

**Marine Mammal Commission Comments on the
March 2007 draft of the
Southern Right Whale (*Eubalaena australis*) 5-Year Review:
Summary and Evaluation**

Pages 2-4, Section 2.1.4, Is there relevant new information for this species regarding the application of the Distinct Population Segment Policy: The Commission agrees with the stated overall conclusion regarding distinct population segments (DPSs), which is that DPS listings may and, in fact, are likely to be warranted for at least the following provisional units: eastern South Atlantic, western South Atlantic, Australia, and New Zealand.

The genetic and other evidence for demographic separation of right whales wintering off South Africa and Argentina is well summarized in the review. The same can be said of the separation between Australia and New Zealand but with one caveat. The implication that these whales' travel capabilities are well known is inappropriate given that scientists have neither applied satellite-linked radios to track right whales in the region nor attempted to match photographic records from the two areas. Recent discoveries of the rapid, long-distance movements of other balaenids (e.g., North Atlantic right whales from photo-identification and bowhead whales from radio-tracking) indicate that it may be best to avoid such statements as the following: "...such migrations are highly unlikely since the distance is more than twice the farthest distance *E. australis* has been recorded traveling."

The summary should note that the IUCN/SSC Cetacean Specialist Group currently is considering a proposal to list a putative Chile/Peru "sub-population" of southern right whales as a separate stock on the IUCN Red List of Threatened Species. Also, the International Whaling Commission's (IWC) Scientific Committee gave right whales in that region special attention in 2007 and, for reasons described below, the relevant meeting report should be consulted and cited in the present review document.

The Commission agrees that a full analysis and review of southern right whales to clarify DPS issues are desirable. However, the cost and effort required for such an exercise should be weighed against the Service's other priorities. The Commission does not believe that such work should be a high priority for the Office of Protected Resources at the present time. Any devotion of staff time and resources to Southern Hemisphere populations would likely detract from recovery efforts for right whale species in the North Atlantic and North Pacific Oceans, which are severely endangered and in greater need of protection. Until those populations are recovered and secure, it is difficult to justify more investment in southern right whales beyond active participation by U.S. scientists and managers in related (IWC) activities.

Pages 4-7, Section 2.3.1.1, New information on the species' biology and life history: The statement in the second paragraph that the southern right whale is one of three species in the Balaenidae is incorrect. Currently, three genera (*Balaena*, *Eubalaena*, and *Caperea*) and five species (*B. mysticetus*, *E. glacialis*, *E. japonica*, *E. australis*, and *C. marginata*) are recognized in that family. In the same paragraph, the first sentence should be revised to say that adult females range from 12.5 to 15.5 m in length and average about 14 m, with males probably being somewhat smaller. Maximum mass is about 60 tons (unless the author has credible evidence for southern right whale weights of up to 100 tons, as stated).

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In the next paragraph, several changes seem warranted. First, not all baleen whales are migratory; some populations of several species (e.g., Bryde's whale, fin whale, common minke whale) do not appear to migrate. Second, the role of cyprids in the diet of southern right whales is not clear. Unless your office has definite information to the contrary, it would be best to say that southern right whales feed primarily on euphausiids (krill) and copepods. Third, there is considerable information available about the locations of summer feeding grounds. The Soviet catches from 1951–1971 provide “unique” information on occurrence “over a large part of their pelagic range in summer and early autumn,” and that information, together with earlier data from open-boat whaling operations and more recent data from Japanese catcher boats, was reviewed by Tormosov et al. (1998). Finally, Winn et al. (1986) should not be cited to support the characterization of the “preferred summer habitat” of southern right whales as that paper concerns only North Atlantic right whales (mentioning North Pacific and southern right whales only briefly and superficially).

Pages 7-9, Section 2.3.1.2, Abundance, demographics and population trends: In the first part, entitled “*Worldwide*,” the statement that the most closely monitored populations (i.e., those off South Africa, Argentina, and Australia) have demonstrated strong and continuing increases seems inconsistent with the statement that “the inability to confidently estimate current abundance coupled with the challenges of estimating historical populations” makes it “difficult to determine the recovery of *E. australis*.”

