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# MISSING THE SAFETY NET:

## LACK OF PROTECTION FOR CANADA'S MARINE FISH SPECIES-AT-RISK

Canada's oceans contain many marine fish populations that are at risk of disappearing from our waters, but continue to be the target of commercial fisheries – including iconic species like Atlantic cod, sockeye salmon and Atlantic bluefin tuna.

“ Marine fishes in Canada's oceans are estimated to have declined in abundance by an average of 52% from 1970 to the mid-1990s.... most commercially fished stocks remain well below conservation target levels. ”

- *Royal Society of Canada 2012*

## MARINE SPECIES PROTECTION

In Canada, species-at-risk of extinction are protected under the *Species at Risk Act* (SARA) which is designed to protect and promote recovery of at-risk species and prevent species of concern from becoming depleted. However, species must be formally listed under the Act or else they are managed as any other wildlife species, regardless of the status of the population.

The process for listing under SARA is long and complicated starting with the status assessment by Canadian scientists who make up the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), as mandated by SARA. This group of wildlife experts provides the Minister of the Environment with status assessments based on the best available scientific, community, and Aboriginal Traditional Knowledge<sup>1</sup>. In doing so, they assign a category to the level of extinction risk to each species, ranging from *Not at Risk*, *Special Concern*, *Threatened* or *Endangered*. These species then enter into the SARA listing process where they may or may not be recommended for listing by the Department of Fisheries and Oceans (DFO). Typically, marine fish are not recommended because of socio-economic considerations.<sup>2</sup> When species are not listed, they are supposed to be afforded conservation measures under the *Fisheries Act*.

The failure of the Canadian government, most notably DFO, to protect marine species-at-risk under SARA has been documented in the scientific literature<sup>3,4</sup> as well as been the subject of several court cases in Canada.<sup>5</sup>



## THE SAFETY NET - IF USED EFFECTIVELY

When a marine species is denied listing, it should receive comparable conservation measures under the *Fisheries Act* to ensure that its status does not deteriorate.<sup>8</sup> *Fisheries Act* measures may include harvest limits, precautionary reference points, harvest bycatch limits and a variety of spatial and temporal closures. The Sustainable Fisheries Framework<sup>9</sup> includes policies for bycatch reduction, protection of sensitive benthic areas, rebuilding plans and precautionary management. In addition, Integrated Fisheries Management Plans (IFMPs) are developed by DFO to guide the conservation and sustainable use of marine resources. They combine the best available science on a species with industry data on capacity and methods for harvesting that species. These are also a potential tool for recovery of at-risk marine species.

A new paper, "Missing the safety net: evidence for inconsistent and insufficient management of at-risk marine fishes in Canada"<sup>10</sup> published in the *Canadian Journal of Fisheries and Aquatic Sciences*, examines the SARA listing process in detail to determine where and how it is failing marine fishes. It also examines whether or not comparable measures to those mandated by SARA are being implemented through the *Fisheries Act* for marine fishes that are not listed under species-at-risk.

### TWO DISTINCT PATHS TO REBUILDING MARINE SPECIES-AT-RISK IN CANADA

SPECIES AT RISK ACT	FISHERIES ACT
The purposes of SARA are to prevent wildlife species in Canada from disappearing, to provide for the recovery of wildlife species that are extirpated (no longer exist in the wild in Canada), endangered, or threatened as a result of human activity, and to manage species of special concern to prevent them from becoming endangered or threatened. <sup>6</sup>	The Sustainable Fisheries Framework provides the basis for ensuring Canadian fisheries are conducted in a manner which support conservation and sustainable use. It incorporates existing fisheries management policies with new and evolving policies. Overall, the Sustainable Fisheries Framework provides the foundation of an ecosystem-based and precautionary approach to fisheries management in Canada. <sup>7</sup>

<sup>1</sup> [http://www.cosewic.gc.ca/eng/sct5/index\\_e.cfm](http://www.cosewic.gc.ca/eng/sct5/index_e.cfm)

<sup>2</sup> Mooers, A.O., Prugh, L.R., Festa-Bianchet, M., and Hutchings, J.A. 2007. Biases in Legal Listing under Canadian Endangered Species Legislation. *Conservation Biology* 21 (3): 572-575.

<sup>3</sup> Favaro, B., Reynolds J.D., and Côté, I.M. 2012. Canada's weakening aquatic protection. *Science* 337 (6091). doi:10.1126/science.1225523.

