

## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Parts 223 and 224

[Docket No. 110901553-3764-02]

RIN 0648-BB41

**Endangered and Threatened Species; Delisting of the Eastern Distinct Population Segment of Steller Sea Lion Under the Endangered Species Act; Amendment to Special Protection Measures for Endangered Marine Mammals**

**AGENCIES:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.

**SUMMARY:** Under the authority of the Endangered Species Act of 1973, as amended (ESA), we, NMFS, issue this final rule to remove the eastern distinct population segment (DPS) of Steller sea lion (*Eumetopias jubatus*) from the List of Endangered and Threatened Wildlife. After receiving two petitions to delist this DPS, we completed a review of the status of the eastern DPS of Steller Sea Lion. Based on the information presented in the Status Review, the factors for delisting in section 4(a)(1) of the ESA, the recovery criteria in the 2008 Recovery Plan, the continuing efforts to protect the species, and information received during public comment and peer review, we have determined that this DPS has recovered and no longer meets the definition of an endangered or threatened species under the ESA: It is not in danger of extinction or likely to become so within the foreseeable future throughout all or a significant portion of its range. Thus, we find that the delisting of the DPS is warranted. This rule also makes technical changes that recodify existing regulatory provisions to remove special protections for the eastern DPS and clarify that existing regulatory protections for the western DPS of Steller sea lions continue to apply.

**DATES:** This rule becomes effective on December 4, 2013.

**ADDRESSES:** This final rule, references used herein, the related Status Review, the related Post-Delisting Monitoring Plan, and additional information supporting this final determination are available at: <http://www.alaskafisheries.noaa.gov/> and <http://www.regulations.gov> [Docket No. NOAA-NMFS-2011-0208].

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**SUPPLEMENTARY INFORMATION:****ESA Statutory Provisions, Regulations, and Policy Considerations**

The ESA regulations require that a species listed as endangered or threatened be removed from the list if the best scientific and commercial data available indicate that the species is no longer endangered or threatened because it has recovered (50 CFR 424.11(c)). Section 4(a)(1) of the ESA (16 U.S.C. 1533(a)(1)) states that we must determine whether a species is endangered or threatened because of any one or a combination of the following factors: (1) The present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; or (5) other natural or man-made factors affecting its continued existence.

Section 3 of the ESA defines a “species” as “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” Section 3 of the ESA further defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range” and a threatened species as one “which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Thus, we interpret an “endangered species” to be one that is presently in danger of extinction. A “threatened species,” on the other hand, is not presently in danger of extinction, but is likely to become so in the foreseeable future (that is, at a later time). In other words, the primary statutory difference between a threatened and endangered species is the timing of when a species may be in danger of extinction, either presently (endangered) or in the foreseeable future (threatened).

**Foreseeable Future**

In the delisting process, NMFS determines whether the species’ abundance, survival, and distribution, taken together with the threats (i.e., ESA section 4(a)(1) factors), no longer render the species in danger of extinction or “likely to become an endangered species within the foreseeable future

throughout all or a significant portion of its range.” The duration of the “foreseeable future” is inherently fact-specific and depends on the particular kinds of threats, life-history characteristics, and specific habitat requirements for the species under consideration. The existence of a potential threat to a species and the species’ response to that threat are not, in general, equally predictable or foreseeable. Hence, in some cases, the ability to foresee a potential threat to a species may be greater for certain threats, and it may be greater than the ability to foresee the species’ exact response, or the timeframe of such a response, to that threat. NMFS must utilize the best scientific and commercial data to assess each threat and the species’ anticipated response to each threat.

**Significant Portion of Its Range**

NMFS and the U.S. Fish and Wildlife Service (USFWS) recently published a draft policy to clarify the interpretation of the phrase “significant portion of the range” (SPR) in the ESA definitions of “threatened” and “endangered” (76 FR 76987; December 9, 2011). The draft policy consists of the following four components:

(1) If a species is found to be endangered or threatened in only an SPR, the entire species is listed as endangered or threatened, respectively, and the ESA’s protections apply across the species’ entire range.

(2) A portion of the range of a species is “significant” if its contribution to the viability of the species is so important that without that portion, the species would be in danger of extinction.

(3) The range of a species is considered to be the general geographical area within which that species can be found at the time USFWS or NMFS makes any particular status determination. This range includes those areas used throughout all or part of the species’ life cycle, even if they are not used regularly (e.g., seasonal habitats). Lost historical range is relevant to the analysis of the status of the species, but it cannot constitute an SPR.

(4) If a species is not endangered or threatened throughout all of its range but is endangered or threatened within an SPR, and the population in that significant portion is a valid DPS, we will list the DPS rather than the entire taxonomic species or subspecies.

The Services are currently reviewing public comment received on the draft policy. We therefore consider the draft policy as non-binding guidance in evaluating whether to delist the eastern

DPS of Steller sea lions. In developing this final rule, we also considered public comments on our evaluation of “significant portion of its range” for this species.

#### *Distinct Population Segment Policy*

As noted above, the ESA defines “species” to include “. . . any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature” (16 U.S.C. 1532(16)). In 1996, NMFS and USFWS released a joint policy on recognizing distinct vertebrate population segments to outline the principles for identifying and managing a DPS under the ESA (DPS Policy; 61 FR 4722; February 7, 1996). Under the DPS Policy, both the discreteness and significance of a population segment in relation to the remainder of the species to which it belongs must be evaluated. A population segment of a vertebrate species may be considered discrete if it satisfies either one of the following conditions:

(1) It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors. Quantitative measures of genetic or morphological discontinuity may provide evidence of this separation.

(2) It is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the ESA.

If a population segment is considered discrete under one or more of the above conditions, its biological and ecological significance is then considered in light of Congressional guidance (see Senate Report 151, 96th Congress, 1st Session) that the authority to list DPSs be used “sparingly” while encouraging the conservation of genetic diversity. This consideration may include, but is not limited to, the following:

(1) Persistence of the discrete population segment in an ecological setting unusual or unique for the taxon,

(2) Evidence that loss of the discrete population segment would result in a significant gap in the range of a taxon,

(3) Evidence that the discrete population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range, or

(4) Evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics.

#### **ESA Listing History of Steller Sea Lions**

On April 5, 1990, in response to a petition from the Environmental Defense Fund and 17 other organizations, we published an emergency interim rule to list the Steller sea lion as a threatened species under the ESA and to request comment on whether the species should be listed as threatened or endangered, possible causes of the decline, and conservation measures and protective regulations needed to prevent further declines (55 FR 12645). In that emergency interim rule, we held that the Steller sea lion population was declining in certain Alaskan rookeries (by 63% since 1985 and by 82% since 1960), the declines were spreading to previously stable areas and accelerating, and significant declines had also occurred on the Kuril Islands in Russia. Furthermore, the cause of these declines could not be determined. NMFS concluded that the emergency listing of the species as threatened on an interim basis was therefore necessary and that the immediate implementation of the protective measures of the ESA would aid recovery efforts.

That emergency interim rule implemented the following emergency conservation measures to aid recovery: (1) Fishery observer efforts to enable monthly estimates of the level of incidental killing of Steller sea lions in observed fisheries; (2) aggressive enforcement of the emergency regulation; (3) establishment of a recovery program, including the establishment of a recovery team; (4) prohibition of discharging a firearm near or at Steller sea lions; (5) establishment of buffer zones around rookeries, none of which were within the breeding range of the eastern DPS; and (6) establishment of a quota for lethal incidental take in fisheries west of 141 °W longitude.

On July 20, 1990, we published a proposed rule to list the Steller sea lion as a threatened species (55 FR 29793), and on November 26, 1990, we published the final rule listing the Steller sea lion as threatened under the ESA (55 FR 49204).

#### *Identification of Eastern and Western DPSs and Maintenance of Threatened Status for the Eastern DPS*

At the time of the 1990 final rule to list, we considered all Steller sea lions as a single species, including those in areas where abundance was stable or not declining significantly, because scientists did not have sufficient information to consider animals in different geographic regions as separate

species for ESA purposes. Similarly, the first Steller Sea Lion Recovery Plan, released in 1993, did not distinguish two separate population segments, but identified recovery tasks, reclassification criteria, and delisting criteria for the species as a whole. In 1993, we initiated a status review to determine whether a change in listing status was warranted (58 FR 58318; November 1, 1993). In 1994, we reconvened the Steller Sea Lion Recovery Team (Team) specifically to consider the appropriate listing status for the species and to evaluate the adequacy of ongoing research and management. The Team recommended that NMFS recognize two DPSs, east and west of 144 °W, based on demographic and genetic dissimilarities, elevate the listing status of the western DPS to endangered, and keep the eastern DPS listed as threatened. In 1997, we formally identified two DPSs of Steller sea lions under the ESA: A western DPS and an eastern DPS (62 FR 24345; May 5, 1997). The eastern DPS consists of all Steller sea lions from breeding colonies located east of 144 °W longitude, and the western DPS consists of all Steller sea lions from breeding colonies located west of 144 °W longitude (50 CFR 223.102; 50 CFR 224.101(b)). We classified the western DPS as endangered due to its persistent population decline, and we maintained a status of threatened for the eastern DPS. In the discussion underlying our decision to continue to list the eastern DPS as threatened under the ESA, and in response to comments indicating that we should delist this species, we noted that the “Team . . . agreed that there was continued concern for the eastern population segment . . . despite the fact that its current abundance may be stable” (62 FR 24347; May 5, 1997). Further information on the identification and listing of the two population segments may be found in the final rule (62 FR 24345; May 5, 1997) and in the Status Review (NMFS 2013a).

#### **Recovery Plan**

As required under the ESA, the Recovery Plan (NMFS 2008) for both the eastern and the western DPSs of Steller sea lions includes specific, objective, measurable criteria for determining when the eastern DPS has recovered sufficiently to warrant delisting. In the Recovery Plan, we (NMFS 2008:VII–2) specified that these “. . . recovery criteria comprise the core standards upon which the decision to delist will be based.” The plan includes both demographic (biological) and listing factor (threats-based) recovery criteria.

The Recovery Plan includes one demographic criterion requiring that the eastern DPS of Steller sea lions increase at an average annual growth rate of three percent per year for 30 years. NMFS (2008) specified that this time period reflects three generations, provides confidence that the increase in natality (the ratio of live births to the larger population) and survival support the population growth rate, and indicates that the recovery is robust enough to sustain the population over multiple environmental regimes. While the Recovery Plan acknowledges concern over the performance of rookeries and haulouts in the southern end of the range in California, it does not contain recovery criteria for sub-regions within the range of the eastern DPS, noting that it is not unusual for the geographical limit of a species range to perform more poorly than the core regions.

The Recovery Plan also specifies ESA threats-based recovery criteria, organized by the ESA section 4(a)(1) factors, that should be achieved in order to delist the eastern DPS. As identified in the Status Review (NMFS 2013a) these are as follows:

(1) Marine habitats, particularly in regard to prey populations, must be maintained through appropriate fisheries management and control of contaminants.

(2) Rookery and haulout sites need to be adequately protected (through state, federal, or private measures) to ensure the continued use of these sites for pupping, breeding, attending young, and resting. Research and monitoring plans should be in place for all projects that have a high probability of negatively impacting sea lions so that these activities do not harm sea lions or their habitat.

(3) Agreement is reached with the State of Alaska which describes its fishery management plan, minimizes the take of Steller sea lions, and describes how future actions taken by the State will comport with the ESA and MMPA.

(4) A Steller sea lion recovery coordinator is on staff at NMFS.

(5) An outreach program is established to educate the public, commercial fishermen and others on the continued need to conserve and protect Steller sea lions.

(6) An Alaska stranding network is in place and functional.

Based on a review of these recovery criteria and on new information that has become available since publication of the 2008 Recovery Plan, we conclude that these criteria together with the five factors specified in section 4(a)(1) of the ESA remain appropriate standards on

which to base the decision whether to delist this species.

#### **Status Review and Petitions To Delist**

On June 29, 2010, we initiated the first 5-year status review of the eastern DPS of Steller sea lions under the ESA, with a technical correction issued eight days later (June 29, 2010, 75 FR 37385; July 7, 2010, 75 FR 38979). A 5-year status review is intended to ensure that the listing classification of a species is accurate and is based on the best scientific and commercial data available. During the initial comment period following the initiation of the 5-year review, we received two petitions to delist this species: One on August 30, 2010, from the States of Washington and Oregon; and one on September 1, 2010, from the State of Alaska. Both petitions contended that the eastern DPS of Steller sea lions has recovered, is not in danger of extinction, and is not likely to become endangered within the foreseeable future.

Based on the information presented and referenced in the petitions, as well as other information, we found that the petitions presented substantial information indicating that the petitioned action may be warranted (75 FR 77602, December 13, 2010). Thus, we provided notice that we were continuing the status review of the eastern DPS to determine if the petitioned action was warranted. We completed a draft status review report (Status Review) to address all issues required in a 5-year review and to inform a determination of whether delisting is warranted. The draft Status Review underwent independent peer review by four scientists with expertise in population ecology and management of eastern DPS Steller sea lions.

On April 18, 2012, we released a draft Status Review of the eastern DPS of Steller sea lion. This draft Status Review contained a draft post-delisting monitoring plan (PDMP) as an appendix. Concurrently, we published a proposed rule to remove this DPS from the List of Endangered and Threatened Wildlife (77 FR 23209; April 18, 2012). We requested public comment on all of these documents, and we sought additional peer review by seven scientists with relevant expertise.

#### **Review of the Species Delineation**

As part of the Status Review, we applied the DPS policy (61 FR 4722; February 7, 1996) to determine whether the current distinction remained appropriate and whether other DPSs may exist. Below are the main conclusions of the analysis. More detail is given in the proposed rule (77 FR

23209; April 18, 2012) and the Status Review (NMFS 2013a).

The analysis confirmed that the currently recognized eastern DPS is both discrete and significant and thus continues to meet the criteria of the DPS Policy. The analysis also included a review of the best available information to evaluate whether Steller sea lions that breed in Washington, Oregon, and California adjacent to the California Current, and whether those that breed in California, meet the criteria for identification as a DPS. We first evaluated whether there was evidence that these sea lions were discrete from Steller sea lions that breed farther north, including from those in southeast Alaska, as a consequence of physical, physiological, ecological, or behavioral factors. We did not find compelling scientific evidence of consistent or marked discontinuity among different segments within the currently recognized eastern DPS of Steller sea lion. The best available evidence indicates that Steller sea lions that breed in California, Oregon, and Washington are not markedly separated from Steller sea lions in British Columbia and southeast Alaska as a consequence of physical, physiological, ecological, or behavioral factors. The best available evidence about genetic patterns, ecology, movement patterns and putative subspecies identity also does not indicate that Steller sea lions that breed in California are discrete from those in the rest of the eastern DPS.

According to the DPS Policy, if a population segment is considered discrete, its biological and ecological significance to the taxon as a whole is then considered (61 FR 4722; February 7, 1996). Since we concluded that there are not population segments within the currently recognized eastern DPS of Steller sea lion that are discrete, we did not consider the biological and ecological significance of any subunits relative to a determination of DPS status.

#### **Biology and Ecology**

A review of the taxonomy, life history, and ecology of the eastern DPS of Steller sea lion is presented in the Status Review (NMFS 2013a) and the Recovery Plan (NMFS 2008). We do not repeat that information here.

#### **Evaluation of the Demographic Recovery Criterion**

In order to make our evaluation of the demographic recovery criterion transparent, and to describe the basic trend of this DPS, we briefly explain below the way in which population abundance is estimated for Steller sea

lions; discuss uncertainties associated with the estimates; identify data available on which to evaluate trends in abundance; and summarize the information available from pup and non-pup count data. We provide a summary of trends over time for the population as a whole. More detailed data from pup and non-pup counts over time in subareas (southeast Alaska, British Columbia, Washington (non-pup counts only), Oregon, and California) are provided in the Status Review (NMFS 2013a) and elsewhere (e.g., Pitcher *et al.* 2007; DFO 2008; Johnson and Gelatt 2012).

Two types of counts are used to study trends in Steller sea lion populations: counts of pups of up to one month of age and counts of non-pups (Pitcher *et al.* 2007; Olesiuk *et al.* 2008; NMFS 2008; DeMaster 2009). NMFS currently monitors Steller sea lion status by counting animals during the breeding season at trend sites in conjunction with State and other partners. Trend sites are a set of terrestrial rookeries and haulouts where surveys have been consistently undertaken for many years and where the vast majority (over 90%) of all sea lions counted during surveys are observed (NMFS 2008, 2010). Breeding season surveys have been conducted opportunistically and not all sites have been surveyed each season.

The vast majority of Steller sea lion pups are born at a relatively small number of rookeries and are on land for the first month on their life (Pitcher *et al.* 2007; NMFS 2008). Thus, counts of pups on rookeries conducted at the end of the birthing season are nearly complete counts of pup production. In the Recovery Plan, we noted that:

These counts can be expanded to estimate approximate total population size based on an estimated ratio of pups to non-pups in the population (Calkins and Pitcher 1982; Trites and Larkin 1996). Based on estimates of birth rate and sex and age structure of a stable sea lion population from the Gulf of Alaska, Calkins and Pitcher (1982) estimated total population size was 4.5 times the number of pups born. Some pups die and disappear before the counts are made and a few are born after the counts are conducted (Trites and Larkin 1996); because of this the researchers selected 5.1 as a correction factor. It should be emphasized that this is a very general estimate of population size as several factors can affect the accuracy of this correction factor. Sex and age structure and mortality and birth rates may vary over time and among populations and require different correction factors (NMFS 2008: I-6).

The Department of Fisheries and Oceans Canada (DFO) discussed and acknowledged uncertainty in estimates of pup production and uncertainty associated with extrapolating total

abundance from estimates of pup production (DFO 2008). To the extent that the actual demographic characteristics of a population deviate from those assumed for the purposes of estimation, error or biases may be introduced into the estimate. We discuss this issue further in the Status Review (NMFS 2013a).

At the time of finalization of the Recovery Plan (NMFS 2008), the analyses of trend data throughout the range of the eastern DPS provided in Pitcher *et al.* (2007) represented the best available data for the population overall and for many of the subareas. Based on the comprehensive eastern DPS range-wide survey conducted in 2002, Pitcher *et al.* (2007) estimated that about 11,000 pups were produced in the eastern DPS in 2002. They provided what they emphasized should be regarded as a general estimate of total abundance for this DPS of about 46,000–58,000, noting that several factors can affect the accuracy both of the counts and of correction factors applied during estimation. In their estimate of pup production, upon which the estimate of total abundance is based, Pitcher *et al.* (2007:112) followed Trites and Larkin (1996) and added 10% to the pup counts, an adjustment they stated “seems reasonable” but which is “subjective and arbitrary” since the real adjustment likely varies both spatially and temporally. They used sensitivity analysis to delineate the possible range of changes in the correction factors and discussed biases in the estimates given certain assumptions regarding population productivity and growth. Pitcher *et al.* (2007) estimated that, for the 25-year period between 1977 and 2002, overall abundance of the eastern DPS of Steller sea lion had increased at an average rate of 3.1% per year.

New pup and non-pup count data since Pitcher *et al.*'s (2007) analyses are available from all portions of the range including southeast Alaska (DeMaster 2009), British Columbia (Olesiuk 2008; P. Olesiuk, pers. comm.), Washington State (S. Jeffries, unpublished data), Oregon (B. Wright and R. Brown, pers. comm.), and California (NMFS unpublished data). When these new data are added to Pitcher *et al.*'s (2007) time series of surveys, the interval over which we can assess population trends is lengthened, and confidence that the positive trend is real and sustained is increased.

Johnson and Gelatt (2012) provided a new analysis of eastern DPS abundance trends from 1979–2010 using models for each subarea (southeast Alaska, British Columbia, Washington (non-pups only), Oregon, and California). Since the

demographic recovery criterion described the growth of the sum of the subareas, but counts generally were not conducted in the same years, this analysis was developed to allow for the analysis of “. . . growth trends of the abundance of an entire population when censuses have been conducted at disparate times on subpopulations with possibly differing annual rates of growth (or decline)” (Johnson and Gelatt 2012:1). Their estimates of population-wide growth rate, based upon pup counts, indicates that the eastern DPS increased from an estimated 18,313 animals in 1979 (90% confidence interval (CI): 16,247–20,436) to 70,174 animals in 2010 (90% CI = 61,146–78,886). The estimated annual growth rate of the eastern DPS from 1979–2010 was 4.18% with a 90% CI of 3.71%–4.62%. The probability that the growth rate exceeded 3% was 0.9999 (Johnson and Gelatt 2012).

Most of the overall increase in estimated population abundance from 1970–2010 was due to increases in the northern portion of the range in southeast Alaska and British Columbia (first pup count used in analysis from 1982). However, data in Johnson and Gelatt (2012) indicate that pup counts in Oregon (at least since 1990) and California (at least since 1996) also increased. More detail is provided in Johnson and Gelatt (2012), the Status Review (NMFS 2013a), and elsewhere e.g., Fritz *et al.* 2008; Olesiuk 2008 pers. comm.; DeMaster 2009; NMML 2012).

Based on non-pup count data, which include new count data provided by Washington (1989–2011), Oregon (1976–2008), DFO (1971–2010), NMFS (for southeast Alaska, 1979–2010), and California (1990–2011), the estimated annual growth rate for the eastern DPS as a whole from 1979–2010 is 2.99% (90% CI = 2.62%–3.31%; see Figure 2 in Johnson and Gelatt 2012).

Thus, the estimated trends in abundance for the total eastern DPS indicate that the population increased at an annual rate of about 3% (based on estimated trends in non-pup counts) or more (based on estimates of population size from pup counts) between the late 1970s and 2010, a period of more than 30 years. Hence, despite uncertainty about the actual numbers of Steller sea lions in the eastern DPS, NMFS is confident about the magnitude and direction of the trend in abundance over this period. These data indicate that the demographic (or biological) recovery criterion specified in the Recovery Plan has been met.

Goodman (2006) conducted an analysis of the extinction risk of the eastern DPS of Steller sea lion using two

series of data related to population trend: 1) 24 counts, conducted annually except for missing counts in 1978 and 1991, of non-pups from Oregon sites from 1977–2002, and 2) nine counts of pups at southeast Alaska sites from 1979–2002. Goodman concluded that probability of low growth rates is very small, and that if his working hypothesis to account for the observations was and continues to be true, the near and mid-term risks of extinction are very low. Since 2002, NMFS has undertaken additional aerial surveys of pups in southeast Alaska, generally on a biennial basis. The most recent pup counts available for consideration in this decision were conducted in 2009, and trends from these data are summarized in the Status Review (NMFS 2013a). These data show that the positive growth rates apparent at the time of Goodman's analysis have continued with a very strong upward trend in pup production in this region since 2002. Likewise, more recent data from Oregon show continued population growth. The final count for 2003 was anomalously high at 5,714 non-pups counted and, in that year, increases in non-pup numbers were seen at multiple locations throughout the state. The count for 2005 was incomplete due to poor weather. Counts for 2006 and 2008 indicate that the non-pup abundance trajectory generally follows the upward trend line depicted in Pitcher *et al.* (2007) (B. Wright, ODFW, pers. comm.; more details can be found in the Status Review (NMFS 2013a)). Based on the continued upward trend in both data sets, we concur with Goodman's conclusion that the risk of near-term and mid-term extinction is very low for this DPS.

#### **Evaluation of the ESA Section 4(a)(1) Factors and Associated Recovery Criteria**

We reviewed the status of the eastern DPS in the context of the ESA listing factors and the associated criteria set forth in the Recovery Plan (NMFS 2008). Below we summarize information regarding the status of the DPS according to each of the ESA section 4(a)(1) factors and identify the steps taken by NMFS and others to accomplish recommended actions set forth in the Recovery Plan. More detailed information can be found in the Status Review (NMFS 2013a).

##### *Factor A: The Present or Threatened Destruction, Modification, or Curtailment of a Species' Habitat or Range*

In the 2008 Recovery Plan, NMFS (2008a:VII–1) concluded that “At

present, the most likely threats” “are development, increased disturbance and habitat destruction, increases in magnitude or distribution of commercial or recreation fisheries, and environmental change.” The Status Review identified the following residual and/or emerging potential future sources of threat under this factor: Global climate warming and ocean acidification; indirect fisheries interactions; coastal development and disturbance; toxic substances; and oil and gas development. We considered each of these threats based on information and analysis in the Recovery Plan (NMFS 2008) and updated in the Status Review (NMFS 2013a).

Based on the available information, certain global warming and ocean acidification effects are likely already being manifested within the California Current Ecosystem and possibly other marine ecosystems in the eastern North Pacific, of which the eastern DPS of Steller sea lion is a part, and data indicate that ecosystems in the range of the eastern DPS will continue to be affected by these factors by the end of the century. The California Current System may be particularly vulnerable to climate change and ocean acidification effects. The northward shift of the range of this DPS may be, at least in part, a result of climate change. However, given the increasing population trends of the eastern DPS of Steller sea lion, the robust reproduction over a large range from Oregon to southeast Alaska, and the relatively large population size, the available information suggests that global warming and ocean acidification are not currently impeding this population's overall recovery or viability. In contrast, the best scientific and commercial data available indicate that global climate change is having, and will have, negative impacts on ice-dependent species, such as polar bears, ringed seals, and bearded seals.

Global climate warming and ocean acidification pose a potential threat to Steller sea lions from potential food web alteration, direct physiological impacts on prey species, or more generally, due to changes in the composition, temporal and spatial distribution, and abundance of prey. If the underlying food webs are affected by ocean acidification and climate change, this DPS of Steller sea lions would also likely be affected. However, consideration of this issue is complicated by the rapidly evolving understanding of this complex threat, the uncertainty about how Steller sea lions might respond, and the inability to predict a response by the eastern DPS

reliably within the foreseeable future. Clearly, the issue is not specific to Steller sea lions or their habitat. The magnitude and timing of ecological change in the different parts of the range of the eastern DPS from these two factors and, more importantly, the ways in which such change will affect the eastern DPS of Steller sea lion at the population level, are not yet predictable. Thus, while NMFS is concerned about multi-faceted adverse impacts of climate change and ocean acidification over the next 50–100 years on marine ecosystems of which this DPS is a part, based on the best scientific and commercial data available, we cannot accurately predict the impacts of these factors on the eastern DPS of Steller sea lions or their primary prey during this time period. Thus, in the absence of substantial information to the contrary, we conclude that global warming and ocean acidification are not likely to cause the eastern DPS of Steller sea lion to become in danger of extinction throughout all or a significant portion of its range within the foreseeable future.

Numerous federal, state, and/or provincial commercial fisheries, recreational fisheries, and subsistence fisheries exist within the range of the eastern DPS of Steller sea lion. These include fisheries for salmon, herring, demersal shelf rockfish, ling cod, and black and blue rockfish in state waters of southeast Alaska; herring, hake, sardines, salmon, and groundfish in British Columbia; salmon and herring in state waters off Washington and Oregon; and groundfish along the U.S. west coast. Mechanisms by which fisheries can have indirect effects (e.g., nutritional stress) on Steller sea lions have been reviewed extensively in the scientific literature and in recent NMFS actions (e.g., 75 FR 77535; December 13, 2010). Given the sustained significant increases in non-pup abundance and increases in pup production of eastern DPS Steller sea lions concurrent with the ongoing prosecution of these fisheries, and given current and anticipated fisheries management procedures and regulatory mechanisms, there is no indication that fisheries are competing with eastern DPS Steller sea lions to the point where it constitutes a threat to the survival or recovery of the eastern DPS of Steller sea lions. Due to increasing numbers of Steller sea lions in some locations, and increasing numbers of California sea lions in others, the effects of competition with fisheries may increase in the future as the number of animals competing for the same prey increases or if there is habitat degradation or other factors that

lead to prey declines. However, given current information, we conclude the current management of those fisheries is not likely to cause the eastern DPS to become in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

Coastal development, tourism, industry, shipping, and human population growth may lead to more noise, human presence and other outcomes that increase disturbance of Steller sea lions on terrestrial sites or in the water, or to their prey. However, protections against such disturbance exist and will likely remain in place under a variety of state and federal statutes. Following delisting, significant regulatory mechanisms under the Marine Mammal Protection Act (MMPA) and other laws will provide a means to reduce or minimize possible adverse effects of disturbance from human activity. These mechanisms provide protections against human disturbance for Steller sea lions on coastal haulouts and rookeries, and in other habitats. The prohibitions and penalties related to “take” under the MMPA are particularly relevant (16 USC 1371(a)), as is our ability to require mitigation in authorizations of take incidental to other activities such as shipping, tourism, or coastal development. To authorize any such take, we must find that it will have no more than a negligible impact, which NMFS regulations define as “an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival” (50 CFR 216.103). In addition, we must prescribe permissible methods of taking, as well as other means of having the least practicable adverse impact on affected marine mammal stocks. We must also impose monitoring and reporting requirements. We conclude that there is no current evidence indicating that human disturbance of Steller sea lions on or near coastal habitats is likely to cause the eastern DPS of Steller sea lion to become in danger of extinction throughout all or a significant portion of its range within the foreseeable future.

Toxic substances may adversely affect eastern DPS Steller sea lions, although much remains to be learned about the levels of a suite of contaminants, related physiological mechanisms, and the reproduction, health and survival consequences of such substances (Atkinson *et al.* 2008; Meyers *et al.* 2008; Barron *et al.* 2003). In the past two decades there has been an emerging understanding that contaminants,

especially those that bioaccumulate and are persistent, can pose a risk to the reproductive success and health of marine mammals (e.g., Ross *et al.* 1995; Beckmen *et al.* 2003; Hammond *et al.* 2005). Studies conducted in southern and central California (Sydeman and Jarman 1988; DeLong *et al.* 1973; Le Boeuf *et al.* 2002; Ylitalo *et al.* 2005; Blasius and Goodmanlowe 2006; and see Heintz and Barron 2001 for review) have recognized the potential for adverse consequences of high levels of contaminants in pinnipeds in this more industrialized portion of their range. However, this potential for negative impacts is in contrast to the robust populations of some species of pinnipeds in these areas. Thus, while a body of literature on Steller sea lions and other pinnipeds suggests that toxic substances may have been a factor that adversely affected Steller sea lions in some parts of California, in most of the range of this DPS, if toxic compounds have affected reproduction or survival, the effects have not been sufficient to impede sustained recovery, and they have not been sufficient to impede the overall recovery of this DPS. While there is uncertainty concerning the potential for toxic substances to affect reproduction, survival, and population increase in the southern part of the range of this species, the best scientific and commercial data available do not indicate that toxic substances are likely placing this population in danger of extinction throughout all or a significant portion of its range or likely to become such within the foreseeable future.

Oil and gas activity such as exploration, production, and transportation of petroleum products within the eastern DPS Steller sea lion range has the potential to adversely affect animals within this DPS due to disturbance or pollution in the event of spills. The most significant effects could result if repeated disturbances or a large spill were to occur near large rookeries. Large oil and fuel spills have occurred in the past in multiple locations within the range of this DPS. Based on current information, the risks posed by such events do not place this species in danger of extinction throughout all or a significant portion of its range or make it likely that it will become so within the foreseeable future.

Based on the considerations for Factor A summarized above, and the additional information provided in the Status Review (NMFS 2013a), we conclude that the eastern DPS of Steller sea lion is not in danger of extinction throughout all or a significant portion of its range, nor likely to become so within the foreseeable future due to the present or

threatened destruction, modification, or curtailment of its habitat or range.

The Recovery Plan (NMFS 2008: VII-4) states that “To provide assurance that delisting is warranted for” this DPS, “. . . threats to its habitat should be reduced as specified under this factor:

1. Marine habitats, particularly in regard to prey populations, must be maintained through appropriate fisheries management and control of contaminants.

2. Rookery and haulout sites need to be adequately protected (through state, federal, or private measures) to insure the continued use of these sites for pupping, breeding, attending young, and resting. Research and monitoring plans should be in place for all projects that have a high probability of negatively impacting sea lions in order to make sure that these activities do not result in harm to sea lions or their habitat.”

We identified research and management programs in the Status Review (NMFS 2013a) that help to protect Steller sea lion habitat from adverse effects due to fisheries, coastal development, and other threats, as detailed above for Factor A and below for Factor D. We conclude the recovery criteria and recovery actions recommended under this listing factor have been accomplished and will continue to be accomplished on an ongoing basis.

#### *Factor B: Overutilization for Commercial, Recreational, or Educational Purposes*

In the Recovery Plan, NMFS (2008:VI-3) summarized that prior to the MMPA there were both sanctioned and unsanctioned efforts by fishermen and others to control Steller sea lions in the United States, and the killing of sea lions by fishermen and others was commonplace. Additionally, in British Columbia, government control programs killed thousands of Steller sea lions on rookeries and haulouts from 1912 through 1968 (Bigg 1985). By 1970, when sea lions were given protection in Canada, the population had been reduced by about 70%, and one rookery had been eliminated (Olesiuk 2001).

Current documented sources of direct human-caused mortality of Steller sea lions include subsistence harvests, incidental takes in fisheries, illegal shooting, entanglement in marine debris, and take during scientific research. There are currently no commercial harvests or predator control programs in the United States in which Steller sea lions are authorized to be killed. Killing harbor seals and California sea lions at aquatic farms is

authorized by license in Canada, but lethal control of Steller sea lions has been prohibited in Canada since 2004. DFO (2010) noted that Steller sea lions could be shot as a result of being misidentified as either a harbor seal or California sea lion, but they assessed the current level of concern for this threat as negligible. Available information indicates that subsistence harvest rates remain very low and not likely to cause this population to become in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

While Steller sea lions are taken incidentally by commercial fisheries, the known mortality level from this source is relatively small compared to the species' potential biological removal (PBR). We are, however, uncertain about the actual levels of take of eastern DPS Steller sea lions in fisheries for a variety of reasons. Estimates of fishery-related mortality based on stranding data are considered minimum estimates, because not all stranded animals are observed or reported and not all entangled animals strand (Allen and Angliss 2011). Recent observer data are not available from many fisheries within the U.S. range. The number of Steller sea lions taken in Canadian waters is not known (Allen and Angliss 2011). On the other hand, we are not aware of any information to suggest that the numbers of eastern DPS Steller sea lions taken incidental to commercial fishing will increase appreciably within the foreseeable future. Thus, there is no evidence indicating that the estimated level of incidental take in commercial fishing is likely to cause the eastern DPS of Steller sea lion to become in danger of extinction throughout all or a significant portion of its range within the foreseeable future.

