

# SPECIES AT RISK ACT

2008 Legal Listing Consultation Workbook

# CANARY ROCKFISH, BOCACCIO ROCKFISH, BASKING SHARK, MISTY LAKE STICKLEBACKS, AND WESTSLOPE CUTTHROAT TROUT



Canada

# Why Consult?

In BC this year there are five aquatic species designated as at risk by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Your input is appreciated on these species. Annually DFO holds community dialogue sessions, which are a good opportunity to participate in the consultation process for species assessed by COSEWIC as being at risk in the Pacific region.

# **Objective of this Consultation**

Your views are sought to assist the Government of Canada in making an informed decision on whether to add any or all of the five aquatic species to Schedule 1 (List of Wildlife Species at Risk) of the *Species at Risk Act* (SARA). Only Governor in Council can decide to legally list a species and the Ministers need to know what the effects will be: on the species under consideration, other species and Canadians. What does listing really mean, from all perspectives?

The species include: canary rockfish (assessed as Threatened), bocaccio rockfish (Threatened), basking shark (Endangered), Misty Lake Sticklebacks (Endangered), and Westslope cutthroat trout (Special Concern).

This workbook provides background information on SARA and the species being considered for legal listing. Questions are provided to <u>guide</u> your feedback throughout the workbook. Please complete any or all of the questions applicable to you, starting on the next page but feel free to provide any additional comments. Your opinions, ideas, knowledge, and advice are important and will help the Government of Canada assess the impacts of legally listing any or all of these species.

Download a Word or pdf version of the workbook, fill it out by hand and: fax to: 604-666-3341.

or **mail to**:

Fisheries and Oceans Canada Attn: Species at Risk Consultations 200 – 401 Burrard Street Vancouver, BC, V6C 3S4

Workbooks must be submitted by December 30th, 2008



# Consultation Workbook Contact Information (optional but appreciated): Name:\_\_\_\_\_Affiliation:\_\_\_\_ Address: Phone:\_\_\_\_\_Email:\_\_\_\_\_ 1) Which sector(s) do you represent? Check all that apply. Academic Commercial Fishing/Processing/Sales Agriculture Forestry Recreational Fishing П **Environmental Organization** Government Stewardship Group П Tourism П Other 2) Are you familiar with the Species at Risk Act? Yes ☐ No☐ Check all that apply. Not familiar П I have read all or part of the Act I have received written information (e.g. pamphlets) I have participated in information and/or consultation sessions П I have received information from the media П Other 3) Where do you reside?

	North Coast BC	Lower mainland
	Central Coast BC	Interior BC
	Central Coast BC	Other In BC
_	Vancouver Island	



Sunshine Coast Outside British Columbia

Glossary of Terms: The wording of the Species at Risk Act (SARA) isn't always 'user friendly' so below is a series of definitions.

**Action Plan:** A document that sets out specific ways to put a recovery strategy into effect.

Aquatic species: All 'fish' including:

- a) parts of fish;
- b) shellfish, crustaceans, marine animals, and any parts of shellfish, crustaceans, or marine animals; and
- c) the eggs, sperm, spawn, larvae, spat, and juvenile stages of fish, shellfish, crustaceans, and marine animals.

**Competent Minister:** The Minister of Fisheries and Oceans is the competent minister for listed aquatic species. The Minister of the Environment, through Parks Canada Agency, is the competent minister for listed species found in national parks, national historic sites, and other national protected heritage areas. The Minister of the Environment is also the competent minister for all other listed species and for the overall administration of the law.

**COSEWIC:** Committee on the Status of Endangered Wildlife in Canada.

**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 action plan.

**Habitat:** In respect to aquatic species, 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.

**Endangered species:** A wildlife species that is facing imminent extirpation or extinction.

**Extirpated species:** A wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild.

**Recovery Strategy:** A document prepared by the competent minister in cooperation and consultation with other governments, wildlife management boards, Aboriginal organizations, landowners, and others who are likely to be affected by the strategy. It identifies the population goal and objectives, and broad recovery approaches to abate threats.