In the last paragraph under the section entitled “*New Zealand*,” the term “sub-Antarctic” should be clarified. In addition, does the pre-exploitation estimate of 10,000–25,000 refer only to the New Zealand sub-Antarctic islands or to all of the circumpolar sub-Antarctic islands? The implicit comparison to the present-day estimate of 900 for Auckland/Campbell Islands will mean different things depending on the answer.

The *Other Areas* section should note substantial interchange between the coastal breeding/nursery areas off Argentina and Brazil (Groch et al. 2004). The last paragraph of this section, referring to the animals off Peru and Chile, should be rewritten after consulting the 2007 report of the IWC Scientific Committee.

Pages 9-10, Section 2.3.1.3, Genetics: The first two sentences are confusing. They could be simply deleted. Also, the second paragraph under this heading should be deleted as it makes fairly momentous claims based only on an unpublished master's thesis.

Pages 10-13, Section 2.3.1.5, Spatial distribution: The reference in the first paragraph to “probable evidence” should be revised for clarity. The first sentence of the second paragraph should be deleted, and a reference cited to support the list of IWC-designated “summer feeding grounds.” Also, the author should use Tormosov et al. (1998) to update and clarify this section.

In the section entitled “*New Zealand*,” the reference to “over two thousand kilometres and nearly 20° of latitude” is confusing. Twenty degrees of latitude is about 2200 km, so the first part is unnecessary, and the statement should just say “spanned nearly 20° of latitude.” In the second paragraph, saying that “the only remnant population is found in the sub-Antarctic islands” seems

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inconsistent with what follows, which indicates that “remnants” are still observed along the mainland. In the last paragraph, the geographical names should be checked and rationalized. For example, North Island and South Island are different places, and it should be Hawke not Hawke’s Bay and Cook not Cook’s Strait.

Pages 17-19, Section 2.3.2.1, Present or threatened destruction, modification or curtailment of its habitat or range: In the third paragraph, the country name should be Namibia, not Madagascar.

In the fourth paragraph, the citation for Carlson (2007) needs to be given in more detail.

The Agardy (1996) unpublished manuscript cited at the beginning of the fifth paragraph under this heading is inappropriate for supporting the lead sentence. We suggest that this paragraph begin with what is now the fourth sentence and that the first three sentences be deleted. Also, consideration should be given to deleting the last four sentences in this paragraph, all of which refer to *E. glacialis* and which are, in any event, non-conclusive.

In the final paragraph of this section, the penultimate sentence could be deleted as well.

Page 19, Section 2.3.2.2, Overutilization for commercial, recreational, scientific, or educational purposes: In the first paragraph, the statement that southern right whales were hunted primarily by British and French whalers is incorrect. The British were much more inclined to hunt sperm whales rather than right whales, whereas the Americans (and French, as stated) took large numbers of right whales as well as sperm whales. The statement that “these efforts impacted the long-term reproductive success” of the species is not compatible with the evidence that not only were large numbers of right whales still available to be killed in the Southern Ocean illegally during the 1950s to 1970s (fide Tormosov et al. 1998) but also that several populations have been recovering at rates likely near the maximum potential for the species.

Pages 19-25, Section 2.3.2.4, Inadequacy of existing regulatory mechanisms: The *New Zealand* section seems to strike a more negative tone than seems warranted and, therefore, the final paragraph of that section should be deleted. This would make it more nearly parallel to the other country-by-country summaries where no such “summing up” statements are included.

Under the “*International*” heading, the paragraph on the IUCN Red List status should be revised to read as follows:

The southern right whale was listed in the World Conservation Union’s (IUCN’s) Red List of Threatened Species as “Lower Risk/Conservation Dependent,” which meant that it did not satisfy the Red List criteria for threatened status (Critically Endangered, Endangered, or Vulnerable), but that it was the subject of a conservation program, the cessation of which would result in the species becoming threatened within a period of five years. The LR/CD category has been eliminated from the IUCN listing system, and the Cetacean Red List Authority was in the process of reassessing the southern right whale at the time of writing (June 2007) (R. R. Reeves, pers. comm.).

