

Aquatic Species at Risk • Espèces aquatiques en péril




Fisheries and Oceans Canada
Species at Risk Act

**Directive on the Identification of Critical
Habitat for Aquatic Species at Risk**

January 2015

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 Fisheries and Oceans Canada Ecosystems and Fisheries Management Species at Risk Program	Pêches et Océans Canada Écosystèmes et Gestion des pêches Programme d'espèces en péril	Directive on the Identification of Critical Habitat for Aquatic Species at Risk	
To be read in conjunction with: 1. <i>Guidelines for the Identification of Critical Habitat for Aquatic Species at Risk</i>		Approved by: Deputy Minister's Policy Committee	Date Approved: 2015-01-28

Enquires may be directed to:

Species at Risk Program
 Ecosystems Management Directorate
 Fisheries and Oceans Canada

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1. Approval Authority and Effective Date

This Directive was approved by the Members of the Deputy Minister's Policy Committee for Fisheries and Oceans Canada (DFO) on January 28, 2015, and takes immediate effect.

2. Introduction

Assented to in 2002, the *Species at Risk Act* (SARA) is a cornerstone of the Government of Canada's Federal Sustainable Development Strategy and represents Canada's commitment to the protection and management of biodiversity within Canada's borders. The Minister of Fisheries and Oceans is the Competent Minister under SARA for aquatic species, other than those individuals who are in or on federal lands administered by the Parks Canada Agency. As such, Fisheries and Oceans Canada (DFO) is responsible for the development of recovery strategies and action plans for aquatic species, including the identification of critical habitat.

SARA recognizes the importance of habitat for species at risk. For aquatic species, habitat is defined in section 2(1) of the Act as “... *spawning grounds and nursery, rearing, food supply, migration and any other areas on which aquatic species depend directly or indirectly in order to carry out their life processes, or areas where aquatic species formerly occurred and have the potential to be reintroduced.*” Critical habitat is made up of “habitat”. “Critical habitat” is defined by SARA as “... *the habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species.*” Thus, an area that meets the definition of “habitat” for a listed wildlife species with respect to a life process will be necessary for the survival or recovery of that species where there is a lack of such habitat for the species.

Pursuant to SARA s. 41(1)(c) and 49(1)(a), every recovery strategy and action plan developed for a species listed in Schedule 1 of the Act as threatened, endangered or extirpated must identify that species' critical habitat, to the extent possible, based on the best available information.

Critical habitat is identified using the best information available. If the information available is insufficient to fully identify critical habitat, the Act requires that the recovery strategy include a schedule of studies. When critical habitat is identified, the Act requires that examples of activities likely to destroy critical habitat (ALTD CH) also be identified. The Act further requires that the Competent Minister ensure that critical habitat is legally protected. For areas not mentioned in subsection 58(2), this can be achieved in one of two ways: through a protection order made by the competent minister under subsections 58(4) and (5), which triggers the prohibition against the destruction of any part of critical habitat, or by relying on provisions in, or measures under, SARA or any other Act of Parliament including agreements under section 11 of SARA. If it is the latter, the provisions or measures relied upon must be mandatory and enforceable – any prohibition against habitat destruction in such provisions or measures cannot be subject to ministerial

discretion. Jurisprudence has refined the understanding of the identification of critical habitat.

3. Purpose

This Directive describes how DFO will interpret and implement SARA requirements to identify critical habitat in a manner that facilitates the Department's legal, conservation and administrative obligations. Through the implementation of this Directive, Canadians will be informed about critical habitat, where it is, why it is necessary for survival or recovery, and how to avoid activities that can result in its destruction.

