U.S. Fish & Wildlife Service

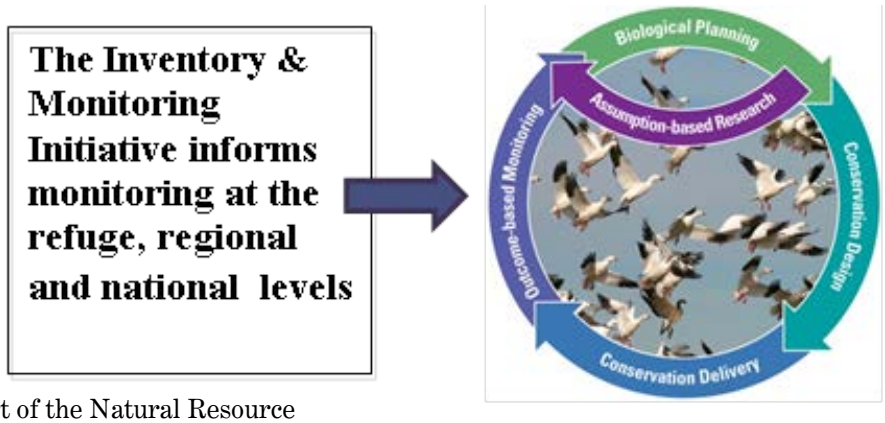
Inventory and Monitoring Initiative

Natural Resource Program Center

The National Wildlife Refuge System, administered by the U.S. Fish & Wildlife Service (FWS), is the world's premier system of public lands and waters set aside to conserve America's fish, wildlife, and plants. The Refuge System includes 556 National Wildlife Refuges and 38 Wetland Management Districts.

Background

Inventory and monitoring have long been a vital part of the biological program of the National Wildlife Refuge System (Refuge System) and have been used to inform local management actions. But the need to inform adaptation strategies at multiple geographic scales necessitate that information is easily accessible, standardized and managed in accordance with data standards of the federal government and the Department of the Interior.



As part of the Natural Resource Program Center (Center), the Inventory and Monitoring initiative (I&M) will assist local managers and staff on National Wildlife Refuges by providing standardized, peer-reviewed scientific protocols and data to evaluate the effects of management actions.

I&M will streamline and enhance the Refuge System's scientific capacity by ensuring that data and other information is readily available through the implementation of a centralized data management system, thus reducing redundancy in data collection and synthesis.

Why I&M?

The underpinning legislation guiding the formation of the Center and the I&M initiative is the National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57). The Act specifically charges the Secretary of Interior to "monitor the status and trends of fish, wildlife, and plants in each refuge."

The U.S. Fish and Wildlife Service's (FWS) response to conservation in the face of climate change, as defined in "Rising to the Challenge: Strategic Plan for Responding to Accelerating Climate Change," provides additional direction and impetus for implementation. Under this initiative, the Refuge System is to play a leadership role in developing a nationally-coordinated program of inventories and monitoring on FWS lands.

Landscape Conservation Cooperatives and other management-science partnerships show an increasing need to look regionally at natural resource management and to bring a variety of public and private entities together. The I&M initiative will facilitate these efforts by gathering, synthesizing and sharing standardized data needed to inform integrated resource management actions across landscapes.

Where are we now?
Initially, the I&M data management system will be used to mine and catalogue the wealth of scientific information that already exists on refuges and in FWS regions. I&M staff will utilize this information to identify data gaps, redundancies, and synergistic opportunities.

Regional I&M staff will work with field stations to determine local management data needs. Science-based decision support tools will then be developed for on-the-ground managers to assist with the application of adaptive management strategies.

The Center will regularly review regional and local needs assessments and revisit I&M priorities based on this information.

Initial Projects

- Abiotic Resources – Baseline Geospatial Data, Hydrogeomorphic Analysis (HGM)
- Biotic Resources – T&E Species, Refuge Vulnerability Assessments (RVA), Phenology
- Invasive Species Inventories
- Contaminants Assessment Process (CAP)
- Sea-Level Affecting Marshes Model (SLAMM)
- Data Management – Geospatially Referenced Archive Service (GRAS), Planning and Review of Inventory & Monitoring on Refuges (PRIMR)
- Water Quality & Quantity – National Wetland Inventories (NWI), Water Resource Inventories and Assessments (WRIA)
- Wilderness Character Monitoring

Where is it located?
The Center and I&M staff are located in Fort Collins, CO in order to leverage resources with key partners. Providing physical proximity to the National Park Service Natural Resource Program Center and the U.S. Geological Survey will help ensure integration across the federal government and reduce duplication of efforts.

For more information:

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