Entanglement of Steller sea lions in packing bands, discarded fishing gear, rope, hooks, and flashers may be reported through the Marine Mammal Stranding Network, field studies, or by opportunistic sightings. Such entanglement can lead to serious injury and mortality. While we are concerned about entanglement and are working with the States and others to reduce it, we are not aware of data that indicate that effects from entanglement are likely to cause this species to become in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

While only minimum estimates of illegal take (e.g., shootings) of Steller sea lions are available, the estimated level of this illegal take is not likely to pose a threat to this population. Allen and Angliss (2012:19) reported that the

minimum estimated U.S. commercial fishery-related mortality and serious injury for this DPS (17.0) is less than 10% of the calculated PBR (200) and, therefore, can be considered to be insignificant and approaching a zero mortality and serious injury rate. The estimated annual level of total human-caused mortality and serious injury is 45.8 for commercial and recreational fisheries, 11.9 for subsistence, and 1.4 for other human-caused mortality, for a total of 59.1. Thus, given the size of the population, the estimated levels of such take are unlikely to place this species in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

The Recovery Plan does not specify recovery criteria under this factor. Research and management programs are in place, or will be put in place post-delisting (e.g., in the PDMP), to monitor and regulate the threats identified under this factor. Consistent with the primary goals of the MMPA, these programs reduce the magnitude of the above types of takings. We will continue to monitor take in selected fisheries and will, as recommended in the Recovery Plan (NMFS 2008), work cooperatively with the States to implement observer programs and other means to identify, evaluate, and reduce levels of uncertainty in the estimates of incidental taking by commercial fishing.

#### *Factor C: Disease, Parasites, and Predation*

In the Recovery Plan, NMFS (2008) concludes that no criteria are necessary to reduce disease or predation. The plan briefly discusses the parasites that have been found in eastern DPS Steller sea lions and states that although research is needed, there is no available information to suggest that parasitic infections are limiting population growth. The plan summarizes that, while Steller sea lions are taken by killer whales throughout their range, there is no indication that killer whale predation is outside normal levels expected in this population at their abundance level. NMFS (2008:VI-2) also notes that previous authors (Long and Hanni 1993) suggested that “. . . white shark predation could impede recovery of Steller sea lions in California if the number of sea lions declines further and the shark population continues to increase.” There is no new information since the Recovery Plan indicating a greater threat from predation. We conclude that predation is not limiting recovery (NMFS 2008, 2013a).

With respect to disease, the Recovery Plan (NMFS 2008:VI-4) states:

“Whereas exposure to many disease agents has been identified in Steller sea lions, little is known about the disease agents themselves or how they may impact the sea lion populations, and no evidence has been found of disease limiting population growth.” Based on the information available at that time, NMFS (2008) stated that the diseases known to occur in this DPS appear to be limited to those endemic to the population and they are unlikely to have population level impacts.

New information indicates that the threat of exposure to novel disease vectors is higher now than was known at the time the Recovery Plan was completed. This increased threat is due to the documented infection and exposure of Steller sea lions to at least one infectious, and possibly pathogenic, virus (phocine distemper virus (PDV), which may be novel to them (Goldstein pers. comm. and unpublished data; see also Goldstein *et al.* 2009); the emergence and/or the detection of other disease agents infecting other species of marine mammals within their range (e.g., toxoplasmosis; Conrad *et al.* 2005); increased crowding at some rookeries that may result in increased incidences of density-dependent related disease (e.g., as Spraker *et al.* (2007) have suggested for the hookworm/bacteremia complex in California sea lions); and climatic and oceanic changes that may enhance the probability of Steller sea lion exposure to novel disease agents (e.g., Lafferty and Gerber 2002).

The marine environment of the eastern North Pacific is changing and is likely to change in the future due to global warming and related changing ocean conditions (see section on Climate Change and Ocean Acidification). There is growing understanding of ways in which climate change, other environmental change, and stress may increase disease risk. Lafferty and Gerber (2002) concluded that key threats to biodiversity, such as climate change, resource exploitation, pollution, and habitat alteration can affect the transmission of an infectious disease; introduced pathogens can make abundant species rare; conditions that cause stress may increase susceptibility to disease; cross-species contact may increase transmission; and pathogens are of increasing concern for conservation. Climate change can lead to shifts in the range of the eastern DPS of Steller sea lion or in the range of other species. Such range shifts increase the likelihood that Steller sea lions will be exposed to novel disease agents (e.g., Lafferty and Gerber 2002; Goldstein *et al.* 2009a). The entry of PDV into the North Pacific may have

occurred due to global warming (Goldstein 2009b). Archived samples (primarily from animals in the Aleutians and Prince William Sound) from Steller sea lions collected since 2001 tested positive across several locations and sampling years (T. Goldstein, unpublished data). Goals of current research include determining how widespread PDV is in Steller sea lions across their range and whether this viral infection may be affecting the health of Steller sea lions (T. Goldstein, pers. comm.). Studies of pinnipeds in the North Atlantic indicate the effects of exposure to PDV have ranged from large scale epidemics in Atlantic harbor seals to no detectable population impacts in other species (e.g., see Dietz *et al.* 1989, Heide-Jørgensen *et al.* 1992; Harding *et al.* 2002; Jensen *et al.* 2002; Härkönen *et al.* 2006). Additional information on this virus and other novel disease agents that have been detected within the range of the eastern DPS is provided in the Status Review (NMFS 2013a).

We conclude that the risk of disease to eastern DPS Steller sea lions is likely higher than was known at the time of the Recovery Plan, and it is likely to increase over time due to increased crowding and, especially, due to the emergence of novel disease vectors. The available information available, however, does not indicate that disease is causing population-level effects in the eastern DPS, either alone or in combination with other threats. We recognize the need to continue to test and monitor for the presence of novel and potentially threatening disease agents and have included disease surveillance and parasite studies as components of the PDMP (NMFS 2013b). Through established programs such as Marine Mammal Stranding Networks and ongoing collaborative research, routine sampling to monitor the occurrence of PDV and other diseases will continue, and appropriate responses (e.g., Unusual Mortality Event response) to critical events (e.g., a disease epidemic) will be implemented if the need arises.

#### *Factor D: The Inadequacy of Existing Regulatory Mechanisms*

To fully evaluate the adequacy of existing regulatory mechanisms, we considered the existing protections in light of identified threats discussed in Factors A through E. The MMPA establishes a moratorium on the taking and importation of marine mammals and marine mammal products, with some exceptions. Under the MMPA, the term “take” means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine

mammal. It provides a variety of existing regulatory measures designed to protect marine mammals from unauthorized harassment and other forms of take, ensure that the population stocks do not diminish beyond the point at which they cease to be a significant functioning element in their respective ecosystems, and ensure stocks do not fall below their optimum sustainable population levels. The MMPA also provides mechanisms to permit some types of take through a regulated process, including a process for incidental taking that is aimed at ensuring that the taking is small in number, has a negligible effect on the affected marine mammal population, and minimizes adverse effects on the population and its habitat to the least practicable level. The MMPA will continue to provide protection to the eastern DPS Steller sea lion to help ensure that it can remain a fully functioning part of the marine ecosystem. In addition, provisions of the MMPA provide mechanisms to protect the habitat of the eastern DPS against certain kinds of threats, should they emerge.

The location of key terrestrial and aquatic habitats of the eastern DPS of Steller sea lions within state and federal parks and marine protected areas (e.g., Oregon Islands National Wildlife Refuge, Olympic National Park, Farallon Islands National Marine Sanctuary, Three Arch Rocks National Wildlife Refuge) offers additional protections for the eastern DPS of Steller sea lions. These additional protections vary but some are primarily focused on reducing or avoiding disturbance of the animals when they are hauled out. More details are provided in the Status Review (NMFS 2013a).

Federal regulations and management plans established by the government of Canada provide protection for eastern DPS Steller sea lions and their habitat in that country (e.g., Marine Mammal Regulations of the Fisheries Act). The United States and Canada cooperate on research and monitoring (such as in the planning and sometimes the execution of aerial surveys) necessary for detecting declines in status such that steps could be taken, if needed, to ensure the long term health and well-being of this population within Canadian waters.

A number of other federal and state statutes, including the Clean Water Act, National Marine Sanctuaries Act, and Magnuson-Stevens Fishery Conservation and Management Act will continue to provide protection to wildlife and habitat and will likely help facilitate the continued growth and stability of this population. The

relationship of these other federal statutes to Steller sea lions is discussed in more detail in the Status Review (NMFS 2013a).

To address and fulfill aspects of Factor D, the Recovery Plan (NMFS 2008) enumerated two recovery criteria:

(1) Agreement is reached with the State of Alaska which describes their fishery management plan, minimizes the take of Steller sea lions, and describes how future actions taken by the State will comport with the ESA and MMPA.

(2) A Steller sea lion recovery coordinator is on staff at NMFS.

During the process of conducting this Status Review, NMFS and the Alaska Department of Fish and Game met to discuss how, in the event the eastern DPS of Steller sea lion is delisted, future State actions will minimize the take of Steller sea lions in accordance with the MMPA. The State of Alaska provided correspondence that describes state fishery management plans, maintains that existing practices followed by the State with respect to fisheries management have minimized the take of eastern DPS Steller sea lions and will continue to do so, and explains the State's perspective on how such fishery management practices will contribute to continued recovery of the eastern DPS and will continue to comport with all aspects of the MMPA for the foreseeable future. NMFS agreed (Balsiger 2012) that the described plans and management actions satisfy the recommended delisting action.

NMFS has a Steller sea lion recovery coordinator on staff. This satisfies the second recommended recovery criterion under this listing/delisting factor.

Therefore, NMFS concludes that the actions identified under Factor D in the Recovery Plan have been met. Based on the considerations for Factor D, we conclude that the protections afforded by existing regulatory mechanisms make it unlikely that the eastern DPS will become in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

#### *Factor E: Other Natural or Manmade Factors Affecting Its Continued Existence*

Beyond those threats discussed above, the Recovery Plan (NMFS 2008) did not identify other threats that need to be considered under Factor E. Based on information and analysis in the 2008 Recovery Plan and the Status Review (NMFS 2013a), we find that there are no other factors likely to cause the eastern DPS of Steller sea lions to become in danger of extinction within the

foreseeable future throughout all or a significant portion of its range.

With respect to Listing Factor E, the 2008 Recovery Plan specified that the following criteria should be achieved and accomplished in such a way that delisting is not likely to result in re-emergence of the threat:

1. An outreach program is established to educate the public, commercial fishermen and others to the continued need to conserve and protect Steller sea lions.

2. An Alaska stranding network is in place and functional.

Both NMFS and the Alaska Department of Fish and Game have outreach programs devoted to Steller sea lion conservation and management in an effort to educate commercial fishermen and the general public about the ongoing need to protect and conserve Steller sea lions. Various forms of outreach activities are conducted for the public, commercial fishermen, Alaska Native organizations, and others (Web pages, trainings, classroom presentations, videos, bumper sticker campaigns, interpretive displays, etc.). The NMFS Alaska Region and West Coast Region have Marine Mammal Stranding Programs, and the stranding network is operational. More detail on both outreach and stranding efforts are provided in the Status Review (NMFS 2013a). Based on this information, we conclude that the recovery criteria specified under this listing/delisting factor have been met.

### Conservation Efforts

Prior to making a decision regarding the appropriate listing status of a species, NMFS is required under section 4(b)(1)(A) of the ESA to consider the efforts of any State, foreign nation, or political subdivision of a State or foreign nation to protect the species. Such efforts also include measures by Native American tribes and organizations, private organizations and local governments. Under provisions of the ESA and our Policy on the Evaluation of Conservation Efforts (68 FR 15100; March 28, 2003), we are required to identify the conservation efforts, evaluate the certainty of implementing them, and evaluate the certainty that the conservation efforts will be effective. Our basis for evaluating effectiveness should include consideration of whether the effort or plan establishes specific conservation objectives, identifies the necessary steps to reduce threats or factors for decline, includes quantifiable performance measures for monitoring compliance and effectiveness, incorporates the principles of adaptive management, and

is likely to improve the species' viability at the time of the listing determination.

### *Canadian Efforts To Conserve the Eastern DPS of Steller Sea Lion*

We have considered efforts by Canada to conserve the eastern DPS of Steller sea lion. These are discussed elsewhere (e.g., Alaska Fisheries Science Center (AFSC) 2011; NMFS 2013a), and we summarize them here. In January 2011, Canada finalized a Management Plan for the Steller sea lion. The DFO (2011:32) specified two management goals for the plan:

- To ensure that anthropogenic threats from Canadian sources do not cause unsustainable population declines or a contraction of the current range or number of breeding sites in Canada.
- Support for, and contribution to, an environment where research and monitoring of Steller Sea Lions in British Columbia contributes to achieving an improved global knowledge of the Eastern Pacific Population.

The Management Plan articulates historical and current status; ecological needs; the history of management in Canada; knowledge gaps; management goals and assessment of threats; population and distribution objectives for management; research and monitoring objectives; and needed management, research, monitoring, and outreach and communication. Hence, Canadian managers have developed a detailed framework to guide their management of this species. Both the process of developing such a framework and the existence of the framework itself helps focus attention on Steller sea lion status and increases the probability that high priority tasks needed to conserve this species are accomplished. The AFSC (2011) concluded that the current conservation and management plan for Steller sea lions in Canada provides protections similar to the protection measures provided by the MMPA.

### *Tribal Efforts To Conserve the Eastern DPS of Steller Sea Lion*

NMFS collaborates with tribal entities on eastern DPS Steller sea lion conservation. These include outreach activities undertaken by The Alaska Sea Otter and Sea Lion Commission (TASSC, an Alaska Native Organization) and research and monitoring efforts undertaken by the Makah Tribe (Makah 2012). The Makah Tribe provided data and other input at multiple stages of the development of the Status Review and the PDMP. The Makah Tribe has operated a Marine Mammal Program to research marine mammals since 2003 and had previously assisted marine

mammal studies conducted by NOAA since 1996. The tribe has gathered data on the seasonal patterns of haulout use of Steller sea lions in Northwestern Washington and collected data on the resightings of branded Steller sea lions to contribute to NOAA and Oregon Department of Fish and Wildlife life history studies. Both TASSC and the Makah are listed as Regional Collaborators in the PDMP (NMFS 2013b).

### *State Efforts To Conserve the Eastern DPS of Steller Sea Lion*

Conservation efforts by the States have facilitated the recovery of the eastern DPS and will continue to provide protection and monitoring following delisting. Alaska, Oregon, and Washington have active research programs that provide vital information about status, movements, threats, and ecology. In some cases, States have taken action specifically to address identified threats. For example, in their petition to delist this species the Oregon Department of Fish and Wildlife (ODFW) and Washington Department of Fish and Wildlife (WDFW) (2010:4, August 30, 2010) stated: "In the late 1990s the Oregon State Marine Board implemented a boat closure area around one of the more important haul-out and rookery areas on the north coast of Oregon to minimize disturbance." They also stated that ODFW "has established closures to sport fishing and commercial urchin harvest near the most important rookery rocks on the south coast also to minimize disturbance, particularly during the breeding season." In the Status Review (NMFS 2013a), we detail many of the Steller sea lion related outreach activities undertaken by the State of Alaska. Much of the outreach to date has focused on Steller sea lion ingestion of gear and entanglement in marine debris. State institutions, such as Oregon State University, Washington Department of Fish and Wildlife, Humboldt State University, and Alaska Department of Fish and Game participate as part of the stranding networks in their region. The Alaska Department of Fish and Game is an active participant in the Alaska Pinniped Entanglement Group, a collaborative effort between the Alaska Department of Fish and Game, NMFS, the Aleut Community of St. Paul, and others concerned about entanglement in marine debris.

### *Federal Efforts To Conserve the Eastern DPS of Steller Sea Lion*

Current Federal conservation efforts for the eastern DPS of Steller sea lion (other than those conducted under the

ESA) include monitoring, management, assessment, and enforcement under the MMPA; federally sponsored and conducted research on Steller sea lions, their habitat, and their prey; cooperative efforts with Alaska Native subsistence hunters; outreach; stranding response and reporting; and oil spill coordination. Multiple federal agencies in addition to NMFS play roles in this species' conservation, including the National Park Service (NPS), the USFWS, and NOAA National Marine Sanctuaries. Existing federal regulatory actions are discussed under Factor D and in the Status Review and are not repeated here.

#### Evaluation of Potential Significant Portions of the Range

As part of our Status Review, after considering the status of the eastern DPS of Steller sea lions throughout its range, we also considered whether portions of the range of the eastern DPS qualified as significant portions. Our first step in this evaluation was to identify any portions of the range of the DPS that warrant further consideration. We focused on those portions of the range where there is substantial information indicating that (i) the portions may be significant (i.e., if a portion's contribution to the viability of the species is so important that, without that portion, the species would be in danger of extinction either currently or within the foreseeable future) and (ii) the species may be in danger of extinction there or likely to become so within the foreseeable future (76 FR 77002; December 9, 2011).

As noted in the proposed rule to delist the eastern DPS of Steller sea lions (77 FR 23209; April 18, 2012), we initially identified only one portion of the eastern DPS's range that warranted further consideration: The southern portion of the range in California. We specifically considered whether the southern portion of the range in California constituted an SPR because the Recovery Plan indicated that there was concern over the performance of rookeries and haulouts in this portion of the range, especially in contrast to the growth observed in southeast Alaska. Following the receipt of public comments on the proposed rule, we also evaluated population, genetic, ecological, and other relevant information to determine whether either the portion of the range within California or the portion of the range within the California Current Ecoregion constitutes an SPR of the eastern DPS.

We evaluated the abundance of Steller sea lions within California, their productivity, movements, habitat use,

and new information on their genetic characteristics to determine whether the California portion of the eastern DPS range is so significant that without that portion, the long-term viability of the entire DPS would be so impaired that the species would be in danger of extinction, either currently or within the foreseeable future. The history of the species following its protection indicates that this is not the case.

Despite losing rookeries in California, poor pup production at the Farallon Islands, and the fact that the overall statewide population is about one-third of the numbers present in the first half of the century, the overall non-pup trend, as assessed by non-pup counts, for the trend sites within the State of California from 1990–2011 has been stable. Further, pup production in California has increased at about 2.9% per year from 1996–2011. While we do not fully understand the causes of poorer performance of Steller sea lions in California compared to the rest of the DPS, these data indicate that they are not in decline. More importantly, the overall population recovery has met or exceeded the demographic recovery criterion. Increases in numbers throughout much of the rest of the DPS began ten to fifteen years before abundance began to increase in California. Thus, available information does not support a conclusion that the California population's contribution to the viability of the eastern DPS is so important that, without that portion, the eastern DPS would be in danger of extinction now or in the foreseeable future. Therefore, we have concluded that California does not constitute an SPR.

With regard to whether the California Current ecosystem constitutes an SPR, NMFS finds that the evidence is equivocal, as discussed further in the Status Review (NMFS 2013a). However, regardless of whether the California Current portion of the range is an SPR, Steller sea lions within the California Current portion of the range do not meet the definition of a threatened or endangered species under the ESA. This conclusion is based on trend information presented in the Status Review and on the fact that no threats sufficient to impede the recovery of the population now or within the foreseeable future were identified. In other words, if NMFS assumes that the California Current portion is an SPR, NMFS does not find that Steller sea lions are in danger of extinction there or likely to become so within the foreseeable future. The underlying trend information on pups (for California and

Oregon) and non-pups (for California, Oregon and Washington) is provided in the Status Review (NMFS 2013a). The threat information is provided in the Status Review (NMFS 2013a) and summarized above under our consideration of the five factors that must be considered in listing decisions (see "Evaluation of the ESA Section 4(a)(1) Factors and Associated Recovery Criteria").

#### Summary of Public Comments and Responses

We solicited information and public comment during formulation of the Status Review, following publication of our findings regarding the petitions to delist, and following publication of the proposed rule. The first comment period of 60 days followed our initiation of the 5-year status review of the eastern DPS of Steller sea lion under the ESA (75 FR 37385, June 29, 2010; 75 FR 38979, July 7, 2010). On August 31, 2010 (75 FR 53272), we reopened the public comment period for an additional 45 days. To ensure that the Status Review was comprehensive, we again solicited scientific and commercial information regarding this species for 60 days following the release of our 90-day finding on the two petitions to delist the eastern DPS (75 FR 77602, December 13, 2010). Lastly, we solicited public comment for 60 days following the release of the proposed rule, draft Status Review, and draft PDMP. As described more fully below, we also solicited peer review of these documents during the public comment period from seven scientists, four of whom provided a review. All four scientists were outside of the U.S. Federal government. Three had expertise on pinniped ecology, and one had expertise on climate change impacts on marine ecosystems.

During the most recent public comment period NMFS received 1,144 comments relevant to the proposed action. Comments were submitted by individuals; government agencies; fishing groups; environmental and animal rights organizations; tribal entities; and professional scientific societies. The comments raised numerous substantive scientific, policy, and legal issues. Some submissions provided relevant new information for NMFS's consideration. Many comments were complex and had multiple facets, and thus some individual statements are addressed in multiple comments and responses below. Most of the individual commenters were opposed to the delisting. NMFS also received a petition opposing the delisting with hundreds of signatures.

We fully considered all comments received from the public and peer reviewers in developing this final determination to delist the eastern DPS of Steller sea lion. Summaries of the substantive public and peer review comments that we received on the proposed rule and our responses to all of the significant issues they raise are provided below. We made a number of changes to our analysis, the Status Review, and the PDMP in response to comments received and we note those changes in our responses.

#### *Comments on Regulatory Process and Legal Issues*

*Comment 1:* A commenter stated that when a species reaches the level to warrant being delisted, delisting should occur as the law intended. The commenter stated that delisting the eastern DPS of Steller sea lions would be an important step in demonstrating that the ESA process of listing and delisting species is functioning as Congress intended.

*Response:* We agree that species that do not meet the definition of threatened or endangered should not be listed. We are delisting the eastern DPS of Steller sea lion because we have concluded that the best scientific and commercial information available indicates that it is no longer endangered or threatened.

*Comment 2:* The State of Alaska stated that recovery does not mean that all threats to a species have been eliminated but rather that threats have been “controlled.” Citing a 2001 court case, they further commented that recovery is “the process that stops or reverses the decline of a species and neutralizes threats to its existence.” They concluded that recovery represents the point at which a species is no longer declining and threats to its survival have been controlled or neutralized, but not necessarily eliminated. They concluded that all the relevant requirements for delisting the eastern DPS of the Steller sea lion have been satisfied.

*Response:* The ESA implementing regulations (50 CFR 424.12) state the following about recovery: “The principal goal of the U.S. Fish and Wildlife Service and the National Marine Fisheries Service is to return listed species to a point at which protection under the Act is no longer required. A species may be delisted on the basis of recovery only if the best scientific and commercial data available indicate that it is no longer endangered or threatened.” Based on our analysis of such information, we have concluded that this is the case for the eastern DPS

of Steller sea lion, and that is why we are delisting it.

*Comment 3:* A few commenters expressed concern about NMFS’s reliance upon, and the quality of, data cited by the States of Washington and Oregon in their petition regarding the trends in Steller sea lion abundance in those two states, which commenters stated was not submitted to NMFS and/or peer reviewed; the fact that NMFS cited and/or relied on these assertions or data in the status review; and the fact that the public was not permitted to review the data or information. A commenter cited a court case indicating that in order to enable meaningful public comment, an agency must make relevant information known to the public in a concrete and focused form so as to make criticism or formulation of alternatives possible.

*Response:* The petition to delist this DPS submitted by the States of Washington and Oregon referred to unpublished count data that add an additional 6 years to the data presented in Pitcher *et al.* (2007), who presented data to 2002. Washington and Oregon did not, however, provide those survey data with the petition. Rather, they included the data in summary forms. For example, the petition included a figure showing non-pup counts in Oregon from 1976–2008 and indicated that the counts for 2006 and 2008 had not been finalized. Subsequently, in June 2011, Washington provided NMFS with count data from 1988–2008. The information provided included the raw counts for each site, log transformed data for each date, and two figures, one of which was reproduced in the draft status review as Figure 3.5.4. After NMFS published the proposed rule, Washington provided further data, including counts through 2011. Similarly, in 2011 and 2012, Oregon provided count data for 2003, 2005 (incomplete), 2006, and 2008. Johnson and Gelatt (2012) included these newer data sets from Washington and Oregon in their analysis of total DPS abundance trends and of trends in non-pups. We have revised sections of the Status Review (NMFS 2013a) related to the trends in abundance in Washington and in Oregon to incorporate the additional data and to clarify the timing and receipt of the additional data. The proposed rule relied on all the data available to NMFS at the time we published the proposed rule, some of which was in summary form. We incorporated the subsequently available data into the final rule and Status Review but did not republish the proposed rule, because that data merely

corroborated the trends set forth in the proposed rule and draft Status Review.

*Comment 4:* A commenter stated that Washington and Oregon are primarily focused on what they perceive to be problems posed by the recovery of the eastern DPS. The commenter noted that these so-called “negative interactions” are not grounds for delisting the DPS, and that any decision to delist a species must be based solely on the biological needs of the species and not the interests of fishermen or other industry interest.

*Response:* We agree that factors that the commenter refers to as “negative interactions” are not a basis for delisting a species. A species may be delisted on the basis of recovery only if the best scientific and commercial information available indicates that it is no longer endangered or threatened after consideration of factors specified in section 4 of the ESA.

#### *Comments Relevant to DPS and SPR Issues*

*Comment 5:* A commenter stated that NMFS has made the correct determination to delist the whole eastern DPS because the population unit being protected is the genetically distinct eastern DPS rather than individual rookeries within the eastern DPS. Citing Bickham (2010), they stated that genetic studies have found no evidence of stock structure within the eastern DPS that might warrant separate management of the southern portion of the range from the rest of the eastern DPS.

*Response:* We agree that it was appropriate to consider the status of the eastern DPS as it is currently recognized. NMFS evaluated available information about genetic variability, movements, habitat use, ecosystem and ecoregion variability throughout the range, subspecies designation, and other factors related to determining whether there are smaller DPSs within the eastern DPS of Steller sea lion. We concluded that the best available information indicates that there are not such discrete subunits, and thus, we focused our evaluation of status on the DPS as it was described in 1997.

*Comment 6:* Multiple commenters asserted that the proposed rule to delist failed to conduct a proper DPS analysis. The Marine Mammal Commission (MMC) commented that NMFS should base its delisting decision on the status of the eastern stock as a whole and also on the status of potential units of conservation significance within the eastern stock. They stated that the status review should consider whether any grouping of sea lions within the eastern

stock might warrant recognition as a DPS for listing purposes. Multiple commenters stated that NMFS should consider whether the portions of the eastern stock of Steller sea lions that occupy the Alaska Current and California Current ecosystems are sufficiently discrete and significant for Steller sea lions in those areas to warrant separate consideration under the ESA, i.e., whether Steller sea lions within the California Current System (which they defined as California, Oregon, and Washington) comprise a California Current System DPS based on the best available science. The MMC recommended that NMFS delist the eastern DPS and retain threatened status for a newly designated California Current DPS. Other commenters argued that NMFS should list a California Current DPS. A commenter stated that NMFS should consider protecting the California portion of the range as a separate DPS or retain the listing for the entire DPS. Commenters provided evidence to support the recognition and continued protection of a California DPS or California Current DPS based on differences in population status, ecology, and threats. Commenters provided information regarding different ecoregions and/or ecosystems within the range of the eastern DPS. A commenter noted that NMFS appears to have considered establishing a DPS for the California population, but rejected doing so because “there is no genetic basis to further subdivide the California portion from the eastern DPS in its entirety.” A commenter stated that the proposed rule only considered genetic measures of discreteness for the California portion rather than the full suite of physical, physiological, ecological, or behavioral factors as required by the DPS policy. Citing the proposed rule, the commenter stated that the analysis is limited to one brief statement in the draft Status Review: “Recently completed genetic studies have resolved the lingering question of relatedness, establishing that the southern California portion of the population is not a separate ‘valid DPS’ (Bickham 2010a).” A commenter pointed out that genetic distinctiveness is but one possible rationale for establishing a DPS; it is not a legal requirement for every DPS unit. The commenter stated that the failure to consider other factors for establishing a California Current DPS is not consistent with the NMFS’s own policy regarding DPS units.

*Response:* As described more fully in the Status Review (NMFS 2013a), we explicitly considered whether the best

available information still supported the recognition of the eastern DPS of Steller sea lion, as currently recognized as a single DPS—i.e., we determined whether it met the criteria for discreteness and significance as outlined in the DPS Policy (61 FR 4722; February 7, 1996). We concluded that it does. As explained in AFSC (2011), this conclusion is based on an extensive body of research that includes sea lion population genetics, ecology, behavior, and details regarding the physical and physiological characteristics of the species.

In response to comments received at various stages of our evaluation process, we also explicitly considered whether either the population segments of Steller sea lions that breed within the California Current System or in California met the DPS criteria. While there is extensive ecological variability within the breeding range of the eastern DPS, we did not find compelling evidence of consistent or marked separation among different segments within the eastern DPS of Steller sea lion. The best available evidence indicates that Steller sea lions that breed in northern California, southern Oregon, and Washington are not markedly separated from Steller sea lions in British Columbia and southeast Alaska as a consequence of physical, physiological, ecological, or behavioral factors. We did not find persuasive evidence that indicated that some segments of the eastern DPS are discrete from the other portions of the DPS. The best available evidence about genetic patterns, morphology, ecological characteristics of habitat, movement patterns, etc. also does not indicate that Steller sea lions in California are discrete from those in the rest of the eastern DPS. After consideration of the information available to us at the time of the release of the draft Status Review and that provided to NMFS during public comment on the proposed rule, we did not find it appropriate to further subdivide this DPS.

*Comment 7:* Two scientific organizations commented that there are not sufficient genetic differences between populations of Steller sea lion in California compared to the remainder of the eastern DPS to warrant designation of a DPS unit based solely on that criterion. However, they stated that because adaptive potential is a hedge against unknown future changes in environment, and most genetic variation contributes incrementally to adaptive potential, it is difficult to identify a strict threshold as to how much diversity is enough for any species. They cited Carroll *et al.* (2010)

as concluding that, given this inherent uncertainty, geographic distribution across ecosystems may be a more practical surrogate for direct analysis of genetic viability. They stated that an additional benefit of properly considering the representation of Steller sea lions within an ecoregion unit is that “a species [that] is well distributed throughout its historic range (i.e., securely occupies all but an insignificant portion of its range) will generally correspond with the conditions necessary for genetic viability.”

*Response:* We considered the information in Carroll *et al.* (2010) as part of our DPS analysis. We note that in the case of the Steller sea lion, there are multiple studies of patterns of genetic variation from multiple locations throughout the range of the eastern DPS and the western DPS on which to evaluate underlying genetic structure within and between the DPSs. These data are directly relevant to evaluating the discreteness of population segments within the DPS. Thus, NMFS did not require the use of a surrogate for direct analysis of genetic data but rather relied on multiple studies in which such direct analysis was undertaken.

*Comment 8:* Two scientific organizations commented that the approach of using a species’ presence in an ecoregion is a valid rationale for protecting that portion of a species as a DPS unit, and that this rationale appears to have been used by NMFS in some situations such as in its protection of the Atlantic sturgeon (*Acipenser oxyrinchus*) under the ESA. They stated that a similar analytical approach should be used for delineating a California Current DPS of the Steller sea lion. The commenter stated that analyzing the threats to a species at the ecoregion or ecosystem unit level is consistent with multiple listing actions by NMFS and USFWS.

*Response:* In order to be recognized as a DPS, a population segment must be both “discrete” and “significant” as discussed in the joint USFWS and NMFS DPS Policy (26 FR 4722; February 7, 1996). The DPS Policy states that a “population of a vertebrate species may be considered discrete if it satisfies either one of the following conditions: (1) It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors (quantitative measures of genetic or morphological discontinuity may provide evidence of this separation) or (2) it is delimited by international governmental boundaries within which

differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of Section 4(a)(1)(D) of the ESA.” Once the discreteness criterion is met for a potential DPS, we then evaluate whether the significance criterion is met.

With respect to the recognition of Atlantic sturgeon DPSs, we relied on tagging data and genetic analyses, which demonstrated ecological separation of populations during spawning, as evidence of marked separation or “discreteness” of certain populations (77 FR 5880, 77 FR 5914; February 6, 2012). We subsequently considered several lines of evidence, including persistence in unique ecological settings, as support for the “significance” of each of the potential DPSs to the taxon as a whole.

There is variation in the ecological characteristics of marine habitats within the range of the eastern DPS of Steller sea lions and several different schemes have been designed to describe and classify this variability. Thus, commenters are correct that ecological variability exists in this range, and we agree that ecoregion and/or ecosystem differences in various parts of the range may be useful when evaluating the discreteness of portions of a species. However, as noted by some commenters, including those supporting recognition of a California Current DPS, the best available genetic data within the range of the eastern DPS of Steller sea lion do not support the delineation of a California or California Current DPS. While we considered ecoregion and ecosystem variation throughout the range of the eastern DPS, we did not find consistent compelling evidence of marked discontinuity or separation between segments of the population that breed at rookeries within these different ecoregions. Further, we note that, based on Spalding *et al.*'s (2007:574–575) biogeographic classification scheme, the entire historic and breeding range of the eastern DPS falls within the Temperate North Pacific Realm and the entire current breeding range falls within the Cold Temperate North Pacific Province. Spalding *et al.* (2007) stated that provinces are “Large areas defined by the presence of distinct biotas that have at least some cohesion over evolutionary time frames . . . . Although historical isolation will play a role, many of these distinct biotas have arisen as a result of distinctive abiotic features that circumscribe their boundaries . . . . In ecological terms, provinces are cohesive units likely, for example, to encompass the broader life history of many

constituent taxa, including mobile and dispersive species . . . .” Based on the genetic and movement data of eastern DPS Steller sea lions, it would appear that the ecological province does encompass the broader life history of this DPS. This supports the continued recognition of the eastern DPS as a single, discrete entity.

As stated in the DPS Policy, persistence of a species in a unique ecological setting is a factor that can be considered in determining the significance of discrete subunits of a species. Because we did not find sufficient evidence indicating that there were discrete subunits within the eastern DPS of Steller sea lion, we did not address the issue of significance of any potential non-discrete subunits.

*Comment 9:* A commenter noted that with respect to DPS units, USFWS has repeatedly determined that a gap at the end of a species' range is a valid reason for finding significance under the DPS policy. The commenter stated that court rulings have pointed out that in other listing rules, USFWS has interpreted the term ‘gap’ to include the loss of peripheral populations. The commenter stated that NMFS has used similar reasoning in protecting several species under the ESA (e.g., the Cook Inlet beluga whale and the southern DPS of spotted seals). The commenter stated that the loss of the southern population of Steller sea lion would represent a similar gap in the range of the species as a whole, and therefore it warrants protection under the ESA.

