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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[Docket No. FWS–R7–ES–2014–0043; 4500030113]

### Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to List the Yellow-billed Loon as an Endangered or a Threatened Species

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of 12-month petition finding.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding on a petition to list the yellow-billed loon (*Gavia adamsii*) as an endangered or threatened species under the Endangered Species Act of 1973, as amended (Act). After reviewing the best scientific and commercial data available we find that listing the yellow-billed loon is not warranted. We invite the public to submit to us any new

information that becomes available concerning the threats to the yellow-billed loon or its habitat.

**DATES:** The finding announced in this document was made on [INSERT DATE OF FEDERAL REGISTER PUBLICATION].

**ADDRESSES:** This finding and the Yellow-billed Loon Species Status Assessment Report (SSA Report; Service 2014, entire; see **Status Assessment for the Yellow-billed Loon** section, below) is available on the Internet at *http://www.regulations.gov* at Docket Number FWS–R7–ES–2014–0043.

Supporting documentation we used in preparing this finding is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Office, 101 12<sup>th</sup> Ave., Room 110, Fairbanks, AK 99701. Please submit any new information, materials, comments, or questions concerning this finding to the above street address.

**FOR FURTHER INFORMATION CONTACT:** Sarah Conn, Field Supervisor, Fairbanks Fish and Wildlife Office (see **ADDRESSES**); telephone at 907-456-0499; or facsimile at 907-456-0208. If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800-877-8339.

**SUPPLEMENTARY INFORMATION:**

## **Background**

Section 4(b)(3)(B) of the Act (16 U.S.C. 1531 *et seq.*) requires that, for any petition to revise the Federal Lists of Endangered and Threatened Wildlife and Plants that contains substantial scientific or commercial information that listing the species may be warranted, we make a finding within 12 months of the date of receipt of the petition. In the finding, we will determine that the petitioned action is: (1) Not warranted, (2) warranted, or (3) warranted, but the immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether species are endangered or threatened, and expeditious progress is being made to add or remove qualified species from the Federal Lists of Endangered and Threatened Wildlife and Plants. Section 4(b)(3)(C) of the Act requires that we treat a petition for which the requested action is found to be warranted but precluded as though resubmitted on the date of such finding, that is, requiring a subsequent finding to be made within 12 months. We must publish these 12-month findings in the **Federal Register**.

### *Previous Federal Actions*

On April 5, 2004, we received a petition from the Center for Biological Diversity, Natural Resources Defense Council, Pacific Environment, Trustees for Alaska, Kaira Club, Kronotsky Nature Preserve, Taiga Rangers, Yuzhno-Sakhalinsk Local Public Fund, Interregional Public Charitable Organization of Far Eastern Resource Centers,

Kamchatka Branch of Pacific Institute of Geography (Petropavlovsk-Kamchatsky, Russia), and Kamchatka League of Independent Experts to list the yellow-billed loon as an endangered or threatened species throughout its range, or as a distinct population segment (DPS) in the United States, and to designate critical habitat once listed.

In response to the petition, we published a 90-day finding on the yellow-billed loon in the **Federal Register** on June 6, 2007 (72 FR 31256). In the 90-day finding, we determined that the petition presented substantial scientific or commercial information to indicate that a listing may be warranted and announced that a status review would be promptly commenced. In that document, we announced the opening of a 60-day information collection period and invited the public to submit to us any pertinent information concerning the status of or threats to this species. We received approximately 28,000 comments during the information collection period. We also consulted with recognized yellow-billed loon experts and other Federal and State agencies. We sent letters to national wildlife or natural resource agencies in Canada, China, Japan, North Korea, Norway, Republic of Korea (South Korea), and the Russian Federation, asking for information about ongoing management measures and any conservation and management strategies being developed to protect the species. We received a formal response from the government of Canada, and an informal response from a government biologist in the Russian Federation.