**Species of special concern:** A wildlife species that may become a threatened or endangered species because of a combination of biological characteristics and identified threats.



**Threatened species:** A wildlife species that is likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction.

# What is the Species at Risk Act?

The Species at Risk Act was created to ensure the survival of wildlife species and the protection of our natural heritage. It requires Canada to provide for the recovery of species at risk due to human activity, and to manage species of special concern to make sure they do not become endangered or threatened. It provides protection for species, their residences and critical habitats.

# Legal Listing - What does this mean?

A species is not protected under SARA until it is included in the List of Wildlife Species at Risk (Schedule 1 of the Act) as an extirpated, endangered or threatened species.

## The Process:

After COSEWIC assesses the species, the Governor in Council receives the COSEWIC assessments and the advice from public consultations, they must do one of the following:

- Accept the assessment and add the species to the List; ...(List)
- Decide not to add the species to the List; ...(Don't List) or
- Refer the current assessment back to COSEWIC for further information or consideration. ...(Send Back)

The decision on whether to List the species takes into account the COSEWIC assessment, information received from consultations and factors such as potential social and economic impacts of the listing. COSEWIC considers only the biological concerns of the species in their assessments. The Governor in Council must consider all factors.

A diagram of the process is below.



# Consultation Workbook **ASSESSMENT** -COSEWIC Designations **LEGAL LISTING** -Response Statement -Consultation -Receipt by Governor in Council -30-day Comment Period -Listing Decision SPECIAL CONCERN THREATENED OR **SPECIES ENDANGERED SPECIES** -No automatic -Automatic prohibitions Critical prohibitions -Recovery Strategies and Habitat -Management Plan Action Plans must be Identification

#### **Protection**

must be prepared

Once species are legally listed as extirpated, endangered or threatened, they are automatically protected from a number of actions: SARA prohibits killing, harming, harassing, capturing, taking, possessing, collecting, buying, selling, or trading, and damaging or destroying the residences and critical habitats of species that are legally listed.

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SARA prohibitions only apply to species listed as extirpated, endangered and threatened, and not to species of special concern. Further, existing protections and prohibitions, such as those authorized by the *Fisheries Act*, *Migratory Birds Convention Act* and the *Canada National Parks Act*, continue to be in force.

### **Recovery and Management Planning**

The recovery process is designed to improve the status of species at risk. There are two parts to the recovery planning process for species listed as extirpated, endangered, or threatened: 1) the development of a recovery strategy, which identifies threats to the species, describes recovery objectives for that species, and which may identify the species' critical habitat; 2) the development of an action plan, which describes activities to be carried out to promote the recovery of the species, and identifies critical habitat. Action plans are the method used to



implement the recovery strategies. Recovery strategies and action plans are only developed for species listed as extirpated, endangered or threatened. For species of special concern, management plans will be developed (or existing plans may be adopted if adequate), outlining conservation measures and species' habitats.

The timeline for recovery strategies is one year after legal listing for endangered species, two years for species listed as extirpated or threatened, and three years for a management plan for a species of special concern.

# **Species Information**

This workbook is structured to provide specific information on each of the five COSEWIC-designated species that are currently being considered for SARA legal listing. Information on the species from the COSEWIC status report is provided on the status and the reason for designation by COSEWIC (Endangered, Threatened, Special Concern), distribution (area found) and biological characteristics (size, lifespan, age of maturity, spawning frequency and success), potential protective measures, and impacts. For the full COSEWIC status report for each species, including the threats, please visit: <a href="https://www.sararegistry.gc.ca">www.sararegistry.gc.ca</a>.

In your comments, please address:

- any impacts that you are aware of that would result from listing or not listing a species, and
- any impacts that could result from recovery or management actions that would be needed to comply with the prohibitions for species listed as extirpated, endangered, and threatened and to achieve recovery or management objectives.