*Response:* As noted in the previous response, based on the DPS Policy (26 FR 4722; February 7, 1996), in a DPS analysis, if a population segment is determined to be discrete in relation to the remainder of the species to which it belongs, then its significance to the species is determined. NMFS did not find compelling evidence indicating that a California or California Current subunit of the eastern DPS meets the discreteness criterion of the DPS Policy. Thus, evaluation of the significance of these subunits is moot in the context of a DPS analysis. By contrast, for Cook Inlet beluga whales and spotted seals we had information indicating that there were discrete populations, and thus evaluation of the significance of those populations was relevant (see 65 FR 34590; May 31, 2000 and 75 FR 65239; October 22, 2010).

*Comment 10:* A commenter stated that NMFS should use its authorities under section 4(d) of the ESA to craft a flexible management regime for Steller sea lions to provide continuing protections of the ESA where needed, while providing regulatory flexibility. Two commenters

stated that NMFS should issue a special rule for the eastern DPS to allow certain limited kinds of take, under permit by the agency, and supported by science, such as take authorized under the MMPA, without violating the ESA. The commenters stated that this management tool is a more prudent course of action than delisting the entire eastern DPS.

*Response:* Based on the evaluation presented in the Status Review and summarized in this final rule, NMFS has concluded that the eastern DPS no longer meets the definition of a threatened or endangered species and warrants delisting. Since we cannot adopt management measures under section 4(d) of the ESA for a species that is no longer listed as threatened, we cannot pursue the regulatory measures described by the commenter. We note, however, that the species will still be protected under the MMPA.

*Comment 11:* A commenter noted that Steller sea lion biologists have provided evidence supporting the potential subdivision of the DPS and the maintenance of protections for what they termed “southern Steller populations.” The commenter cited findings from Hastings and Sydeman (2002) that differences in trends between rookeries in southeast Alaska and those in Canada, Oregon, and California may indicate that these areas deserve separate management considerations and that because significant declines in Steller sea lions have occurred at San Miguel Island, Año Nuevo Island, and the South Farallon Islands, greater monitoring and protection are warranted.

*Response:* Section 3 of the ESA defines a “species” to include “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” Something must qualify as a “species” to be listed and protected under the ESA. As noted above, we did not find compelling evidence indicating there are population segments within the eastern DPS that meet the definition of a DPS.

With regard to the contention of differences in trends among rookeries in different parts of the range, we note that the only portion of the range in which the best available data indicate that there has not been a sustained increase in non-pup numbers is in California, where the overall trend in non-pup counts has been stable for the past two decades. Pup and non-pup trend data do not indicate that a subset of the population within Canada, Washington, Oregon, and California should warrant

different management than southeast Alaska. NMFS has included elements in the PDMP to monitor threats throughout the range and to determine if the poor performance of the species in parts (but not all) of its historic and current range in California spreads northward.

*Comment 12:* A commenter stated that scientific evidence and Congressional guidance supports a decision not to delist the eastern DPS of Steller sea lions and instead to reintegrate the two DPSs into a single species. This commenter contended that this reintegration of the Steller sea lion taxon is supported by trends strongly suggesting that the two DPSs are merging geographically and genetically, as well as Congressional guidance that the authority to list DPSs be used sparingly.

*Response:* We disagree that the weight of scientific evidence supports reintegrating the eastern and western DPSs. Genetic data, subspecies assignment based on genetics and morphology, population trends, and ecological differences in vast parts of the range continue to support the recognition of the eastern and western DPSs. Although recent data in the far northern part of the eastern DPS indicate movement of some western DPS females into the area east of 144 °W longitude (Jemison *et al.* 2013), this mixed part of the breeding range remains small. The findings represent what may be an evolving relationship between the DPSs (Jemison *et al.* 2013). However, at present, we conclude that the weight of evidence supports the continued recognition of the eastern and western DPSs.

*Comment 13:* Multiple commenters stated that NMFS did not properly interpret the phrase “significant portion of its range” (SPR) in the ESA definitions of “endangered” and “threatened.” Commenters stated that NMFS applied the flawed criteria of the draft SPR Policy by determining that a portion of a species’ range would be significant only if delisting that portion would place the entire species at risk of extinction in the future. Multiple commenters recommended that NMFS analyze whether the Steller sea lions in the California Current System (which they defined as California, Oregon, and Washington) constitutes an SPR of the eastern DPS, particularly because none of the “populations” meets the demographic or threats-based delisting criteria. They stated that NMFS should retain the listing for the entire eastern DPS based on threats to a California Current System SPR. A commenter stated that California represents a significant portion of the species’ range,

the species remains threatened there, and delisting is premature and does not meet the best available information mandate within the ESA. Commenters indicated that for these reasons, the eastern DPS warrants continued protection under the ESA. Multiple commenters also stated that the eastern stock occupies two major ecosystems formed as the North Pacific Current approaches western North America and splits into the Alaskan Current flowing northward and the California Current flowing southward. Relatedly, multiple commenters summarized that the offshore waters of California, including the California Current (and one commenter indicated also the Southern California Bight), represent ecological regions that are distinct from those farther north. Multiple commenters stated that the California Current, including the Southern California Bight, represents a logical, science-based ecoregion in which to assess the viability of the Steller sea lion. Commenters maintained that the California Current region clearly meets a threshold of geographic significance since it covers roughly half of the range of the eastern DPS. They stated that this productive upwelling ecoregion also meets a threshold of biological significance.

*Response:* We will respond to comments on the SPR Policy in the final decision regarding the draft policy. As indicated above, in this rulemaking, we consider the draft SPR Policy to be non-binding guidance. In making our determination to delist the eastern DPS, we reconsidered information on patterns of genetic variability, movement patterns, ecosystem and ecoregion classification, and other relevant information to determine whether either the portion of the range within California or the portion of the range within the California Current ecoregion constitutes an SPR of the eastern DPS. We concluded that California does not constitute an SPR. In reaching this conclusion, we evaluated the abundance of Steller sea lions in California, their productivity, and their diversity to determine whether the California portion of the eastern DPS range is so significant that without that portion, the long-term viability of the entire DPS would be in danger of extinction, either currently or within the foreseeable future. We also evaluated whether the California Current portion of the range is an SPR. As we discuss in more detail in the Status Review, based on the concepts of representation, redundancy, and resiliency, consideration of the demographic

consequences of the loss of the California Current portion of the range to the overall population, and consideration of what the loss of that entire segment of the range would indicate about the presence of substantial and uncontrolled threats within the DPS, we found that there were arguments for and against the contention that the California Current portion of the range is an SPR of the eastern DPS. With respect to the recommendation that NMFS retain listing for the entire eastern DPS based on threats to a California Current SPR, we concluded that regardless of whether the California Current portion of the range is an SPR of the eastern DPS of Steller sea lion, that determination would not change the conclusion of the Status Review because Steller sea lions within the California Current portion of the range do not meet the definition of either a threatened or endangered species under the ESA. If the final SPR Policy differs materially from the draft policy considered here as non-binding guidance, we will consider whether any subsequent action with respect to the eastern DPS is appropriate.

*Comment 14:* A commenter expressed concern with NMFS’s assessment that the Steller sea lion “has recently shown a positive trend” in California. Commenters stated that while there may be a slight increase in pup production in California, data from the draft Status Review show no increase in non-pups. A commenter stated that while data from the draft Status Review indicate that the eastern DPS has met the recovery targets for delisting in Alaska, British Columbia, and possibly Washington and Oregon, the data do not demonstrate that recovery targets for the eastern DPS have been met in California. Steller sea lions were extirpated from the Channel Islands in the 1980s and remain well below their historic population levels. The commenter said that Steller sea lion populations in California have at best remained stable for the last 15 years, but remain at approximately one-third the level that the population represented in the first half of the 20th century. Another commenter stated that counts used in the proposed rule for the California portion of the eastern DPS combine the counts for the entire state into a single estimate rather than more appropriately considering the southern portion separately.

*Response:* NMFS acknowledges there are parts of California where Steller sea lions have not recolonized (e.g., San Miguel Island), and others where performance has been poor (the Farallon Islands), even with protection from

disturbance and direct take. Since the draft Status Review, additional new data have become available regarding trends in non-pups in California. Regression analyses of non-pup count data from 1990–2011 show an average rate of change over that period of 0.0% in California. Thus, commenters are correct that non-pup data from California in the past couple of decades have not shown an increase and the number of Steller sea lions in California remains low compared with their abundance in the first half of the 20th century. We have clarified this in the Status Review and in this final rule and have considered this fact in our findings about the status of the eastern DPS. Based on regression analysis, there has been an average annual increase of 2.9% from 1996–2011 in California pup counts. As discussed in the Status Review (NMFS 2013a), our overall estimation of total population abundance is based on expansion from pup count data. Pup counts have shown a positive annual rate of change throughout all four breeding subareas of the range: California, Oregon, British Columbia, and southeast Alaska. Elsewhere in the range of this DPS, Steller sea lions have established new breeding sites and recolonized some of the old ones. Overall, the performance in California does not negatively affect the viability of the entire population to the point where it places the population in danger of extinction now or within the foreseeable future and it has not impeded robust increases in many other parts of the range of this DPS. Lastly, we reiterate that the Recovery Plan does not specify biological recovery criteria for subareas. Evidence indicates that the DPS, as a whole, has met the biological recovery criterion.

*Comment 15:* A commenter stated that the flat growth rate in the southern part of the range may presage additional losses to come in other rookeries used by the eastern DPS.

*Response:* Goodman's (2006) extinction risk analysis for the eastern DPS noted the importance of monitoring to detect any northward extension of the area in California in which the counts of pups and/or non-pups did not increase and/or in which the pattern of increase has been inconsistent or weak. Thus, NMFS included monitoring in the PDMP specifically to determine if there is a northward spread of the kinds of poor performance seen in parts (e.g., the Farallon Islands) of California.

#### *Comments on Listing Factors and Threats*

*Comment 16:* A number of commenters stated that all five factors in

section 4(a) of the ESA must be met in order to ensure the species is protected and its long-term conservation is ensured.

*Response:* We agree that the five listing factors must be considered in a decision about the appropriate ESA listing status of a species and we consider them, as discussed herein and in the Status Review (NMFS 2013a).

*Comment 17:* A few commenters who expressed support for the proposed delisting noted that human-related serious injury and mortality is likely well below the potential biological removal level, population growth observed over the past three decades provides strong empirical evidence that the eastern stock as a whole has met the biological recovery goal set forth in the Recovery Plan (NMFS 2008), and delisting appears to be consistent with the factors specified in section 4(a)(1) of the ESA.

*Response:* We agree that delisting appears to be consistent with the factors specified in the ESA.

*Comment 18:* A commenter criticized the measures by which NMFS evaluated threats, stating that major threats were not properly considered. The commenter asserted that five major areas of negative impact likely to affect the eastern Steller sea lions were dismissed from consideration because NMFS claims none would lead to the extinction of the DPS in the foreseeable future. The commenter identified these five threats as global climate warming and ocean acidification, indirect fisheries interactions, coastal development and disturbance, toxic substances, and oil and gas development. The commenter stated that using this measure (of whether each area of negative impact would lead to the extinction of the DPS) has the effect of considering only the good news and none of the bad. Many commenters expressed their concern that not all of the listing factors have been given proper consideration, are adequately addressed, or have been adequately met to ensure the species' conservation after the protections of the ESA are removed. Multiple individuals and organizations commented that delisting is not warranted because the proposed rule does not adequately evaluate and/or consider threats to the eastern DPS, such as global climate warming and ocean acidification, indirect fisheries interactions, coastal development and disturbance, toxic substances, oil and gas development, overfishing, loss of food sources, encroachment into habitat, disease, and predation.

*Response:* We reviewed and revised the Status Review in response to these

comments. We considered both positive information concerning Steller sea lions as well as information about emerging and/or residual threats, including the threats cited by the commenters. We supplemented and/or revised some sections related to threats.

*Comment 19:* One commenter stated NMFS should wait at least two years and then re-evaluate the status of this DPS. Another commenter stated that Steller sea lion populations in California, Oregon, and Washington face significant ongoing threats to their existence. A commenter asserted that Steller sea lions in California, Oregon, and Washington do not meet the delisting criteria and face ongoing threats.

*Response:* NMFS acknowledges that there are some residual threats and potential emerging threats that may have adverse effects on eastern DPS Steller sea lions. We discuss these in the Status Review and elsewhere in this final rule. We have designed a PDMP to monitor such residual threats and potential emerging threats over 10 years following delisting. However, based on the strong performance of the population over an extended period of time despite the presence of these residual threats, NMFS concludes that there are not population-level threats that render this species in danger of extinction throughout all or a significant portion of its range or likely to become so within the foreseeable future.

*Comment 20:* The USFWS at the Farallon National Wildlife Refuge commented that the causes of the decline of the Farallon colony are uncertain. Contaminant studies in the early 1990s revealed elevated levels of organochlorines and trace metals such as mercury and copper that may have impacted reproduction. Disease, declines in prey availability and competition with increasing numbers of other pinnipeds (e.g., California sea lions) also may have contributed to declines and lack of recovery of this colony.

*Response:* We appreciate the substantial additional information provided by the refuge and its collaborators. We incorporated a summary of this information into the Status Review.

#### *Comments on Factor A: Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range*

*Comment 21:* Multiple commenters stated that there are future threats to this population from climate change. The MMC commented that climate-related habitat degradation is one of the leading hypotheses to explain the loss of Steller

sea lion rookeries in California, and Steller sea lions may be shifting their distribution northward as the climate warms and alters the marine ecosystem off California. The NPS at Point Reyes stated that future climate change impacts are likely to affect the population at the southern end of species' ranges, and that they hope NMFS takes these points into account. One commenter wrote that since the short and long-term effects of climate change are at best unclear, it is not prudent to delist any endangered or threatened species. A commenter noted that numerous studies have documented climate-change-related shifts in the California Current Ecosystem that threaten food availability for the Steller sea lion. The commenter stated that the decline in the southern end of the range is consistent with the northward range shifts observed for many marine and terrestrial species in response to climate change. A commenter stated that, although only south-central California populations appear to be experiencing population declines at present, Steller sea lions across the California Current system from California to Washington are vulnerable to continuing changes and likely declines in habitat suitability as oceanic conditions continue to affect the California Current and breeding habitat may further contract. A commenter stated that Steller sea lions in the southern portion of the eastern DPS are under significant stress that is not necessarily confined to areas where growth rates are flat and rookeries are already lost. This commenter stated that the changing oceanic conditions in California warrant greater concern for the southern portion of the eastern DPS.

*Response:* We agree that effects of climate change, especially in the southern part of the range, are a concern. We discussed the emerging, climate-change related threats in the Status Review and considered them in our delisting decision. Due to the specific ecology of the Steller sea lion, including the facts that it is not ice-dependent or associated and is a generalist forager, we conclude that at present the magnitude and timing of effects from climate change on Steller sea lions and the ecosystems of which they are a part are highly uncertain over the foreseeable future. We have included monitoring in the PDMP related to these potential threats so that we can respond as appropriate.

*Comment 22:* A commenter stated that given the increased recreational visitation to the California coast, human disturbance may play a significant role in the decline of southern Steller sea lions. An example of this is the increase

in boaters at the Sea Lion Rocks. A commenter wrote that eastern DPS rookeries are remote with little direct human contact, in addition to enjoying multiple layers of statutory protections. The areas are very much the same now as they were pre-listing and are expected to remain the same for many years. Food resources are abundant and no concerns have ever been identified in this region with regard to a deficit in prey for Steller sea lions.

*Response:* We have repeatedly acknowledged and highlighted the high vulnerability of Steller sea lions to disturbance. We recognize that terrestrial habitats where Steller sea lions are undisturbed are important to the conservation of Steller sea lions. We share concerns that increased recreational use of the coast in some areas could become a problem. However, it is also the case that most eastern DPS rookeries continue to provide excellent habitat for Steller sea lions, and we included measures in the PDMP to monitor population performance, human activities, and the status of terrestrial habitats. These measures will facilitate our efforts to determine if future disturbance is resulting in population-level effects. We emphasize that the protections of the MMPA will remain in place following delisting. As discussed elsewhere, the MMPA established a moratorium on take of marine mammals with some exceptions. As take includes harassment, unauthorized disturbance of Steller sea lions for a purpose not covered by an exception to the moratorium is illegal under the MMPA.

*Comments on Factor B: Overutilization for Commercial, Recreational, Scientific, or Education Purposes*

*Comment 23:* A commenter noted that, in its petition to delist the DPS, Alaska documents only 20 mortalities of eastern Steller sea lions from subsistence hunting. The commenter pointed out that this is based on data that is approximately 15 years old.

*Response:* While we considered the information in the two petitions to delist this DPS, we did not rely exclusively on that information to evaluate the listing status of this species. In the Status Review (NMFS 2013a), we provide data for estimated subsistence takes of Steller sea lions by Alaska Natives between 1992–2008. This represents the best available information on subsistence harvest in Alaska. Data from southeast Alaska, within the breeding range of this DPS, indicate that the take has increased since the Recovery Plan was written but remains low relative to the size of the

population. While we have some uncertainty about actual numbers of animals killed by subsistence hunters, there is no indication that subsistence hunting is having an adverse population level effect on the eastern DPS of Steller sea lions, or that it is likely to have such an effect within the foreseeable future.

*Comment 24:* A commenter stated that some would have the public believe that commercial fishermen are nearly single-handedly responsible for the decline of sea lions, either incidentally or intentionally. This commenter stated that southeast Alaska is home to more permit holders and fisheries than any other area on the West Coast, and the Steller sea lion population there has never been depleted. A commenter expressed support for the proposed delisting and stated that he hoped that the agencies will stop highlighting takings by commercial fishermen as a top cause of decline in Steller sea lion abundance. The commenter pointed out that many past practices with negative effects on sea lions were not a result of fishermen's actions: Shooting by public officials in California, bounties placed on sea lions by some management agencies, commercial harvests, etc.

*Response:* Available evidence indicates that illegal and legal shooting associated with fisheries was a source of mortality historically, probably of varying degrees of magnitude and importance, in many parts of the range. Available data (e.g., Raum-Suryan *et al.* 2009; Raum-Suryan unpublished report) indicate that fishery-related entanglement in marine debris is also currently a problem in multiple parts of the range of this species. Hence, it is important for NMFS to consider and accurately portray the available evidence related to the potential levels and importance of fishery-related take, and the levels of uncertainty related to estimating that impact. However, as noted by the commenter, Steller sea lions have demonstrated a sustained recovery in southeast Alaska, an area with considerable commercial fishery activity. We reviewed our discussion of historic factors and current threats in the Status Review in response to this comment to ensure that we accurately portray the magnitude of known take in fisheries versus the likely effects of other factors.

*Comment 25:* The MMC commented that the eastern DPS of Steller sea lions is not used to any significant degree for commercial, recreational, scientific, or educational purposes and these types of activities are not known to pose a significant risk to the population. In Alaska, they are killed for subsistence purposes and the best available

information indicates a total annual harvest (including those shot but not recovered) from the eastern DPS (U.S. waters only) of about a dozen sea lions.

*Response:* We agree. In the status review, we acknowledge some uncertainty about the actual level of mortality associated with illegal takes and subsistence hunting, due in part to the vast and remote range within which these animals live, and also due to the fact that our knowledge of the level of subsistence hunting depends on retrospective voluntary surveys, which have not been conducted range-wide since 2008. The Status Review summarizes available information on annual subsistence harvests. There is no indication that these takes are having an adverse population level effect on the eastern DPS of Steller sea lions, or that they are likely to have such an effect within the foreseeable future.

*Comment 26:* A commenter noted that the 2008 Recovery Plan identified overutilization as the primary reason for the listing of the eastern DPS of Steller sea lions under the ESA and this view is reinforced by the discussion in the draft Status Review that concluded “the main factor limiting Steller Sea Lions along the west coast of North America was predator control . . .” The commenter indicates that NMFS provided an inadequate consideration of this factor, and of the sufficiency of regulatory mechanisms to prevent a recurrence of overutilization.

*Response:* We reviewed the portion of the Status Review (NMFS 2013a) that discusses overutilization in response to this comment. The general take moratorium in the MMPA, and the findings that NMFS is required to make before authorizing take under the MMPA, should provide adequate protections against the threat of predator control in the future in the U.S. portion of the range of Steller sea lions. Protections against overutilization also exist in British Columbia, as discussed in the Status Review (NMFS 2013a).

*Comment 27:* A commenter stated that while the agreement in the draft Status Review (Appendix 2) between NMFS and the State of Alaska regarding monitoring of the eastern DPS of Steller sea lions asserts that Alaska has no state-managed fisheries that are of concern, both the draft Status Review and the 2011 NMFS marine mammal stock assessment (Allen and Angliss 2011) document numerous fisheries (including gillnet fisheries) that use gear types known to entangle and kill pinnipeds.

*Response:* We acknowledge the apparent discrepancy in these statements. The draft Status Review

summarized that “Four Alaska state-managed fisheries have been observed to cause serious injury or mortality to eastern DPS Steller sea lions (Alaska southeast salmon drift gillnet, Alaska Gulf of Alaska sablefish longline, Alaska commercial passenger fishing vessel, and Alaska salmon troll).” We also discuss the issue of fisheries-related entanglement in the Status Review. We summarized that the best available information supports a conclusion that while Steller sea lions are taken incidental to commercial fishing, the known mortality level from this source is relatively small compared to the PBR.

*Comment 28:* A commenter stated that NMFS’s stock assessment for this DPS states that no records of fishery related mortality are kept in Canada, so the level of mortality from incidental take or shooting at aquaculture facilities is unknown. A related comment indicated that the absence of monitoring for lethal interactions is not the same thing as having monitoring data confirming the absence of interactions. Citing a study by Credle *et al.* (1994), the commenters stated that self-reporting by fishermen is generally a grossly inaccurate underestimate.

*Response:* We agree that it is important to clarify when we have data sufficient to evaluate lethal interactions (or other threats) and when we have no data, few data, or outdated data on which to base our evaluation of the threat. Since this is not the only potential threat to which this comment is relevant, we broadly re-evaluated our discussion of threats in the Status Review with this same point in mind. Lastly, we considered the information provided by the Credle *et al.* (1994) reference in our evaluation of fishery interactions. However, despite the lack of data regarding actual levels of incidental take or shooting at aquaculture facilities in Canada, Steller sea lions in Canada have demonstrated a robust and sustained recovery.

*Comment 29:* Hundreds of commenters urged NMFS not to delist this population due to their concern that a delisting will be followed by programs to kill Steller sea lions to reduce predation of fish at the Bonneville Dam on the Columbia River. Citing a recent increase in illegal killing in the Pacific Northwest, some commenters also expressed concern that delisting will be followed by an increase in illegal killing, especially if a Steller sea lion predator control program is initiated at Bonneville Dam.

*Response:* Following delisting, the Steller sea lion will continue to be protected against take under the MMPA. However, section 120 of the MMPA (16

USC 1389(a)) provides that a State may apply to the Secretary to authorize the intentional lethal taking of individually identifiable pinnipeds which are having a significant negative impact on the decline or recovery of salmonid fishery stocks which: (a) Have been listed as threatened species or endangered species under the ESA; (b) The Secretary finds are approaching threatened species or endangered species status (as those terms are defined in that Act); or (c) migrate through the Ballard Locks at Seattle, Washington. Hence, following delisting, the States of Washington and/or Oregon may apply to lethally and intentionally remove individually identifiable eastern DPS Steller sea lions which are having a significant negative impact on the decline or recovery of salmonid fishery stocks. If such an exemption were granted and the authorized level of taking relative to the population were similar to that previously authorized for California sea lions at the site, the level of take would not cause the eastern DPS of Steller sea lions to become in danger of extinction within the foreseeable future throughout all or a significant portion of its range. We note the concern regarding potential related increases in illegal shooting that may be prompted by state control efforts. We are also concerned about the increase over the last four years in the level of reported illegal shootings of Steller sea lions in the Pacific Northwest. Per the PDMP, we intend to monitor to detect any substantial increases in illegal takes, and we intend to investigate any such illegal takes.

#### *Comments on Factor C: Disease or Predation*

*Comment 30:* The MMC noted that Steller sea lions in the eastern stock are preyed upon by transient killer whales and large sharks, but the existing information does not indicate that the influence of predation has increased or changed in any significant way. They stated that the significance of killer whale predation on the eastern stock is not controversial.

*Response:* We agree that the impact of killer whale predation has not changed and is not controversial.

*Comment 31:* Several commenters referred NMFS to two studies by University of Oregon researchers, one of which they alleged shows that loss of nonhuman predators throws an ecosystem off balance and the other they assert has documented increased predation of sea lion pups by orcas and other large predators. A commenter stated that the number of Steller sea lion females to make it to breeding age may decline as predation on juveniles

continues and that NMFS needs to take these findings into consideration in its threats analysis. Commenters stated that a more extensive study must be conducted before delisting this species to ensure that the sea lions can sustain their numbers. A commenter stated that the eastern DPS should not be delisted until long-range data are collected and evaluated on sea lion predation.

*Response:* We agree that the Steller sea lion is an important marine predator. Other large marine predators, such as orcas, are also important functioning components of the marine ecosystems of which Steller sea lions are a part. Predation on Steller sea lions is a natural phenomenon, and the recovery of the eastern DPS occurred in the presence of such predation. We have no information to suggest that mortality due to orcas or other large predators is likely to reverse that recovery in the foreseeable future.

*Comment 32:* The MMC stated that the eastern stock is exposed to a variety of diseases, as are all marine mammal populations, and that the physical changes occurring in marine ecosystems (e.g., rising water temperatures) may increase the risk of disease if sea lions are newly exposed to pathogens or parasites that may have expanded or shifted ranges. They concluded that the evidence to date does not reveal any such cases, but exposure to new pathogens is difficult to detect and often manifested in episodic disease events that are, by their very nature, difficult to predict beforehand and diagnose afterward.

*Response:* Recent published findings (Goldstein *et al.* 2009) indicate that some potential disease agents may have expanded or shifted their range, resulting in an increased risk of disease to the eastern DPS since the time of the Recovery Plan. We revised and updated the section of the Status Review pertaining to disease to be clear about what we know about Steller sea lion exposure and infection disease agents, and the PDMP includes provisions to monitor for disease outbreaks.

*Comment 33:* A commenter stated that there has been inadequate consideration given to the potential spread of parasites and diseases as rookeries become more densely occupied. The commenter said the role of hookworm and herpes virus in the health and viability of Steller sea lions was not properly considered in the draft Status Review. The commenter believes that the draft Status Review failed to consider the possible magnitude of health threats that are likely to increase with the increasing density of habitat use in some areas. They stated that diseases that occur at

lower levels in more sparsely populated rookeries can dramatically increase with increasing density and could pose a threat to the eastern DPS. Individual commenters and organizations provided comments related to the potential threat to Steller sea lions from viruses that may cause miscarriages or other adverse effects. A commenter noted that the draft Status Review does not discuss a possible threat to Steller sea lions on increasingly dense rookeries from the spread of a herpes virus that can cause cancer and premature death in sea lions, and the potential impact from this disease is also not considered in the proposed delisting. Another commenter pointed NMFS to a news article that suggested that samples from four dead, aborted fetuses revealed that they were killed by a virus. The commenter stated that the news article indicated that a relatively rare virus is being looked at as to the cause of an unusually high number of premature births in Steller sea lions around Kodiak Island. The commenter stated that the discovery that sea lion miscarriages may be caused by a virus weighs against delisting the eastern DPS.

*Response:* We have considered the information presented in these comments and have revised the portion of the Status Review and final rule related to the potential threat posed by disease to more fully discuss the information about the incidence of herpes virus in California sea lions in the North Pacific Ocean. Additionally, we revised the Status Review (NMFS 2013a) to correct errors and to update the best available information related to phocine distemper virus. We are aware of the four miscarriages that were detected in the Kodiak Archipelago in 2012 and the active research on samples from recovered fetuses. In the Status Review (NMFS 2013a), we concluded that the risk of disease to eastern DPS Steller sea lions is likely higher than was known at the time of the Recovery Plan and is likely to increase over time due to increased crowding and, especially, due to the emergence of disease vectors that may be novel to this species. However, the temporal and spatial pattern of the occurrence of new disease vectors, Steller sea lion exposure to known and new disease vectors, and the potential health effects at the individual and population levels from particular disease agents are uncertain and difficult, if not impossible, to predict. Such uncertainty and lack of foreseeability regarding disease risk are not unique to the eastern DPS of Steller sea lions. More importantly, available information does

not indicate that disease is causing population-level effects in the eastern DPS, such that alone, or in combination with other threats, this factor is likely to result in the species becoming in danger of extinction within the foreseeable future throughout all or a significant portion of its range. The foreseeable future for this threat factor is limited by our present understanding of the health risks from some of these disease agents necessary to be able to predict their likely future effect. We recognize the need to continue to test and monitor for the presence of novel and potentially threatening disease agents and we included such monitoring into the PDMP (NMFS 2013b).

*Comment 34:* A commenter noted that the draft Status Review cites a study by Richmond (2007) that reported hematocrit levels were lower in Steller sea lions in southeast Alaska and recommended additional study of the importance of this factor. The commenter highlighted that the draft Status Review did not report that this same study found that lower hematocrit levels are often found in animals that are hookworm-infested, and that preliminary research suggested that greater than 50% of Steller sea lions aged two to three months had hookworm in southeast Alaska. The commenter noted that the draft Status Review cited a 2010 study by Rea showing higher levels of stress proteins in eastern DPS Steller sea lions than western DPS, which may be affiliated with a high prevalence of hookworm parasites in the eastern DPS where animals are crowded. The commenter summarized that there is apparently no information at all that can confirm a conclusion that disease or parasitism are not problems.

*Response:* We have considered this information in our decision and we revised our discussion of disease and parasitism in the Status Review to be clearer about what we know, what uncertainties we have, and what the potential risks are. Available data indicate that eastern DPS Steller sea lions are naturally exposed to many parasites and they probably always have been (NMFS 2008). Based on available data discussed above, the prevalence of at least some parasites, such as hookworm, may increase with crowding. This kind of density-dependent phenomenon is normal and inherent in the recovery of this species (e.g., they are now so numerous on some rookeries that we may see effects of crowding). Monitoring for parasites is a component of the PDMP. Based on a review of the best available information, parasitism is not likely to cause the

eastern DPS Steller sea lion to become in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

*Comment 35:* A commenter stated that ocean research shows that the most dangerous pathogen for sea lions is algae toxins which cause brain damage. The commenter stated that contaminated sea lions lose orientation in the ocean, are not capable of catching fish, and starve to death.

*Response:* We are aware that there have been large strandings of marine mammals along the California coast concurrent with algal blooms associated with production of domoic acid (e.g., Riva *et al.* 2009), including hundreds of California sea lions along the central California coast that died or exhibited signs of neurological dysfunction concurrent with a diatom bloom (e.g., see Scholin *et al.* 2000). We have considered that researchers have reported that an increase in epileptic seizures and abnormal behavior in California sea lions can result from exposure to low doses of domoic acid as a fetus (Ramsdell and Zabka 2008). Goldstein *et al.* (2007) concluded that domoic acid causes chronic damage to California sea lions, and these health effects are increasing. These and related findings in a closely related and ecologically similar species suggest potential food chain exposure to domoic acid to Steller sea lions in some locations. However, we do not have evidence that algal toxins pose a threat to Steller sea lions and at least some of these studies on California sea lions were focused on southern California (e.g., de la Riva *et al.* 2009) where Steller sea lions are not likely to be present. We are not aware of information indicating that this is a disease agent that poses a threat with population level consequences to the eastern DPS at present or in the foreseeable future.

#### *Comments on Factor D: Inadequacy of Existing Regulatory Mechanisms*

*Comment 36:* USFWS stated that the Farallon National Wildlife Refuge is strictly managed to help protect the populations of Steller sea lions and other pinnipeds and seabirds. Measures are in place to restrict access and protect sea lions and other species from human disturbance.

*Response:* We considered this information in our evaluation of the sufficiency of existing regulatory mechanisms and in our evaluation of potential causes of the lack of recovery of Steller sea lions in this part of the range.

*Comment 37:* A commenter expressed concern that existing regulatory mechanisms will be inadequate to protect sea lions from shooting if the population is delisted.

*Response:* Available information suggests the number of eastern DPS Steller sea lions that are shot is small but has increased in the last 4 years. Following delisting, the U.S. portion of the eastern DPS will continue to be protected under the MMPA, including provisions that prohibit intentional shooting and many other forms of take. Protections against unauthorized take also exist in British Columbia. Collectively, the protections should be adequate if effectively implemented and vigorously enforced. Illegal shooting could still occur, but we have no information to suggest that levels will increase after delisting. The PDMP should help to detect any significant sources of mortality, including shooting.

*Comment 38:* The MMC commented that existing regulations may or may not be adequate or, if adequate in concept or principle, may not be implemented effectively. They noted that the 2011 stock assessment report (Allen and Angliss 2011) for the eastern stock (as that term is used under the MMPA) estimates the potential biological removal level at 2,378 sea lions and estimates the total annual human-related take as 48.7 sea lions. They stated that fisheries take may be underestimated because some fisheries that potentially injure or kill sea lions are not observed, and estimates of sea lion takes for subsistence purposes are sufficiently low that the error should not be substantial. MMC noted other anthropogenic effects on sea lions including shooting and entanglement in debris, and indicated that available information suggests the number of affected animals is relatively small.

*Response:* We revised our discussion of Factor D regarding whether existing regulations are adequate and are implemented effectively to be more transparent about uncertainty underlying estimates of various sources of take and other measures of threats. We agree that take in fisheries may be underestimated because some fisheries that potentially injure or kill sea lions are not observed, and that available information on sea lion takes within the eastern DPS for subsistence purposes indicate that the take level is low. Hence, available information does not indicate that the level of take from fisheries, subsistence, and/or other human-caused threats including shooting and entanglement are likely to cause this species to become threatened within all or a significant portion of its

range in the foreseeable future. Despite some uncertainty, we conclude that existing regulatory mechanisms should be sufficient to address these threats to the eastern DPS.

*Comment 39:* Private individuals and organizations questioned the sufficiency of regulatory mechanisms, including the MMPA, to prevent overutilization, a decline, and other threats to the DPS following delisting. Commenters were particularly concerned about the possibility of increasing requests for lethal management of sea lions.

*Response:* As discussed in response to comment 30 above, the MMPA provides a mechanism for NMFS to regulate requests for lethal management of Steller sea lions, and we anticipate that any authorized level of lethal take would be small.

*Comment 40:* Commenters raised concerns about whether NMFS would be able to, and would, respond quickly if the DPS declines quickly after delisting.

*Response:* We crafted a process, through the PDMP, that ensures the timely and regular consideration of relevant available data as well as triggers for changes to monitoring, evaluation, and/or management. NMFS intends to conduct an annual review of information collected as part of the PDMP process. We understand that we will need to be responsive if faced with evidence that indicates either the beginning of population decline or the emergence or increase of threats that have the potential for population level effects. We have the regulatory authority to act quickly if the need arises to provide additional protection.

