Detailed COSEWIC Species Assessments, November 2006*.

Results are grouped by taxon and then by status category. A reason for designation is given for each species. A short history of status designations follows. The range of occurrence in Canada for each species (by province, territory, or ocean) is provided.

Mammals

Sowerby's Beaked Whale ***Mesoplodon bidens*** **Special Concern**
Assessment Criteria not applicable

Reason for Designation
This small beaked whale is endemic to the North Atlantic Ocean where it is found mainly in deep, offshore temperate to subarctic waters. Little is known about its biology, fine-scaled distribution, and abundance. It belongs to a family of whales (Ziphiidae) in which acute exposure to intense sounds (especially from military sonar, but also from seismic operations) has led to serious injury and mortality. Seismic operations are currently widespread and military activities involving the use of mid- and low-frequency sonar likely occur at least occasionally in the habitat of this species off Canada's East Coast. Although there is no direct evidence that such sound sources have affected this species, there is strong evidence for lethal effects on individuals of related species. Thus there is reasonable cause for concern about the potential effects on individuals of this species. The potential population-level impacts of this type of mortality are unknown.

Range Atlantic Ocean

Status History
Designated Special Concern in April 1989 and in November 2006.

Fishes

Lake Sturgeon ***Acipenser fulvescens*** **Endangered**
Winnipeg River - English River populations
Assessment Criteria A2bcd

Reason for Designation
Historically, populations in this designatable unit supported a large commercial fishery. However, there are limited historical and recent data. The limited recent data available show that populations are declining in the Winnipeg River above Seven Sisters Dam, and essentially have disappeared below the dam. Historically, overexploitation probably was the primary threat; now dams and poaching probably are the most important threats.

Range MB ON

Status History
The species was considered a single unit and designated Not at Risk in April 1986. When the species was split into separate units in May 2005, the "Western populations" unit was designated Endangered. In November 2006, when the Western populations unit was split into five separate populations, the "Winnipeg River - English River populations" unit was designated Endangered.

Lake Sturgeon ***Acipenser fulvescens*** **Endangered**
Nelson River populations
Assessment Criteria A2b

Reason for Designation
Portions of this designatable unit sustained large commercial fisheries from the early to mid-1900s, during which time there were dramatic declines in landings. More recently, a fishery at Sipiwesk Lake exhibited an 80-90% decline in landings from 1987-2000; and groups of 5-6 spawning fish were observed in the Landing River in 1990 compared to 100s observed several decades ago. Historically, overexploitation probably was the primary threat; more recently, dams probably are the most important threat.

Range MB

Status History
The species was considered a single unit and designated Not at Risk in April 1986. When the species was split into

separate units in May 2005, the "Western populations" unit was designated Endangered. In November 2006, when the Western populations unit was split into five separate populations, the "Nelson River populations" unit was designated Endangered.

Lake Sturgeon ***Acipenser fulvescens*** **Endangered**

Saskatchewan River populations

Assessment Criteria A2b

Reason for Designation

Seventy-six of 111 historic sites in Saskatchewan and Alberta have been lost and there has been an 80% decline reported in the Cumberland House area from 1960-2001. A 50% decline from 1998 to 2003 has also been reported in the lower Saskatchewan River from Cumberland House to The Pas in Manitoba.

Range AB SK MB

Status History

The species was considered a single unit and designated Not at Risk in April 1986. When the species was split into separate units in May 2005, the "Western populations" unit was designated Endangered. In November 2006, when the Western populations unit was split into five separate populations, the "Saskatchewan River populations" unit was designated Endangered.

Lake Sturgeon ***Acipenser fulvescens*** **Endangered**

Western Hudson Bay populations

Assessment Criteria A2ad; C1+2a(ii)

Reason for Designation

A precipitous > 98% decline from 1929-1939 has been followed by a slow, steady decline in the Churchill River to the point that records of mature individuals are almost non-existent in the past five years. Historically, overexploitation probably was the primary threat; more recently, dams are probably the most important threat.

