Guidance for Risk Assessment Clearinghouses[1]

Great Lakes Panel on Aquatic Non-Native Species
Risk Assessment Ad Hoc Committee
May 2020

Purpose

To inform future invasive species risk assessment clearinghouse initiatives based on lessons learned during development of a Great Lakes invasive species risk assessment clearinghouse. Development of the clearinghouse was led by the Great Lakes Panel on Aquatic Nuisance Species in partnership with the Great Lakes Commission and National Oceanic and Atmospheric Administration (NOAA). The clearinghouse is hosted by NOAA as part of the Great Lakes Aquatic Nonindigenous Species Information System (GLANSIS).

Background

The Great Lakes Panel on Aquatic Nuisance Species (GLP) established the Risk Assessment Ad hoc Committee (hereafter Committee) in 2016. The charge of the Committee was to improve regional species and pathway risk assessment coordination and to develop a scope of work for the development of a risk assessment clearinghouse. It is important to highlight the foundational work that lead to the development of the Risk Assessment Clearinghouse. Regional engagement and consensus around the structure and purpose of the clearinghouse was facilitated by the GLP through the Committee, making the clearinghouse inclusive of Great Lakes interests in a coordinated process.

- The Committee initially identified what methodologies were in use throughout the Great Lakes jurisdictions and assessed species relevant to the Great Lakes region to select the initial suite of the most comprehensive methodologies for the clearinghouse. Concurrently, a subgroup of Committee members and external risk assessment experts developed a list of components by which risk assessments would be summarized. This list of risk assessment components was revised and approved by the full Committee membership.
- The Committee recommended seven risk assessment methodologies in use by Canadian and U.S. academic institutions, federal agencies, and state/provincial agencies to include in the first iteration of the risk assessment clearinghouse.
- Following methodology selection, the Committee identified potential partners in the region who were also working to aggregate risk assessments in order to improve accessibility. Following discussions with those partners, the Committee identified a structure whereby NOAA GLANSIS would host the clearinghouse, the Committee would guide implementation, and other involved external partners (here, Illinois-Indiana Sea Grant and the Invasive Species Centre) would advise.
- A total of 3,179 species risk assessments summaries were developed between February and September 2019 for inclusion in the first iteration of the clearinghouse. These 3,179 assessment summaries contain 2,357 unique species with 414 species that include more than one risk assessment entry. The summaries are currently accessible online through NOAA GLANSIS available at https://www.glerl.noaa.gov/glansis/raT2Explorer.html. In the future, these numbers will increase as new species assessments are conducted.

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- Species risk assessment summaries were developed for the clearinghouse using an iterative process to pull information from original assessments to ensure all relevant and accessible information was included. Cycles of expert review were used to confirm that the content in the clearinghouse was accurate, relevant, and concise. Methods for developing the summaries were recorded and are available as reference documents.
- Experts for each risk assessment method were interviewed to determine if the content of the risk assessment summaries was consistent with and reflective of the intent of the risk assessment methodology, if any information was extraneous, and if any additional information should be included. Feedback was incorporated into the species assessments and the updated summaries were again reviewed by the expert(s) as necessary. Expert consultations averaged two to three hours for each risk assessment methodology that was included and ranged from one to approximately six hours.
- An average of 120 hours (or one month of FTE) was necessary to develop species risk assessment summaries for each risk assessment method included.
- A complete report on the development of the Great Lakes risk assessment clearinghouse is available online (https://www.glpanel.org/wp-content/uploads/2023/06/DRAFT-GLP-Risk-Clearinghouse-Report12.19.19.pdf) as a reference to demonstrate how the following guidance and considerations were addressed in this case.

Guidance and Considerations

- Prior to any development work, building consensus and inclusion of regional invasive species interests (as described in the background above, conducted by the Committee) is instrumental in the process of identifying ongoing regional risk assessment efforts, defining audience types, and setting priorities for the clearinghouse.
- In preparation of a clearinghouse it was important in the Committee's process to investigate the risk assessment resources that currently exist and are in use in the region to help ensure there are no duplicative efforts.
- Once the foundation of regional initiatives is known, relevant partners should be included in the development to help define the primary audience(s) and use(s) for the clearinghouse. Primary audience needs should drive decisions about which risk assessments are included, how risk assessments are compiled and collated, and the format and functionalities of the clearinghouse. Secondary audience(s) and use(s) may also be considered.
- In defining the use of the clearinghouse, keep in mind that the interest(s) of the audience guide how they access this information. Include associated risk assessment information and documentation that is needed for context or serves an important service for audience interest(s) (e.g., expert and author contact information, risk assessment methods, management techniques, regulatory information/documentation, etc.). Consider whether to develop and/or incorporate value-added (or synthesized) information for additional context or use by certain audience types, if appropriate.
- If types of data are being incorporated that have different terms of use or accessibility (public, internal use, upon request, etc.), a plan should be developed on how to manage the clearinghouse interface to support access types as designed and intended for different audiences.
    - E.g., consideration of non-public risk assessment information/data from government agencies, private entities, and unpublished research.
- Develop a process for how risk assessments will be compiled and collated, including clearly defining what components of a risk assessment will be represented in the clearinghouse.

    - Considerations may include: what information is easily extracted and directly reported; providing enough information for ease of understanding without excessive text.
    - Possible components may include, but are not limited to: risk of introduction; survival; establishment; spread; impact; overall risk; certainty/confidence metrics; common and alternate names; organization; notes; and date conducted.
- Not every risk assessment method will cover and consider all the components summarized in the clearinghouse, and few will provide information about specific components in an identical manner, which may make it difficult to compare different methodologies directly. A clearinghouse should provide information on the differences in risk assessment approaches and clarify when/how these differences impact the way a risk assessment is summarized.
    - Consultation with individual risk assessment experts may be needed to determine how to properly summarize a risk assessment when information relevant to a specific component was not considered or is otherwise not available for their respective methodology.
    - Considerations may include: if blank fields remain visible to users and/or if blanks fields indicate an absence of information; information included in the assessment that is not reportable; how non-reportability is explained to users of the clearinghouse; and using blank fields to guide future research and data sharing.
- Define the scope, criteria, and limits for what will (and will not) be included in the clearinghouse, e.g., taxonomic scope, geographic scope, and types of information to include.
- Be adaptable when applying scope criteria/guidelines. For example: One clearinghouse criterion may be to only include publicly available risk assessments, however, expert interviews and review may result in a recommendation to include additional information.
- The level of effort required to create a clearinghouse will be influenced by the availability of risk assessment literature and the review/discussion timeline (i.e., less effort is needed for incorporation of publicly available assessments and assessment methods).