*Comment 41:* The State of Alaska commented that the Secretary must take into account the efforts of States to protect the species. The State commented that its monitoring and management of the eastern DPS and fisheries within its range have successfully conserved the eastern DPS. They commented that continued monitoring and management under the MMPA and other authorities such as the Magnuson-Stevens Fishery Conservation and Management Act and Canada's Fisheries Act will provide adequate protections for the eastern DPS after delisting and will maintain a robust population over the long term.

*Response:* NMFS has taken the efforts of States into account in its decision to delist this species. For example, we considered the agreement between NMFS and the State of Alaska regarding their fishery management plans, state protections of terrestrial habitat in Oregon, and other State efforts to protect this species (e.g., see section on "State

Laws" in the Status Review (NMFS 2013a)).

*Comments on Factor E: Other Natural or Manmade Factors Affecting Its Continued Existence*

*Comment 42:* The MMC commented that the explanation for the loss of rookeries in California and slower growth is not clear but if the decline of Steller sea lions in California waters was caused by competition with the California sea lion population, one could make a reasonable argument that the Steller sea lion decline is a natural phenomenon not warranting the special protections provided by the ESA. They point out that, alternatively, one could also make a strong argument for such protections if the cause is related to human impacts. The MMC commented that NMFS should take a precautionary approach until such time as it has data sufficient to ensure that Steller sea lions in California have recovered or their range retraction is a result of natural causes.

*Response:* As noted elsewhere, we must make our decision using the best available scientific and commercial data, and the best available data indicate that the eastern DPS no longer meets the definition of a threatened species. We do not fully understand the causes underlying the lack of recolonization of Steller sea lions in the southernmost part of their historic range. However, the overall trend in non-pup counts in California from 1990–2011 shows stability, not decline, and pup production has increased at about 2.9% per year from 1996–2011. The trend elsewhere in the range of this DPS is an increase in non-pup and pup production. We included monitoring in the PDMP specifically to determine if the current status changes in ways that could increase overall risks to the eastern DPS.

*Comment 43:* Multiple comments discussed the potential adverse effect of competition for prey and space from California sea lions on Steller sea lions in the southern part of the range.

*Response:* In response to this comment, we reviewed and supplemented the treatment of information related to the potential effect of competition from California sea lions in the southern part of the range and ensured that we are considering the best available scientific information in this evaluation. As discussed in the Status Review (section 3.5.6 on California) available information suggests that competition with California sea lions may have been a factor (e.g., see DeLong and Melin 2000) in the disappearance of the eastern DPS

from the southernmost part of its range. However, even if this is true, this competition did not keep the population as a whole from recovering, and we do not have information that indicates that the adverse of impact of any such competition is likely to strengthen to a level where it might affect recovery of this DPS in the foreseeable future.

*Comments on Cumulative Threats*

*Comment 44:* Multiple commenters indicated that threats remain to this DPS and thus it is premature to remove ESA protections. A commenter cited Gerber *et al.* (1993) as reporting that the majority of Steller sea lions stranded in California between 1984 and 1990 were underweight pups, which they stated supports a hypothesis of food competition leading to nutritional stress and poor post-weaning survival. Citing Hanni and Pyle (2000), they stated that Steller sea lions are also at risk from entanglement in derelict salmon fishing gear. They stated that more research is needed to understand the causes underlying the continued lack of recovery of Steller sea lions in California and the fact that there are continuing threats to the species warrants its continued protection under ESA. Another commenter stated that the fact that threats remain within a significant portion of the range of the species and have the potential to spread farther north provides reason to retain ESA protection for the eastern DPS.

*Response:* NMFS is required to assess the status of the eastern DPS based on the best scientific and commercial data available. That information indicates that this DPS does not meet the definition of a threatened or an endangered species under the ESA. The Recovery Team did not identify the need for biological recovery criteria for specific subareas within the eastern DPS as it did within the western DPS. We acknowledge that we do not fully understand the causes underlying the lack of recolonization of Steller sea lions in the southernmost part of their historic range. However, the overall trend in non-pup counts in California from 1990–2011 shows stability, not decline, and pup production has increased at about 2.9% per year from 1996–2011. The trend elsewhere in the range of this DPS is an increase in non-pup and pup production. We included monitoring in the PDMP specifically to determine if the current status changes in ways that could increase overall risks to the eastern DPS.

*Comment 45:* A commenter stated that NMFS needs to consider all threats, individually and collectively, stating that, even if none of these threats

would, in isolation, devastate the population, in combination they appear likely to do just that.

*Response:* We agree with the need to consider not only the current and foreseeable effect of threats individually but also collectively, and we have done so. The sustained recovery of the eastern DPS indicates that individually and collectively, threats have not been sufficient to thwart recovery, and there is no evidence indicating that this situation is likely to change within the foreseeable future.

*Comments Regarding Biological Recovery Criterion, Status, and Overall DPS Trend*

*Comment 46:* The NPS at Glacier Bay National Park commented that several lines of evidence suggest that substantial population growth has occurred in the eastern DPS of Steller sea lions since the 1970s and that the eastern DPS has met the established demographic criterion set forth in the Recovery Plan. They commented also that although there is substantial evidence to suggest that there has been population growth in pups and non-pups in the eastern DPS, recent studies suggest that the area along the eastern/western DPS boundary may warrant further investigation for several reasons. Another commenter stated that the Alaska fishing community has seen first-hand the consistent and significant expansion of the sea lion population in the southeast region and that fishermen all along the coast have reported similar abundances, which are reflected in NMFS's documents.

*Response:* We agree with the comments and considered the information provided in our decision.

*Comment 47:* A tribal commenter noted that they have contributed data regarding Steller sea lions in California, Oregon, and Washington, and stated that they support delisting because the eastern DPS has met the criteria set out in the Recovery Plan for population growth and because threats to Steller sea lions do not rise to population level impacts. They stated they have observed increased numbers of Steller sea lion pups born in Washington, suggesting that the state may soon have an established Steller sea lion rookery.

*Response:* We appreciate the data and other information provided by this commenter. The Status Review notes that increased numbers of pups are being observed in Washington State.

*Comment 48:* In support of delisting, the State of Alaska and another commenter referred to statements in the 2008 Recovery Plan in which the commenters state that NMFS concluded

that no threats to recovery of the eastern DPS of the Steller sea lion have been identified, the population has been increasing for over 25 years, new rookeries have been created, and the population is at historical high levels. The MMC commented that the growth in Steller sea lion numbers in the various parts of the eastern stock's range, as illustrated graphically in figures within the draft Status Review, presents compelling support for recovery for the stock as a whole. They noted that historical evidence indicates that the stock declined because of shooting or predator control and numbers have increased steadily since Steller sea lions were protected in 1970 under Canada's Fisheries Act and in 1972 under the MMPA.

*Response:* We agree that the best available scientific evidence supports recovery of the stock as a whole.

*Comment 49:* A commenter stated that rookery abundances in southern and central California have declined while northern rookery abundances have rapidly increased. Other commenters noted that one of the possible factors in the decline of Steller sea lions in the southern part of their range might be competition for food or space with California sea lions, whose numbers have risen exponentially.

*Response:* We agree with these comments although we also note that other factors, such as climate warming, contaminants, and possibly other human impacts discussed in the Status Review may be contributing to the failure of Steller sea lions to recolonize some of their rookeries in the southernmost parts of their range and to their poor performance at some, but not all, locations in California. We acknowledge that we do not fully understand the reasons underlying the mixed performance of Steller sea lions in parts of California. However, it has not kept the population as a whole from recovering and does not signify that the DPS is in danger of extinction throughout all or a significant portion of its range or likely to become so within the foreseeable future.

*Comment 50:* A commenter requested that NMFS provide additional information explaining how the large gap in the breeding range of the Steller sea lion in Washington State does not represent a reason for concern regarding the Steller sea lion in Washington and farther south.

*Response:* NMFS notes that in both Oregon and British Columbia, data regarding pup and non-pup numbers indicate a substantial increase in abundance over a sustained period of time. Pitcher *et al.* (2007) reported that

the numbers of sea lions counted between 1989 and 2002 on Washington haulouts increased significantly, at an average annual rate of 9.2%. Johnson and Gelatt (2012) incorporated these data into their analysis of the overall population trend based on non-pup data for the eastern DPS. This analysis indicates that while counts are not yet at historic levels, Steller sea lion abundance in Washington has been increasing since the early 1990s (increasing trend seen in 1993). WDFW also reported that an increasing number of newborn Steller sea lion have recently been observed along the coast of Washington (ODFW and WDFW 2010) but there are no active rookeries. However, the lack of established rookeries in Washington has not impeded the overall recovery of the population. Genetic data do not indicate that the gap in the breeding range between rookeries in Oregon and British Columbia has resulted in marked genetic discontinuity within the range such as is observed between the eastern and western DPSs.

*Comment 51:* A commenter stated that the Oregon population appears to be recovering better than populations in California and Washington, but still falls short of meeting the demographic delisting criteria.

*Response:* In the 2008 Recovery Plan, NMFS did not specify subarea recovery criteria. With respect to the biological (demographic) recovery criterion, NMFS (2008) specified that the eastern DPS would be considered for delisting when “. . . [t]he population has increased at an average annual growth rate of 3% per year for 30 years.” Based on abundance estimates derived from pup count data, this criterion has been met and exceeded. However, in response to this comment, we revised our description and discussion of trends throughout the range to more be more transparent about trends in each of the major subregions within the range of the eastern DPS.

*Comment 52:* A fishing organization stated that the eastern DPS has increased on average about 3% over the past 30 years reaching all-time highs in population size and population density. They stated that it is possible that without large predator interaction (killer whale predation), the population could reach its apex and crash altogether. They noted that for many years their members have seen a large increase in sea lion populations on new rookeries and in greater numbers in southeast Alaska particularly. They believe that delisting should occur due to population increases and sustainability models but that it will also have large

rewards for local communities and local fishermen.

*Response:* With respect to the idea that the current level of abundance is at an all-time high, we note that in a thorough review of available data on Steller sea lion abundance in the eastern DPS, including examination of counts from the early 1900s, Pitcher *et al.* (2007) concluded that the lack of standardization of counts prior to the 1970s and the sparseness of historical data prevents a rigorous comparison of historical and current abundance levels. We agree with Pitcher *et al.* (2007) that this is the case. With respect to the potential behavior of the population in the absence of predation, we note that it is unlikely that large predator interactions will cease to exist. Thus, we do not speculate on the effects of that hypothetical scenario. Lastly, section 4 of the ESA specifies those factors that NMFS can consider in its evaluation of the appropriate listing status of species. NMFS does not consider benefits to local communities, industries, or economics in our evaluation of whether a species meets the definition of a threatened or endangered species under the ESA.

*Comments on Trends in the Southern Part of the Range, California Current Ecosystem, and California*

*Comment 53:* The NPS at Point Reyes National Seashore commented that while this DPS has shown recovery over the past three decades in Oregon and Washington, there has been a lack of recovery at historical sites in the southern breeding colonies for the species. They reported that historically, Steller sea lions at the southern end of their range bred at Point Reyes Headland. The NPS has been monitoring this population and has noted that it has not recovered over the last several decades. They stated that the species no longer breeds at Point Reyes, and the number of animals remains low, with maximum counts rarely exceeding 5 animals per observation since the early 1980s. They have also documented population increases in Northern elephant seals and harbor seals at Point Reyes Headland over the past several decades (Sydeman and Allen 1999). They stated that the decline in haulout activity and lack of breeding recovery of Steller sea lions at Point Reyes Headland is of concern for this species' overall recovery.

*Response:* We considered this information in our evaluation of the recovery status of the eastern DPS. We agree that the lack of increase in breeding of Steller sea lions at Point Reyes Headland is of concern because

the cause of this poor performance is not understood. However, the best available information indicates that the species' overall extinction risk is quite low (see Goodman 2006 and NMFS 2013a). Following recommendations in Goodman (2006), we intend to monitor the eastern DPS to determine if this pattern of poor performance spreads northward.

*Comment 54:* A commenter stated that NMFS has determined that it is appropriate to overlook the range contraction of the eastern DPS in the south that has occurred for undetermined reasons and to ignore the disparity in growth rates of Steller sea lions in the Alaska/British Columbia portion with that of the southern portion of the range. Another commenter stated that data showing a historic and continuing fall in numbers clearly indicate that the southernmost Steller sea lions should continue to be classified as endangered and additional study of their decline, history, and prehistory should be undertaken to understand this decline. A commenter stated that parts of the range have not been reoccupied and rookeries have been lost. The commenter stated that two rookeries have been lost and concludes that, until the California trend improves and the full extent of the sea lions' range has been recolonized, delisting is contraindicated. The commenter stated that incremental losses of habitat and breeding grounds erode a species' long-term survival.

*Response:* We considered the loss of rookeries in the southern part of the range and the establishment of new rookeries in the north. In general, we agree that incremental losses of habitat and breeding grounds would tend to diminish a species' long-term viability. NMFS shares concerns about the poor performance of Steller sea lions in parts of California. However, based on the overall strong increase in abundance in other parts of the range during the same time frame and the establishment of new rookeries in the north, neither the loss of the most southerly rookeries, the poor performance in other parts of California such as the Farallon Islands, the overall failure for non-pup abundance to increase in California overall during this same period, nor the northerly shift in range renders this species in danger of extinction throughout all or a significant portion of its range or likely to become so within the foreseeable future.

*Comment 55:* Giving the example of Erlandson *et al.* (2011), a commenter stated that there are now quantitative data about prehistoric pinniped populations available and indicated that

these data considered with data on historical pinniped harvests might be used to reconstruct thousands of years of past changes in the Steller sea lion population in California.

*Response:* NMFS appreciates this information and is considering this suggestion for future research. However, such a reconstruction is not needed for our assessment of the status of the species here.

*Comment 56:* The USFWS at Farallon Islands Wildlife Refuge and a scientific contracting company provided summaries, including data and figures, of historical and recent information from the Farallon Islands based on weekly counts of Steller sea lions since the early 1970s. They commented that despite an overall increase in the eastern DPS, they are concerned about the future fate of the Farallon and remainder of the central California population of Steller sea lions. They stated that despite efforts to protect the Farallon colony, numbers have not increased in recent decades and its current status as a rookery is questionable. They stated that if current trends continue this colony, and possibly the entire central California population, may be extirpated within the foreseeable future, continuing the trend of a northward contraction of the species' range.

*Response:* We appreciate the long-term data from monitoring at the Farallon Islands. We incorporated these data into our discussion of historic and current status of Steller sea lions in California, and we considered it in our evaluation of the listing status of the eastern DPS. The PDMP includes evaluation aimed at determining whether the trend of a northward shift of the species' range continues.

*Comments on the Quality of the Science and Presentation of Information Used in the Proposed Rule and Draft Status Review*

*Comment 57:* A commenter requested that NMFS stop using the term "abundance" related to population trends (e.g., an "abundance decline") because it conveys the impression of "plenty" even while discussing "lack."

*Response:* Our use of the term "abundance" fits with common usage of the term within population ecology and is not meant to mislead readers with regard to the historic and recent trends of this DPS. In response to the comment, we examined our use of the term to ensure that we are not inadvertently giving the wrong impression, and we determined that our use of the term "abundance" is appropriate.

*Comment 58:* A commenter stated that it is unacceptable to manage a threatened species at minimal population levels because doing so keeps them teetering on the brink of extinction. The commenter wrote that should there be a natural catastrophe the eastern DPS could quickly become imperiled. The commenter stated that while an average annual population growth rate of 4.3% may be sufficient when a species is listed, their continued viability is jeopardized when the protections are removed.

*Response:* We agree that it would be unacceptable to purposely manage a threatened species at minimal population levels. Under the MMPA, our objective is to manage the population within its Optimum Sustainable Population (OSP) level. OSP is defined by the MMPA, with respect to any population stock, as the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element. (16 U.S.C. 1362(3)(9)). OSP is further interpreted in regulations (50 CFR 216.3) as being a population size which falls within a range from the population level of a given species or stock which is the largest supportable within the ecosystem to the population level that results in maximum net productivity. The eastern DPS of Steller sea lion is not at a minimal population level, nor is it in decline. Goodman (2006) conducted a risk evaluation for this population and concluded that if his assumptions are correct, the risk of near- or medium-term extinction for this population is very low. Working with partners, NMFS developed a PDMP that is intended to monitor sufficiently to detect population declines or an increase in threats so that management measures can be adjusted if necessary.

*Comment 59:* A commenter stated that aerial surveys can result in over-counts and concluded that it is likely that many sea lions are being counted multiple times.

*Response:* We are aware that there are sources of variability within any survey that can result in animals being missed (e.g., because they are at sea foraging) or possibly counted twice (e.g., because all sites cannot be counted on the same day and an animal may move, especially between nearby haulouts). However, we do not have evidence that aerial surveys would tend to result in over-counting of Steller sea lions in the eastern DPS. This is especially true of pups, the portion of the population on which population size estimates presented in the Status

Review are based. Count data used to estimate population trends and evaluate status are of two types: counts of pups about one month of age and counts of animals over one year of age (i.e., non-pups). While the techniques used for counts of both pups and non-pups have changed over time, and thus data collected during different periods using different techniques (e.g. on-site counts, oblique photo counts, or vertical high resolution photos) are not directly comparable (Fritz and Stinchcomb 2005; Pitcher *et al.* 2007; Kaplan *et al.* 2008; DeMaster 2009; NMFS 2008, 2010), counts of pups on rookeries conducted near the end of the birthing season are nearly complete counts of pup production. These counts can be expanded to estimate approximate total population size based on an estimated ratio of pups to non-pups in the population (Calkins and Pitcher 1982, Trites and Larkin 1996). For the period until 2002, we rely heavily on the analyses in a comprehensive peer-reviewed published paper (Pitcher *et al.* 2007) and have updated this as data are available. We are aware that some pups die and disappear before the counts are made and a few are born after the counts are conducted (Trites and Larkin 1996), and we considered this in our analysis and evaluation of trend data. We also acknowledge that the methodology results in a very general estimate of population size as several factors can affect the accuracy of the estimates (NMFS 2008). In response to this comment, we revised the section of the Status Review on population trends to make certain that the basis of our population trend conclusions is clear and any biases, assumptions, and uncertainties are transparent.

*Comment 60:* Multiple commenters stated that more long-term study is needed before we can be sure that Steller sea lions will sustain their populations, before we will know and understand the reasons for the lack of recovery and the range contraction in the southern part of the range, and/or before we will understand the impact of the tsunami-generated marine debris and/or other threats on the population.

*Response:* We disagree that more study is needed before NMFS can make a decision about the appropriate status of this species under the ESA. NMFS is required to use the best available scientific and commercial data in its decision. We have compelling evidence of sustained increases in the overall abundance of eastern DPS Steller sea lions. While their breeding range has shifted to the north, there has not been overall contraction of the breeding range. While there are residual threats

and potential threats that may be emerging, such as climate change and ocean acidification, there is no evidence that these factors are likely to have negative effects that are strong enough to cause this species to decline within the foreseeable future, nor satisfy the definition of a threatened or endangered species.

*Comment 61:* Multiple commenters stated that the agency has not based its proposed decision on the best available science.

*Response:* We disagree. We reviewed our files to ensure that the Status Review and rule utilize the best available scientific and commercial data available. Where commenters suggested additional sources of information, we reviewed and incorporated such information as appropriate. Further, we submitted the Status Review through two rounds of independent peer review.

*Comments on Ecosystem Considerations and Effects of the Delisting on Fish Species*

*Comment 62:* Several commenters cited concerns about the effects of Steller sea lion predation on salmon, sturgeon, and/or the ecosystem. A commenter concluded that the delisting will be a significant step in protecting both sturgeon and salmon in the Columbia River. A commenter stated that future management of Steller sea lions must be more cognizant of their impacts on the ecosystem. This commenter stated that the current growth rate cannot be maintained indefinitely. A commenter stated that the western Washington ecosystem simply cannot support increasing populations of pinnipeds, likely to levels above their historic abundances, while meeting ESA recovery goals for Southern Resident killer whales and salmon species.

*Response:* The effects of Steller sea lion predation on listed salmon or on other fish species are not appropriate factors for us to include in our evaluation of whether the eastern DPS of Steller sea lion should be listed under the ESA.

*Comment 63:* Multiple commenters argued against the delisting for several reasons: Steller sea lions are a necessary and/or a natural part of the food chain; we need Steller sea lions in their habitat as part of that food chain; biodiversity must be retained; all animals have a place in the ecosystem; predators play an important role in maintaining the health of ecosystems; and humans must learn to live alongside other species and not eliminate them.

*Response:* We agree that the Steller sea lion is an important part of marine

ecosystems. We note that one of the stated purposes of the ESA is to “provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.” If a species does not meet the definition of a threatened or endangered species, it is inappropriate for it to be listed under the ESA. A recovered eastern DPS of Steller sea lions will continue to be a viable part of these marine ecosystems.

*Comments on Steller Sea Lion Habitat*

*Comment 64:* The State of Alaska commented that NMFS should indicate that delisting of the eastern DPS of Steller sea lion under ESA section 4 necessarily removes the critical habitat designation for the eastern DPS.

*Response:* Comments regarding the critical habitat designated for the Steller sea lion at 50 CFR 226.202 are beyond the scope of this rulemaking. In any event, removing the eastern DPS from the List of Endangered and Threatened Wildlife does not remove or modify that designation as described below.

ESA section 4(a)(3) requires the Secretary (through NMFS) to designate critical habitat for listed species, to the maximum extent prudent and determinable, concurrently with the listing of a species, and gives the Secretary discretion to revise a designation from time to time as appropriate. Designations and revisions of critical habitat must be based on the best scientific data available and be informed by consideration of the economic impact, the impact on national security, and any other relevant impact of such designation or revisions. The ESA does not speak directly to the status of designated critical habitat when the agency later amends a species listing by dividing it or by delisting a portion of the population and retaining the rest. Notably, critical habitat does not lose its biological and conservation relevance to the still-listed species simply because the species listing is amended. Moreover, carrying forward an existing critical habitat designation can enhance the protection provided to the still-listed species because the carried-forward designation protects habitat features essential to the species' recovery from adverse modification or destruction in section 7 consultations. Given that Congress has not spoken directly to this issue in the statute, the benefits of designated critical habitat, the ESA's broad purpose to conserve the ecosystems upon which endangered and threatened species depend, and taking a reasonable precautionary approach, we construe the ESA to provide in these circumstances for keeping existing

critical habitat designation in place as a transitional matter until the designation is amended through a further rulemaking.

For Steller sea lions, the critical habitat designated in 1993 (58 FR 45269; August 27, 1993) continued to be valid following the 1997 rule dividing the listing into the eastern and western DPSs (62 FR 24345; May 5, 1997). This final rule does not revisit the codified critical habitat designation, which remains in place following the delisting of the eastern DPS as a transitional matter for the listed, endangered western DPS, as the designated critical habitat supports the western DPS's important biological functions (e.g., feeding and resting). This approach is consistent with the critical habitat designated for northern right whales in 1994 remaining in place following the 2008 division of the listing into two separate species, the North Atlantic and North Pacific right whales (75 FR 61691; October 6, 2010).

NMFS will undertake a separate rulemaking to consider amendment to the existing critical habitat designation that takes into account any new and pertinent sources of information since the 1993 designation, including amending the critical habitat designation as appropriate to reflect the delisting of the eastern DPS in this final rule. In the interim, during ESA section 7 consultations for federal actions that may affect currently designated Steller sea lion critical habitat, NMFS will address effects to such habitat in terms of effects to those physical and biological features essential to the conservation of the western DPS, and not the delisted eastern DPS.

*Comment 65:* The NPS at Glacier Bay National Park provided information about recently established haulout sites that are used by Steller sea lions but that are not included on Figure 3.1 in the draft Status Review. Several of these sites have been previously identified and documented in the scientific literature.

*Response:* We included this information in the revised Status Review.

#### *Comments on Extinction*

*Comment 66:* A commenter stated that NMFS's extinction risk analysis is based on assumptions that will no longer be valid once the population is delisted.

*Response:* The conclusions of the extinction risk evaluation undertaken by Goodman (2006) were based on whether his working hypothesis was, and continues to be, true. Elements of this working hypothesis were that: (1) The population is not sensitive to ongoing

regime-frequency environmental variation; (2) the depressed, but steady and positive, growth rate north of California is owing to a combination of ecosystem modification and possible incidental take that is stable and sustainable; (3) the carrying capacity is not less than 46,000 total individuals; and (4) the lack of recovery of the California portion of the population is owing to a range contraction responding to the warming trend of the past several decades. Goodman (2006) further stated that "we could judge this population to be at low risk provided management maintains the current level of protection, keeps human impact at no more than its present level, and monitors to make sure that evidence contrary to the hypothesis complex will be detected and the risk classification and management will be revised as indicated." With regard to Goodman's (2006) caveats that may change immediately upon delisting, the primary issues are whether or not management maintains the current level of protection and keeps human impact at no more than its present level, whether monitoring and management is sufficient post-delisting to detect evidence indicating that the hypothesis complex is not true, and to respond appropriately if such evidence is obtained. These points are inter-related. As discussed in the section regarding the adequacy of existing regulations (Factor D), the eastern DPS will continue to be protected under the MMPA and other laws. The MMPA provides some of the same protections as the ESA. The underlying premise of applying protections under the ESA is that a threatened or endangered species requires greater protection than a recovered species or other species that does not meet the definition of threatened or endangered. Thus, the eastern DPS should not require as great a degree of protection post-delisting as it did when it was threatened. NMFS has taken the caveats in Goodman's (2006) conclusions into consideration in our delisting decision and the formulation of the PDMP.

#### *Comments on the Post-Delisting Monitoring Plan*

*Comment 67:* A commenter stated that the draft PDMP provides no assurance that more will be done besides monitoring the number of animals killed illegally or as part of lethal management programs.

*Response:* NMFS disagrees with this comment. The PDMP, if fully implemented, will enable NMFS to verify that the species remains secure from the risk of extinction after the

protections of the ESA are removed. Following USFWS and NMFS Joint PDMP Guidance (USFWS and NMFS 2008), we designed monitoring to determine if the status of the species begins to change or deteriorate, and if a substantial decline in the species (numbers of individuals or populations) or an increase in threats is detected, NMFS can take measures to halt the decline or reduce the threat(s) so that re-listing the eastern DPS as a threatened or endangered species is not needed. While the ESA requires not less than five years of monitoring, NMFS, following the input of the Recovery Team, developed a PDMP for a period of at least ten years. NMFS will work with multiple partners post-delisting on the implementation of the plan.

*Comment 68:* A commenter expressed concern about the level of entanglement-related mortality in tribal fisheries and the lack of associated data since tribes began refusing in the 1990s to carry federal observers. Another comment stated that it is not clear from the draft PDMP whether, or how, NMFS plans to remedy the lack of monitoring of fishery-related deaths of sea lions from the DPS in Canada, Alaska, or the various tribal gillnet fisheries in Oregon and Washington.

*Response:* As noted in the draft Status Review, researchers collect systematic data related to the incidence and types of entanglement of Steller sea lions in some parts of the range. Treaty Indian fisheries in Oregon and Washington are conducted in freshwater rivers, coastal estuaries, and in the Puget Sound region under the authority of Indian treaties; therefore, the MMPA's section 118 requirements, including observer monitoring, do not apply (60 FR 45086; August 30, 1995, and 74 FR 58859; November 16, 2009). If any marine mammal bycatch associated with tribal fisheries were to present a biological concern for applicable stocks, NMFS would consider invoking the treaty-rights principle of "conservation necessity" to protect marine mammals (74 FR 58859; November 16, 2009). Additionally, NMFS regularly considers the need to monitor incidental take of various fisheries, including those within the range of the eastern DPS. For example, in 2013 NMFS will implement a second year of observing marine mammal (including Steller sea lion) take in the southeast Alaska salmon gillnet fishery. NMFS does not have jurisdiction to monitor fishery-related serious injury or mortality in Canada.

*Comment 69:* A commenter stated that monitoring of the Steller sea lion-human interactions in ports, harbors, and inland waterways does not address any

of the listing factors, is discussed in the PDMP at a level disproportionate to the level of concern about the issue, and could be used to support taking lethal management action.

*Response:* We reviewed the relevant section of the PDMP and revised it because this is not expected to be a significant threat for Steller sea lions.

*Comment 70:* A commenter noted that while the monitoring plan appears to count on the continued collection of stranding data, NOAA has decided not to include funding for the John H. Prescott Marine Mammal Health grant program for the monitoring of stranding. The commenter noted that without this funding support, the coverage of stranding response will drastically reduce as will the ability of researchers to fund histopathology and other analyses to determine the cause of Steller sea lion deaths. The commenter encouraged NOAA to continue funding stranding response.

*Response:* We understand the commenter's concern regarding the uncertainty in the availability of funding in future years for stranding programs. However, Prescott funding is not the only source of funding for stranding programs available to us. While we cannot predict future funding levels, we understand the high value of stranding networks to our ability to detect increases in threats over time to this DPS, and we will endeavor to fund stranding programs to the extent possible consistent with available budgetary resources.

*Comment 71:* A commenter suggested that NOAA develop a data-sharing memorandum of agreement for data collected under the PDMP to protect researchers' work from being published by others.

*Response:* In response to this comment, we added a sentence to the PDMP that acknowledges the sensitivity of unpublished data.

*Comment 72:* A commenter expressed concern about the interpretation of the proposed response trigger in the PDMP. The commenter noted that the eastern DPS may be approaching carrying capacity for the ecosystem, and we do not know the dynamics of how the population will interact when it is at or near carrying capacity.

*Response:* We agree that NMFS will need to evaluate carefully any future change in population trend or recovery rate. However, it is important to include response triggers in PDMPs so that it is clear when the agency needs to increase the depth of its evaluation, obtain additional information, or take protective management action to reduce a threat. In response to this comment,

we added language to the PDMP to clarify what action(s) the response triggers will prompt and to remind managers to evaluate potential causes of any population change, including changes that may result from carrying capacity being reached or exceeded.

*Comment 73:* The State of Alaska endorsed the proposed PDMP to ensure that the current increasing population trend continues. It stated that refinements to the PDMP could maximize efficiencies while reducing sampling uncertainties and that they seek to ensure that monitoring efforts remain adequate to detect population trends and any emerging threats to the eastern DPS while ensuring support for continued recovery efforts for the western DPS. The State of Alaska suggested that proposed monitoring to identify transboundary movements between the eastern DPS and the western DPS be refined to conduct several replicate surveys between Icy Strait and Prince William Sound during May and June to enhance count calibration and the ability to identify inter-stock movement and effects at the population level. It noted that sea lion counts in southeast Alaska and Prince William Sound can be highly variable. It noted that replicate aerial surveys would augment the tracking of non-pup trends, which is also affected by high variability in day-to-day counts. The State of Alaska also suggested refinements to the continuation of the resight program related to the monitoring of vital rates. It recommended that no new cohort branding should occur in southeast Alaska unless there is evidence of a population decline, in which case vital rates would be required in order to better understand the mechanism behind the decline. It stated that the reproductive rate portion of the resight program should continue until 2015 instead of 2021, noting that reproductive rate surveys are particularly intensive and expensive. It stated that their best estimate at present is that data through 2015 will be sufficient to run their current reproductive rate analysis to completion and that a reduced level of surveys beyond this point may be adequate to maintain a less precise estimate of reproductive rate. It stated that continued, less-intense monitoring for survival, movement, and entanglement/gear ingestion rates would be productive beyond 2015 and would free up resources for surveys in regions of greater concern.

*Response:* We appreciate the endorsement of the PDMP by the State of Alaska. In consultation with partners,

including the State of Alaska, and in response to public comment, we have revised the PDMP. We agree with the comments regarding replicate surveys to monitor transboundary movements and to enhance count calibration. We added a brief section to the PDMP to include the potential for replicate surveys in at least one monitoring year. However, throughout the PDMP period, vital rates work may be necessary to evaluate the potential cause(s) of any downward trend in abundance.

*Comment 74:* The State of Alaska suggested that NMFS should clarify whether aerial surveys will be conducted every four years or every two years in furtherance of the sampling regime to monitor trends in abundance.

*Response:* We clarified in the PDMP that range-wide aerial surveys of the eastern DPS should be conducted every 4 years, with more frequent surveys in southeast Alaska.

*Comment 75:* The NPS at Glacier Bay National Park commented they agree with NMFS that monitoring of the eastern DPS should continue as outlined in the draft PDMP and should include assessment of population trends (pups and non-pups) at regular intervals via aerial surveys, continued estimation of age-specific survival and reproductive rates of marked individual Steller sea lions, and possibly a more focused effort to monitor the influence of cross-boundary movements by Steller sea lions on population trends near the eastern/western DPS boundary.

*Response:* We agree and have made minor revisions to the plan to include the possibility of replicate surveys to track transboundary movements and associated population trends. The PDMP also includes monitoring to continue to assess how movement across the western-eastern DPS boundary may be affecting non-pup counts in each DPS.

*Comment 76:* Several commenters recommended that PDMP include disease monitoring. The NPS at Glacier Bay National Park recommended that the Alaska Marine Mammal Stranding Network continue to respond to stranded Steller sea lions throughout the eastern DPS, with particular emphasis on monitoring (1) for the presence of infectious disease agents and potentially novel pathogens and (2) for unusual mortality events. The State of Alaska recommended that health, genetics, and disease sampling be made part of a directed research program and said that monitoring should not rely on opportunistic examination of stranded individuals. The USFWS at Farallon Islands Wildlife Refuge also stated that updated studies on disease are needed.

A commenter stated that such sampling should avoid unnecessary disturbances during the breeding season.

*Response:* We agree with these comments, and we have revised the PDMP to include disease monitoring as a regular, not incidental, component of the plan.

*Comment 77:* The USFWS at Farallon Islands Wildlife Refuge stated that updated studies on contaminants and prey use are needed, as are studies to understand the impacts of these factors on sea lion population trends. They believe that such studies will be important to better understand the status, and to predict future trends, of the eastern DPS, including the central California portion and the northward range contraction.

*Response:* We agree that contaminant studies are an important component of the PDMP as are studies to understand the impacts of contaminants on Steller sea lions, especially in the southern part of the range where recovery has not occurred. In response to this comment, we revised the PDMP to indicate that such monitoring should be a focused, not incidental, component of the plan; however, the level of such monitoring will be dependent on funding availability. We also included language in the PDMP to clarify that we intend to work with monitoring partners and contaminant experts to identify the contaminants of highest priority for monitoring for this DPS.