4. Guiding Principles

This document considers a number of DFO and Government of Canada policies, guidelines and other documents related to species at risk and aquatic ecosystems. In many cases, a comprehensive understanding of critical habitat will not be possible within the initial recovery planning timeframes legislated in SARA. In these cases, SARA requires that critical habitat be identified to the extent possible using the best available information. In addition, s. 38 of SARA reflects the precautionary approach in the preparation of recovery strategies, action plans and management plans: *"In preparing a recovery strategy, action plan or management plan, the competent minister must consider the commitment of the Government of Canada to conserving biological diversity and to the principle that, if there are threats of serious or irreversible damage to the listed wildlife species, cost-effective measures to prevent the reduction or loss of the species should not be postponed for a lack of full scientific certainty."* The precautionary principle is applied in critical habitat identification. In applying the precautionary approach, DFO is also guided by SARA's preamble, which states: *"...the Government of Canada is committed to conserving biological diversity and to the principle that, if there are threats of serious or irreversible damage to a wildlife species, cost-effective measures to prevent the reduction or loss of the species should not be postponed for a lack of full scientific certainty..."*

Based on SARA and existing policies and guidelines, DFO will use the following guiding principles to identify critical habitat:

1. Critical habitat identification will be identified in the species' recovery strategy. It is a collaborative process between the DFO SARA Program, DFO Science and other relevant operational sectors as well as other levels of Government and Canadians, although socioeconomic factors are not relevant in critical habitat identification.
2. By knowing what the function, features and attributes are of critical habitat, DFO will be better able to know when critical habitat is destroyed. Thus, the manner in which critical habitat is identified (geographic location in conjunction with functions, features and attributes) establishes the framework for its protection. Critical habitat is identified using the best available information. Enough habitat to

achieve the population and distribution objectives for the species must be identified. This, in turn, will facilitate the survival and recovery of the species.

3. When sufficient habitat necessary to achieve the population and distribution objectives for the species cannot be identified, or, the level of detail regarding the critical habitat is not sufficient to determine whether or not it has been destroyed, a schedule of studies will be developed to identify more critical habitat, or refine our understanding of what has been identified in order to protect it.
4. Identification of critical habitat is initiated at the Assessment Stage in the SARA cycle (Figure 1) and may be an iterative process that is complete only when the Minister of Fisheries and Oceans is of the opinion that the quantity and quality of habitat identified as critical habitat is sufficient to achieve the population and distribution objectives for the species.

As new information regarding critical habitat becomes available, it will be incorporated through amendments to the species' recovery strategy.

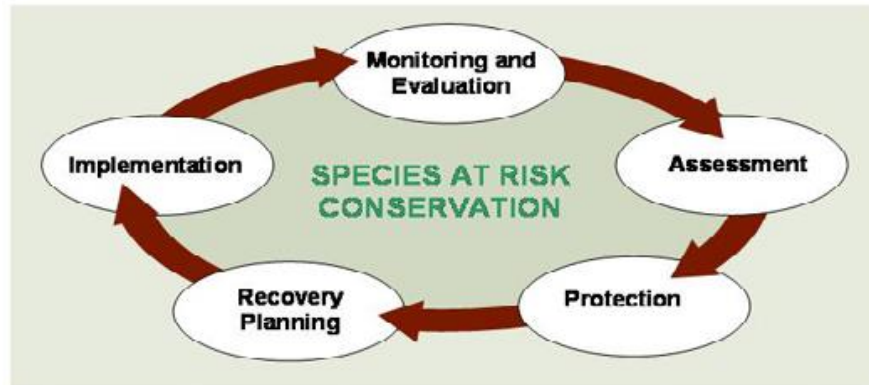


Figure 1. SARA cycle for species at risk

5. Critical Habitat Identification

Critical habitat relates to the functional capacity of certain features in the habitat to support the successful performance of life-cycle processes necessary to achieve the population and distribution objectives for a species at risk. When identifying critical habitat, the quantity, quality and locations of critical habitat must be considered. The identification of critical habitat, to the extent possible, should achieve the following:

1. Identify what is known to be critical habitat with a clear description of its geographic location and its biological function(s) including the features and attributes which support the function.
2. Provide a clear statement on whether the habitat identified as critical habitat is sufficient to achieve the population and distribution objectives for the species. If the identification of sufficient critical habitat is not possible, provide a clear statement explaining why the best available information is inadequate and provide a schedule of studies that will be implemented.
3. Provide examples of activities likely to destroy the critical habitat (ALTD CH).