On June 11, 2007, we received a 60-day notice of intent to sue from the Center for Biological Diversity alleging a violation of section 4 of the Act for failure to complete a

12-month finding on the petition. We informed the plaintiffs by letter dated July 9, 2007, that further action on the petition was precluded by higher priority listing actions but that, pending the Fiscal Year 2008 allocation of funds, we hoped to complete the 12-month finding within that fiscal year. On December 19, 2007, the Center for Biological Diversity filed a complaint alleging that the Service had failed to make a timely 12-month finding on the petition, as required under section 4 of the Act. Consistent with a settlement agreement reached between the Service and the Center for Biological Diversity, the Court ordered the Service to submit a 12-month finding for publication to the **Federal Register** by February 15, 2009. Because the Service later received substantial new information to be evaluated and considered in the 12-month finding, we subsequently sought and were granted a 1-month extension with a new deadline of March 16, 2009. On March 25, 2009, we published our 12-month finding (74 FR 12932), in which we stated the best scientific data available to us indicated that during migration, yellow-billed loons were subject to subsistence harvest that appeared to be at an unsustainable level for the species (74 FR 12962), and concluded that listing the yellow-billed loon as an endangered or threatened species under the Act was warranted, but precluded by higher listing priorities. With the publication of the finding the yellow-billed loon became a candidate for listing and was added to the list of species annually reviewed under the candidate notice of review (CNOR).

As part of the multi-district litigation stipulated settlement agreements (*WildEarth Guardians v. Salazar*, No. 1:10-mc-00377-EGS (D. D.C.); *Center for Biological Diversity v. Salazar*, No. 1:10-mc-00377-EGS (D.D.C.)), we are required to submit a

proposed listing rule or not-warranted finding to the **Federal Register** for the yellow-billed loon in Fiscal Year 2014, which ends September 30, 2014. This document constitutes our 12-month finding as specified in the agreement.

## **Status Assessment for the Yellow-billed Loon**

### *Introduction*

In the SSA report we compiled biological data and a description of past, present, and likely future stressors (causes and effects) facing the yellow-billed loon. We consider this SSA report to represent a compilation of the best available scientific and commercial data regarding the biological condition of the yellow-billed loon, and it provides the scientific basis that has informed our regulatory decision as set forth in this document.

### *Summary of Life History, Biological Status and Threats*

#### *Life History*

Yellow-billed loon (Order Gaviiformes, Family Gaviidae) is one of five loon species (*Gavia* spp.), and is most closely related to common loon (*G. immer*) with similarities in size and appearance. There are no recognized subspecies or geographic

variations (American Ornithologists' Union, <http://checklist.aou.org/taxa/137>, accessed August 4, 2014). Yellow-billed loons are large-bodied, fairly long-lived birds with low annual reproductive output and therefore are dependent upon high annual adult survival to maintain populations. Based on common loon, individuals may reach sexual maturity at 3 years of age but not acquire breeding territories until later; the average age at first breeding for common loon is 6 years (Evers 2004, p. 18).

Yellow-billed loons nest from June to September on shores of coastal and inland low-lying tundra lakes from latitude 62 degrees to 74 degrees North. There are five separate breeding areas that are recognized, two each in Alaska and Canada and one in Russia. In Alaska, yellow-billed loons nest on the Arctic Coastal Plain (ACP) north of the Brooks Range and in the region surrounding Kotzebue Sound in western Alaska, primarily the northern Seward Peninsula (North 1993, pp. 38–42; Earnst 2004, pp. 3–4). In Canada, they nest on islands in the Arctic Ocean (hereafter “Canadian arctic islands”) and on the mainland between the Mackenzie Delta and Hudson Bay. In Russia, they nest on a narrow strip of coastal tundra from the Chukotka Peninsula in the east and on the western Taymyr Peninsula in the west, with a break in distribution between these two areas (Il'ichev and Flint 1982, p. 277; North 1993, p. 42; Pearce *et al.* 1998, p. 369; Red Data Book of the Russian Federation 2001, p. 366; Ryabitsev 2001, p. 22; Earnst 2004, p. 3).

Yellow-billed loons typically nest on large, clear lakes with vegetated and convoluted shorelines. Females lay one or two eggs in mid- to late June (North 1994, pp.

