life balance and accommodate different work styles.