Generally, actions taken to comply with automatic prohibitions are immediate, while those implemented to achieve recovery or management objectives are longer term. A recovery strategy will likely expand the initial management measures taken to protect species listed as extirpated, endangered, or threatened. Measures recommended in a recovery strategy or management plan will only be implemented after further consultations.

Canary Rockfish (Threatened)	pg. 8
Bocaccio Rockfish (Threatened)	pg. 14
Basking Shark (Endangered)	pg. 19
Misty Lake Sticklebacks (Endangered)	pg. 25
Westslope Cutthroat Trout (Special Concern)	pg. 30



Canary Rockfish (Sebastes pinniger)



Status: Threatened

Last Examination by COSEWIC:

November 2007

Species biology and distribution:

Canary rockfish are found from the western Gulf of Alaska (Shelikof Strait) to northern Baja California. Populations are most abundant between B.C. and northern California. They are broadly distributed in continental shelf and coastal waters of B.C.

Maximum observed length, weight, and age for canary rockfish from B.C. waters are 68 cm, 5.7 kg, and 84 y, respectively. Like all rockfish, they have closed swim bladders and will usually die if released after routine capture.

COSEWIC Reason for Designation:

A comparatively large (maximum weight 5.7 kg), orange-yellow fish that typically inhabits rocky bottoms at 70-270 m depths from the western Gulf of Alaska south to northern California. Its late maturity (13 years for females), long maximum lifespan (84 years), and long generation time (20-30 years) are characteristic of species that are slow to recover following population decline. The species is treated as a single designatable unit. Two surveys in the southern part of its Canadian range considered the most reliable indicators of population trend, and show abundance index declines of 78% and 96% over 30 years and 17 years respectively. Survey indices from the northern part of the range and commercial catch per unit effort indices show no



consistent trends but are of relatively short duration and are in some cases based on methods which do not adequately sample areas inhabited by the species. There is uncertainty due to high variability in the various index series (characteristic of trawl surveys) and the unknown degree to which abundance trends in the southern part of the Canadian range reflect abundance trends throughout the species' range in Canadian waters. Fishing is the most likely cause of the observed decline. Changes to management since 1995 include 100% observers or video monitoring coverage and implementation of individual transferable quotas, which are expected to improve control of fishing. Rescue from contiguous populations to the south is unlikely given that current abundance in the US is estimated at 5-10% of unfished levels, and rescue from populations to the north is uncertain because their status is not well known. Stakeholders may be impacted from compliance with automatic prohibitions, development and implementation of a recovery strategy, and the identification of critical habitat.

Possible Protective Measures and Impacts:

Stakeholders may be impacted by compliance to automatic prohibitions, by the outcomes of development and implementation of a recovery strategy and as the identification of critical habitat is completed.

Examples of potential measures available for DFO consideration that should ensure planning objectives for canary rockfish and other species that may be subject to listing may include:

- Harvest reductions for all sectors
- Prohibitions of commercial sales, purchase and possible possession.
- Implementations of fishery restrictions such as time and area closures, gear restrictions.
- Need for ongoing research and monitoring funding to properly allow assessment of population status, biology, critical habitat, potential threats and recovery results.

Recent reviews of available fishery data indicate that the majority of canary rockfish are taken in the groundfish commercial (trawl and hook and line) fisheries; therefore a focus will be on developing protective strategies in



those fisheries. However, given the widespread distribution of this species throughout coastal B.C., and uncertainty in the level of interceptions in other commercial, the recreational and First Nation fisheries also require development of strategies for these to ensure recovery of the species.

These broad ranges of measures have the potential for impact on First Nations food, social, and ceremonial fisheries, commercial groundfish trawl, groundfish hook and line, recreational fisheries, other interest groups and industries.

It should be noted that recovery and management measures will be developed through the recovery planning process and implemented following further consultation with stakeholders.

