

FAQs on NMFS' Species of Concern & Candidate Species

1. **What is a candidate species?**

The regulations implementing section 4 of the ESA (49 FR 38900; October 1, 1984) define "candidate" as "any species being considered by the Secretary for listing as an endangered or a threatened species, but not yet the subject of a proposed rule." 50 CFR 424.02 Such a designation does not confer any procedural or substantive protections of the ESA on the candidate species.

2. **Have most of the candidate species been on NMFS' candidate species list because they were being considered for listing as threatened or endangered?**

No. The majority of the candidate species have been on our candidate species list because there is concern or great uncertainty about biological status and threats, not because they are actively being considered for listing under the ESA. Regardless, because they are termed "candidate species," this has led the public and individuals within our own agency to believe that these species are going to be listed as threatened or endangered under the ESA in the near future.

3. **What has NMFS done to alleviate this confusion?**

NMFS created the species of concern list in 2004. The initial list transferred 25 "candidate" species to a new "species of concern" list, added 20 other species to the "species of concern" list, and removed 12 species from the "candidate" species list.

4. **What is the purpose of the "species of concern" list?**

The primary purpose of identifying species of concern is to prevent the need to list them as threatened or endangered under the ESA. Per the notice, this purpose can be achieved if we: (1) Identify species potentially at risk; (2) increase public awareness about those species; (3) identify data deficiencies and uncertainties in species' status and threats; (4) stimulate cooperative research efforts to obtain the information necessary to evaluate species status and threats; and (5) foster voluntary efforts to conserve the species before listing becomes warranted.

5. **How are species of concern identified?**

NMFS considers demographic and genetic diversity concerns, as further elaborated by the following factors, in identifying species of concern: abundance and productivity (e.g., the magnitude of decline, natural rarity, and restricted endemism); distribution (e.g., population connectivity, limited geographic range and restricted endemism); and life-history characteristics (e.g., vulnerable life-history strategies, resilience to environmental variability and catastrophes, or the loss of unique life-history traits).

- *Magnitude of decline* is a combination of the recent rate of decline (e.g., a 5-10 year average) of a species or population, and the historical extent of decline (over as long a time period as data are available).
- *Natural rarity* applies to a species or population that is known only from a small number of specimens or that occurs in collections infrequently and in small numbers because of ecological or evolutionary factors.

- *Restricted endemism* applies to a species or population when it is native to a particular place of limited geographical range and is found only there.
- The *connectivity* of populations refers to the level of reproductive exchange among related populations. The number and distribution of populations affect a species' resilience to environmental variability and catastrophes. Endemic species, and species with a limited geographic range, are especially vulnerable in this regard.
- *Life history characteristics* such as maximum age, age at maturity, intrinsic rate of increase, and fecundity can affect the vulnerability of a species to certain threats. For example, the higher the maximum age and age at maturity and, the lower the fecundity, the more vulnerable the species or population may be to overharvest. Similarly, the loss of variability in life-history traits (e.g., time of spawning) limits a species' ability to endure spatial/temporal variability in environmental conditions.

Information on the threats to a species, in isolation or in concert with information on demographic and diversity factors, can also indicate that a species should be added to the species of concern list. These threats are extraction, habitat degradation/loss, disease and predation, and other natural or man-made factors.

- Extraction is any action that removes the species from its habitat permanently, including commercial and recreational harvest, scientific collection, and the ornamental fish and aquarium trade.
- Habitat degradation/loss is the destruction, modification, or loss of species' habitat that could result in a lower carrying capacity. This degradation or loss can be caused by pollutants, inadequate water supply, removal of vegetation or bottom habitat, blockage to spawning grounds, and a decline in a forage species, among other factors.
- Disease and predation can also influence the abundance and productivity of a species or population.
- Other natural or man-made factors for decline include, but are not limited to, ocean conditions and poor hatchery practices. Ocean conditions include climate changes that result in temperature, salinity, or current variations that may affect the distribution or abundance of a species or population. Poor hatchery practices can lead to competition with natural stocks, depletion of natural organisms used as broodstock, or outbreeding and inbreeding depression.

6. **Will NMFS still maintain a list of candidate species?**

Yes, NMFS will still consider a few species to be candidate species as well as species of concern. Information on these candidate species will be available on our web site, but because this list changes so frequently, we will not publish a candidate species list in the *Federal Register*.

7. When will a species be considered a candidate species?

If a species of concern is undergoing an ESA status review as a result of a petition and a “may be warranted” finding under section 4(b)(3)(A), it is also, by definition, a NMFS candidate species until the review is complete. Further, species of concern that are undergoing status reviews but were not petitioned for listing will be considered candidate species if the initiation of a status review is announced in the *Federal Register*. This limited use of the term “candidate species” is consistent with the definition of candidate species described in the ESA section 4 regulations.

8. How will NMFS keep the “species of concern” and “candidate species” lists updated?

NMFS will update the status of these species on our web site, <http://www.nmfs.noaa.gov/pr/species/concern/>.

9. Do NMFS and the U.S. Fish and Wildlife Service differ in the way they apply the term “candidate species?”

To avoid possible confusion, it bears mentioning here that although NMFS and FWS define “candidate species” the same way in their joint regulations, the two agencies have slightly different interpretations of the term. FWS candidate species are those species for which FWS has sufficient information to support an ESA listing but for which issuance of a proposed rule is precluded due to higher priority listings (1 FR 64481; December 5, 1996). Therefore, FWS has already determined that its candidate species warrant listing under the ESA. In contrast, a NMFS candidate species may not have reached that threshold, since NMFS’ interpretation of the term also includes species for which the Secretary has determined, following review of a petition, that listing may be warranted (thereby triggering the need for a status review).