In some cases, the recovery strategy envisions re-occupation of the species into currently unoccupied areas, through restoration, reintroduction, or natural expansion. To facilitate this, unoccupied but suitable habitat may be identified as critical habitat. This will occur when there is insufficient existing habitat for the species to achieve the population and distribution objectives, and it is technically possible to restore the habitat and/or reintroduce the species. It should be clearly indicated that the areas are being designated with future restoration or reintroduction in mind. If there is a lack of habitat, it is likely that all of the known habitat needs to be identified as critical habitat because if critical habitat is the habitat that is necessary for the survival or recovery of the listed species, then all of the known habitat in such a situation will be necessary for survival or recovery. Until new habitat is identified as critical habitat, all known and available habitat should be identified as critical habitat.

More details on how to identify critical habitat are provided in the *Guidelines for the Identification of Critical Habitat for Aquatic Species at Risk*.

6. Schedule of Studies

When critical habitat has not been fully identified, a schedule of studies is required. The schedule of studies is considered a commitment by the Minister of Fisheries and Oceans and must support:

- the identification of additional habitat necessary to support the population and distribution objectives for the species; and/or
- the protection of the critical habitat from destruction by refining knowledge of its biophysical functions, features and attributes.

Studies that do not work towards these goals do not appear in the schedule of studies. If the critical habitat identified in the recovery strategy is sufficient to meet the species' population and distribution objectives (i.e., it has been identified fully and to the level of detail necessary), no schedule of studies should appear in the recovery strategy.

7. Activities Likely to Destroy Critical Habitat

When critical habitat has been identified, SARA requires that examples of activities likely to destroy critical habitat (ALTD CH) be included in the recovery strategy. This communicates to Canadians the level of risk that their activities pose to the critical habitat and facilitates the opportunity to work collaboratively to mitigate risks. The examples of ALTD CH are not meant to be exhaustive and the inclusion of an activity does not result in its automatic prohibition, nor will it inevitably result in destruction; every proposed activity is reviewed on a site-specific basis based on its own merits to determine if destruction will occur.

Destruction occurs when there is a temporary or permanent loss of a function of critical habitat, and must not be confused with the SARA s. 32 (1) prohibitions against the killing, harming or harassing of an individual of a listed species at risk. The examples of

ALTD CH must be consistent with the Threats section of the recovery strategy and to the extent possible include:

- Specific examples of human activities occurring within or outside of the boundaries of critical habitat that are both likely to occur and likely to result in the destruction of critical habitat features or attributes, thereby resulting in the loss of the habitat's function and the species' ability to perform its life-cycle processes;
- The threshold level (if available) at which the activity will render the critical habitat unable to serve its function;
- The pathway of effect of the activity, explaining how it is likely to destroy critical habitat including a consideration of whether timing plays a role in the activity.

More details on identifying examples of ALTD CH can be found in the *Guidelines for the Identification of Critical Habitat for Aquatic Species at Risk*.

8. When Critical Habitat is not Identified or the Identification is not Released Publicly

When information exists to support the identification of critical habitat, it may only be excluded from the recovery strategy or action plan in the following circumstances:

8.1. Critical habitat does not exist in Canada

Most species at risk have critical habitat in Canadian waters. However, there may be cases where the habitat necessary for a species' survival or recovery is not located in areas under Canadian jurisdiction. Species that may fit this scenario include wide-ranging or non-resident species that come into Canadian waters, but not to fulfill a specific biological requirement of their life cycle. In these cases it may be relevant to describe in the recovery strategy key habitats located outside Canada as well as the habitat threats in order to facilitate collaboration with jurisdictions outside of Canada. The conclusion that critical habitat does not exist in Canada must be based on peer-reviewed science. A rationale must be provided to explain why habitat within Canadian waters is not considered necessary for the species' survival or recovery.