Range SK MB

Status History

The species was considered a single unit and designated Not at Risk in April 1986. When the species was split into separate units in May 2005, the "Western populations" unit was designated Endangered. In November 2006, when the Western populations unit was split into five separate populations, the "Western Hudson Bay populations" unit was designated Endangered.

Lake Sturgeon ***Acipenser fulvescens*** **Endangered**

Red-Assiniboine Rivers - Lake Winnipeg populations

Assessment Criteria A2bc; C2a(i)

Reason for Designation

A very large commercial fishery existed between the late 1800s and early 1900s. Since then (i.e. in the last 3-5 generations), the species has virtually disappeared from the Red-Assiniboine River and Lake Winnipeg. This was primarily the result of overfishing, although dams probably also affect remnant populations.

Range SK MB ON

Status History

The species was considered a single unit and designated Not at Risk in April 1986. When the species was split into separate units in May 2005, the "Western populations" unit was designated Endangered. In November 2006, when the Western populations unit was split into five separate populations, the "Red-Assiniboine Rivers - Lake Winnipeg populations" unit was designated Endangered.

Misty Lake Lentic Stickleback ***Gasterosteus* sp.** **Endangered**

Assessment Criteria A3e

Reason for Designation

This lake-dwelling fish is part of an endemic, highly divergent species pair restricted to a single stream-lake complex on Vancouver Island with an extremely small area of occurrence. This species pair could quickly become extinct due the introduction of non-native aquatic species or perturbations to the habitat. Proximity of this complex to a major highway and

public access makes an introduction likely. Logging activities in the watershed, as well as highway use and related maintenance, could impact habitat quality to some degree.

Range BC

Status History
Designated Endangered in November 2006.

Misty Lake Lotic Stickleback ***Gasterosteus* sp.** **Endangered**
Assessment Criteria A3e

Reason for Designation
This stream-dwelling fish is part of an endemic, highly divergent species pair restricted to a single stream-lake complex on Vancouver Island with an extremely small area of occurrence. This species pair could quickly become extinct due the introduction of non-native aquatic species or perturbations to the habitat. Proximity of this complex to a major highway and public access makes an introduction likely. Logging activities in the watershed, as well as highway use and related maintenance, could impact habitat quality to some degree.

Range BC

Status History
Designated Endangered in November 2006.

Lake Sturgeon ***Acipenser fulvescens*** **Threatened**
Great Lakes - Upper St. Lawrence populations
Assessment Criteria Meets criteria for Endangered A2abcd, but designated Threatened A2abcd because although a quarter of the populations have been lost, more than half of the remaining populations are either stable or recovering.

Reason for Designation
A very large commercial fishery existed in the Great Lakes between the mid-1800s and early 1900s (i.e. 2-3 generations ago) during which time populations of this species were reduced to a small fraction of their original size, and appear to be still at very low levels. Populations appear to be declining in parts of the Ottawa River, and disappearing from many of its tributaries due to dams. There has been a recent decline in the population in the St. Lawrence River probably due to over-exploitation despite recovery efforts. The direct and indirect effects of dams, chemical control of sea lamprey, contaminants and invasive species currently threaten populations.

Range ON QC

Status History
The species was considered a single unit and designated Not at Risk in April 1986. When the species was split into separate units in May 2005, the "Great Lakes - Upper St. Lawrence populations" unit was designated Special Concern. Status re-examined and designated Threatened in November 2006.

Westslope Cutthroat Trout ***Oncorhynchus clarkii lewisi*** **Threatened**
Alberta population
Assessment Criteria B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v); C2a(i)

Reason for Designation
Native populations have been reduced by almost 80% through over-exploitation, habitat degradation, and hybridization / competition with introduced, non-native trout. Remaining, genetically pure, individuals persist as mainly severely fragmented, remnant headwater populations. It should be noted that this assessment includes only genetically pure, native populations of the species occurring within their historical range. Any populations known either to be hybridized significantly (i.e. >1%) with other trout species, or to have been introduced into a system previously free of native populations, were not assessed.

Range AB

Status History
Designated Threatened in May 2005 and in November 2006.

