

Why is USGS a leader in migratory bird Science?

- Migratory birds cross state and national borders making them a Federal Trust responsibility
- The Department of Interior (DOI) has a statutory obligation¹ to manage migratory bird populations
- USGS meets DOI obligations with science that informs management decisions required to support sustainable migratory bird populations
- See back page for more details

Bird Populations are Declining

- 3 billion fewer birds since 1970
- 31% fewer ducks since 2015
- 43% fewer mid-continent arctic geese since 2014

Birds are Important to People



Bird watching contributes:

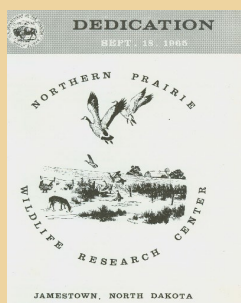
- >1.4 million jobs
- >\$279 billion in annual economic output



Waterfowl hunting contributes:

- >27,000 jobs
- >\$4 billion annually to the US GDP
- Subsistence (food)

Our history still shapes us today



In the 1960s, Congress directed the U.S. Fish and Wildlife Service to create research centers with the mission of conducting research to inform management of duck populations in North America. In response to changing priorities of DOI and partners, our mission broadened to study all migratory birds. During the 1990s we moved to the USGS. This separation of science from regulatory authority has enhanced our reputation for providing rigorous, objective science that informs decisions of management partnerships. Our foundational strengths carry through today as we address challenging information needs, increase management efficiency, and detect emerging trends facing migratory birds that cross states, countries, and continents.

USGS Science Strengths

Large-scale



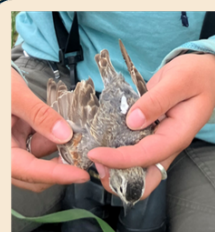
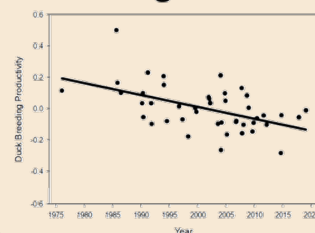
Co-production

Helping partners develop their questions, solving them together

Multi-disciplinary

Energy
Population Biology
Wetland Ecology
Movement Ecology
Land Management
Migratory Birds
Biochemistry
Plant Ecology
Entomology
Statistics
Mapping
Nutrition

Long-term



Field Expertise

Decision-Relevant Science



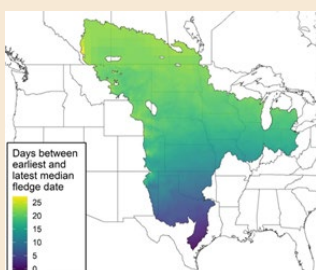
Collaborative

¹ Migratory Bird Treaty Act (treaty with U.S., Canada, Mexico, Japan, and Russia)

Informing Harvest and Population Decisions:

Key Partners: All Flyways, States, and USFWS

- Sustainable harvest management and hunting opportunities
- Improvements in population monitoring for efficiency and accuracy
- Population management and forecasting
- Management of contaminants and diseases (e.g., avian influenza)
- Species recovery



USGS is informing timing of grazing and haying of grasslands to maximize landowner flexibility and success of birds



USGS conducts extensive research on disease and has a disease diagnostic center informing bird and public health

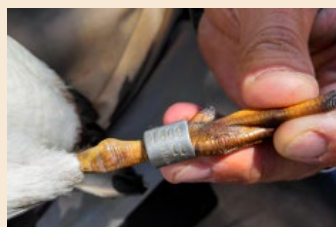
Informing Habitat Management Decisions:

Key Partners: Migratory Bird Joint Ventures, States, NGOs, USFWS, USDA, BOEM, BLM, corporations and private landowners

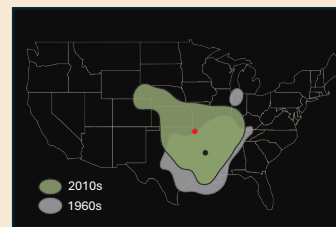
- Strategic habitat management
- Smart energy development
- Water resource use
- Evaluation of conservation programs
- Management of agricultural and working lands for win-win outcomes
- Developing tools for public and private working grassland and forest management
- Developing innovative tools for changing species needs and distributions



Do you want details?
Check out our **Report**



The Bird Banding Lab (BBL) provides critical support and information for harvest decisions, bird movements, and population status



Using BBL data, USGS found changes in duck harvest; Flyways are using this for harvest and habitat management decisions

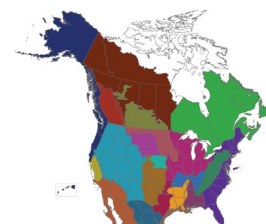
Partnerships are Critical for Managing Migratory Birds

Flyways: Populations & Harvest



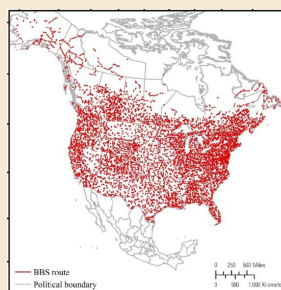
Flyways are international Federal-State/Province regulatory partnerships

Joint Ventures (JVs): Habitat

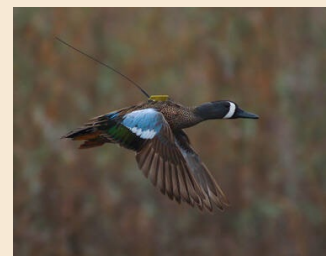


JVs are voluntary *partnerships* of Federal and State agencies, NGOs, private landowners, and corporations with a common interest in bird habitat conservation

USGS partners extensively with Flyways and JVs



The Breeding Bird Survey monitors trends in continental bird populations to inform management decisions aimed at keeping common birds common.



Tracking Studies: USGS partners with wildlife managers to address information needs about bird movements using cutting edge technology.