*Comment 78:* The NPS at Glacier Bay National Park stated that post-delisting monitoring should include documentation of human-related sources of mortality such as entanglements, shootings, and fishery interactions with Steller sea lions. They stated that periodic reviews of all records of Steller sea lion mortalities would be advisable to identify any trends in disease agents or other causes of death that may warrant management attention. The State of Alaska also commented on the need for monitoring of entanglement rates as part of the regular band-resight program. They strongly recommended that monitoring entanglements and fishery gear interactions continue as standard surveys and not rely completely upon incidental reports and stranding network data. They cautioned against lumping monitoring of “entanglement” with monitoring of “fishery gear interaction” because entanglements (e.g., packing bands or line around the neck) represent passive interactions with marine debris, whereas gear interactions (e.g., ingested hooks) represent direct interactions with fisheries. They believe that grouping

these two effects together would artificially inflate the perceived effects of both and complicate efforts to reduce entanglements.

*Response:* We agree with these comments. We have monitoring to assess potential threats from entanglement in marine debris and from incidental takes in fisheries as separate bullets in the PDMP. The two categories interact and overlap.

*Comment 79:* The State of Alaska stated that while monitoring for degradation of terrestrial and marine habitats is a proposed objective of this plan, there are no specific activities proposed in the draft PDMP to accomplish this objective.

*Response:* In response to this comment we modified the PDMP to include activities that will help us monitor for degradation of terrestrial and marine habitats.

*Comment 80:* The State of Alaska commented that NMFS should take steps to improve the clarity, consistency, and accuracy of its communication with the public regarding regulation of sea lions. They stated that effective protection of the resource depends on such clarity, and confusion about continuing regulations under the MMPA may increase when the public learns that the eastern DPS has been delisted under the ESA. They suggested that simple and obvious guidelines be presented. They stated that coordination among management and research entities should also be improved to ensure that researchers are given adequate time to provide information that will better inform management actions.

*Response:* We agree that it is important to clearly communicate with the public on laws and regulations regarding Steller sea lions. NMFS and its partners have undertaken numerous outreach activities to improve the clarity of such communications. With regard to coordination among managers and researchers, we agree that researchers should have adequate time to develop research results.

*Comment 81:* Various entities commented on their willingness and/or desire to be involved in implementing the PDMP. The USFWS at Farallon Islands Wildlife Refuge hopes to be included in any future monitoring efforts for Steller sea lions sponsored by NOAA. The NPS at Point Reyes National Seashore stated that they will continue to monitor the species at Point Reyes and provide NMFS with data as needed. The NPS at Glacier Bay National Park stated that they will continue to collaborate with NMFS and the Alaska Department of Fish and

Game (ADF&G) to provide observations of marked Steller sea lions that occur in the park and to assist with the Alaska Marine Mammal Stranding network. The State of Alaska stated that ADF&G expects to contribute substantially to the population monitoring effort, and anticipates continuing to work with NMFS in finalizing and implementing the PDMP. The State of Alaska requested that NMFS cooperate with the State to the maximum extent practicable in the monitoring efforts and the finalizing of the PDMP.

*Response:* We appreciate these comments and offers to participate in implementing the PDMP. We revised our list of partners in the PDMP accordingly. We met with the State of Alaska and sought their input on finalizing the PDMP, especially those parts of the PDMP that refer to monitoring within Alaska. Under the ESA, NMFS retains overall responsibility for ensuring that, post-delisting, sufficient monitoring is undertaken to verify that the recovered species remains secure from risk of extinction after the ESA protections are no longer are in force.

#### *Comments on the Effects of Delisting the Eastern DPS on the Western DPS*

*Comment 82:* Hundreds of commenters expressed their concern about the effects of the proposed delisting on both the eastern DPS and the western DPS, stating that the action could or would jeopardize or harm the eastern DPS, as well as jeopardize or further endanger the western Steller sea lions that share the range of the eastern DPS. A commenter stated that, since trends strongly suggest that the eastern DPS and the western DPS are shifting towards each other (citing Pitcher *et al.* 2007 and Mathews *et al.* 2011), and in light of recent evidence that Steller sea lions from both DPSs are living at the same rookeries in southeast Alaska, within the territory of the eastern DPS (citing Gelatt *et al.* 2007), it is irresponsible to delist the eastern DPS and effectively remove ESA protections for western DPS sea lions living east of 144 °W longitude. A commenter stated that the draft Status Review fails to address this threat adequately. This commenter stated that the MMPA cannot protect against this threat because it authorizes take without providing a requirement or a means to discriminate between the eastern and western populations. Another commenter concluded NMFS should preserve ESA section 9 prohibitions on lethal take for all Steller sea lions to ensure that western DPS sea lions are protected against threats such as

intentional or unintentional take that may occur as a result of lifting ESA protections from eastern DPS Steller sea lions.

*Response:* We share the concern regarding the potential effects of delisting the eastern DPS on animals from the western DPS. Jemison *et al.* (2013) documented the regular movement of Steller sea lions from both the eastern DPS and western DPS across the defined DPS boundary. It is clear that individuals originating from some parts of the western DPS, including members of both sexes, utilize habitat east of 144 °W longitude for a variety of reasons.

Jemison *et al.* (2013) analyzed sea lions branded as pups in each DPS from 2000–2010 to estimate probabilities of a sea lion born in one DPS being seen within the range of the other DPS. They found that males from both populations regularly traveled across the DPS boundary; that western DPS females sometimes travel east of 144 °W longitude, but eastern DPS females rarely traveled west of 144 °W longitude; and, that some western DPS females have permanently emigrated to the east, reproducing at two established rookeries east of 144 °W longitude. They report that western DPS animals began moving east in the 1990s following steep population declines in the central Gulf of Alaska. They conclude that it is unclear whether eastward movement across the DPS boundary is due to less optimal conditions in the west or a reflection of favorable conditions in the east.

Despite the regular movement of western DPS animals from some parts of the western DPS to areas east of 144 °W longitude, data indicate that the probability of occurrence of a western DPS animal east of this demarcation declines with distance from the boundary, that it is highest in southeast Alaska, and that at some distance from the western/eastern DPS boundary the probability of occurrence of a western DPS animal becomes negligible. Jemison *et al.* (2013) reported that over 85% of all western DPS Steller sea lions observed east of the boundary were at locations in the northern region of southeast Alaska.

We disagree that delisting the eastern DPS effectively removes protections from endangered western DPS animals occurring east of east of 144 °W longitude. Take of all Steller sea lions occurring east of east of 144 °W longitude will remain prohibited under the MMPA, and take of western DPS Steller sea lions is also prohibited under the ESA regardless of where the animal is found. Following publication of this

final rule, NMFS will separately consider whether additional protection is needed for western DPS Steller sea lions in those parts of their range east of 144 °W longitude.

#### Summary of Peer Review Process

In accordance with our Interagency Cooperative Policy on Peer Review (59 FR 34270; July 1, 1994), we requested expert review of drafts of the Status Review, the PDMP, and the proposed rule. This policy requires NMFS to solicit independent expert review from at least three qualified specialists. NMFS solicited such expert reviews from four non-federal scientists with expertise in population ecology and management of eastern DPS Steller sea lions. Input from this peer review of the earlier draft of the Status Review was incorporated into the version of the draft Status Review that was released for public comment. Further, during the public comment period on the proposed rule, NMFS solicited peer review of these documents from seven experts: two from academia, two from a Canadian federal resource agency, two who had relevant expertise and were from other offices within NOAA, and a former state biologist with expertise on Steller sea lions. Four of these seven were the same as the people who reviewed the draft status review prior to its release. One of these four (an academic reviewer) notified us that he was not available, and the two federal reviewers did not respond. Thus, on the draft status review released for public comment, we received comments from four reviewers, three of whom have expertise on Steller sea lions (and who had reviewed an earlier draft of the document), and the fourth who has particular expertise on potential climate change effects. We have considered all of the peer review comments received, summarized the content of this expert input below, and where applicable, responded to the comments below.

#### Summary of Peer Reviewer Comments

All peer reviewers agreed with NMFS's proposal to delist the eastern DPS of Steller sea lion. Of the four peer reviewers who reviewed the released versions of the documents, Peer Reviewer 1 concluded that the draft Status Review provides a thorough review of the background, biology, available data, and likely threats to the eastern DPS. Peer Reviewer 1 stated that the proposed rule provides a thorough and efficient review of the status of the eastern DPS and whether the DPS qualifies for removal from the ESA list of threatened species. Peer Reviewer 2 stated that all of the relevant literature

and assessment documents are referenced in the draft Status Review and that, overall, the status review is thorough and well-written. Peer Reviewer 2 expressed full agreement with all of the key conclusions of the proposed rule and the draft Status Review and recommended that this DPS be delisted. Peer Reviewer 3 concluded that the proposed rule and draft Status Review make a compelling case that the eastern DPS is not currently at risk and should be delisted. Peer Reviewer 4 stated that the draft Status Review does an excellent job of summarizing current knowledge about population delineations, basic biology, and population assessment of Steller sea lions relative to evaluating the delisting criteria established by the Recovery Team. Peer Reviewer 4 concluded that the draft Status Review presents clear factual information and has drawn appropriate conclusions that are well supported by current knowledge.

*Peer Reviewer Comment on Status:* Peer Reviewer 3 suggested that the proposed rule and draft Status Review be revised to allow for the possibility that the eastern DPS was never at risk. However, this peer reviewer stated that he/she did not think a retrospective analysis of the 1997 status is necessary nor should it be a priority.

*Response:* NMFS does not agree that the status review should be revised to allow for the possibility that this species was never threatened. The ESA listing of the Steller sea lion as a single species occurred prior to the recognition of western and eastern DPSs of Steller sea lions. The original listing followed widespread intentional take throughout parts of the range of what is now the eastern DPS, as well as other actions that led to the considerable reduction in population size and loss of rookeries. At the time of the recognition of separate DPSs with differing listing statuses, data were insufficient to determine that factors causing declines in the western DPS or a lack of recovery in the southern part of the eastern DPS would not spread to other parts of the range of the eastern DPS. Hence, because the eastern DPS was at risk of becoming endangered within the foreseeable future, listing of the eastern DPS under the ESA remained appropriate. This allowed us to have a longer period of sustained increase over which to gain confidence that the growth of the eastern DPS was not temporary and was not likely to reverse after a short period. The protections afforded by the ESA likely facilitated the recovery of the eastern DPS.

*Peer Reviewer Comment on Habitat:* Regarding section 3.2.1 of the Status

Review (NMFS 2013a), Peer Reviewer 2 recommended that NMFS add that, in the region between Cape St. Elias and Cross Sound, there are few areas with rocky shorelines and no offshore islands that are preferred habitats for Steller sea lions hauling out and pupping/breeding. Thus, there is habitat discontinuity between these locations.

*Response:* We modified section 3.2.1 of the Status Review to include this information.

*Peer Reviewer Comments on the PDMP:* Peer Reviewer 4 believes that consideration should be given to broadening PDMP partnerships by including academic and other non-government organizations with Steller sea lion research expertise as Regional Collaborators.

*Response:* We agree and have broadened our list of partnerships by including academic and other non-government organizations with Steller sea lion research expertise as Regional Collaborators.

### Conclusions and Listing Determination

Based on information in the Recovery Plan and review of new information discussed in the Status Review, including information received from public and peer reviewer comments, we find the following:

- The biological (demographic) criterion for delisting identified in the Recovery Plan has been met.
- None of the residual or emerging potential threats evaluated under the five ESA section 4(a)(1) factors, individually or cumulatively, is likely to result in the species becoming in danger of extinction within the foreseeable future throughout all or a significant portion of the range of the DPS.

- NMFS has taken actions to address the ESA Listing Factor Criteria set forth in the Recovery Plan.

- Following delisting of the eastern DPS, the MMPA and other laws and regulations, if effectively implemented, should promote the continued recovery of the eastern DPS of Steller sea lions such that it is not likely to become in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

Therefore, NMFS finds that removal of the eastern DPS of the Steller sea lion from the list of threatened species is warranted because the DPS no longer meets the definition of a threatened species. We intend to implement the PDMP for ten years beyond delisting to ensure that recovery continues.

### Post-Delisting Monitoring Plan (PDMP)

NMFS developed a PDMP to govern monitoring following delisting. As

directed in our PDMP guidance (USFWS and NMFS 2008), the primary goal of this monitoring is to ensure that the status of the eastern DPS “. . . does not deteriorate, and if a substantial decline in the species, . . . or an increase in threats is detected, to take measures to halt the decline so that re-proposing it as a threatened or endangered species is not needed.” If a population decline or an increase in threats is detected, NMFS will take measures in collaboration with the States and other partners to prevent the species from becoming threatened again. The draft PDMP was included as an appendix to the draft Status Review, was released for public comment, and was revised in consideration of that comment.

The PDMP has three primary goals:

- Monitor the population to detect changes in trends in pup production and adult/juvenile (non-pup) counts and vital rates (survival and birth rates), and to continue to assess how movement across the western-eastern DPS boundary may be affecting non-pup counts in each DPS.

- Monitor threats that potentially could affect the sustainability of the recovery of the eastern DPS.

- Determine if there is a northward extension of the patterns observed in southern California where rookeries were abandoned, or in parts of central California, such as the Farallon Islands, where population increase either did not occur or occurred only weakly, and hence where population density is low or becoming lower; if the breeding and feeding ranges of this species are continuing to shift northward; and if range contraction is occurring.

The PDMP also provides response triggers to prompt additional evaluation and appropriate response. If necessary, NMFS could increase the sensitivity of status and trend monitoring; design research to determine causes of changes in population trend or declines in pup production or vital rates; work with States, tribes, or other entities to exercise their regulatory authorities to alleviate known or suspected threats; utilize the MMPA to protect the species and/or its habitat; extend the monitoring period; re-evaluate the significance of threats to the eastern DPS; or evaluate re-listing the eastern DPS of Steller sea lion under the ESA.

### Effects of the Delisting

This final rule will eliminate the protection afforded to the eastern DPS of Steller sea lions under the ESA. It will not affect the ESA status of the endangered western DPS of Steller sea lions. All Steller sea lions will continue to receive protections under the MMPA.

Due to this final rule, Federal agencies will no longer be required to consult with NMFS under section 7 of the ESA in the event activities they authorize, fund, or carry out may affect the eastern DPS of Steller sea lions. This rule does not remove or otherwise affect the ongoing requirement for Federal agencies, pursuant to section 7 of the ESA, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of the western DPS of Steller sea lions or result in the destruction or adverse modification of designated critical habitat.

Critical habitat for the Steller sea lion remains in effect for the listed, endangered western DPS, as the designated critical habitat continues to support the western DPS's important biological functions (e.g., feeding and resting). NMFS will re-examine in a separate rulemaking the existing critical habitat designation to consider any new and pertinent sources of information, including the delisting of the eastern DPS. In the interim, during ESA section 7 consultations for federal actions that may affect currently designated Steller sea lion critical habitat, NMFS will address effects to such habitat in terms of effects to those physical and biological features essential to the conservation of the western DPS.

The only regulatory changes resulting from this final rule that are germane to the endangered western DPS of Steller sea lions are the removal of the prohibition on the discharge of firearms at or within 100 yards of a Steller sea lion east of 144 °W, and the recodification of protections and exemptions for the western DPS currently within 50 CFR 223.202 to 50 CFR 224.103.

ESA section 9 prohibitions apply to endangered species by operation of law and may be extended to threatened species by regulation under section 4(d) of the ESA. The section 9 prohibitions for eastern DPS animals are removed with this final rule but section 9 prohibitions for western DPS animals continue to apply. When we recognized two DPSs of Steller sea lions, listed the western DPS as endangered, and listed the eastern DPS as threatened, we extended the section 9 prohibitions to the eastern DPS (62 FR 24345; May 5, 1997). Following publication of this final rule, NMFS will separately consider whether additional protection is needed for western DPS Steller sea lions in those parts of their range east of 144 °W. longitude.

Notwithstanding the deletion of 50 CFR 223.202 and the removal of the prohibition against the discharge of

firearms at or within 100 yards of a Steller sea lion east of 144 °W, the take of all Steller sea lions, including take by harassment, will continue to be prohibited under the MMPA, unless specifically authorized by NMFS or exempted from the MMPA's moratorium on take.

A species or population stock that is listed as an endangered species or a threatened species under the ESA is considered "depleted" and a "strategic stock" under the MMPA. Thus, the delisting of the eastern DPS of Steller sea lion under the ESA will likely lead to two modifications to classifications of the eastern DPS of Steller sea lion under the MMPA: from its current classification as a "strategic stock" and as a "depleted" species to a new classification as a "non-strategic stock" and/or as not depleted. In consultation with one or more of three regional Scientific Review Groups, and following public review and comment, NMFS prepares annual marine mammal stock assessment reports. The stock assessments reports for "strategic stocks" are reviewed annually whereas those for non-strategic stocks are reviewed every three years, or when new information becomes available. Thus, if the eastern DPS (eastern "stock" under the MMPA) is reclassified as a non-strategic stock, the review of its stock assessment report may become less frequent. NMFS will consider redesignating the eastern stock of Steller sea lions as non-strategic and not depleted under the MMPA following review by the Alaska Scientific Review Group in 2014.

#### Description of Regulatory Changes

This final rule removes the eastern DPS of Steller sea lions from the list of threatened species in 50 CFR 223.102.

Section 223.202 established various protective measures for threatened eastern DPS Steller sea lions, including a specific prohibition on discharging a firearm at or within 100 yards of a Steller sea lion, a prohibition on vessel transit within 3 nautical miles of specific Steller sea lion rookery sites, and a list of certain exemptions to some of those same protections. We are deleting 50 CFR 223.202, and we are recodifying these protections and exemptions for the western DPS as appropriate within 50 CFR 224.103.

#### Classification

*National Environmental Policy Act (NEPA)*

The 1982 amendments to the ESA, in section 4(b)(1)(A), restrict the information that may be considered

when assessing species for listing. Based on this limitation of criteria for a listing decision and the opinion in *Pacific Legal Foundation v. Andrus*, 657 F. 2d 829 (6th Cir. 1981), we have concluded that NEPA does not apply to ESA delisting actions. (See NOAA Administrative Order 216–6.)

*Executive Order (E.O.) 12866, Regulatory Flexibility Act, and Paperwork Reduction Act*

As noted in the Conference Report on the 1982 amendments to the ESA, economic impacts cannot be considered when assessing the status of a species. Therefore, the economic analyses required by the Regulatory Flexibility Act are not applicable to the de-listing process. In addition, this rule is exempt from review under E.O. 12866. This final rule does not contain a collection of information requirement for the purposes of the Paperwork Reduction Act.

*E.O. 13132, Federalism*

E.O. 13132 requires agencies to take into account any federalism impacts of regulations under development. It includes specific directives for consultation in situations where a regulation will preempt state law or impose substantial direct compliance costs on state and local governments (unless required by statute). Neither of those circumstances is applicable to this final rule.

*E.O. 13175, Consultation and Coordination With Indian Tribal Governments*

The longstanding and distinctive relationship between the Federal and tribal governments is defined by treaties, statutes, executive orders, judicial decisions, and co-management agreements, which differentiate tribal governments from the other entities that deal with, or are affected by, the Federal Government. This relationship has given rise to a special Federal trust responsibility involving the legal responsibilities and obligations of the United States toward Indian Tribes and the application of fiduciary standards of due care with respect to Indian lands, tribal trust resources, and the exercise of tribal rights. E.O. 13175 outlines the responsibilities of the Federal Government in matters affecting tribal interests. Section 161 of Public Law 108–199 (188 Stat. 452), as amended by section 518 of Public Law 108–447 (118 Stat. 3267), directs all Federal agencies to consult with Alaska Native corporations on the same basis as Indian tribes under E.O. 13175.

NMFS has coordinated with Alaska Native communities regarding eastern DPS of Steller sea lion management issues through the Sea Otter and Steller Sea Lion Commission (TASSC). NMFS has briefed TASSC on this delisting action at TASSC annual meetings and provided updates regarding the timeline for the eastern DPS of Steller sea lion status review. Prior to the release of the proposed rule, NMFS was in also in contact with the Makah Tribe. Following publication of the proposed rule, we notified the Columbia River Inter-Tribal Fish Commission and the Makah Tribe. At various stages of the process from the notice of initiation of the 5-year review through the publication of the proposed rule, NMFS received comments, information, and/or other input from the Columbia River Inter-Tribal Fish Commission, the Makah Tribe, and the Northwest Indian Fisheries Commission. NMFS considered all of the comments received from Alaska Native organizations and Pacific Northwest tribal organizations at these various stages. We have addressed those comments in this final rule. NMFS did not receive any formal requests to consult on the proposed action.

#### References Cited

A complete list of all references cited in this rulemaking can be found on our Web site at <http://alaskafisheries.noaa.gov> and is available upon request from the NMFS office in Juneau, Alaska (see ADDRESSES).

#### List of Subjects

50 CFR Part 223

Endangered and threatened species, Exports, Imports, Transportation.

50 CFR Part 224

Endangered marine and anadromous species.

Dated: October 21, 2013.

**Alan D. Risenhoover,**

*Director, Office of Sustainable Fisheries, performing the functions and duties of the Acting Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.*

For the reasons set out in the preamble, 50 CFR parts 223 and 224 are amended as follows:

#### PART 223—THREATENED MARINE AND ANADROMOUS SPECIES

■ 1. The authority citation for part 223 continues to read as follows:

**Authority:** 16 U.S.C. 1531–1543.

§ 223.102 [Amended]

■ 2. In § 223.102, the table is amended by removing and reserving paragraph (a)(2).

§ 223.202 [Removed]

■ 3. Section 223.202 is removed.

**PART 224—ENDANGERED MARINE AND ANADROMOUS SPECIES**

■ 4. The authority citation for part 224 continues to read as follows:

**Authority:** 16 U.S.C. 1531–1543 and 16 U.S.C. 1361 *et seq.*

■ 5. In § 224.103, revise paragraph (d) to read as follows:

**§ 224.103 Special prohibitions for endangered marine mammals.**

\* \* \* \* \*

(d) *Special prohibitions relating to endangered Steller sea lion protection.*—(1) *General Prohibitions.* The following regulatory provisions shall apply to the western population of Steller sea lions:

(i) *No discharge of firearms.* Except as provided in paragraph (d)(2) of this section, no person subject to the jurisdiction of the United States may discharge a firearm at or within 100 yards (91.4 meters) of a Steller sea lion west of 144 °W longitude. A firearm is any weapon, such as a pistol or rifle, capable of firing a missile using an explosive charge as a propellant.

(ii) *No approach in buffer areas.* Except as provided in paragraph (d)(2) of this section:

(A) No owner or operator of a vessel may allow the vessel to approach within 3 nautical miles (5.5 kilometers) of a

Steller sea lion rookery site listed in paragraph (d)(1)(iii) of this section;

(B) No person may approach on land not privately owned within one-half statutory mile (0.8 kilometers) or within sight of a Steller sea lion rookery site listed in paragraph (d)(1)(iii) of this section, whichever is greater, except on Marmot Island; and

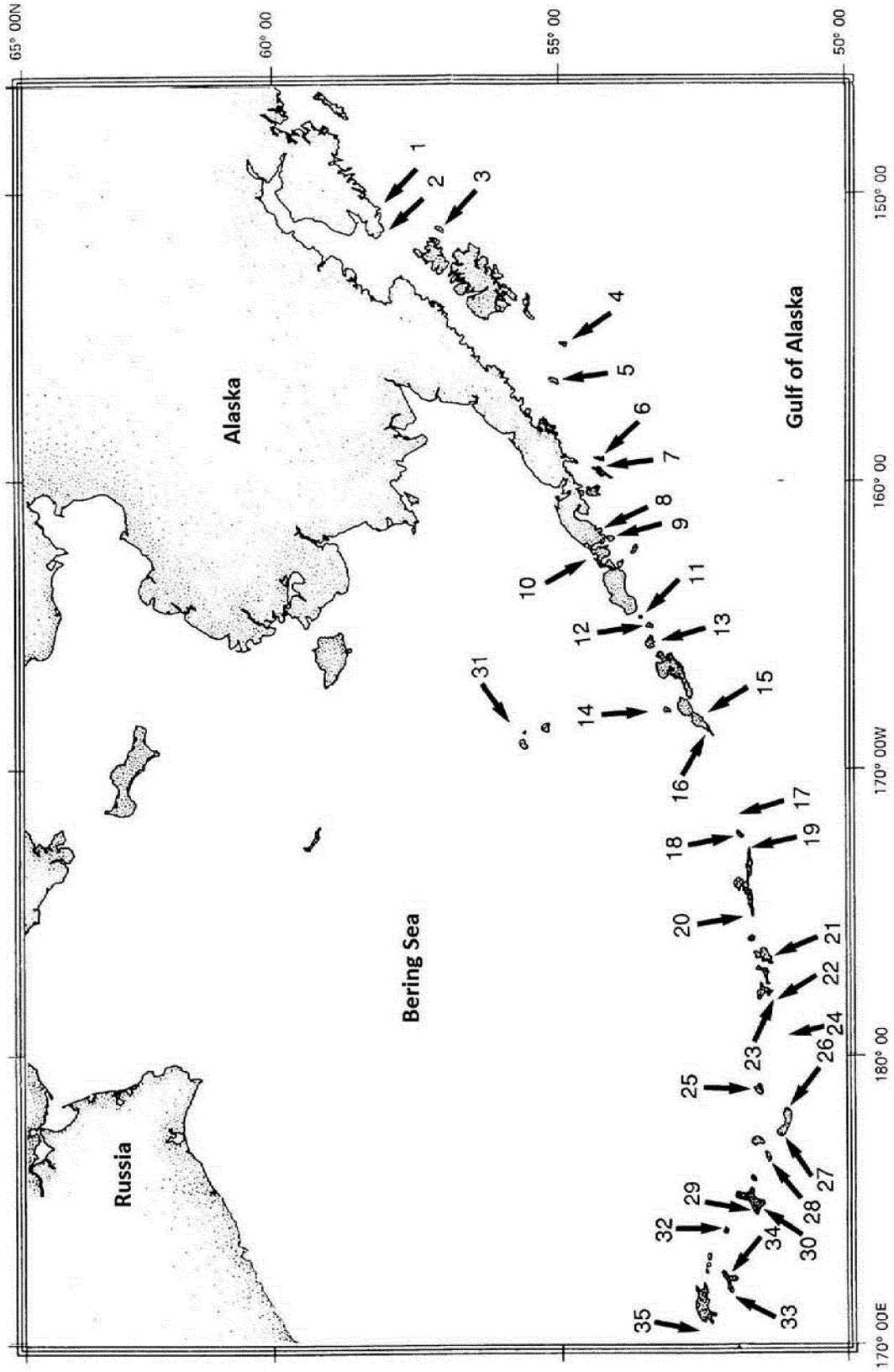
(C) No person may approach on land not privately owned within one and one-half statutory miles (2.4 kilometers) or within sight of the eastern shore of Marmot Island, including the Steller sea lion rookery site listed in paragraph (d)(1)(iii) of this section, whichever is greater.

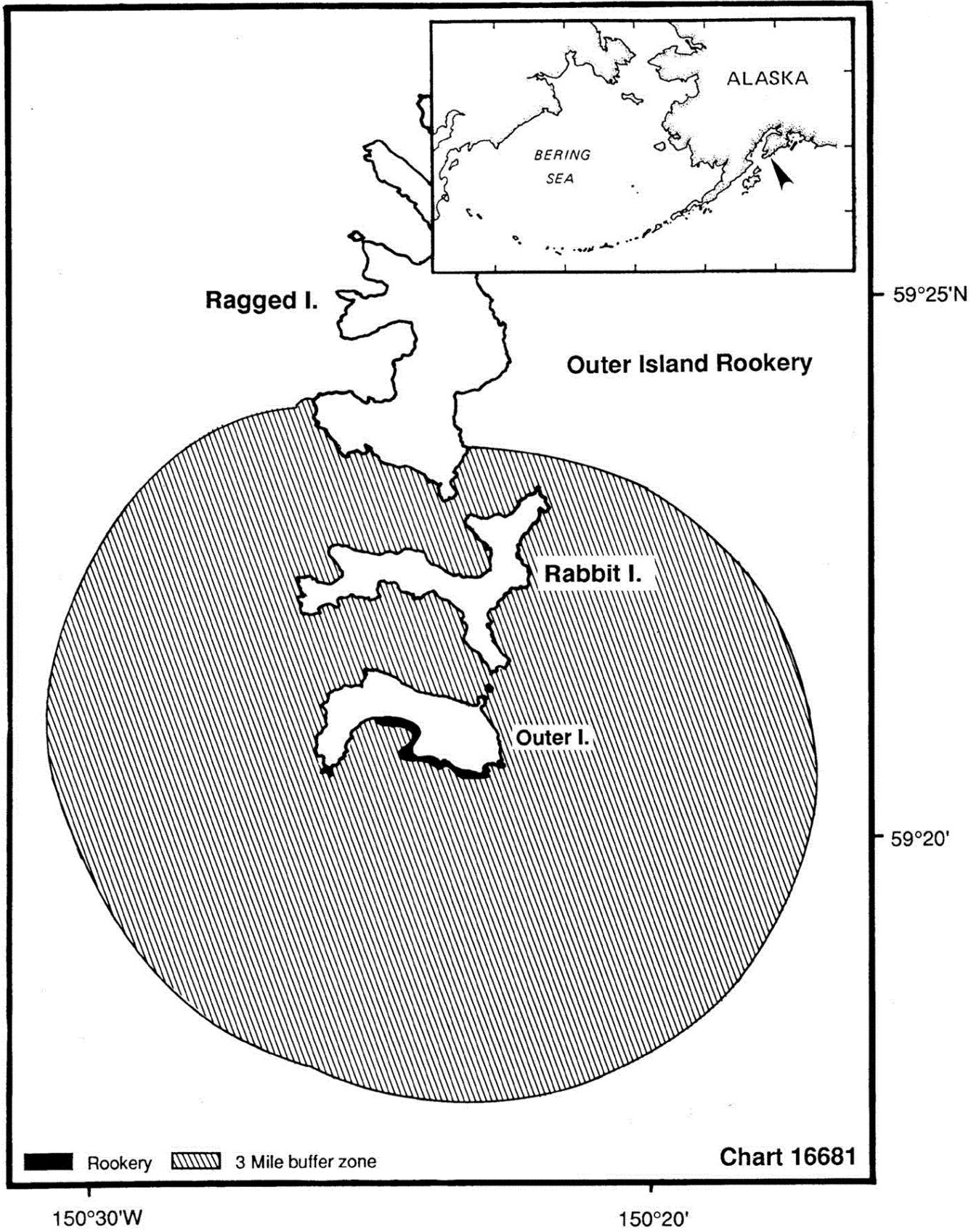
(iii) *Listed sea lion rookery sites.* Listed Steller sea lion rookery sites consist of the rookeries in the Aleutian Islands and the Gulf of Alaska listed in Table 1.