Listing canary rockfish as Threatened could benefit protection and aid in the recovery of this important part of Canada's marine biodiversity, but has potential for significant impacts throughout coast British Columbia.



Consultation	Workbook
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1) Have you		SEWIC statu	s report for ca	nary rockfish?	
as a Threa	tened species	. A species is	not protected	nary rockfish unde under SARA unles ildlife Species at R	s it is
	YES Legal List	NO Don't list	Undecided	Not familiar with species	
Canary Rockfish					
for endang curtail acti measures a effects of f	ered, threaten vities that neg and impacts for	ed or extirpa atively affect canary rockfis y efforts for c	ted species. R the species (so sh). <u>In your opi</u>	ould automatically lecovery measures lee the possible prote nion, what would b on you and your fa	could ective oe the
	Substantial	Moderate benefits	No effects (no benefits &	Moderate costs	Substantial costs
	benefits	Dellellis	no costs)		
Canary Rockfish	Denetits		no costs)		
Rockfish  4) What wo		□ est significan		and your family? \	
4) What wo would be to	ould be the mother most significant of First Nation  → Have you as	est significant cost?	t benefit to you	<del>_</del>	



Consultation Workbook					
No					
Please select one of the following fo	or each sta	atement be	elow:		
	STRONGLY DISAGREE	SOMEWHAT DISAGREE	INDIFFERENT	SOMEWHAT AGREE	STRONGLY AGREE
I believe this species needs special protection or care from human interactions and/or activities.					
I believe protection of this species will have a positive effect on my business/career.					
I believe listing is the best way to have the Government of Canada allocate federal funding to support recovery of this species.					
I believe a legal listing of this species may restrict my recreational, employment or personal activities.					
I am prepared to suffer a loss in revenue to protect a species at risk.					



Consultation Workbook	
I value this species even though I may never see one personally.	
Please specify any <u>additional reasons or your sision ther portor or oppose listing of canary rockfish.</u> In particular please poide information that you feel the Government of Canada should use in making its decision.	
<u>I</u>	



**Bocaccio** (Sebastes paucispinis) (Photo on front of workbook)

Status:

Threatened

Last Examination by COSEWIC:

November 2002; Reaffirmed by COSEWIC November 2006
Note: Bocaccio was proposed for listing as Threatened under SARA
in 2004; however, the species assessment was referred by the
Governor in Council back to COSEWIC for further consideration.
Bocaccio has re-entered the listing process, after COSEWIC
confirmed its designation of Threatened in November 2006.

Species biology and distribution:

Bocaccio are found in coastal waters of the eastern Pacific Ocean. Most (British Columbia) catches come from the outer Pacific Coast, with the largest catches coming from the northwest end of Vancouver Island and Queen Charlotte Sound. Bocaccio have physoclistic swim bladders that can not rapidly accommodate the sudden change in pressure as they are brought to the surface. As a result they will die when captured from waters deeper than 20-30m.

COSEWIC Reason for Designation: A combination of low recruitment and impact by harvest has resulted in severe declines and low spawning abundance of this Canadian species. Although Bocaccio meets the criteria for greater than 50% decline in the population to give it an Endangered designation, the sampling was limited to the southern part of the range and therefore was designated as Threatened.

Stakeholders may be impacted by compliance to automatic prohibitions, by the outcomes of development and implementation of a recovery strategy and as the identification of critical habitat is completed.

Possible Protective Measures and Impacts: Examples of potential measures available for DFO consideration that should ensure planning objectives for boccacio rockfish and other species that may be subject to listing may include:

- · Harvest reductions for all sectors
- Prohibitions of commercial sales, purchase and possible possession.
- Implementations of fishery restrictions such as time and area



closures, gear restrictions.

 Need for ongoing research and monitoring funding to properly allow assessment of population status, biology, critical habitat, potential threats and recovery results.

