

SUMMARY of UW-WYNDD partner responses to three questions asked each year (2023 – 2026) by WYNDD about natural resource priorities and information needs

In each of four years WYNDD asked all of its partners three questions regarding their natural resource research and management priorities, and information needs.

QUESTION 1: What are your organization's main species and habitat priorities for the next year? The next 5 years?

QUESTION 2: What important natural resource topics or themes should be getting more attention from researchers and/ or managers right now?

QUESTION 3: What information do you lack now that would increase the efficiency and effectiveness of your work? Are there specific maps, predictions, estimations, etc. that would help you in your day-to-day work?

Response rate was generally low - ca. 1% of total partners contacted each year. Sixteen responses were recorded in 2023; seven in 2024; 15 in 2025; and nine in 2026.

Responses were voluntary, qualitative/ narrative in nature, and provided in a variety of formats. In February 2026 a public-facing artificial intelligence engine (ChatGPT 4.0) was used to produce an initial summary of responses, which was edited by G. Beauvais (UW-WYNDD Director) to produce the following summary.

Executive Summary

Over four years, natural resource professionals across multiple organization types identified consistent priorities related to species conservation, habitat management, research needs, and information gaps. Responses reveal broad agreement on both current challenges and future directions for research and management.

Across all years, priorities centered on species of conservation concern and the habitats that support them, particularly sagebrush ecosystems, riparian areas, grasslands, forest systems, and aquatic habitats. Respondents increasingly emphasized habitat condition, restoration, and ecosystem resilience rather than single-species approaches.

Climate change and cumulative impacts from development emerged as dominant themes requiring greater research and management attention. Participants consistently expressed a need for science that supports forward-looking decision-making and evaluates long-term outcomes of management actions.

The most commonly identified information need was improved access to integrated spatial data and decision-support tools. Respondents emphasized that better synthesis, accessibility, and usability of existing information would substantially improve efficiency and effectiveness.

Over time, responses indicate a shift from identifying data gaps toward improving application of science in management, including collaboration across organizations and development of practical tools that support planning under uncertainty.

Key Takeaways

- 1. Conservation priorities are increasingly habitat- and landscape-focused rather than species-specific.**
- 2. Climate change and cumulative development impacts are widely viewed as the most important emerging challenges.**
- 3. The primary need is not additional data collection but improved integration, accessibility, and synthesis of existing information.**
- 4. Spatially explicit data and predictive decision-support tools offer the greatest opportunity to improve efficiency.**
- 5. Collaboration across agencies, organizations, and disciplines is essential for effective implementation.**
- 6. Organizational differences reflect emphasis rather than disagreement; priorities are broadly aligned across sectors.**
- 7. Over time, priorities have shifted toward applied outcomes and operational decision support.**

Detailed Assessment

Question 1: What are your organization's main species and habitat priorities for the next year? The next 5 years?

Across all years, respondents consistently emphasized species of conservation concern, including Species of Greatest Conservation Need (SGCN), ESA-listed or candidate species, and agency-sensitive species. Frequently referenced groups included bats, sage-grouse, big game species, raptors, pollinators, and native fish.

A strong emphasis was placed on habitat-based conservation rather than single-species management. Priority habitats included sagebrush ecosystems, grasslands, riparian and aquatic systems, forest and high-elevation habitats, and native plant communities. Restoration, habitat connectivity, and ecosystem resilience were commonly identified as long-term priorities.

Land-use pressures, including energy development, infrastructure expansion, and grazing, were frequently cited as factors influencing conservation priorities.

Question 2: What important natural resource topics or themes should be getting more attention from researchers and/ or managers right now?

Climate change emerged as a consistent cross-cutting concern, particularly the need to integrate climate projections into management planning and to understand long-term changes in habitat suitability and ecosystem function.

Respondents also emphasized the need for improved understanding of cumulative impacts from development and land-use change, including evaluation of mitigation effectiveness. Bat conservation and disease impacts, especially white-nose syndrome, were repeatedly identified as urgent topics.

A recurring theme was the need to better translate research findings into actionable management guidance through synthesis, collaboration, and decision-support tools.

Question 3: What information do you lack now that would increase the efficiency and effectiveness of your work? Are there specific maps, predictions, estimations, etc. that would help you in your day-to-day work?

The most frequently identified need was improved spatial data, including updated species distribution maps, habitat datasets, and spatially explicit predictive models. Respondents indicated that improved spatial information directly increases efficiency in planning and decision-making.

Many responses highlighted challenges related to data accessibility and integration, noting that existing information is often fragmented across organizations. There was strong interest in data synthesis and centralized access rather than generating entirely new datasets.

Predictive tools and improved functionality of existing data platforms were also identified as important for improving operational efficiency.

Patterns by Year

Earlier (e.g., 2023) responses focused more heavily on established species priorities and identified data gaps. Over time, responses increasingly emphasized climate change, cumulative impacts, and landscape-scale processes. Later years showed stronger focus on implementation, usability of tools, and applied decision support.

Patterns by Organization Type

Federal agencies emphasized regulatory species and tools supporting planning and compliance. State agencies focused on habitat condition and applied management outcomes. Nonprofit organizations emphasized landscape-scale conservation and restoration outcomes. Consultants focused on data availability and spatial precision affecting project timelines. Higher education responses emphasized research gaps, monitoring approaches, and long-term ecological processes.