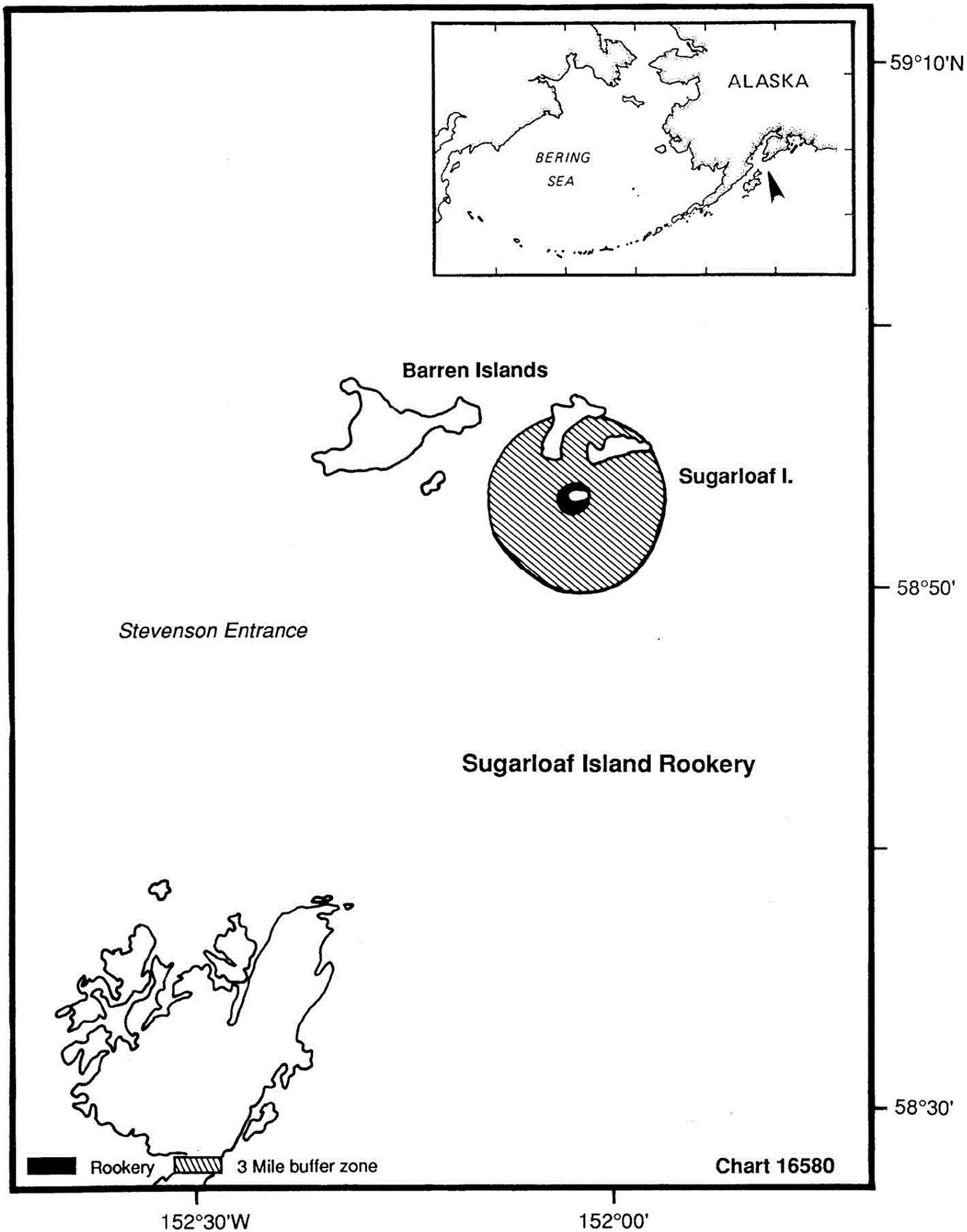
TABLE 1 TO § 224.103—LISTED STELLER SEA LION ROOKERY SITES <sup>1</sup>

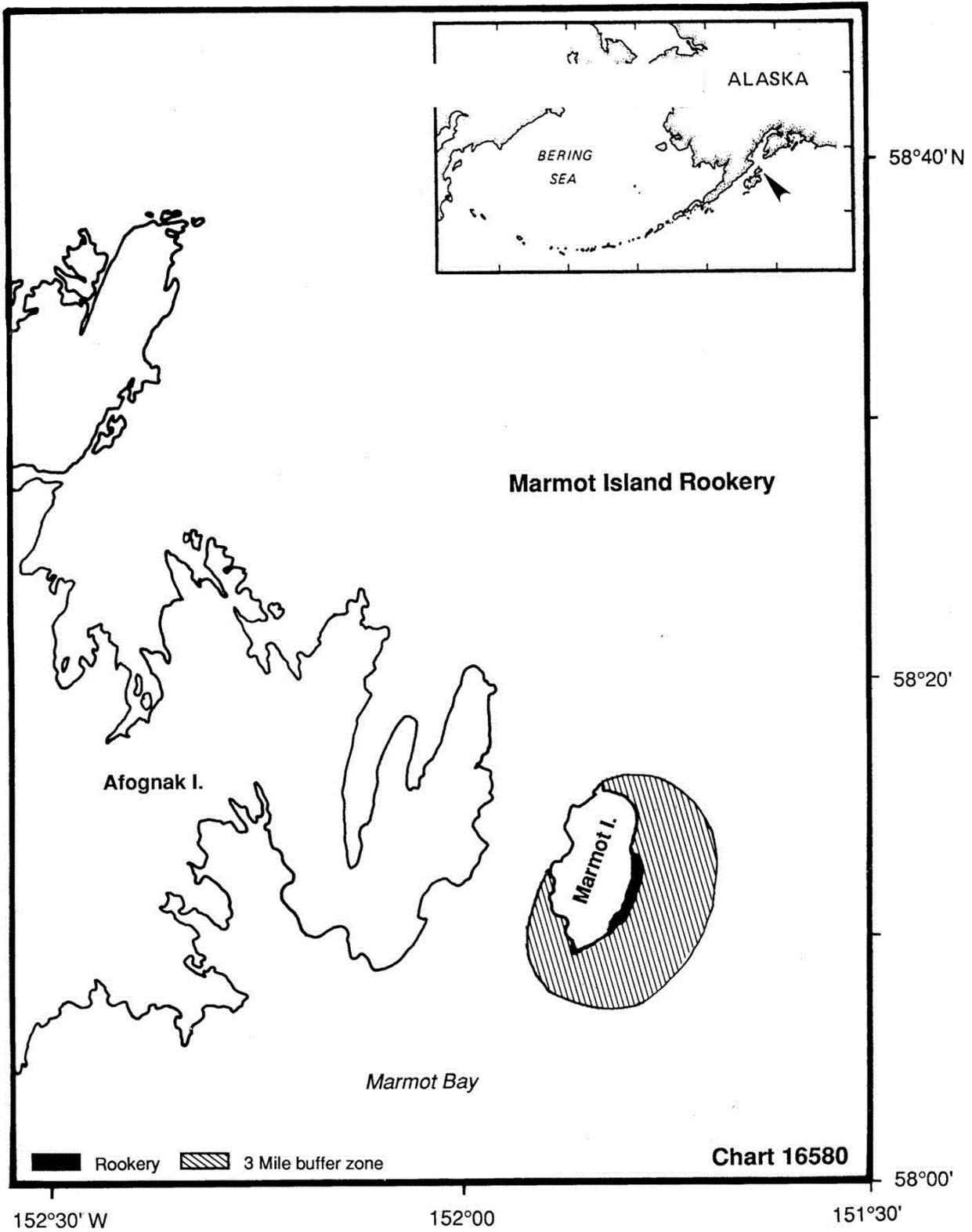
Island	From		To		NOAA Chart	Notes
	Lat.	Long.	Lat.	Long.		
1. Outer I. ....	59°20.5 N	150°23.0 W	59°21.0 N	150°24.5 W	16681	S quadrant.
2. Sugarloaf I. ....	58°53.0 N	152°02.0 W			16580	Whole island.
3. Marmot I. ....	58°14.5 N	151°47.5 W	58°10.0 N	151°51.0 W	16580	SE quadrant.
4. Chirikof I. ....	55°46.5 N	155°39.5 W	55°46.5 N	155°43.0 W	16580	S quadrant.
5. Chowiet I. ....	56°00.5 N	156°41.5 W	56°00.5 N	156°42.0 W	16013	S quadrant.
6. Atkins I. ....	55°03.5 N	159°18.5 W			16540	Whole island.
7. Chernabura I. ....	54°47.5 N	159°31.0 W	54°45.5 N	159°33.5 W	16540	SE corner.
8. Pinnacle Rock	54°46.0 N	161°46.0 W			16540	Whole island.
9. Clubbing Rks (N)	54°43.0 N	162°26.5 W			16540	Whole island.
Clubbing Rks (S)	54°42.0 N	162°26.5 W			16540	Whole Island.
10. Sea Lion Rks	55°28.0 N	163°12.0 W			16520	Whole island.
11. Ugamak I. ....	54°14.0 N	164°48.0 W	54°13.0 N	164°48.0 W	16520	E end of island.
12. Akun I. ....	54°18.0 N	165°32.5 W	54°18.0 N	165°31.5 W	16547	Billings Head Bight.
13. Akutan I. ....	54°03.5 N	166°00.0 W	54°05.5 N	166°05.0 W	16520	SW corner, Cape Morgan.
14. Bogoslof I. ....	53°56.0 N	168°02.0 W			16500	Whole island.
15. Ogchul I. ....	53°00.0 N	168°24.0 W			16500	Whole island.
16. Adugak I. ....	52°55.0 N	169°10.5 W			16500	Whole island.
17. Yunaska I. ....	52°42.0 N	170°38.5 W	52°41.0 N	170°34.5 W	16500	NE end.
18. Seguam I. ....	52°21.0 N	172°35.0 W	52°21.0 N	172°33.0 W	16480	N coast, Saddleridge Pt.
19. Agigadak I. ....	52°06.5 N	172°54.0 W			16480	Whole island.
20. Kasatochi I. ....	52°10.0 N	175°31.5 W	52°10.5 N	175°29.0 W	16480	N half of island.
21. Adak I. ....	51°36.5 N	176°59.0 W	51°38.0 N	176°59.5 W	16460	SW Point, Lake Point.
22. Gramp rock	51°29.0 N	178°20.5 W			16460	Whole island.
23. Tag I. ....	51°33.5 N	178°34.5 W			16460	Whole island.
24. Ulak I. ....	51°20.0 N	178°57.0 W	51°18.5 N	178°59.5 W	16460	SE corner, Hasgox Pt.
25. Semisopchnoi	51°58.5 N	179°45.5 E	51°57.0 N	179°46.0 E	16440	E quadrant, Pochnoi Pt.
Semisopchnoi	52°01.5 N	179°37.5 E	52°01.5 N	179°39.0 E	16440	N quadrant, Petrel Pt.
26. Amchitka I. ....	51°22.5 N	179°28.0 E	51°21.5 N	179°25.0 E	16440	East Cape.
27. Amchitka I. ....	51°32.5 N	178°49.5 E			16440	Column Rocks.
28. Ayugadak Pt. ....	51°45.5 N	178°24.5 E			16440	SE coast of Rat Island.
29. Kiska I. ....	51°57.5 N	177°21.0 E	51°56.5 N	177°20.0 E	16440	W central, Lief Cove.
30. Kiska I. ....	51°52.5 N	177°13.0 E	51°53.5 N	177°12.0 E	16440	Cape St. Stephen.
31. Walrus I. ....	57°11.0 N	169°56.0 W			16380	Whole island.
32. Buldir I. ....	52°20.5 N	175°57.0 E	52°23.5 N	175°51.0 E	16420	Se point to NW point.
33. Agattu I. ....	52°24.0 N	173°21.5 E			16420	Gillion Point.
34. Agattu I. ....	52°23.5 N	173°43.5 E	52°22.0 N	173°41.0 E	16420	Cape Sabak.
35. Attu I. ....	52°54.5 N	172°28.5 E	52°57.5 N	172°31.5 E	16681	S Quadrant.

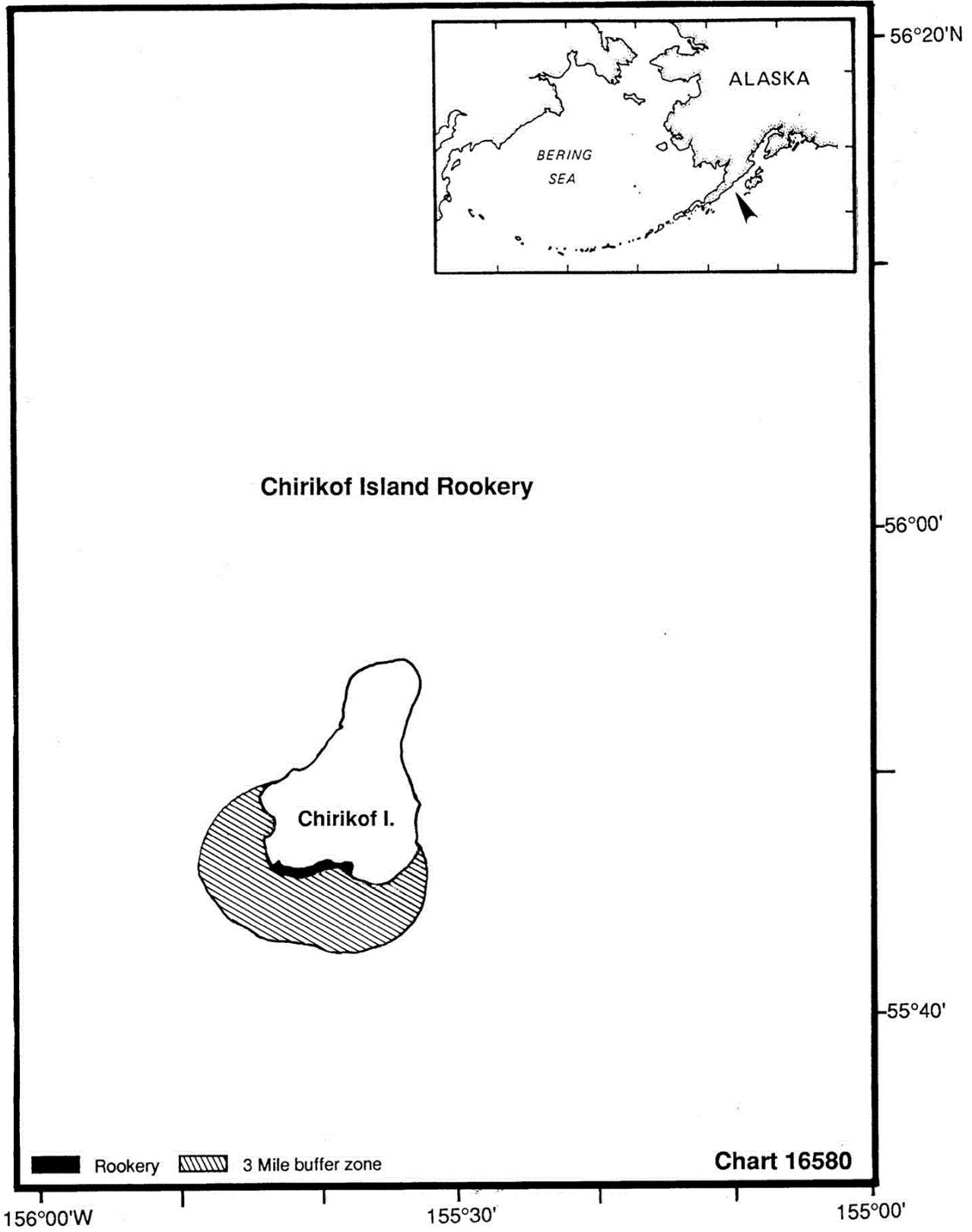
<sup>1</sup> Each site extends in a clockwise direction from the first set of geographic coordinates along the shoreline at mean lower low water to the second set of coordinates; or, if only one set of geographic coordinates is listed, the site extends around the entire shoreline of the island at mean lower low water.