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The last paragraph of this section should specify that the sanctuaries forbid *commercial* whaling. Also, reference to the 1935 provision under the 1931 Geneva Convention for the Regulation of Whaling should not be described as a “global moratorium on the harvest of *E. australis*.” The author should describe it instead in terms closer to the original regulatory language and also qualify the reach of the regulation according to which whaling countries had or had not signed the convention.

Pages 25-26, Section 2.3.2.5, Other natural or manmade factors affecting its continued existence:

Under the heading *Ship strikes and entanglements*, it would be appropriate to check the annual IWC National Progress Reports post-2001 (or actually whatever year was last covered in IWC [2001]). The reports from Australia, Brazil, Argentina, New Zealand, and South Africa would be particularly relevant. These should be available from the IWC Secretariat. Another way to check this might be to refer to the annual reports of the standing Working Group on Estimation of Bycatch and Other Human-induced Mortality, which can be found in the *Journal of Cetacean Research and Management* annual supplement devoted to Scientific Committee reports.

Under the heading “*Inbreeding depression*,” reference is made to IUCN (2003), but no citation is given for that reference. Also, it is not clear that the following text is useful. If it is to remain in the document, it needs some careful editing:

However, breeding populations in the sub-Antarctic islands of New Zealand which were heavily reduced by whaling are some of the least diverse baleen populations in the world (Carroll 2006). Since the deleterious impacts of inbreeding depression are greatest among small populations, the threats may only exist for some of the smaller breeding populations. For example, some studies suggest that if a population of marine mammals is greater than 50 individuals then 99 percent of genetic diversity can be maintained and the deleterious effects of inbreeding depression may be avoided (Lande 1991, Ralls et al 1983, and IUCN, 2003). Still, large populations may be threatened as no mammal has been shown to be unaffected by inbreeding (Lacy 1997).

As a general observation, it is difficult to understand what the message of this inbreeding section is meant to be.

Pages 27-28, Section 2.4, Synthesis: The opening sentence seems somewhat exaggerated, given the strong recovery in some areas and the large Soviet catches in the 20th century. The second sentence is wrong. Although the estimate in 1997 of 7,000 animals range-wide might have been reasonable at that time (IWC 2001), it is certainly too low for today, given the well-documented, continuing increases in the populations that contribute most to the estimates. There may be nearly twice as many southern right whales today as there were in 1997 (doubling time of 10 to 12 years). In this same paragraph, the term “other mid-Atlantic islands” is not clear. Does it refer to oceanic islands or to sub-Antarctic islands? South Georgia presumably is one of those intended, which of course is a South Atlantic island. As currently written, the sentence implies that Namibia and Madagascar are mid-Atlantic islands. Also, the synthesis should note the finding that multiple distinct population segments likely exist.

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In the second paragraph, consideration needs to be given to the still-small (with no evidence of recovery) population off Peru and Chile (see above; check IWC SC report 2007).

In the third paragraph, the amalgamation of so many *potential* threats is not helpful. Threat identification and threat assessment require a much more rigorous approach than is implied here. Although it may be useful to list known and potential mortality factors, and factors that may negatively affect habitat conditions for the species, it is not appropriate to claim that all items on this list “threaten the recovery of *E. australis*.” In fact, the sentence immediately following makes this point.

The paragraph on DPSs should mention the Peru/Chile population noted earlier.

Regarding the five-point list of information gaps, the Commission agrees that at least four of the five items deserve encouragement (the fourth item, Disease, seems to be less of a concern). The second item might be better split into two—one referring to the value of improving knowledge of the species’ feeding distribution throughout its circumpolar range and one referring to the value of long-term monitoring in additional areas where some recovery and/or reoccupation may be underway.