8.2. Identification of critical habitat may be detrimental to the species

Section 124 of SARA states that "*the Minister [of the Environment], on the advice of COSEWIC, may restrict the release of any information required to be included in the public registry if that information relates to the location of a wildlife species or its habitat and restricting its release would be in the best interests of the species.*" For example, if illegal harvest of a species was identified as a significant threat to the species' survival or recovery, the Minister of the Environment, on the advice of COSEWIC may decide not to disclose the location(s) of the remaining population(s) and, therefore, the critical habitat. If section 124 of SARA is invoked, a rationale for the exclusion of information as to the location of critical habitat must be provided, explaining why exclusion of this information is in the best interests of the species. Since this decision will

present a challenge when trying to ensure that the public is aware of the circumstances in which their activities may destroy critical habitat, an analysis of consequences of such a decision in the context of the species' population and distribution objectives should be undertaken.

9. Critical Habitat within Canada but not Managed by DFO

Critical habitat is sometimes identified within a National Park, National Wildlife Area or a migratory bird sanctuary. The Minister of Fisheries and Oceans is the Competent Minister for most aquatic species, including individuals found in national wildlife areas and migratory bird sanctuaries. Although collaboration with the Minister of the Environment is not required under SARA when identifying critical habitat in those areas and protecting it by way of a description under subsections 58(2) and (3), collaboration is nevertheless recommended. The Minister of the Environment, as the Minister responsible for the Parks Canada Agency, is the competent minister for individuals of aquatic species in national parks, and is responsible for identifying the critical habitat of such individuals and protecting it by way of a description published under subsection 58(2) and (3) of SARA.

10. Existing Human Structures

Over time, anthropogenic (human-made) structures have been placed or created in aquatic ecosystems and have resulted in both positive and negative changes to the aquatic ecosystem. For the purposes of critical habitat identification, this document will distinguish between anthropogenic structures themselves and the areas created as a result thereof. Human structures themselves are not considered critical habitat unless the structure contributes to the survival or recovery of the species. When sufficient habitat to achieve population and distribution objectives can be identified without including human structures, then such structures should be excluded from the identification of critical habitat.

11. Verification of Information

The information used to identify critical habitat is based on the best available information, which includes scientific studies, Aboriginal traditional knowledge (ATK), community knowledge, and information obtained through a peer-review process (e.g. the Recovery Potential Assessment (RPA), Committee on the Status of Endangered Wildlife in Canada (COSEWIC) status reports), or other internal or external sources of information deemed reliable by DFO. It is ultimately the Regional Director of Ecosystem Management who recommends the point at which the information is sufficient to identify critical habitat.

12. Socio-Economic Implications

Socio-economic factors must not be taken into consideration when identifying critical habitat. However, in situations where candidate habitat for identification as “critical habitat” exceeds the amount necessary to achieve population and distribution objectives, the identification of critical habitat can take different configurations. In such situations, a socio-economic assessment can be done, and the habitat that actually becomes identified as critical habitat can be situated in areas where the related socio-economic costs would be minimized.

Where habitat restoration and/or reintroduction of the species into areas that were formerly occupied by that species is part of the recovery strategy, then socio-economic information can also be taken into account in selecting candidate areas for habitat restoration and/or reintroduction, in order to minimize the socio-economic impacts of restoration and/or reintroduction.

13. Summary

The identification of critical habitat is an important aspect of SARA and its protection is fundamental to the survival and recovery of most species at risk. The process for the identification of critical habitat begins at the COSEWIC assessment and continues until enough habitat to meet population and distribution objectives is identified in a recovery strategy or action plan. The identification of critical habitat will be undertaken in a transparent manner and based on the best available information as determined by DFO.