Lake Sturgeon ***Acipenser fulvescens*** **Special Concern**
Lake of the Woods - Rainy River populations

Assessment Criteria not applicable

Reason for Designation
Historically, populations in this designatable unit supported a substantial commercial fishery. Although this led to a severe decline, recovery has been sustained since 1970. Dams have not impeded access to important stretches of suitable habitat, but do restrict immigration from the adjacent Winnipeg River.

Range ON

Status History
The species was considered a single unit and designated Not at Risk in April 1986. When the species was split into separate units in May 2005, the "Lake of the Woods - Rainy River populations" unit was designated Special Concern. Status re-examined and confirmed in November 2006.

Lake Sturgeon ***Acipenser fulvescens*** **Special Concern**

Southern Hudson Bay - James Bay populations

Assessment Criteria not applicable

Reason for Designation
There are limited population data available for populations in this designatable unit and there have been declines in habitat and possibly abundance for some population components related to exploitation and the multitude of dams. The increased access to relatively unimpacted populations and the likelihood of increased hydroelectric development in some areas are causes for concern for this designatable unit.

Range MB ON QC

Status History
The species was considered a single unit and designated Not at Risk in April 1986. When the species was split into separate units in May 2005, the "Southern Hudson Bay - James Bay populations" unit was designated Special Concern. Status re-examined and confirmed in November 2006.

Westslope Cutthroat Trout ***Oncorhynchus clarkii lewisi*** **Special Concern**

British Columbia population

Assessment Criteria not applicable

Reason for Designation
Populations are stressed by hybridization and competition with introduced species. Furthermore, expanding urban development, agricultural activities and resource-based industries are expected to lead to additional stresses associated with habitat loss and degradation, as well as increased exploitation. It should be noted that this assessment includes only genetically pure, native populations of the species occurring within their historical range. Any populations known to be hybridized significantly (i.e. >1%) with other trout species, or to have been introduced into a system previously free of native populations, were not assessed.

Range BC

Status History
Designated Special Concern in May 2005. Status re-examined and confirmed in November 2006.

Greenside Darter ***Etheostoma blennioides*** **Not at Risk**

Assessment Criteria not applicable

Reason for Designation
Recent surveys have shown that the species is widespread and abundant in the Ausable, Sydenham and Thames rivers as well as Lake St. Clair. The total Canadian population has also increased through the recent colonization of the Bayfield River, Big Otter Creek, Detroit River and Grand River. Rescue of greenside darter populations in Canada is possible from Michigan populations.

Range ON

Status History
Designated Special Concern in April 1990. Status re-examined and designated Not at Risk in November 2006.

Vascular Plants

Scouler's Corydalis ***Corydalis scouleri*** **Not at Risk**

Assessment Criteria not applicable

Reason for Designation

A conspicuous perennial herb of riverside habitats that is restricted to a small region of south-western Vancouver Island. The species was previously assessed as threatened but is now known to be present at additional locations and is much more abundant than previously documented. There is no evidence of population decline or fluctuation and no significant threats appear to affect the species. More than one-half of the population is now in protected areas specifically managed for this species and, since extensive areas of suitable habitat remain to be surveyed, additional populations will likely be discovered.

Range BC

Status History

Designated Threatened in May 2001. Status re-examined and designated Not at Risk in November 2006.

Mosses

Nugget Moss ***Microbryum vlassovii*** **Endangered**

Assessment Criteria D1

Reason for Designation

In North America, this globally rare moss is known from only three localized sites. Two of these sites are in semi-arid areas of south-central British Columbia. Recent surveys have re-located the species at only one of these. This moss grows on fine soils on the steep portions of silt banks in early stages of plant community development. The extremely small populations render this moss vulnerable to disturbance. Threats include potential road development and maintenance of existing roads, and collection of specimens.

Range BC

Status History

Designated Endangered in November 2006.

* The status reports on Wood Turtle (*Glyptemys insculpta*) and Chimney Swift (*Chaetura pelagica*) were withdrawn. These species will be re-considered by COSEWIC in April 2007. The status report on the Loggerhead Seaturtle (*Caretta caretta*) was rejected and a revised version of the status report will be prepared.

11/12/2006