11–12). Renesting after nest failure is limited by the short arctic summer and there appears to be significant inter-annual variation in reproductive success (ABR, Inc. 2007, p. 16). Because this species eats small fish and other aquatic prey (North 1994, p. 6), these lakes must also support sufficient numbers of prey fish. In many areas, successfully breeding adults feed their young almost entirely from the brood-rearing lake (North 1994, p. 14), although some may use additional lakes or the nearshore marine environment during brood rearing.

Yellow-billed loons depart breeding areas in late September, although non-breeders or failed nesters may start fall migration in July, and arrive in wintering locations in mid-November. In April, they begin spring migration, arriving on breeding grounds in the first half of June. Juveniles likely spend their first several years on wintering areas.

Yellow-billed loons that breed on Canadian arctic islands migrate along the arctic coast and through the Chukchi Sea to and from wintering areas in Asia, although at least some loons that nest inland in mainland Canada migrate overland to the coast of southern Alaska and British Columbia presumably via large lakes (Schmutz 2011, p. 1). Those breeding in Alaska predominantly winter in Asia, though some winter along the coast of southern Alaska and British Columbia. It is likely that some or all yellow-billed loons that nest in eastern Russia migrate through the Bering Strait to Asian wintering areas, although there are no data to support this claim. The species winters in coastal waters of southern Alaska and British Columbia from the Aleutian Islands to Puget Sound; the

Pacific coast of Asia from the Sea of Okhotsk south to the Yellow Sea; the Barents Sea and the coast of the Kola Peninsula; coastal waters of Norway; and possibly Great Britain and interior lakes or reservoirs in North America. See the SSA report section on Migratory Routes and Wintering Range for relevant details and citations (Service 2014).

### *Summary of Biological Status*

We evaluated the biological status of the yellow-billed loon by collectively considering the species' geographic range, abundance estimates, and trend information from the Service's Migratory Bird Management annual aerial surveys of the Alaska-ACP breeding population. The global yellow-billed loon population is estimated to be 16,000 to 32,000, spread among the five breeding areas of Alaska-ACP, western Alaska, Canadian arctic islands, Canadian mainland, and Russia (see SSA report, Service 2014, for population-specific estimates). The Alaska-ACP breeding population is the only population for which standardized surveys over a sufficient number of years allow for estimation of a population trend. There, aerial surveys from 1986 to 2013 provide an index of abundance that was used to estimate a trend, using various subsets of observations that included or excluded exceptionally high and low counts, included all or just the most experienced observer, and included all years or just the most recent 10 years (Stehn *et al.* 2013, p. 23; Stehn *et al.* 2014, p. 3). Estimates varied slightly with analytical approach, but nearly all growth rates were estimated at about 1.01 (i.e., a 1 percent increase per year), although estimates based on only the last 10 years suggested growth rates of 6–7 percent per year. The most precise trend estimate, which included all

years and all observations, estimated population growth to be 1.014, indicating an average annual increase of 1.4 percent (95 percent confidence interval: 1.001 to 1.027; Stehn *et al.* 2013, p. 23; Stehn *et al.* 2014, p. 3). From these results collectively, we conclude that the Alaska-ACP population is at minimum stable, but most likely increasing in abundance. This is a change from the situation we described in our 2009 finding, as the best scientific and commercial data available at that time indicated the Alaska-ACP population was stable or slightly declining (74 FR 12961, March 25, 2009).

### *Stressors Affecting Yellow-Billed Loons*

Numerous stressors occur in the range of the yellow-billed loon and involve different stages of its life history. We evaluated the sources and potential effects of these stressors to yellow-billed loons at the individual level, and whenever supported by the best scientific and commercial data available considered the potential or known response at the population and species levels. We identified stressors as: Oil and gas exploration and development; collisions with structures; research; disease; predation; subsistence harvest; commercial fishing bycatch; pollution and degradation of marine habitats; and effects related to climate change. See the SSA report (Service 2014) for relevant details and citations for the information summarized below on various stressors.