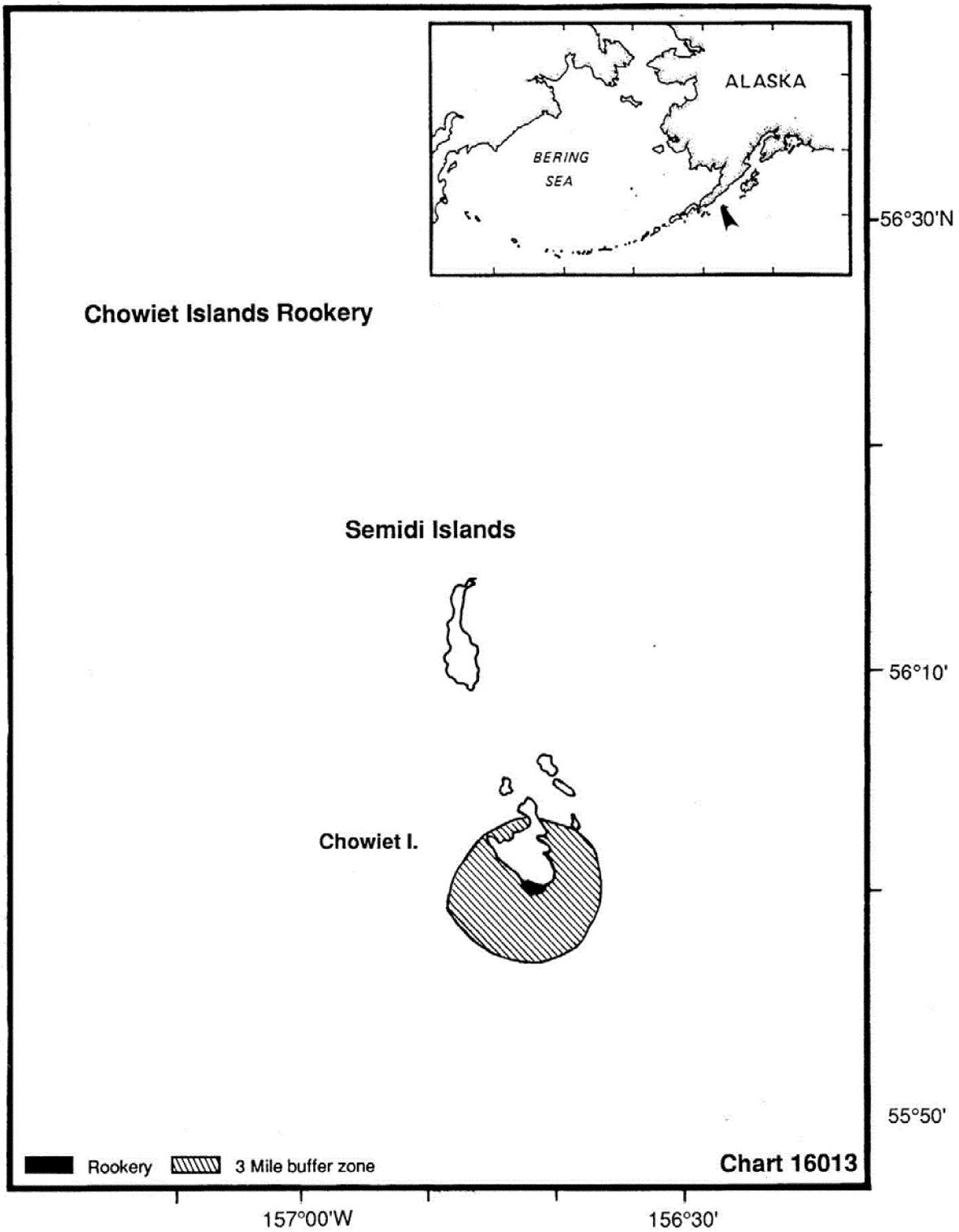


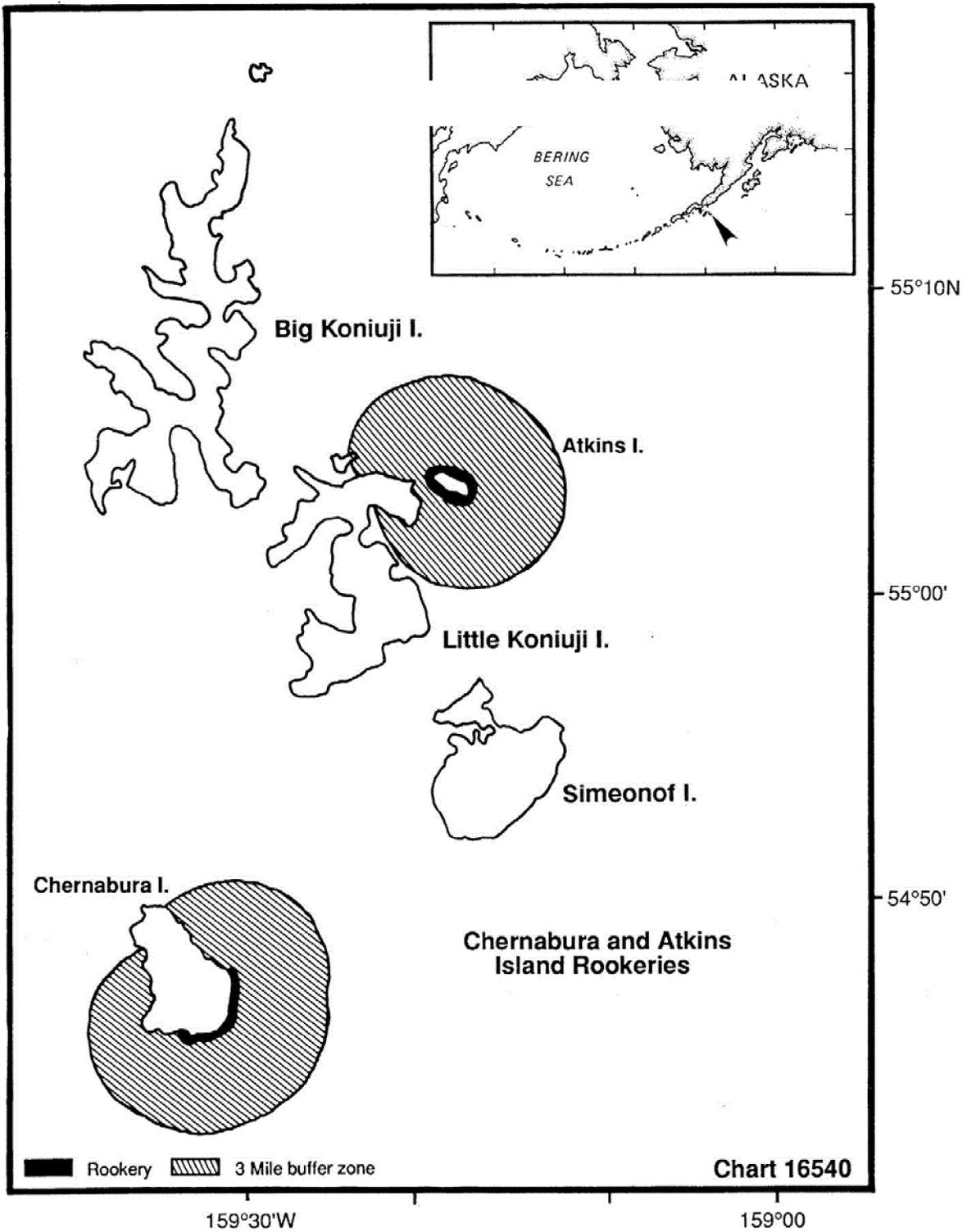


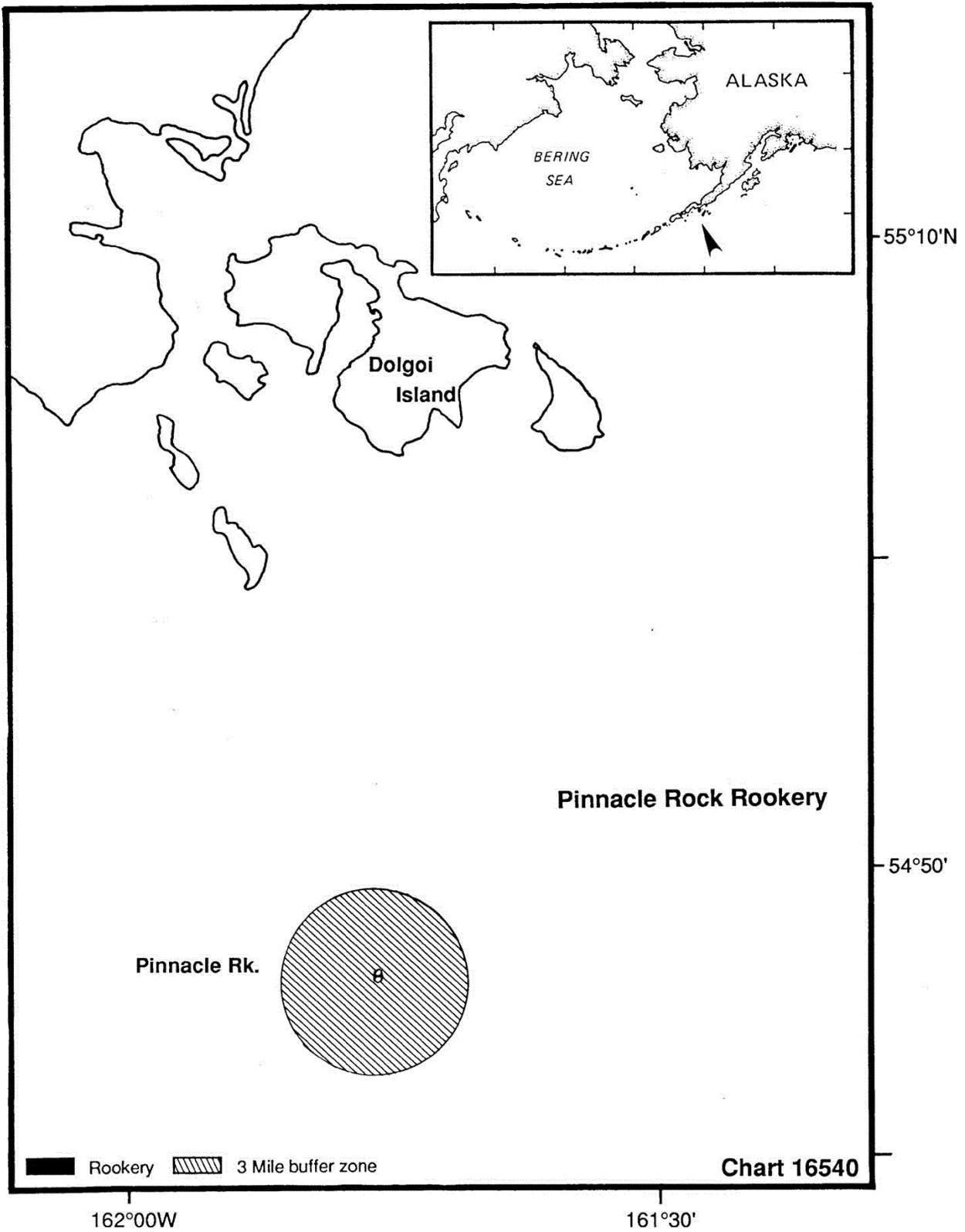


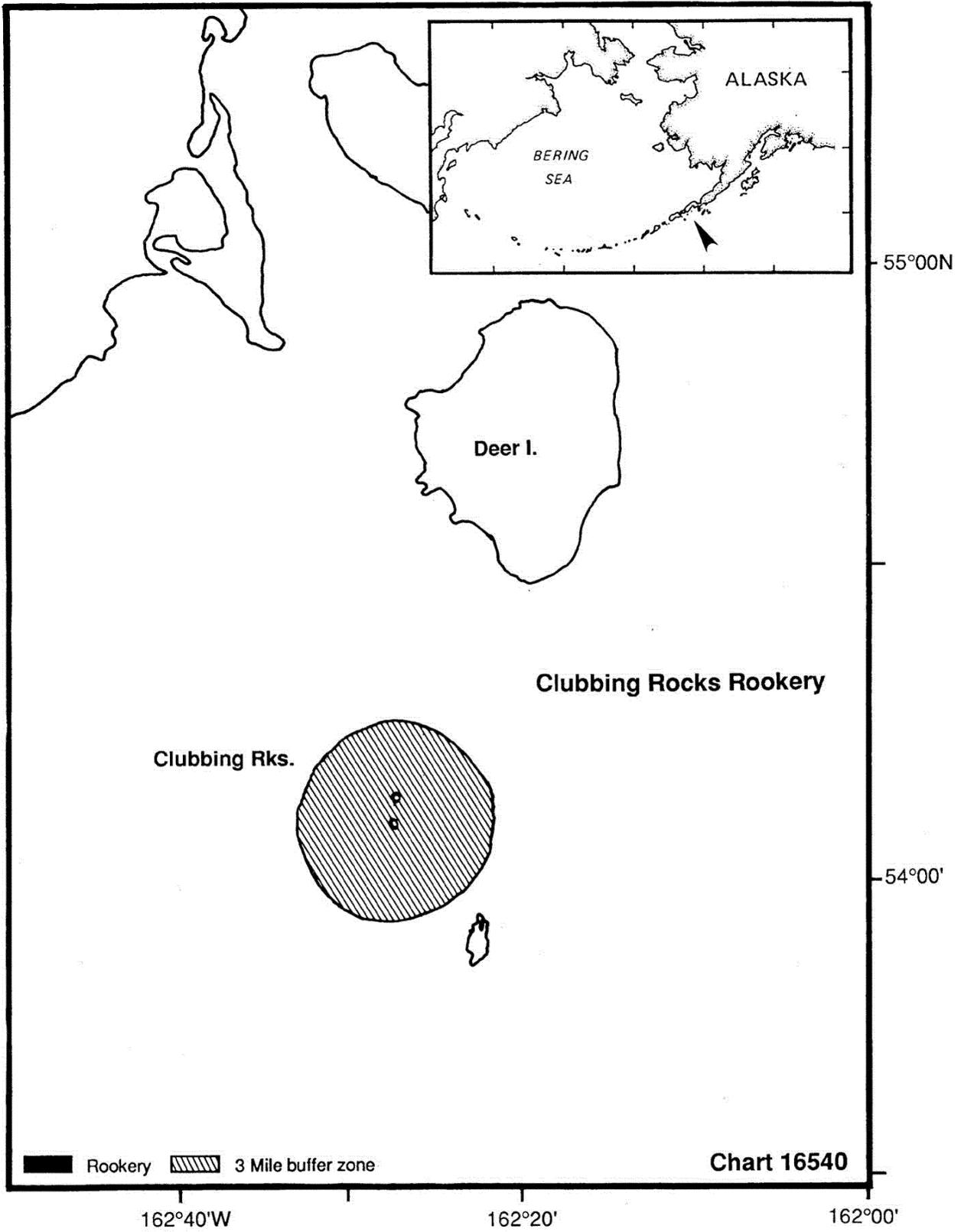


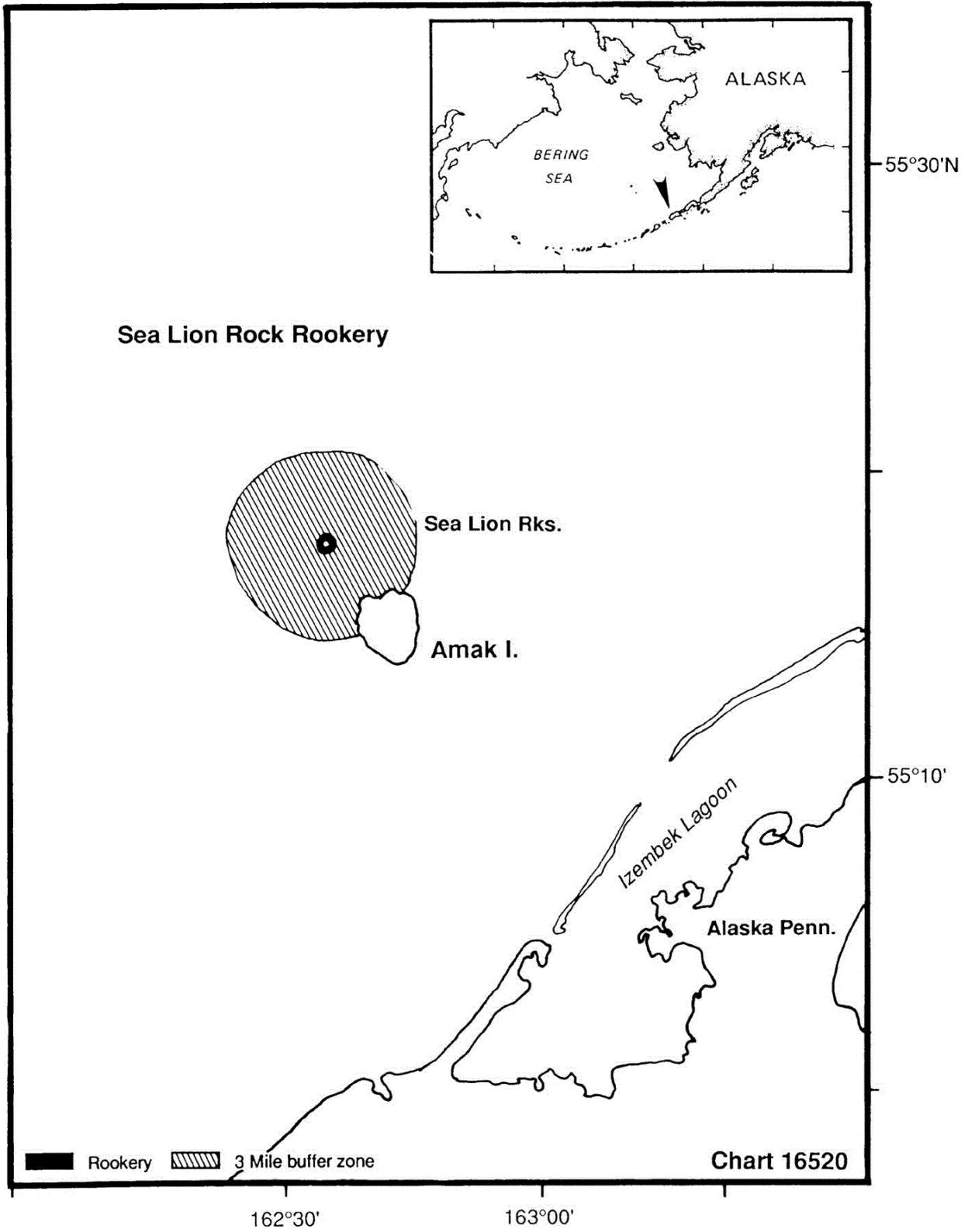


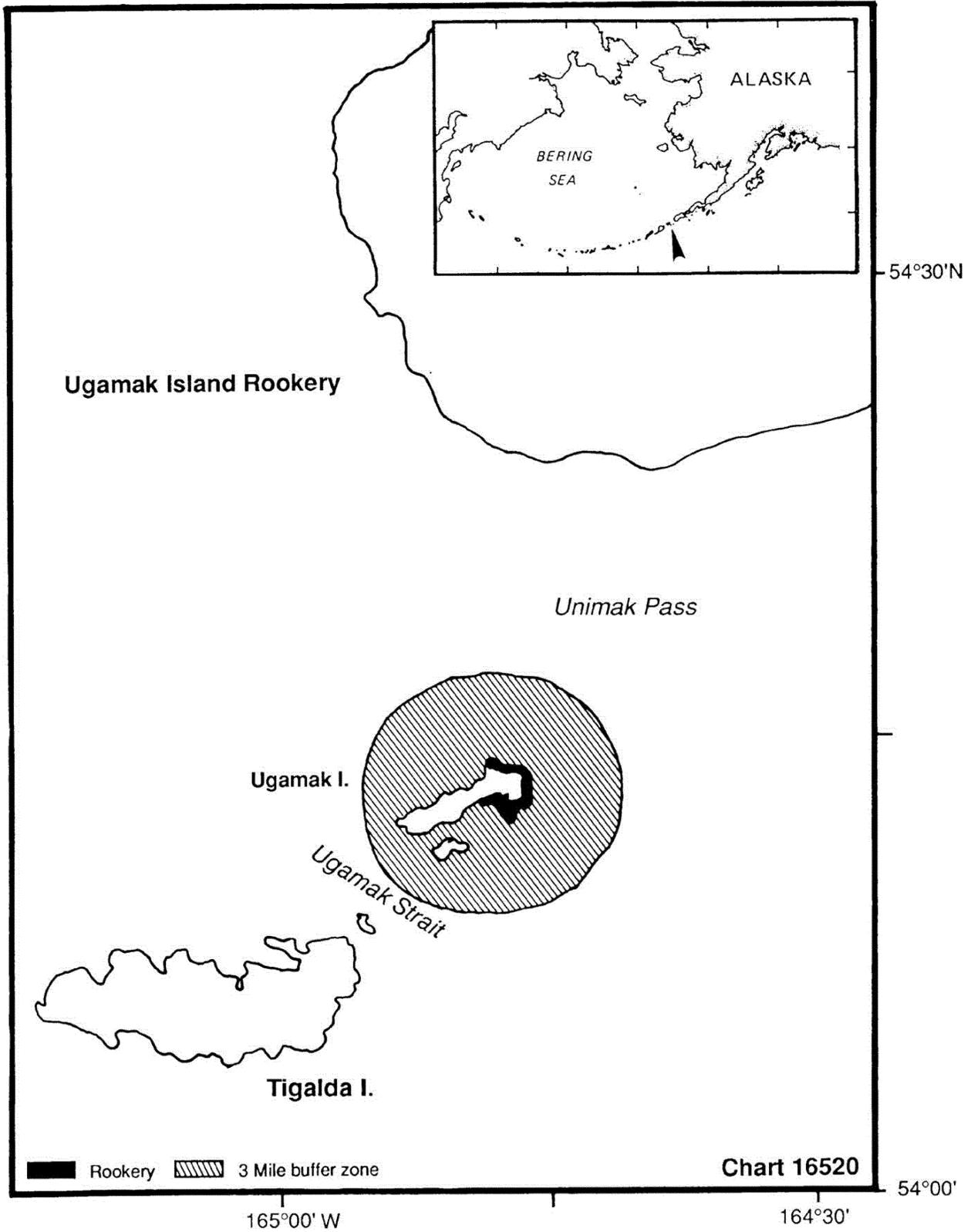


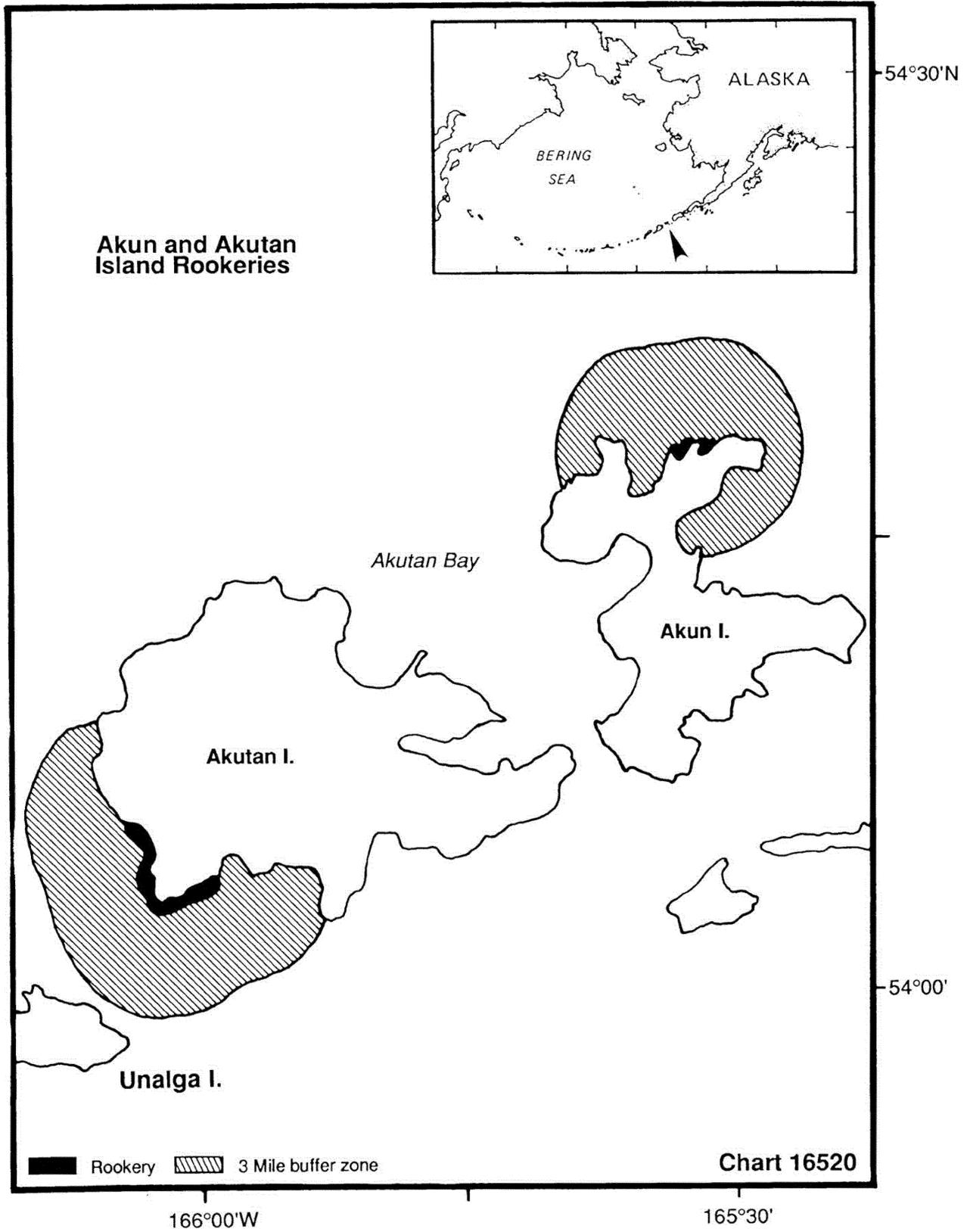


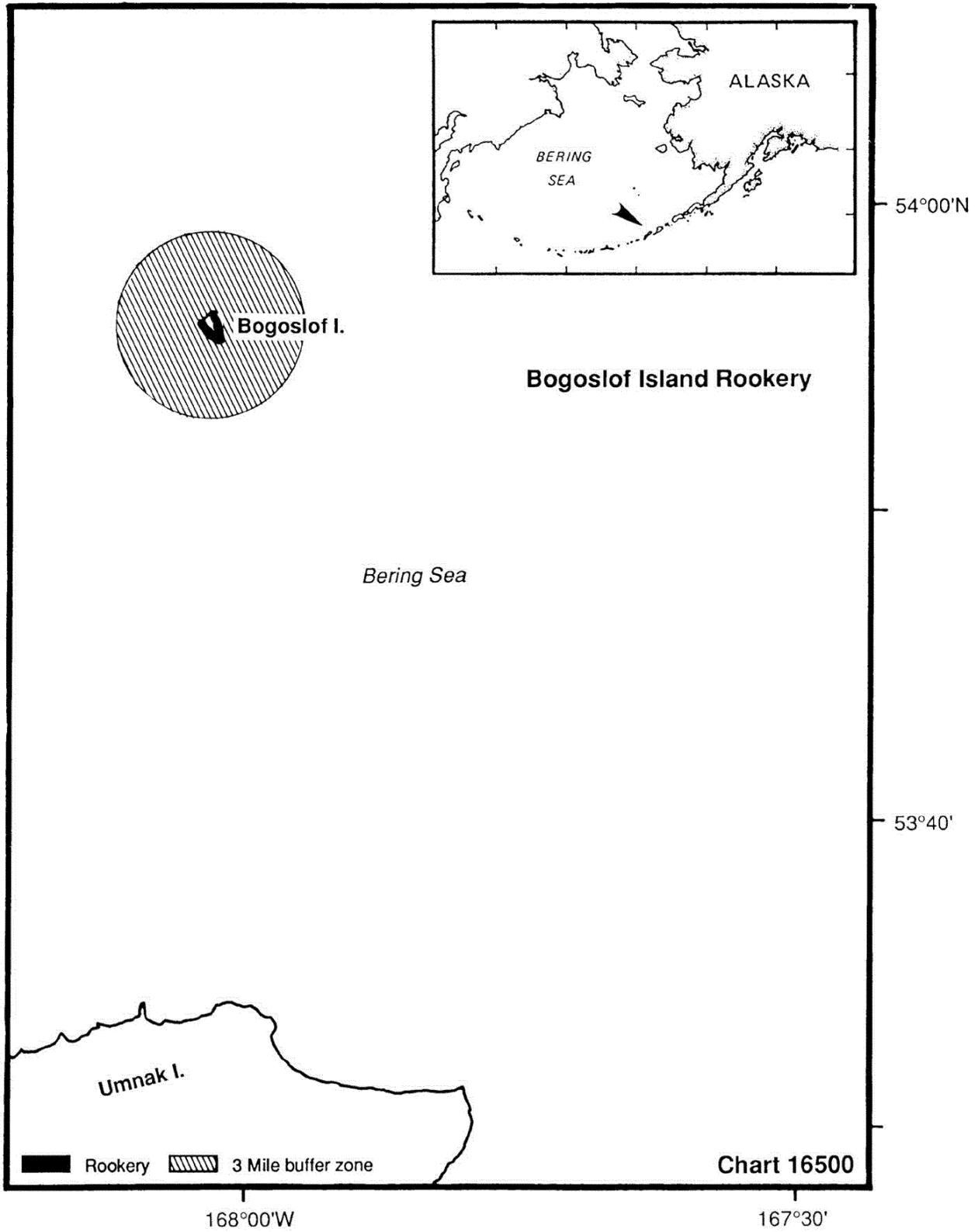


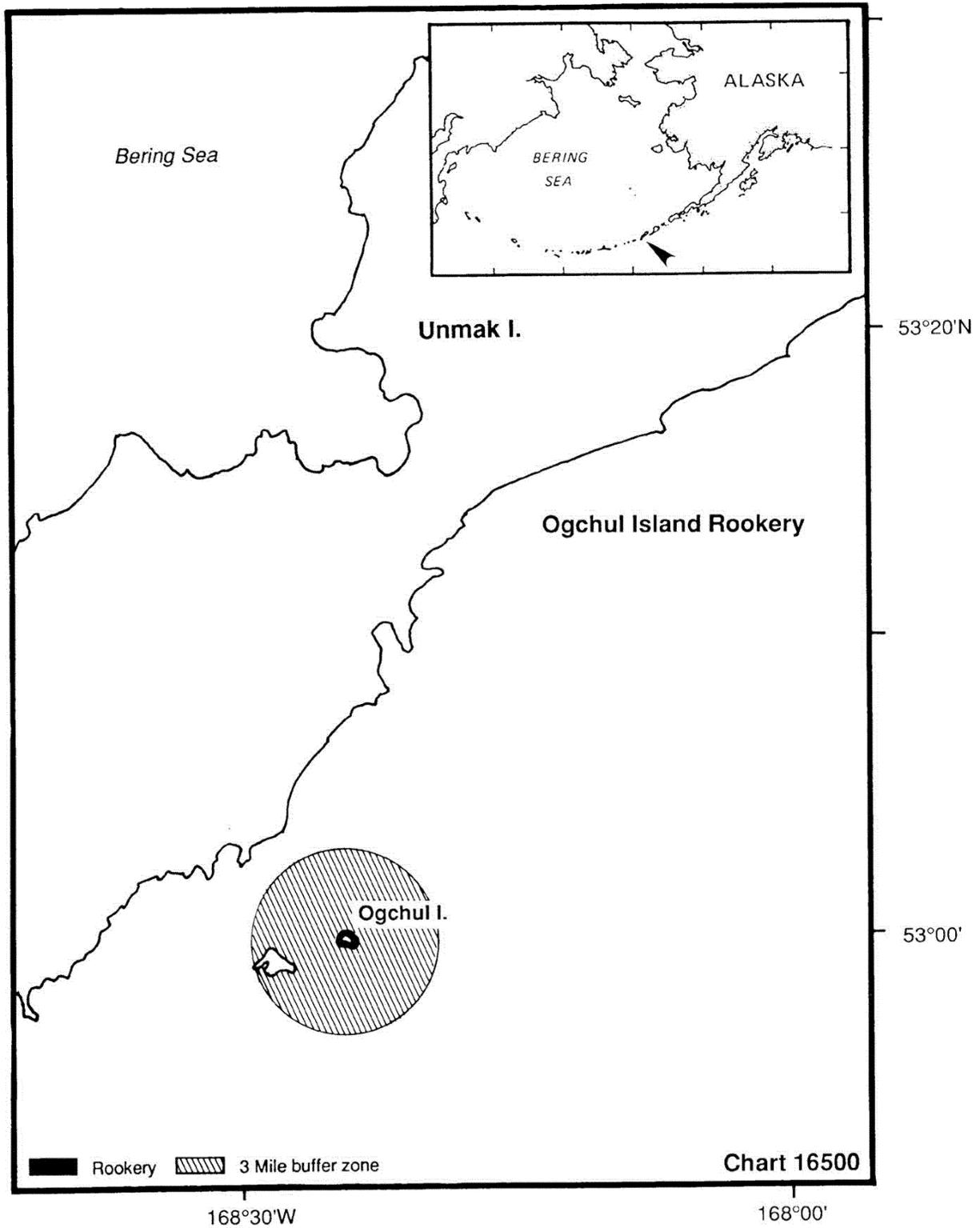


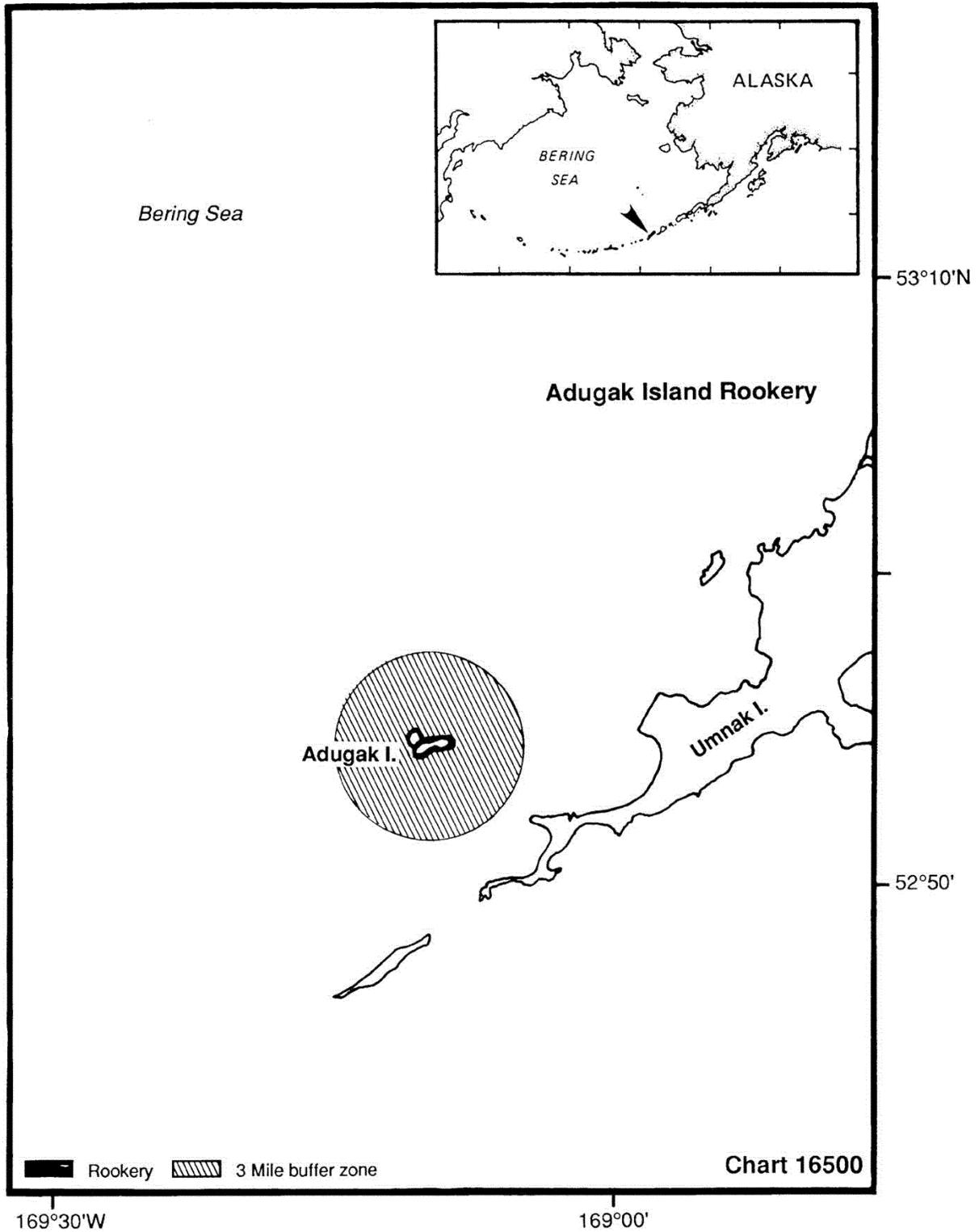


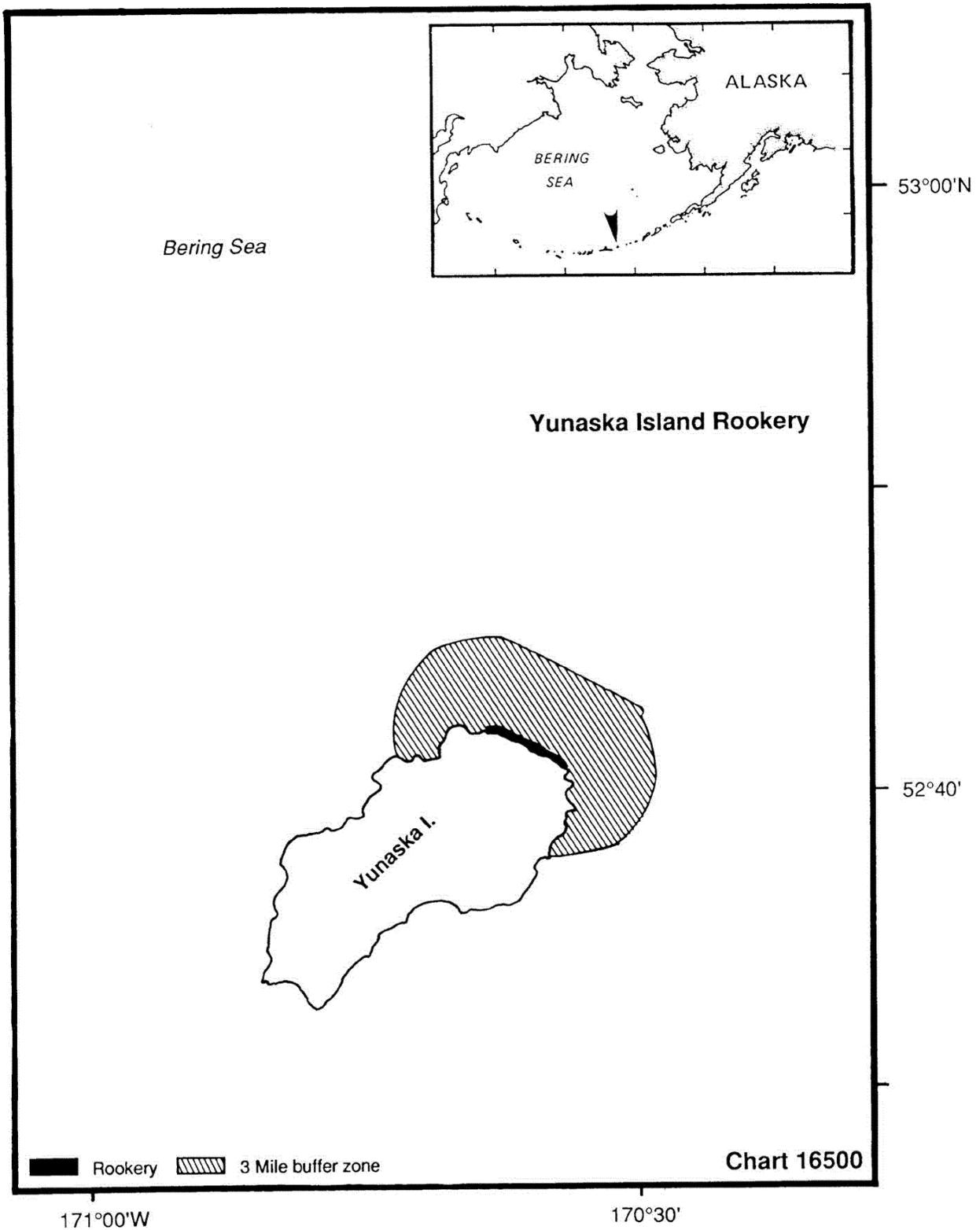


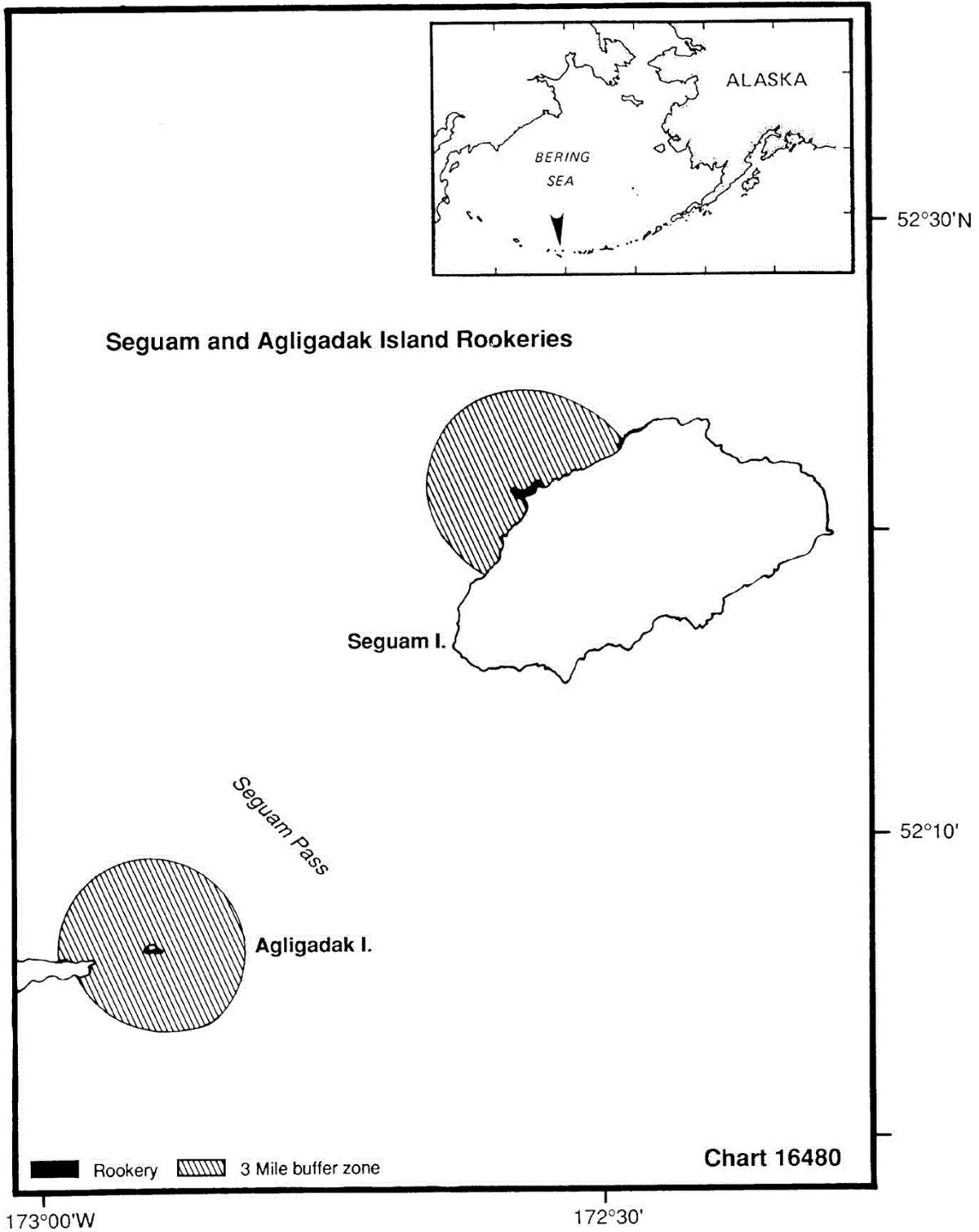


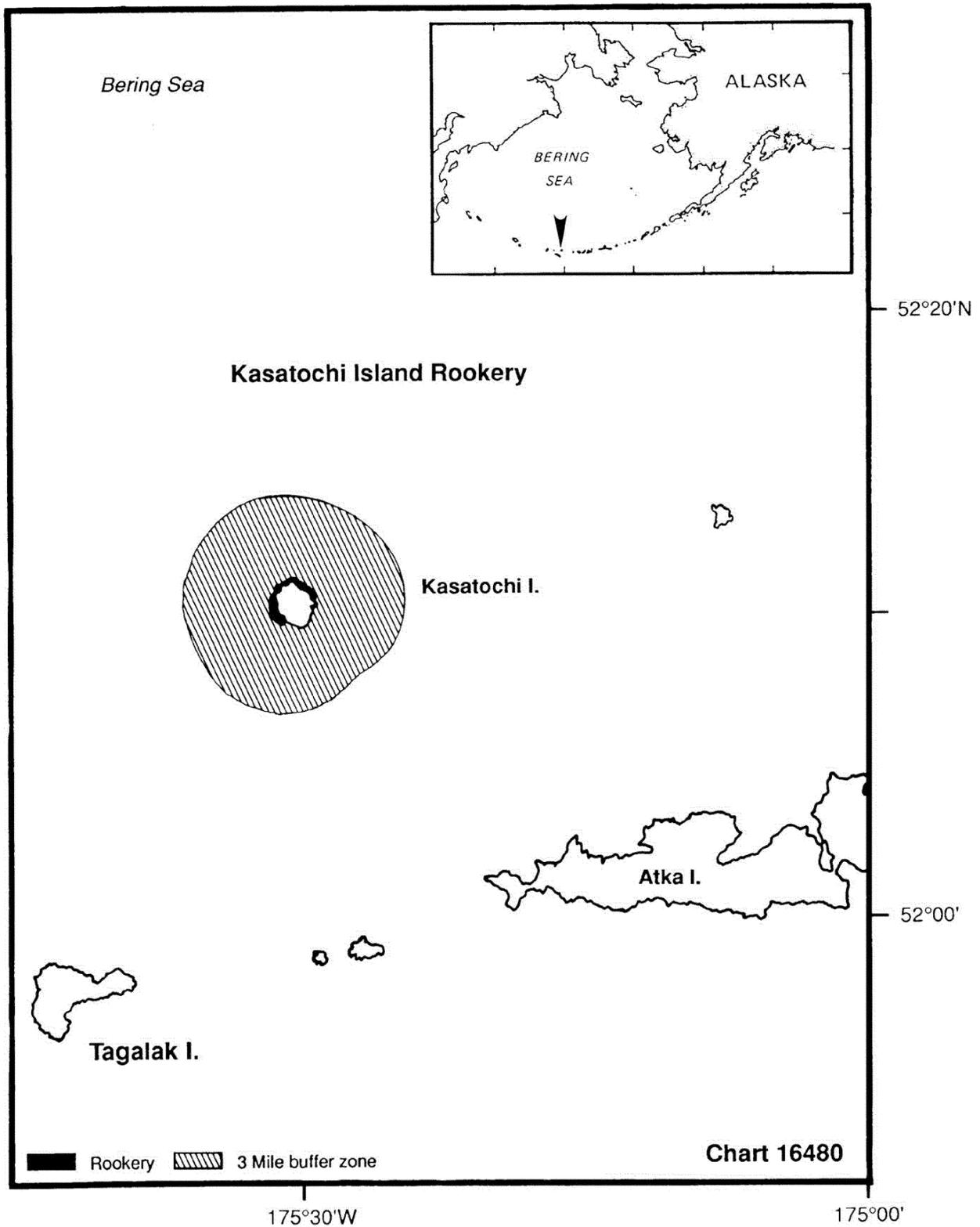


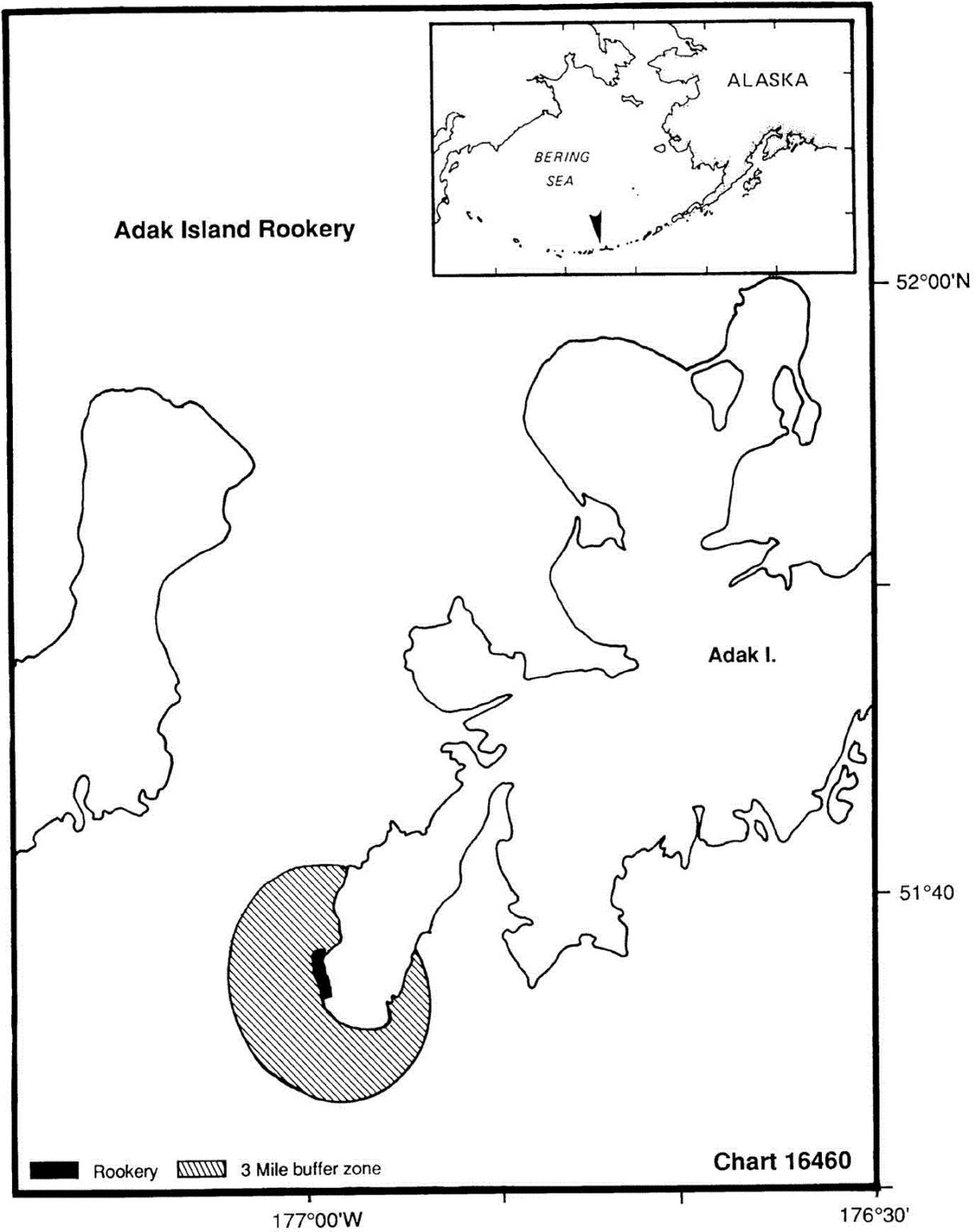


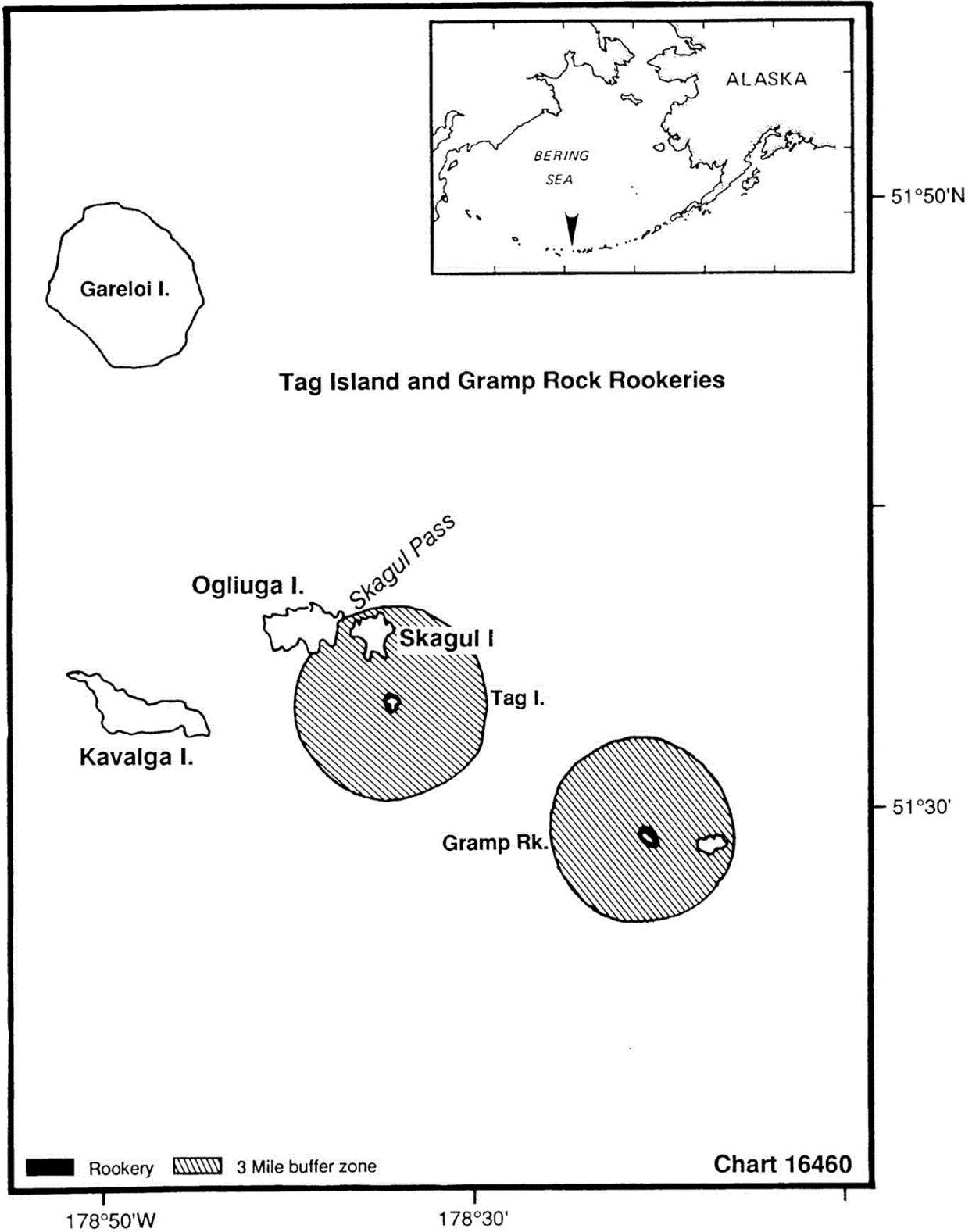


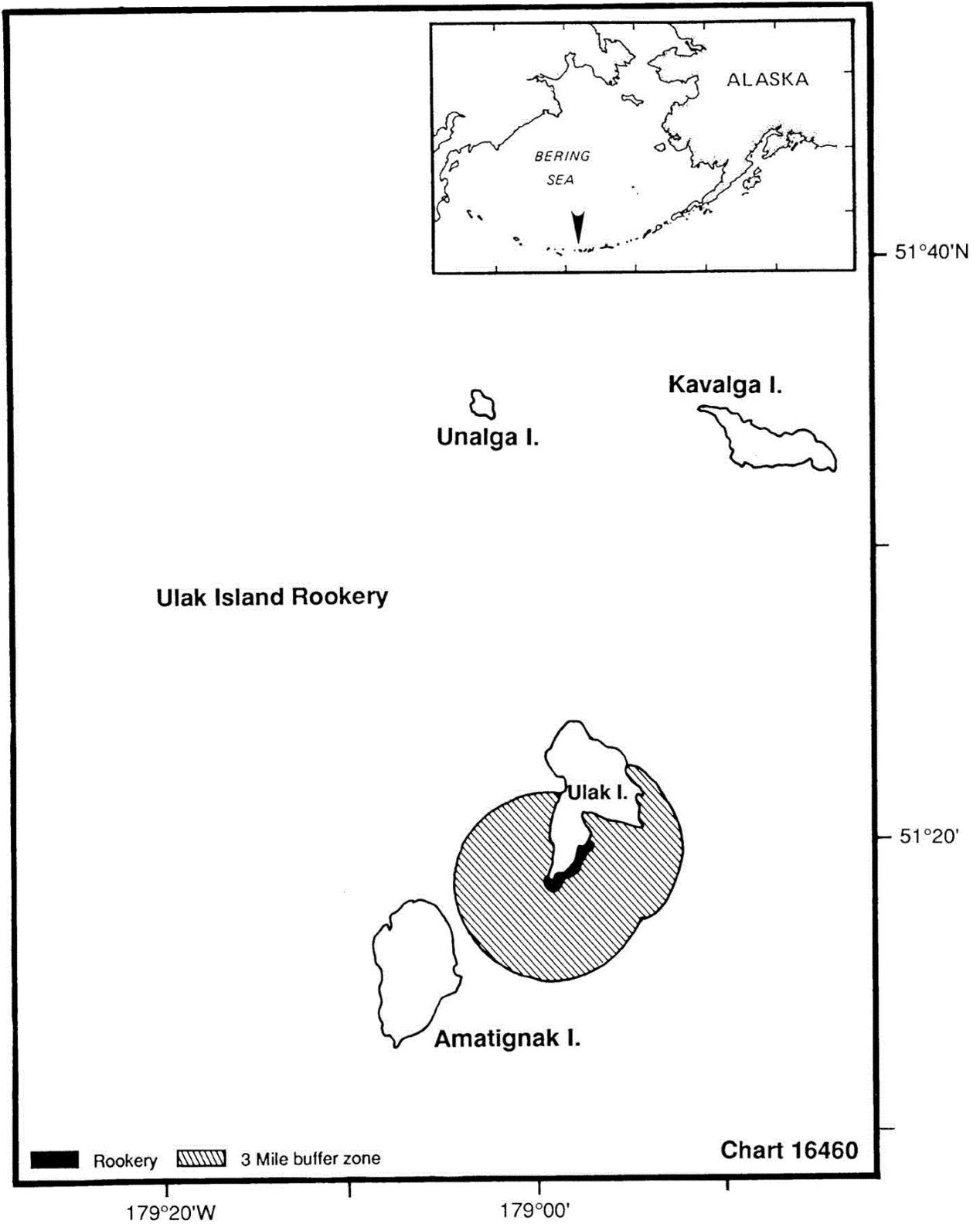


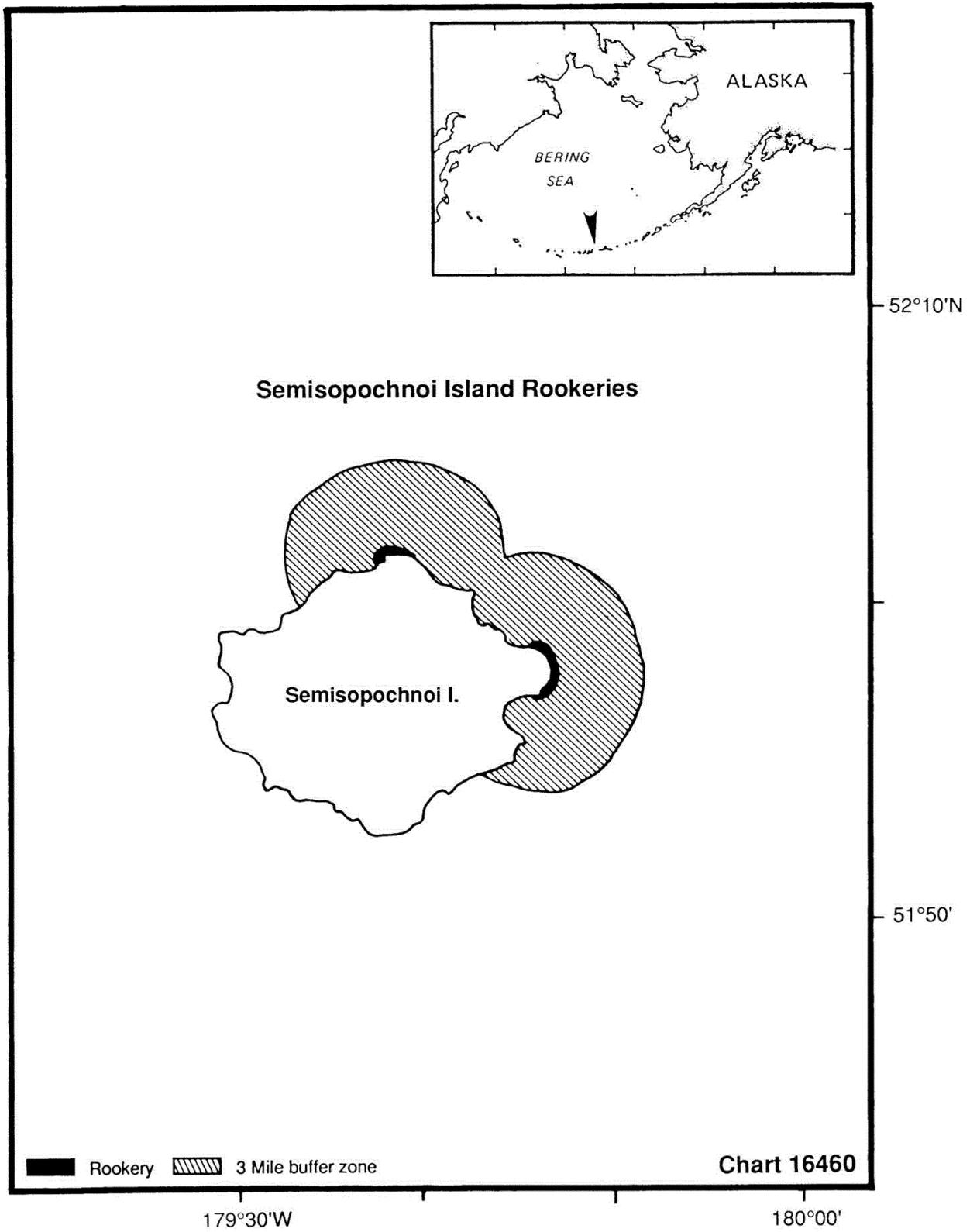


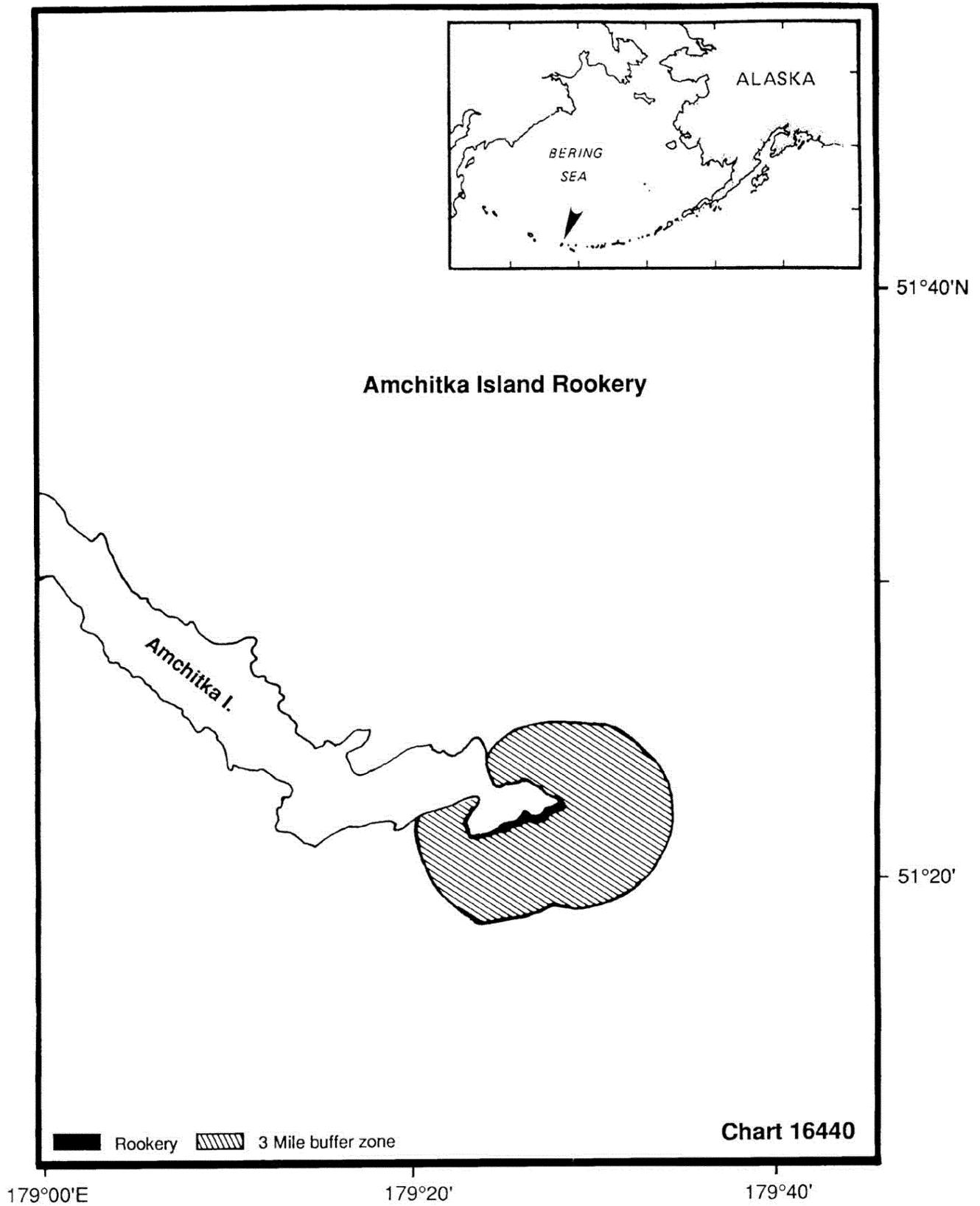


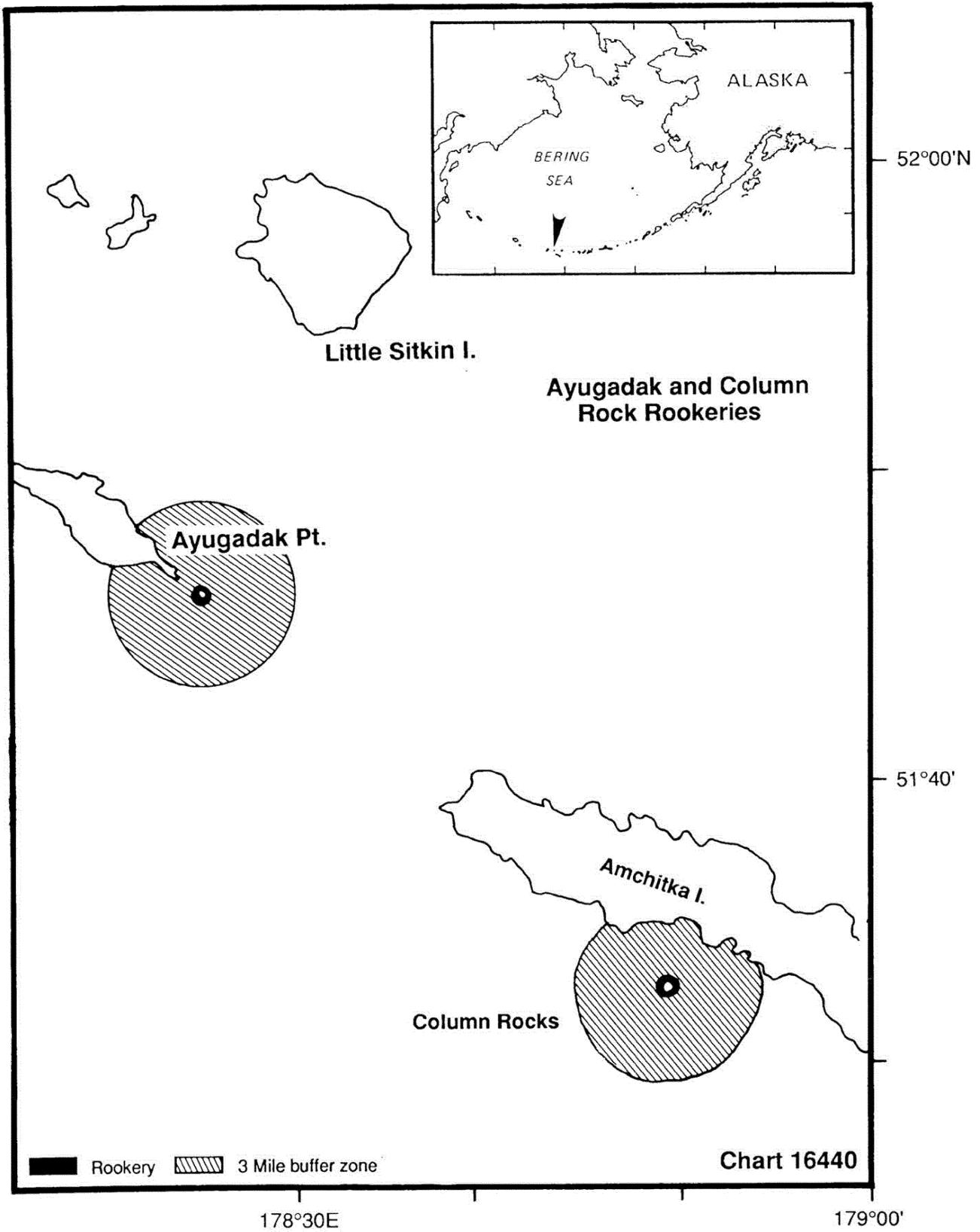


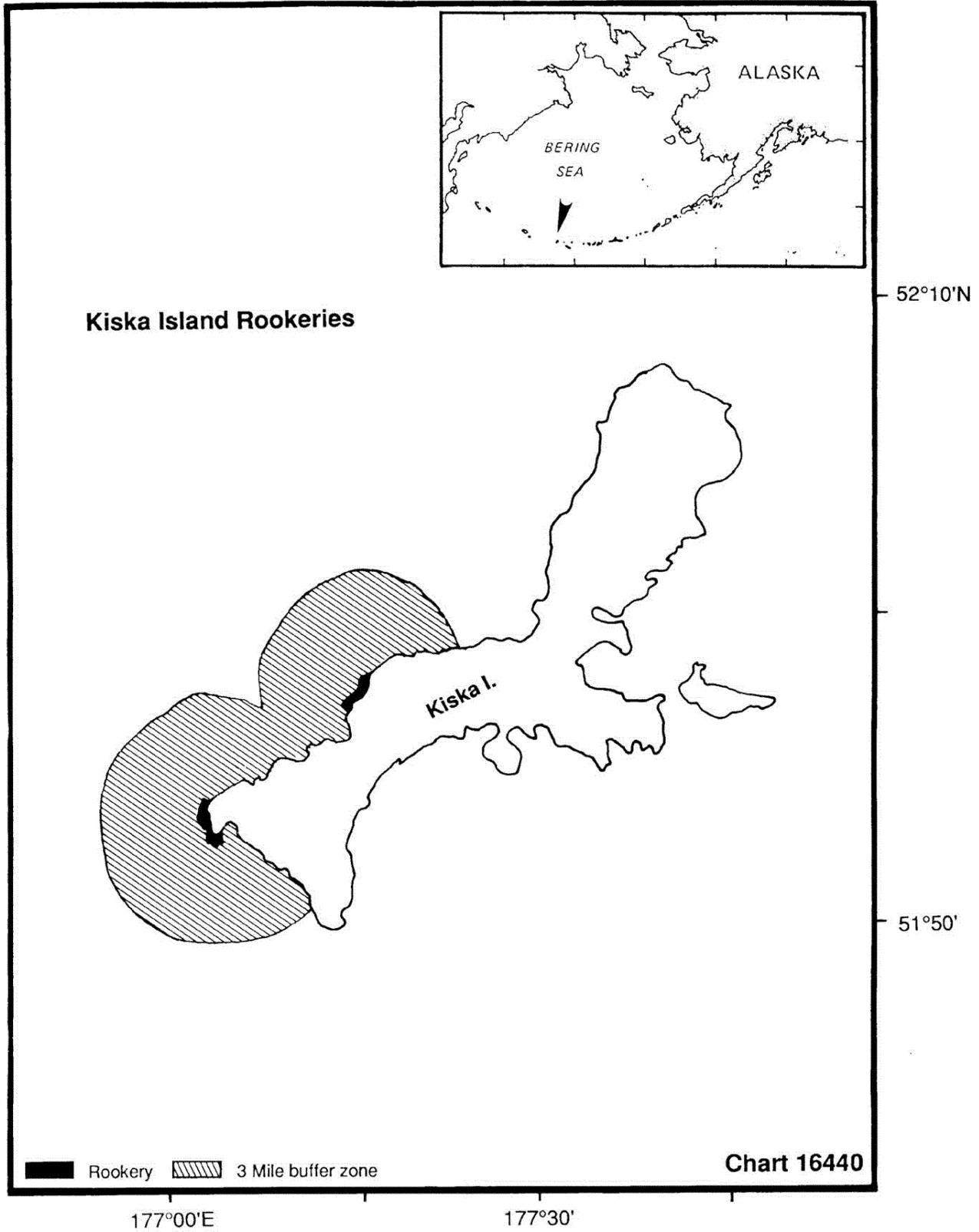


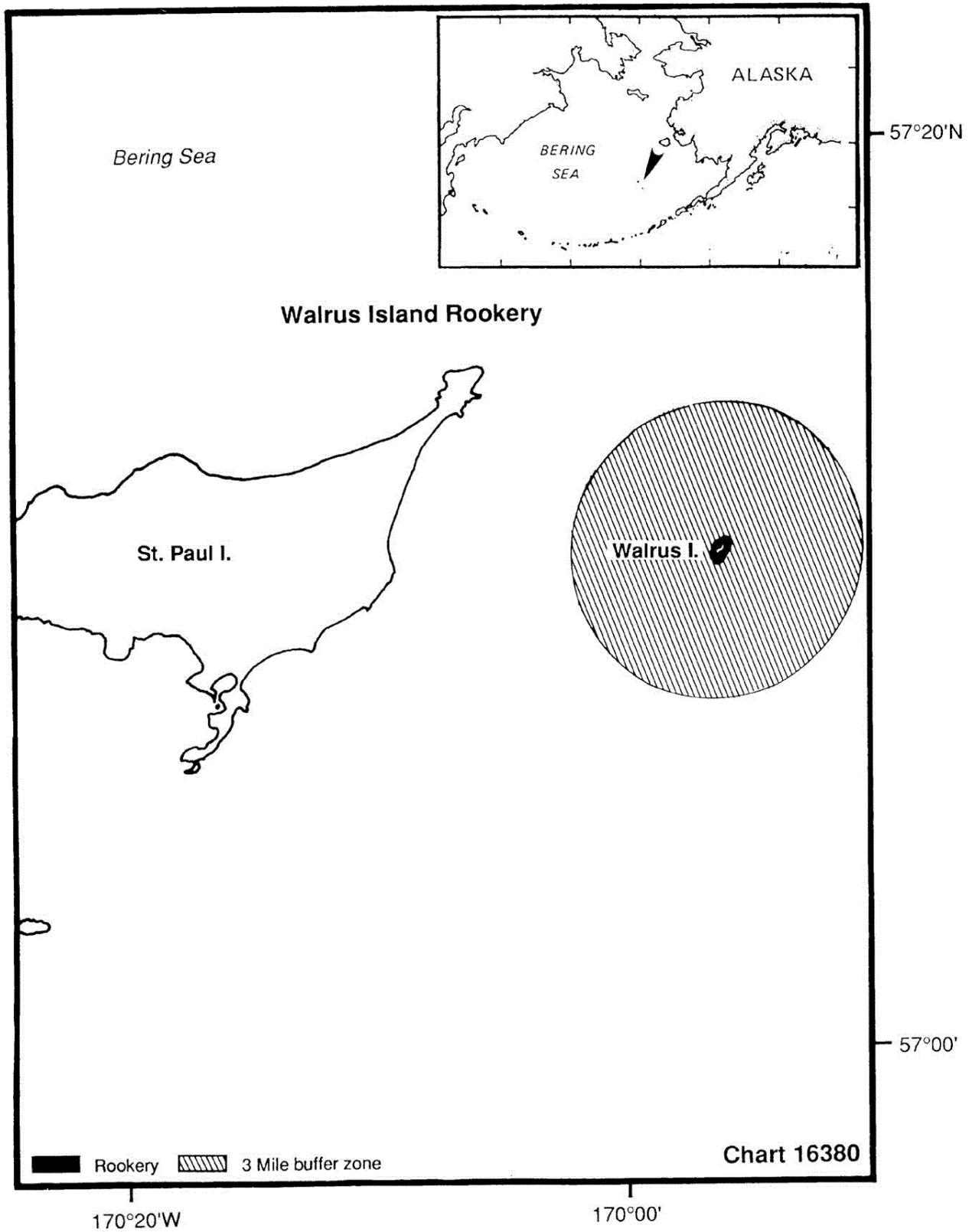


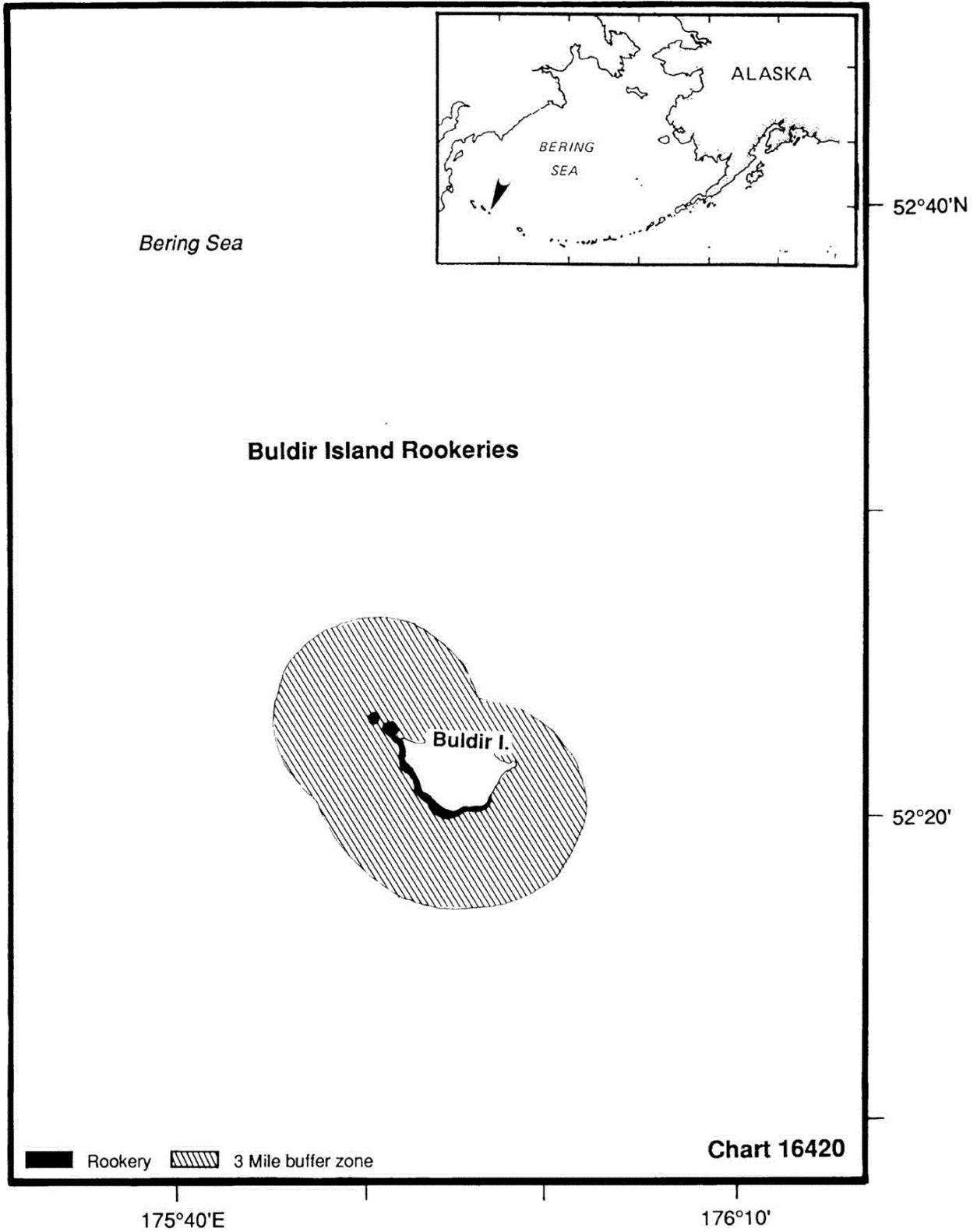


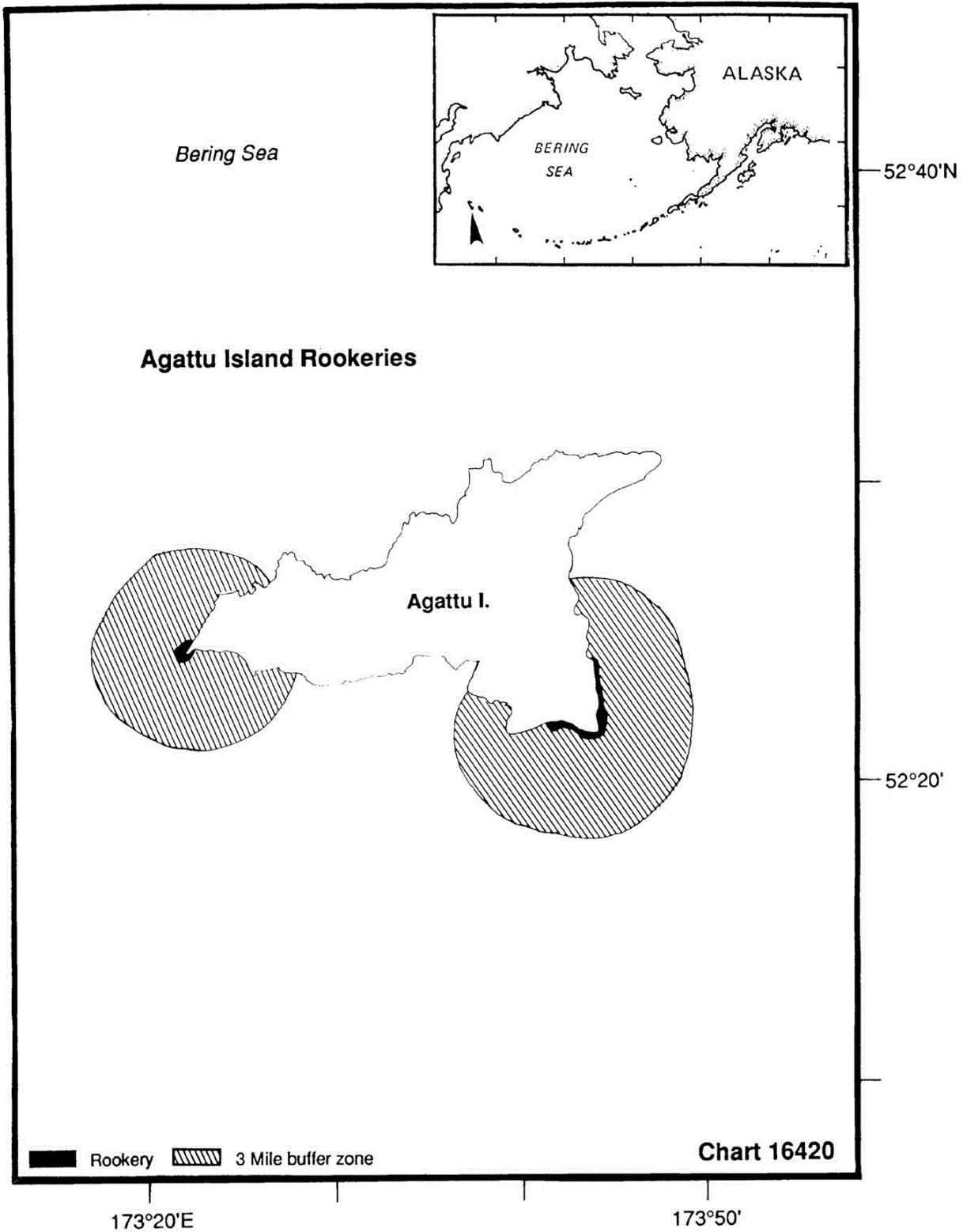


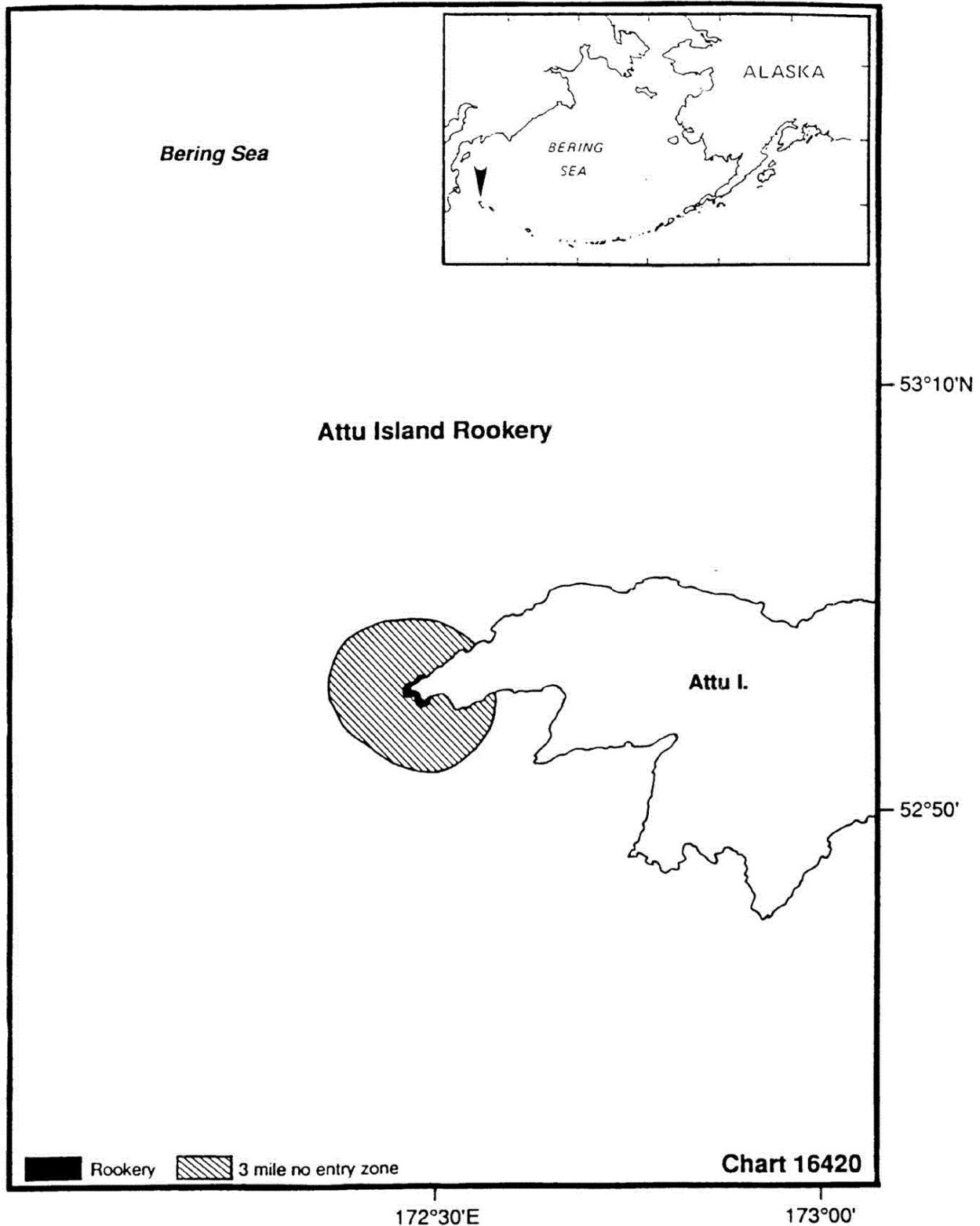












(iv) *Commercial Fishing Operations.* The incidental mortality and serious injury of endangered Steller sea lions in commercial fisheries can be authorized in compliance with sections 101(a)(5) and 118 of the Marine Mammal Protection Act.

(2) *Exceptions—(i) Permits.* The Assistant Administrator may issue permits authorizing activities that would otherwise be prohibited under paragraph (d)(1) of this section in accordance with and subject to the

provisions of part 222, subpart C of this chapter—General Permit Procedures.  
 (ii) *Official activities.* The taking of Steller sea lions must be reported within 30 days to the Regional Administrator, Alaska Region. Paragraph (d)(1) of this section does not prohibit or restrict a

Federal, state or local government official, or his or her designee, who is acting in the course of official duties from:

(A) Taking a Steller sea lion in a humane manner, if the taking is for the protection or welfare of the animal, the protection of the public health and welfare, or the nonlethal removal of nuisance animals; or

(B) Entering the buffer areas to perform activities that are necessary for national defense, or the performance of other legitimate governmental activities.