Critical habitat identification includes a geographic and biophysical description. It normally does not include human structures and in some cases critical habitat may not exist in Canada. In specific situations as described in SARA, the Minister of the Environment, on the advice of COSEWIC may decide not to release the precise location of critical habitat. In some cases, the identification of critical habitat may be informed by the implementation of a schedule of studies when the amount of known habitat is not sufficient to meet the population and distribution objectives for the species.

Critical habitat identification includes providing examples of human activities that are likely to destroy it, which are derived from the Threats section of the species’ recovery strategy. Examples are not exhaustive and the activities are not automatically prohibited. However, certain human activities will require further dialogue to ensure that they can be undertaken in a manner which does not result in the destruction of the critical habitat.

14. References

DFO. 2007a. Revised Protocol for Conducting Recovery Potential Assessments. Canadian Science Advisory Secretariat Science Advisory Report (2007/039).

DFO. 2007b. Documenting Habitat Use of Species at Risk and Quantifying Habitat Quality. Canadian Science Advisory Secretariat Science Advisory Report (2007/038).

DFO. 2014. Guidance for the Completion of Recovery Potential Assessments (RPA) for Aquatic Species at Risk. 29 pp.

Government of Canada (GoC) National Framework for Species at Risk Conservation (NFSARC) (1996).

Government of Canada (GoC) Cartographic Standards and ARCGIS Templates for Maps of Species at Risk Critical Habitat for Recovery Planning Documents (2010).

Government of Canada (GoC) Guidelines for Completing Recovery Strategy Templates (2010).

Improving the Use of the "Best Scientific Information Available" Standard in Fisheries Management. Washington, DC: The National Academies Press, 2004.

Poesch MS, JMR Curtis, MA Koops. 2012. A primer on quantitative approaches for setting recovery targets and identifying critical habitat for species at risk. Can. Tech. Rep. Fish. Aquat. Sci. 2983: vii + 40 p.

Annex A: Definitions

Attribute: Attributes are measurable properties or characteristics of a feature. Attributes describe how the identified features support the identified functions necessary for the species' life processes. Together, the attributes allow the feature to support the function. In essence, attributes provide the greatest level of information about a feature, the quality of the feature and how the feature is able to support the life-cycle requirements of the species.

Best Available Information: Comprises relevant scientific, community, and Aboriginal traditional knowledge and requires the competent Minister to gather, review, and evaluate the available information during the preparation of a recovery strategy and not to disregard, ignore, or remove reliable information about a species' critical habitat. May be less than precise and less than exact.

Features and attributes: Together, these two defined terms are the chemical, biological and physical 'characteristics' of an ecosystem or part thereof, which together allow a species to perform a function necessary for its life cycle.

Critical Habitat: The habitat that is necessary for the survival or recovery of a listed wildlife species and that is identified as the species' critical habitat in the recovery strategy or in an action plan for the species (as defined in SARA s. 2(1)).

Function: A life-cycle process of the listed species taking place in critical habitat (e.g., spawning, nursery, rearing, feeding and migration). The function informs the rationale for its protection. The identification of critical habitat must describe how the functions support a life process of the species at risk.

Feature: Every function is the result of a single or multiple feature(s), which are the structural components of the critical habitat. Features describe *how* the habitat is critical to meeting the species' needs. Features may change over time and are usually comprised of more than one part, or attribute. A change or disruption to the feature or any of its attributes may affect the function and its ability to meet the biological needs of the species.

Geographic: The spatial location on a landscape, generally described in terms of Latitude and Longitude.

Habitat in respect of aquatic species (as defined in SARA): Spawning grounds and nursery, rearing, food supply, migration and any other areas on which aquatic species depend directly or indirectly in order to carry out their life processes, or areas where aquatic species formerly occurred and have the potential to be reintroduced (SARA s.2(1)).

Peer Review: A review and evaluation of information by others working in the same field, based on consensus.