For most individual stressors, it is difficult to evaluate population-level effects, especially for four of five breeding populations of the yellow-billed loon. As stated earlier, the Alaska-ACP population is the only breeding population for which we have sufficient data to estimate a population trend. Comparable data regarding population

trend or stressors are not available for the other four breeding populations. Based on the best scientific and commercial data available, the Alaska-ACP population of yellow-billed loon is subject to all stressors identified for the species rangewide.

*Oil and Gas Exploration and Development:* Oil and gas exploration and development activities are occurring and are likely to continue to occur in portions of the yellow-billed loon's range including both marine and freshwater habitats. However, these activities are mostly localized and although individual yellow-billed loons may be affected, only a small proportion of the species' habitat has been subject to development to date. While oil and gas activities are likely to continue and may increase in scale, we expect that most breeding habitat will remain undeveloped in the short term. The greatest number of yellow-billed loons in potential oil and gas development areas occur in a part of the Alaska-ACP population breeding range where protective measures are in place (described below), and the proportion of affected individuals in the population is likely low. The best scientific and commercial data available do not suggest that the proportion of yellow-billed loon habitat occupied by oil and gas development will increase to the extent that population-level effects to this species will occur in the future.

In Alaska, oil and gas activities could occur in yellow-billed loon habitat in the National Petroleum Reserve-Alaska (NPR-A) or offshore on the Outer Continental Shelf (OCS); however, some measures aimed to minimize impacts to loons and other wildlife species currently are in place. In NPR-A, several best management practices designed to protect yellow-billed loons, their prey, and habitats including coastlines, lakes, and

rivers/streams ameliorate potential impacts to terrestrial-based resources. On the OCS, permit requirements intended to minimize impacts to marine mammals, migratory birds, subsistence practices, and important marine wildlife habitat such as coastlines and spring-lead systems will also indirectly benefit yellow-billed loons. These measures are expected to significantly reduce potential impacts of oil and gas development-related activities occurring in these areas provided that they remain in place (see Conservation Measures in SSA report, Service 2014).

Oil and gas development and projected increased shipping in arctic waters create potential for in-water oil spills. Spill response capability remains unproven in arctic waters, indicating potential for exposure to yellow-billed loons if spills occur. While large spills from exploration and development could occur, such spills are expected to be unlikely based on spill rates observed elsewhere. In the event of an oil spill, individual yellow-billed loons would be affected if they were present at the time of the spill and came into contact with oil. However, with the exception of occasionally staging in groups in fall migration, yellow-billed loons generally occur in low densities in marine waters (North 1994, pp. 3–5; Gibson and Byrd 2007, p. 68); accordingly, the risk of a spill large enough to encounter a sufficient number of yellow-billed loons to result in a population- or species-level effect is low. Given the minimal development in offshore yellow-billed loon habitat, the low density at which the species occurs in marine waters, and the low probability of large spills occurring, we conclude that the potential for in-water oil spills does not rise to the level of a threat to yellow-billed loons at the population or species level.

*Collisions with Structures:* Some yellow-billed loons may be injured or die as a result of collisions with ships or other offshore or terrestrial structures. In an effort to reduce collision risks resulting from bird attraction to lighted structures, Bureau of Ocean Energy Management requires that oil and gas vessels operating in the Alaska OCS minimize the use of high-intensity work lights, especially within the 20-meter (66-foot) bathymetric contour (USFWS 2012, p. 77). Although individual yellow-billed loons may occasionally collide with structures, we are aware of no actual reports of fatal collisions between yellow-billed loons and human-built structures. Of 214 bird-structure incidents at terrestrial or island facilities on Alaska's North Slope between 2000 and 2013, and 131 incidents at offshore facilities in the Beaufort and Chukchi seas in 2012, none involved yellow-billed loons (Service unpubl. monitoring records; Schroeder 2013, pp. 1, 3). Therefore, the best available scientific and commercial data indicate that collisions with structures do not pose population- or species- level threats to the yellow-billed loon.