Recent reviews of available fishery data indicate that the majority of bocaccio are taken in the groundfish commercial (trawl and hook and line) fisheries; therefore a focus will be on developing protective strategies in those fisheries. However, given the widespread distribution of this species throughout coastal B.C., and uncertainty in the level of interceptions in other commercial, the recreational and First Nation fisheries also require development of strategies for these to ensure recovery of the species.

These broad ranges of measures have the potential for impact on First Nations food, social, and ceremonial fisheries, commercial groundfish trawl, groundfish hook and line, recreational fisheries, other interest groups and industries.

It should be noted that recovery and management measures will be developed through the recovery planning process and implemented following further consultation with stakeholders.

Listing bocaccio as Threatened could benefit protection and aid in the recovery of this important part of Canada's marine biodiversity, but has potential for significant impacts throughout coast British Columbia.





Species at Risk.

Со	nsultat	ion Work	kbook		
1) 	Have	e you re	ead the	e CO	SEWIC status report for bocaccio rockfish?
2)					er you support listing of bocaccio rockfish under I species. A species is not protected under SARA

unless it is legally listed, which means included in the List of Wildlife

	YES Legal List	NO Don't list	Undecided	Not familiar with species
Bocaccio Rockfish				

3) If a species is legally listed, a recovery process would automatically start for endangered, threatened or extirpated species. Recovery measures could curtail activities that negatively affect the species (see the possible protective measures and impacts for bocaccio rockfish). In your opinion, what would be the effects of future recovery efforts for bocaccio rockfish on you and your family? Please check one box per species.

	Substantial benefits	Moderate benefits	No effects (no benefits & no costs)	Moderate costs	Substantial costs
Bocaccio Rockfish					

Rockfish		<b>_</b>			
•	ould be the m the most sign	_	benefit to you	and your family	? What
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5) Are you	ı of First Nati	ons descent?			
Yes -	→ Have you	accessed boca	ccio rockfish fo	⊤ □ Yes	



Consultation Workbook					_
Food, Social or Ceremo	onial purpo	ses?	□ No		
Please select one of the following for	or each sta	atement be	low:		
	STRONGLY DISAGREE	SOMEWHAT	INDIFFERENT	SOMEWHAT AGREE	STRONGLY AGREE
I believe this species needs special protection or care from human interactions and/or activities.					
I believe protection of this species will have a positive effect on my business/career.					
I believe listing is the best way to have the Government of Canada allocate federal funding to support recovery of this species.					
I believe a legal listing of this species may restrict my recreational, employment or personal activities.					
I am prepared to suffer a loss in revenue to protect a species at risk.					



Consultation Workbook	I
I value this species even though I may never see one personally.	
Please specify any additional rease ryo cision ther or oppose listing of bocaccio rockfish. In pa ar, pl provi information that you feel the Government of Canada should use in making its decision.	
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Basking Shark (Cetorhinus maximus)



Status:

Endangered

Last Examination by COSEWIC:

April 2007

# Species biology and distribution:

Basking sharks are named after their conspicuous behaviour of 'basking' (more accurately feeding) at the surface. The basking shark is distinguished from other sharks by its large size (second largest fish in the world), elongated gill slits, pointed snout, a large mouth with minute teeth, and a crescent-shaped caudal fin. Colouration is typically blackish to grey-brown. Gill openings have prominent gill rakers.

Although there has been no research on the population genetics or population structure of basking sharks, due to its biogeographic separation from those in the Atlantic, the Pacific population of basking sharks is treated as a single COSEWIC Designatable Unit (DU). There is no evidence from either the North Pacific or North Atlantic of transoceanic movements.

Basking sharks are found circumglobally in temperate coastal shelf waters but are characterized by localized occurrences. Canadian records from Pacific waters indicate they utilize virtually all coastal temperate waters. Conventional tagging studies have yielded no tag returns. Along the Pacific coast,



basking sharks were observed historically in discrete locations off California in winter and spring and in particular areas off British Columbia in summer and fall suggesting a latitudinal migration. There are very limited observer data on bycatches of this species in Pacific waters because of the rarity with which basking sharks have been seen over the last thirty years. Historically, however, large aggregations were observed in nearshore waters along the west coast of Vancouver Island and in one location along the central mainland coast of British Columbia.