<sup>4</sup> Hutchings, J.A., and Festa-Bianchet, M. 2009. Canadian species-at-risk (2006-2008), with particular emphasis on fishes. *Environmental Reviews* 17: 53-65.

<sup>5</sup> <http://www.ecojustice.ca/case/species-at-risk-delay-litigation/>

<sup>6</sup> <https://www.ec.gc.ca/alef-ewe/default.asp?lang=en&n=ED2FFC37-1>

<sup>7</sup> <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/overview-cadre-eng.htm>

<sup>8</sup> <http://www.dfo-mpo.gc.ca/species-especes/policy-politique-eng.htm>

<sup>9</sup> <http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/overview-cadre-eng.htm>

<sup>10</sup> J.M. McDevitt-Irwin, S.D. Fuller, C. Grant, and J.K. Baum. 2015. Missing the safety net: evidence for inconsistent and insufficient management of at-risk marine fishes in Canada. *Can. J. Fish. Aquat. Sci.* 72(10). doi:10.1139/cjfas-2015-0030.





## METHODOLOGY

The study compares SARA listing processes for freshwater and marine fish species, calculates the time in which various species spend in the listing process, and examines in detail any measures in place for species conservation in IFMPs, as part of the *Fisheries Act*, for commercial species. The study also assesses whether or not species-at-risk receive additional protection measures through the Marine Stewardship Council (MSC) eco-certification process.

FIGURE 1. Number of species from the Atlantic and Pacific regions under consideration for SARA, listed or not listed.

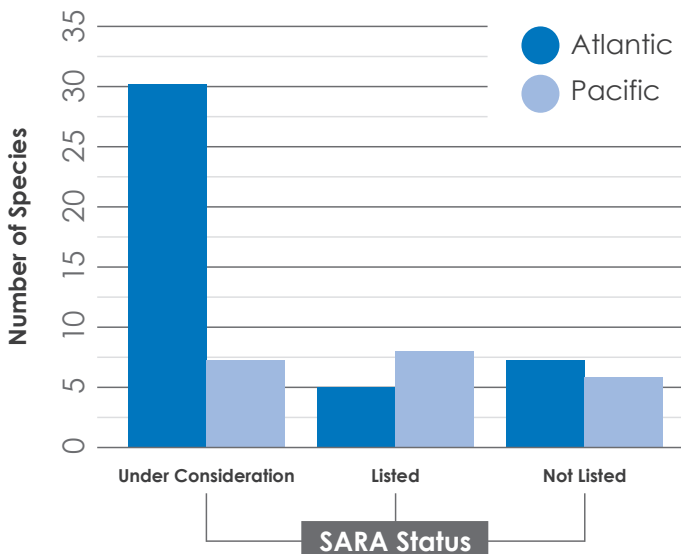






TABLE 1. Species Assessed by the Committee on the Status of Endangered Wildlife in Canada and Awaiting Designation under Canada's Species At Risk Act:

	COSEWIC ASSESSMENT DATE	COSEWIC STATUS	# OF YEARS IN SARA PROCESS
 <b>Cod</b> <i>Gadus morhua</i>	April, 2010	Endangered	5.25
 <b>Porbeagle</b> <i>Lamna nasus</i>	Assessed as endangered in May, 2004 and denied in June, 2006. Reassessed May, 2014.	Endangered	Total years since first assessed 11.17
 <b>Bluefin Tuna</b> <i>Thunnus thynnus</i>	May, 2011	Endangered	4.17
 <b>Sockeye Salmon</b> <i>Oncorhynchus nerka</i>	April, 2006	Endangered	9.25



## FINDINGS

The study showed that while measures do exist on paper that could potentially recover marine fish species-at-risk, these measures are not implemented consistently or effectively enough to actually promote recovery of depleted species.

The analysis found the following factors undermine the effectiveness of *Fisheries Act* measures for species-at-risk:

- **Species wait an average of 3.25 years while being considered for listing under SARA** (after their status has been assessed by COSEWIC and a recommendation has gone to Environment Canada and the Department of Fisheries and Oceans). **During this time they receive no additional conservation measures, and as a result their status sometimes deteriorates during the listing process** (Table 1).
- **Threatened and Endangered fish species-at-risk are LESS likely to be listed under SARA despite their higher threat status.** Their listing takes longer than those of species of special concern and more than 70% have been denied listing despite being at greater risk. Species of special concern are more likely to be listed because they do not require recovery action plans, and only regular management plans (which most marine fish species already have under the *Fisheries Act*).
- ***Fisheries Act* measures are more likely to be implemented for marine fish species-at-risk in the Pacific region, than the Atlantic region even though there are more at-risk fish in the Atlantic** (42 compared to 21) (Figure 1).
- **Of the marine fish species-at-risk that are denied protection under SARA, most do not receive the full suite of *Fisheries Act* conservation measures available on paper.** Threatened and endangered species currently not listed under SARA receive 50-54% of the management measures available under the *Fisheries Act* that could encourage recovery.
- **The Marine Stewardship Council (MSC), a seafood certification body, does not provide additional conservation measures for non-listed marine fish species-at-risk.** In order to receive "Endangered-Threatened-Protected" protection measures under MSC, a species must be listed under SARA.