*Research, Disease, Predation:* The best scientific and commercial data available do not indicate that yellow-billed loon populations or the species as a whole are subject to stressors from research activities, disease, or predation. Some individual yellow-billed loons have been injured (n=2) or killed (n=3) as a result of capture or satellite transmitter implantation, and nest survival rates decrease in response to researcher visits or adult capture efforts at nests (J. Schmutz, USGS, pers. comm.; Uher-Koch *et al.* 2014, pp. 13–16). However, only a very small proportion of yellow-billed loons and nests are subject to research activities, so the effects of these activities do not constitute a threat to the

yellow-billed loon at the population or species level. No large disease-related mortality events have been documented for the yellow-billed loon, and the best scientific and commercial data available do not suggest that disease outbreaks will increase or will have more severe effects on individuals or populations of this species in the future. Nest predation is a natural occurrence, and therefore we assume that it occurs throughout the species' range, although it may be greater near areas of human settlement or presence if predator distribution is influenced by human activities. However, in Alaska, due to requirements implemented by Bureau of Land Management in the NPR-A, and State regulators and the oil industry elsewhere in Alaska's North Slope oilfields (see Conservation Measures in SSA report, Service 2014), we expect that anthropogenic influences on nest predation are unlikely to result in population-level effects to the yellow-billed loon in the future. In Canada and Russia, we are not aware of any management actions aimed to minimize nest predation of yellow-billed loons, and we possess no information as to whether nest predation is resulting in population-level effects to yellow-billed loons, or that it will in the future. Based on the best scientific and commercial data available, particularly the information that the Alaska-ACP population trend is stable or slightly increasing, we have no reason to assume these stressors are operating differently in other breeding populations, and we conclude that research, predation, or disease do not pose population- or species-level threats to the yellow-billed loon now or in the future.

*Subsistence Harvest:* In 2009, the Service published a warranted-but-precluded 12-month finding for yellow-billed loon (74 FR 12932, March 25, 2009). At the time,

available harvest survey data suggested that a substantial number of yellow-billed loons were being harvested by subsistence hunters, particularly on St. Lawrence Island in the Bering Straits, where large numbers of yellow-billed loons migrate during spring and fall. The Service concluded that the reported level of harvest was unsustainable, and this was the primary basis for our 2009 finding (74 FR 12962, March 25, 2009).

Subsequent to the 2009 finding, the Service and our partners expanded efforts to better understand yellow-billed loon harvest, abundance, and distribution in the Bering Strait-Norton Sound region with the goal of evaluating the reliability of reported harvest. Based on these efforts, our current review of the best available data on yellow-billed loon subsistence harvest from harvest surveys indicates these data are subject to unquantifiable errors and biases that make it impossible to estimate subsistence harvest levels accurately. Issues identified for Alaskan harvest data also likely pertain to data from Canada (Priest and Usher 2004, pp. 35–42), and possibly to those from Russia. Despite errors in the harvest data, however, when survey estimates, local and traditional ecological knowledge, and ethnographic information are considered collectively, the available information suggests that anywhere from 10 to possibly a few hundred yellow-billed loons from multiple breeding and migration areas may be harvested annually by subsistence hunters across the species' range in Alaska, Canada, and Russia; this estimate is a small proportion of the global population estimate of 16,000 to 32,000 loons. Also, the best available information suggests that few eggs or adults are taken during the breeding season. Therefore, most harvest probably occurs during spring and fall migrations, as yellow-billed loons, including those nesting in mainland Canada, move

along the coast of Alaska and Chukchi and Bering seas. We find no evidence of changes in harvest practices or the use of loons in terms of magnitude and frequency for subsistence over time. Thus, although the rangewide population of yellow-billed loon is subject to harvest, we conclude that hunters probably take a small number of loons relative to population- or species-level abundance. This assertion is supported by recent studies that found fewer yellow-billed loons appear to be harvested than previously thought in the Bering Strait-Norton Sound region (Naves and Zeller 2013, pp. 51–53). We note also that at the time of our 2009 finding the best scientific and commercial data available indicated the Alaska-ACP population trend was stable or slightly declining (74 FR 12961, March 25, 2009). In contrast, as described above and in the SSA report (Service 2014), new information indicates the Alaska-ACP population trend is stable or slightly increasing. Thus the subsistence harvest that is occurring is not resulting in a declining population.

