

largest supportable within the ecosystem (carrying capacity or K) to the population level that results in the maximum net productivity level (MNPL). MNPL is the greatest net annual increment in population numbers resulting from additions to the population due to reproduction less losses due to natural mortality. Historically, MNPL has been expressed as a range of values (between 50 and 70 percent of the carrying capacity (K)) determined theoretically by estimating what stock size, in relation to the original stock size, will produce the maximum net increase in population (42 FR 12010, March 1, 1977). NMFS has used the mid-point of this range (i.e. 60 percent of K) to determine whether a stock is depleted (42 FR 64548, December 27, 1977; 45 FR 72178, October 31, 1980).

On November 13, 2002, NMFS received a petition from the Alaska Center for the Environment, Alaska Community Action on Toxics, Center for Biological Diversity, Coastal Coalition, Defenders of Wildlife, the Eyak Preservation Council, and the National Wildlife Federation, to designate the AT1 group of transient killer whales (Orcinus orca) as a depleted stock under the MMPA. The petitioners note that the AT1 group of killer whales is currently considered part of the eastern North Pacific transient killer whale stock. However, they present information to support their assertion that the AT1 group is a separate stock. The petitioners also present information to support their assertion that this group of killer whales is depleted. Copies of the petition are available from NMFS (see **ADDRESSES** and **Electronic Access**).

Pursuant to Section 115(a)(3)(A) of the MMPA, NMFS published a notice in the **Federal Register** that the petition had been received and was available for public review (67 FR 70407, November 22, 2002). In response to its announcement that the petition had been received, NMFS received numerous comments from the public. These comments urge NMFS to designate AT1 killer whales as a depleted stock. None of the comments, however, contained substantive information in addition to the information contained in the petition. Therefore, responses to the comments are not necessary.

Section 115(a)(3)(B) of the MMPA requires NMFS to publish a notice in the **Federal Register** as to whether the petition presents substantial information indicating that the petitioned action may be warranted. After reviewing information presented

in the petition, which is summarized in the next section of this notice, NMFS finds that the petitioners present substantial information indicating that the petitioned action may be warranted.

As required by the MMPA, NMFS will promptly begin a status review of AT1 killer whales. NMFS must publish a proposed rule as to the status of the stock no later than 210 days after receipt of the petition. The status review will address whether the AT1 group is a separate stock under the MMPA and whether this potential stock is depleted.

The Petition

The petition presents information on the classification of killer whales in general and of the AT1 killer whales in particular. The petition also presents information on the changes in the size of the group over the last 20 years and identifies potential causes of decline in numbers of these animals.

Killer whales of the North Pacific are generally classified by type: resident, transient, or offshore. Little information is available on the offshore animals due to the difficulty of studying these whales. Resident killer whales are well studied, as are some groups of transients.

The main distinguishing feature between the residents and transients is their mutually exclusive prey base, with residents eating fish and transients consuming marine mammals. These two types of killer whales may be found in overlapping geographic ranges; however, they do not interact. The primary social structure of both groups is the matriline, dominated by a matriarchal female, her offspring, and direct descendants.

Permanently associating matriline groups are generally termed pods. Animals remain within the pod for life, and breeding apparently takes place between whales from different pods. Pods of whales can be distinguished genetically, by within-group associations and based on acoustic patterns. Although transient whales tend to form looser associations than residents (and as such the "pod" terminology is not applied to transients), they can nevertheless be distinguished based on similar genetic and demographic factors.

AT1 killer whales are transients. In NMFS' marine mammal stock assessment reports, AT1 killer whales are currently included with two other groups of transient killer whales in the eastern North Pacific stock (Angliss et al. 2001). The eastern North Pacific stock of transient killer whales is comprised of the west coast transients found from northern Southeast Alaska

to central California; the Gulf of Alaska transients; and the AT1 transients.

Although the range of these transient groups overlap, they do not associate. The Gulf of Alaska and AT1 whales inhabit the waters of Alaska exclusively. The Gulf of Alaska transients are occasionally found in Prince William Sound, whereas the AT1 group inhabits the waters of Prince William Sound and the Kenai Fjords and has not been observed elsewhere.

AT1 Killer Whales as a Separate Stock

The petitioners suggested that the AT1 group of killer whales was a separate stock based upon genetic and behavioral information and argued that the AT1 group should be managed separately. Petitioners provided detailed discussion of information supporting the identification of AT1 killer whales as a separate stock in a letter to NMFS dated July 18, 2002, which was a comment on NMFS' draft 2002 marine mammal stock assessment reports. That letter was incorporated by reference into the petition.

The petitioners suggested that evidence from analyses of mitochondrial DNA indicated that females do not emigrate from or immigrate to the AT1 group. The petitioners also suggested that nuclear DNA from analyses of microsatellites indicated a lack of male or female mediated gene flow between the AT1 group and other groups of killer whales.

The petitioners stated that AT1 transients have never been seen with other transient killer whales. The AT1 group has been sighted only in the waters of Prince William Sound and the Kenai Fjords, and other transient killer whales occupy these areas only occasionally. The petitioners also noted that AT1 transients are most frequently seen foraging near shore, and other transient killer whales are less frequently seen near shore.

Further, petitioners noted that the AT1 group is readily distinguishable from other transient killer whales in the Gulf of Alaska in hunting and communication patterns. Whereas other transient killer whales prey extensively upon Steller sea lions, AT1 transients prey primarily on harbor seals and Dall's porpoise. The petitioners concluded that these genetic and behavioral differences are sufficient evidence upon which to identify the AT1 group as a separate population stock. The petitioners also noted that the Alaska Scientific Review Group, an independent advisory group established according to section 117 of the MMPA, has recommended that NMFS recognize the AT1 group as a separate stock.