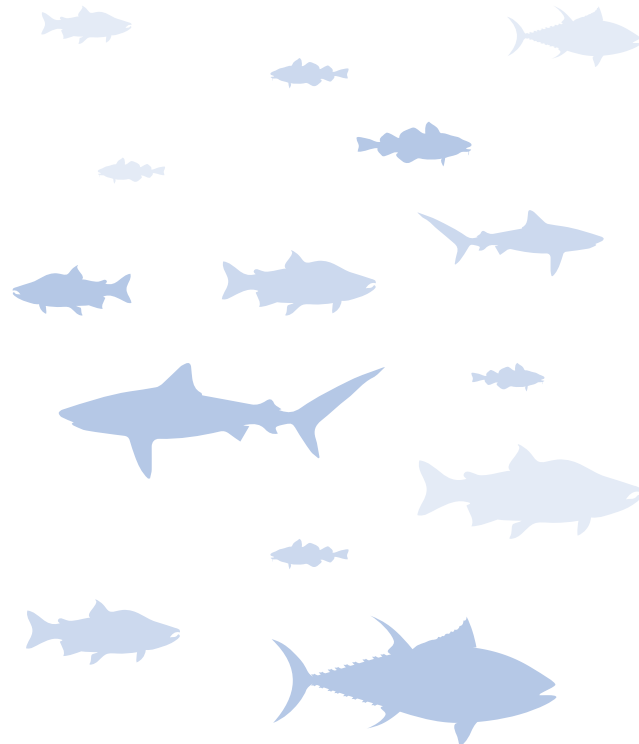
## RECOMMENDATIONS

The study recommends that full and consistent implementation of *Fisheries Act* measures could positively impact Canadian marine fish species-at-risk. The following steps could significantly benefit these fish in all regions:

- 1** **DFO should develop and implement effective management measures either through SARA or the *Fisheries Act*, as soon as a marine species is assessed by COSEWIC.**
- 2** **If a commercially impacted marine fish species is assessed as Threatened or Endangered and either under consideration or not-listed under SARA, DFO should:**
  - I. Develop a suite of management measures to be included in IFMPs that should lead to population recovery;
  - II. Determine quota and precautionary reference points based on progress made on rebuilding stocks for these species;
  - III. Ensure that IFMPs consistently include both the Bycatch and Sensitive Benthic Areas policies and associated management measures including timelines and targets for implementation of such measures;
  - IV. Use the habitat protection provisions of the *Fisheries Act* to identify critical fish habitat and include its protection under IFMPs, including spatial and temporal closed areas and gear restrictions, based on threats identified in COSEWIC assessments;
  - V. Conduct regular and transparent assessments of progress toward stock rebuilding to hold managers accountable, including the identification of priorities for recovery and rebuilding of marine fish populations; and
  - VI. Develop effective collaborations between fisheries managers and species-at-risk staff within DFO with both fishing industry and non-government stakeholders to achieve comprehensive management measures.
- 3** **We recommend third party eco-certification schemes, and the Marine Stewardship Council (MSC) in particular:**
  - I. Ensure that certification criteria adhere to best practices identified in both national and international policy, particularly with regards to addressing bycatch and habitat protection concerns; and
  - II. Ensure that MSC conditions include not-listed species-at-risk, particularly those listed by COSEWIC as Threatened or Endangered. Conditions should be required and applied to meet species recovery targets and timelines, otherwise certification certificates should be revoked.



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J.M. McDevitt-Irwin, S.D. Fuller, C. Grant, and J.K. Baum. 2015. Missing the safety net: evidence for inconsistent and insufficient management of at-risk marine fishes in Canada. *Can. J. Fish. Aquat. Sci.* 72(10). doi:10.1139/cjfas-2015-0030.

<http://www.nrcresearchpress.com/doi/full/10.1139/cjfas-2015-0030>