# COSEWIC Reason for Designation:

This shark species is the only extant species in the family Cetorhinidae. It occurs circumglobally in temperate coastal shelf waters, and exists in Canada as two geographically isolated designatable units – Atlantic and Pacific. The species is vulnerable to incidental fishing mortality because of its low intrinsic productivity. Females do not mature until 16 to 20 years old, gestate between 2.6 and 3.5 years (the longest known gestation period for any vertebrate), and produce litters of only about 6 "pups". These sharks are especially susceptible to entanglement in fishing gear and collision with boats because of their large size, surface behaviour and fearlessness around boats, and because their coastal distribution overlaps fishing and boating areas. Prior to 1970, large aggregations of these sharks were seasonally common in Pacific Canada, but only 6 sightings have been confirmed since 1996. This dramatic reduction in abundance is attributed to directed fisheries for liver oil (1941-1947) and an eradication program (until 1970) that killed hundreds, perhaps thousands of individuals between 1945 and 1970. The minimum historical population reconstructed from documented kills was at least 750 individuals, whereas the current population is virtually nil, implying a rate of decline exceeding 90% within < 2 generations. The species is believed to migrate seasonally between Canada and California, where regional aggregations were also severely depleted by historic fisheries. Rescue from outside Canada is unlikely.

Possible Protective Measures and Impacts: Stakeholders may be impacted from compliance with automatic prohibitions, development and implementation of a recovery strategy, and the identification of critical habitat.

Examples of potential measures to comply with automatic prohibitions and recovery planning objectives may include:



Fishery restrictions based on changes to current time, area, and gear regulations to meet catch objectives.

 Ongoing research and monitoring of population status, biology, critical habitat, and threats.

These broad ranges of measures have the potential to impact First Nations food, social, and ceremonial fisheries, commercial fisheries, recreational fisheries, other interest groups, and other industries.

It should be noted that recovery measures will be developed through the recovery planning process and implemented after further consultation.

Listing basking shark as Endangered could benefit the protection and recovery of this important part of Canada's marine biological diversity. Basking shark is Canada's largest fish species and the second largest in the world.



Consultation	Workbook
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1) Have you		SEWIC statu	s report for bas	sking shark?	
as an Enda	angered speci	es. A species	is not protecte	sking shark under ed under SARA unl ildlife Species at Ri	ess it is
	YES Legal List	NO Don't list	Undecided	Not familiar with species	
Basking shark					
for endang curtail acti measures a effects of f	ered, threaten vities that neg and impacts for	ned or extirpa atively affect basking shark y efforts for b	ted species. R the species (sec). In your opin	rould automatically ecovery measures ee the possible prote ion, what would be on you and your far	could ective ethe
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shark  4) What we would be t	ould be the mothe most significant of First Nation  → Have you as	ost significant ficant cost?	no costs)  t benefit to you	and your family? \	



Consultation Workbook					_
No					
Please select one of the following fo	or each sta	atement be	elow:		
	STRONGLY DISAGREE	SOMEWHAT DISAGREE	INDIFFERENT	SOMEWHAT AGREE	STRONGLY AGREE
I believe this species needs special protection or care from human interactions and/or activities.					
I believe protection of this species will have a positive effect on my business/career.					
I believe listing is the best way to have the Government of Canada allocate federal funding to support recovery of this species.					
I believe a legal listing of this species may restrict my recreational, employment or personal activities.					
I am prepared to suffer a loss in revenue to protect a species at risk.					



Consultation Workbook	
I value this species even though I may never see one personally.	
Please specify any <u>additional reasons for your decision to either support or oppose listing of basking shark.</u> In particular, please provide information that you feel the Government of Canada should use in making its decision.	