(iii) *Subsistence takings by Alaska natives*. Paragraph (d)(1) of this section does not apply to the taking of Steller sea lions for subsistence purposes under section 10(e) of the Act.

(iv) *Emergency situations*. Paragraph (d)(1)(ii) of this section does not apply to an emergency situation in which compliance with that provision presents a threat to the health, safety, or life of a person or presents a significant threat to the vessel or property.

(v) *Exemptions*. Paragraph (d)(1)(ii) of this section does not apply to any activity authorized by a prior written exemption from the Regional Administrator, Alaska Region, National Marine Fisheries Service. Concurrently with the issuance of any exemption, the Assistant Administrator will publish notice of the exemption in the **Federal Register**. An exemption may be granted only if the activity will not have a

significant adverse effect on Steller sea lions, the activity has been conducted historically or traditionally in the buffer zones, and there is no readily available and acceptable alternative to or site for the activity.

(vi) *Navigational transit*. Paragraph (d)(1)(ii) of this section does not prohibit a vessel in transit from passing through a strait, narrows, or passageway listed in this paragraph if the vessel proceeds in continuous transit and maintains a minimum of 1 nautical mile from the rookery site. The listing of a strait, narrows, or passageway does not indicate that the area is safe for navigation. The listed straits, narrows, or passageways include the following:

Rookery	Straits, narrow, or pass
Akutan Island .....	Akutan Pass between Cape Morgan and Unalga Island.
Clubbing Rocks .....	Between Clubbing Rocks and Cherni Island.
Outer Island .....	Wildcat Pass between Rabbit and Ragged Islands.

(3) *Penalties*. (i) Any person who violates this section or the Act is subject to the penalties specified in section 11

of the Act, and any other penalties provided by law.

(ii) Any vessel used in violation of this subsection or the Endangered

Species Act is subject to forfeiture under section 11(e)(4)(B) of the Act.

\* \* \* \* \*

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