



Coaster Brook Trout

Questions and Answers about the 12-month “Not Warranted” Finding

1. What action is the Service taking?

The U.S. Fish and Wildlife Service made a finding that listing the coaster brook trout (*Salvelinus fontinalis*) as endangered under the Endangered Species Act is not warranted.

This finding was made in response to a petition to list the coaster brook trout as endangered that was made by the Sierra Club (Mackinac Chapter) and the Huron Mountain Club. Those petitioners were later joined by Marvin J. Roberson Jr., who submitted supplemental information for the petition. On March 20, 2008 the Service made a preliminary (90-day) finding that the petition contained enough information to indicate that listing the coaster brook trout may be warranted. Since then, the Service has been conducting a thorough review and analysis of available information. Based on that review we have found that listing the coaster brook trout as endangered is not warranted.

2. What is a petition?

A petition is a request to the U.S. Fish and Wildlife Service (Service) to list a species as threatened or endangered. A petition may also request that a species be delisted or that a currently listed species be reclassified.

3. What is a coaster brook trout?

Coaster brook trout are a “life history” form of brook trout in the Great Lakes and are broadly defined as brook trout that use waters of the Great Lakes for all or a portion of their life cycle. Brook trout that complete their life cycle in tributaries to the Great Lakes are stream residents and are not “coasters.”

Coaster brook trout tend to live longer (5 to 8 years versus less than 5 years) and grow larger (12 to 25 in. versus 0.5 to 5 in. and 0.75 to 5 pounds versus less than 1 pound) than stream resident brook trout.

4. Why are the petitioners concerned about coaster brook trout?

Coaster brook trout are big, colorful, highly sought-after sport fish. They were once abundant and widespread throughout the northern portions of the Great Lakes, but now are limited to only a few locations. Historically, 119 tributaries to Lake Superior and possibly six Lake Huron streams supported coaster brook trout. Presently, only 15 stream-spawning and three lake-spawning populations are known to persist. Four of those populations are in the U.S: one in the Salmon Trout River in the Upper Peninsula of Michigan and three on Isle Royale.

5. What is causing the coaster brook trout population to decline?

Coaster brook trout populations in the Upper Great Lakes are threatened primarily by habitat degradation, overutilization, and interactions with nonnative species.

Coaster populations have declined since the 1880s due to historic logging, agriculture, and mining activities. These activities continue today, but increased regulatory oversight, prevalent use of stream best management practices, and local watershed advocacy groups have succeeded in reducing impacts and restoring some stream sections.

Coaster brook trout populations were over-harvested by the early 1900s, due to intense sport fishing pressure coupled with near shore commercial fishing. Today, regulations governing their harvest are variable throughout the Great Lakes. Adequate protective regulations are available throughout Lake Superior and uniformly applied by the States of Michigan, Minnesota and Wisconsin and the Province of Ontario in Lake Superior waters. But regulations in tributaries to Lake Superior are not similar across jurisdictions and in some cases are inadequate for ensuring the continued presence of coasters.

Non-native trout and salmon have been widely introduced throughout the Upper Great Lakes. Interactions with these non-natives, such as predation on young and competition for food and spawning sites, are considered significant threats to coasters.

6. If coaster brook trout are not a species or subspecies, how can they be considered for listing under the Endangered Species Act?

The definition of “species” under the Endangered Species Act includes Distinct Population Segments. Our analysis included determining whether a Distinct Population Segment exists. Additionally we also considered whether brook trout within the upper Great Lakes constituted a “significant portion of the range” of brook trout and whether that portion of the range is endangered or threatened.

7. Was a coaster brook trout Distinct Population Segment identified for this 12-month finding?

No, we were not able to identify a valid Distinct Population Segment (DPS). We considered three possible DPSs in our analysis: (1) coaster brook trout in the upper Great Lakes, (2) all brook trout in the upper Great Lakes, (3) Salmon Trout River/South Shore Lake Superior. We found that none of these population segments constituted a valid DPS.

To determine whether these brook trout populations could be considered a DPS we considered the following three elements, as directed by the Service’s DPS policy¹:

(1) The discreteness of the population segment in relation to the remainder of the species to which it belongs;

(2) The significance of the population segment to the species to which it belongs; and

¹ Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act (61 FR 4722; February 7, 1996).

(3) The population segment's conservation status in relation to the ESA's standards for listing (that is, whether the population segment, when treated as if it were a species, is endangered or threatened).

We determined that these three population segments in the upper Great Lakes are discrete (Step 1), but none significantly contributes to the future existence of brook trout when considered within the context of populations of brook trout found throughout their entire range (Step 2). Thus no population is a valid Distinct Population Segment and we did not move on to the third step of evaluating conservation status (Step 3).

8. If the coaster brook trout population has declined, why did the Service find that listing as endangered was not warranted?

Coaster brook trout are the same species as brook trout, *Salvelinus fontinalis*. Rather than being a subspecies, they are a “life history form.” Another “life history” form of brook trout are stream-residents (they complete their entire life history within tributaries to the Great Lakes, but never enter the Great Lakes). Experts contend that if environmental conditions are suitable, the coaster “life form” of brook trout can be readily reconstituted from the stream-resident “life form” of brook trout. Thus the population health of coasters is essentially equal to the population health of brook trout in the upper Great Lakes. Although coaster brook trout have declined and threats remain, there are at least 200 brook trout populations within the upper Great Lakes and the overall population number of brook trout within the upper Great Lakes remains high. Further, we determined that coaster brook trout do not compose a DPS and thus are not a listable entity under the ESA.

9. What steps are being taken to benefit coaster brook trout?

State, Tribal, Federal and Provincial agencies have been actively involved in brook trout management activities that include regulatory changes, habitat restoration and reintroduction projects.

Service biologists worked with staff from resource agencies in Canada and the U.S. to develop a Brook Trout Rehabilitation Plan for Lake Superior. The plan calls for protection and rehabilitation of coasters in as many of their original habitats as possible. To bring back the coasters, three approaches are being used: protection from overharvesting of remaining stocks; rehabilitation of spring-fed areas of streams; and, redesign or removal of dams blocking access to those streams.

Since the early 1990s, coaster brook trout rehabilitation efforts on the part of all government entities with appropriate jurisdiction have increased and progress has been made in coordinating management among the various agencies. The Minnesota and Wisconsin DNRs have developed internal operational plans to advance brook trout restoration activities within their states.

In 2005, adequate protective regulations for brook trout were in place throughout Lake Superior and uniformly applied by the states of Michigan, Minnesota and Wisconsin and the Province of Ontario in Lake Superior waters. Additionally, Wisconsin and Michigan have special protective regulations (for example, catch and release only or 18 in. (46 cm) minimum size limit) in place on select streams.

Since the 1990s, attempts have been made to rehabilitate or re-introduce brook trout populations in Lake Superior by stocking brook trout originating from within the basin. To date these rehabilitation stocking efforts have had limited success. Stocking continues in some areas to establish new populations and increase the abundance and geographic distribution of coasters in Lake Superior. From 2001-2005, nearly 2.2 million Lake Superior basin strains of brook trout were stocked in the lake or in tributaries to the lake that are accessible to migratory fish.

10. How do I get more information about coaster brook trout and the Service's 12-month finding?

The *Federal Register* publication of the "12-Month Finding on a Petition to List the Coaster Brook Trout under the Endangered Species," as well as background information about the coaster brook trout is available on the internet at

http://www.fws.gov/midwest/eco_serv/soc/fish/cobr/ or you can get a copy of the *Federal Register* Notice and additional information by writing to:

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