In summary, as described in more detail in the SSA report (Service 2014), the best scientific and commercial data available indicate that: (1) Only a small proportion of the total rangewide population is harvested annually, and the effect is diffused across the species' range; (2) it is likely that the current stable or slightly increasing population trend on Alaska's ACP reflects population-level response to ongoing harvest levels; and (3) there is no evidence to suggest that increasing subsistence use of loons or changing harvest practices will result in the potential for population- or species-level impacts in the future. Therefore, based on our analysis of the best scientific and commercial data

available, we conclude that the subsistence harvest is not a threat to the yellow-billed loon now or in the future.

*Fishing Bycatch:* Accidental bycatch of yellow-billed loons in commercial fisheries has been documented in Washington State, Russia, and Norway, but the frequency and magnitude of bycatch are unknown. Yellow-billed loons are also occasionally killed in subsistence fishing nets; however, little information is available regarding the number of yellow-billed loons caught in subsistence nets for most of Alaska, with the exception of the North Slope where fishers are required to report their catch. Similar to other harvest data, the reported information is also subject to unquantifiable biases (e.g., low response rate). The North Slope Borough Department of Wildlife Management reported that 2 to 14 yellow-billed loons were killed in subsistence nets in Barrow annually from 2005 to 2010 (NSB-DWM 2006, p. 1; 2007, p. 1; 2008, p. 1; 2009, p. 1; 2010 p. 1; 2011, p. 1). An improved study design was developed and used in 2011 and 2012 in three villages (Barrow, Nuiqsut, and Atqasuk). The response rate for both years was high (approximately 97 percent), and the number of yellow-billed loons reportedly killed was 18 and 12, respectively (Sformo *et al.* 2012 p. 1; 2013, p. 1). However, data are lacking for other villages on the North Slope, elsewhere in Alaska, and across most of the species' range. Thus, we are unable to determine the level of bycatch for fisheries across the yellow-billed loon's range. Based on the stable or slightly increasing population on the Alaska-ACP, however, bycatch from fisheries is at a level that is not resulting in a population decline. Therefore, we conclude that bycatch in commercial and subsistence fisheries does not pose a threat to the yellow-billed loon, but

acknowledge the value of additional bycatch data and the need to continue population monitoring.

*Pollution and Degradation of Marine Habitat:* Many yellow-billed loons, including the Alaska-ACP breeding population, winter in marine waters near Asia (Schmutz 2008, p. 1) that contain elevated concentrations of persistent environmental pollutants (Ma *et al.* 2001, pp. 133-134; Choi *et al.* 1999, p. 233). Asian sea sediments and biota, including fish and birds, have been documented with contamination, demonstrating potential exposure routes for wintering migratory birds such as yellow-billed loons (e.g., Guruge *et al.* 1997, pp. 186–193; Daoji and Daler 2004, pp. 107–113; Nie *et al.* 2005, pp. 537–546; Oh *et al.* 2005, pp. 217–222). Red-throated loons (*G. stellata*) that nest on the Alaska-ACP and winter near Alaska-ACP nesting yellow-billed loons in Asia showed polychlorinated biphenyls (PCB) concentrations great enough, when compared to thresholds determined for other species, to cause abnormal development or other reproductive defects (Schmutz *et al.* 2009, p. 2392). However, despite indications of potential risk, preliminary sampling on the Alaska-ACP found the most toxic individual PCB congeners (PCBs 77 and 81) found in red-throated loon eggs were not present in yellow-billed loon eggs, and yellow-billed loon eggs contained lower total toxic equivalents (a combined measure of toxicity for all 209 PCBs) (Hoffman *et al.* 1996, p. 191).

