



INHS Reports

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From Where Does IDNR Gather Information?

In our current project, Conservation Guidance for Species in Greatest Need of Conservation (SGNC), we are compiling documents to provide conservation guidance for listed species in Illinois. This project incorporates a diversity of perspectives and relies heavily on contributions from scientists across the Illinois Natural History Survey (INHS). We provide project developers and Illinois Department of Natural Resources (IDNR) land managers with information on the species—how human actions may impact the species and how they can best minimize, mitigate, and monitor those impacts. This effort requires embracing the perspectives of practitioners to understand their methods and needs.

As part of this project, we investigated the sources of information typically used by IDNR practitioners so that we could tailor our project to fit their needs. During conversations, we learned many IDNR practitioners highly esteem INHS research and look to INHS when they have research questions. Yet, some IDNR practitioners expressed apprehension towards scientific findings. We sent out a targeted survey to better understand the use of science at IDNR.

The Survey

We invited 257 people in IDNR's Office of Resource Conservation to take a survey and 88 people participated (34% response rate). There was participation across all divisions (Fisheries, Wildlife Natural Heritage, Forestry, Private Lands,

Impact Assessment, and Illinois Nature Preserves Commission). Most participants were field staff (49%) or program staff (36%).

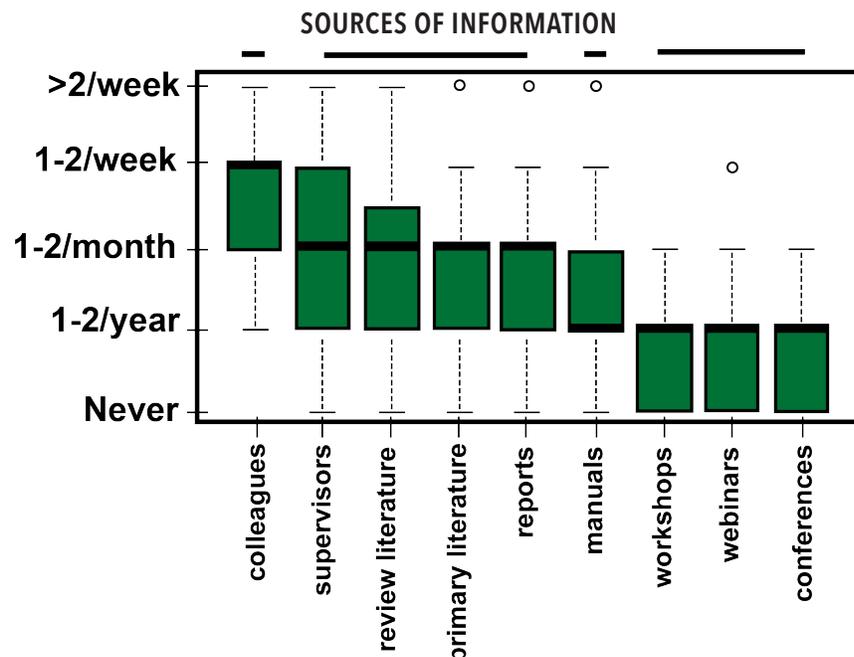
Science is Important to IDNR

Participants overwhelmingly reported that staying informed of new developments was an important part of their work. Participants reported that new developments in their field of specialty were extremely important or very important

to their division's work (73%) and to their day-to-day work (48%). Participants also said interdisciplinary knowledge (from outside their field of specialty) was extremely important or very important in their day-to-day work (56%).

Information Travels through IDNR's Social Network

When asked how frequently they acquire new information from various sources, participants reported obtaining informa-



ABOVE: Question: In the past year, how often did you acquire new information in your field from the following sources? Graph depicts the median, interquartile range, nominal range, and outliers of responses coded on a 1-5 scale. Bars at the top of the graph indicate significant differences between 4 groups of sources, as determined by a Welch's F-test and Games-Howell posthoc test.





ABOVE: Information is most often collected from colleagues.

tion from colleagues on a weekly basis, more often than from any other source. Supervisors, review literature, primary literature, and reports were the next most frequently used sources, being used monthly on average. Manuals, webinars, workshops, and conferences were used least frequently, only once or twice a year. Participants also mentioned other sources of information including: professional societies, universities, cooperative extension, the Natural Heritage Database, other government agencies, meetings, industry professionals, clients and customers, technical books, and trusted websites.

IDNR's Information Preferences

Surprisingly, the frequency that various sources are used was not closely matched by information source preference. Participants had a wide range of preferred sources of scientific information: 18% preferred primary scientific literature, 16% preferred colleagues, 13% preferred workshops, 10% preferred reports, 7% preferred conferences, 6% preferred review literature, 2% preferred manuals, 1% preferred webinars, and 1% preferred personal experience.

Most practitioners were confident in their ability to comprehend scientific literature, as 92% of participants reported understanding the full nuance or the main message of primary scientific literature.

IDNR Practitioners Rely Heavily on Experiential Knowledge

On average, participants attributed about half of their knowledge and expertise to personal experience, but responses were reported across the board from all to no experiential knowledge. Surprisingly, experiential knowledge was not related to years spent working for IDNR.

Challenges

Despite the stated importance of new information and the frequency at which new information is acquired, 80% of participants reported having trouble obtaining new information. Common obstacles to acquiring new information were limited amount of time available, travel restrictions, and limited access to scientific journals.



ABOVE: IDNR practitioners acquire around half of their knowledge from experience.

IDNR Information Use Is Similar to Other Agencies

IDNR is similar to other natural resource management organizations in terms of using information sources. Conservation practitioners from California, Australia, and the United Kingdom also heavily rely on colleagues and experience for information. Commonly, scientific evidence is valued over all other information, but like the concerns of IDNR staff, there are limitations to its use such as time constraints or applicability to specific contexts.

How to Best Provide Information to IDNR

So how can a researcher ensure their research makes it into the minds of practitioners? Relationships! Because IDNR practitioners rely so heavily on personal relationships to acquire information, it is important for scientists to ensure they are part of that social network. Researchers should build relationships with practitioners, not only to allow researchers to share their science, but to allow practitioners to share their research needs and ensure that future research will answer relevant questions (and maintain funding). Of course forming relationships is easier said than done, but in terms of making an impact, it may make all the difference.

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Photos by Tara Kieninger