Recent sampling of yellow-billed loon tissues and comparison of historical with contemporary samples have been conducted to evaluate mercury exposure (Evers *et al.*

2014, entire document). Concentrations in blood during the breeding season, which were thought to reflect exposure in arctic breeding habitat, were below “background levels” (Evers *et al.* 2014, p. 153). However, concentrations in feathers and eggs, which presumably reflect exposure during winter in Asian marine waters, indicated that a small proportion (7 percent of individuals sampled) exceeded thresholds associated with reproductive effects in common loons (Evers *et al.* 2014, p. 155). Although mercury concentrations are predicted to increase (Evers *et al.* 2014, p. 155), and hence effects to yellow-billed loons may increase in future decades, in part due to thawing of permafrost (see discussion of climate change effects, below), we are not able to predict at this time the extent to which mercury concentrations will increase, the locations where the possible increased concentrations might occur, what level of exposure loons may experience, or whether increased exposure will impact loons to the point of contributing to a decline at the population or species level.

Because yellow-billed loons nesting in Canada, and some proportion of those nesting in Russia, likely winter in Asian seas or on the Pacific coast of North America, we assume that PCB and other persistent contaminant concentrations in their eggs would be comparable to those from the Alaska-ACP. Contaminant loading for yellow-billed loons wintering in the North Sea is unknown, but those loons represent a small proportion of the total population. Future exposure to pollutants, including mercury, may significantly increase in arctic marine habitats by 2050 (Sunderland *et al.* 2009, p. 12) or Asian marine waters where some yellow-billed loons winter (Evers *et al.* 2014, p. 155), possibly resulting in decreased productivity. However, at present we are unable to

predict the rate or extent of increasing environmental contaminant loads or potential population- or species-level response of yellow-billed loons. Thus, the best scientific and commercial data available at this time do not indicate that pollution poses a threat to yellow-billed loons at the population or species level.

*Climate Change Effects:* Changes in climate have occurred and are likely to continue to occur in the range of the yellow-billed loon (e.g., Stewart *et al.* 2013, pp. 10-22; IPCC 2013, pp. 1257-1258, 1268-1271). Projections vary with season, geographic location, timeframe, and various assumptions related to future levels of greenhouse gases (GHGs) in the atmosphere (see IPCC 2013, pp. 19-29; Walsh *et al.* 2014, p. 897). Temperature, the most common measure of climate change, is projected to continue to increase in future decades in areas that encompass the range of the species (IPCC 2013, pp. 1278, 1282-1283; 1323). For example, across the region of northern Alaska that encompasses the Alaska-ACP, in comparison to 1971-1999 average annual temperatures are projected to increase 3.5–5.5 degrees F (1.9–3.1 degrees C) by 2021–2050, 5.5–7.5 degrees F (3.1–4.2 degrees C) by 2041–2070, and 9.5–13.5 degrees F (5.3–7.5 degrees C) by 2070–2099 (as compared to 1971–1999, under a scenario (“A2”) that is based on a set of conditions that would result in relatively high emissions of GHGs in future decades (Stewart *et al.* 2013, p. 26). Because changes in climate over the near term are highly influenced by the level of GHGs already in the atmosphere, temperature projections over the next few decades are very similar for all models and scenarios used; after about mid-Century, however, the magnitude and variance of projections vary increasingly over time due to differences in the underlying assumptions of different model scenarios about

future conditions, i.e., uncertainty becomes greater over the longer term (e.g. see IPCC 2013, pp. 89, 1317-1319; 1323)

Although the mechanisms by which increasing temperatures may affect yellow-billed loons are becoming better understood as research, monitoring, and modeling associated with the effects of climate change in the arctic advance, there remains a great deal of imprecision and uncertainty around timing and magnitude of possible indirect and direct effects, either positive or negative, of increasing temperatures to yellow-billed loons. In terms of indirect effects, we expect increases in ship traffic in newly ice-free zones could result in increased hazards related to oil spills, disturbances, and collisions. We believe, however, that the widespread distribution and low density of yellow-billed loons on the marine seascape limit the potential for these stressors to affect yellow-billed loons at the population or species level. Further, although the effects of climate change may also influence stressors to yellow-billed loons related to the type and distribution of diseases and predators, whether or how these stressors might be altered or impact loon populations is unknown and speculative at this time. Similarly, the thawing of permafrost linked to changing climate patterns could contribute to increased exposure of loons to mercury and possibly other contaminants (Evers *et al.* 2014, pp. 155–156), but this is another case in which the magnitude, rate, and location of thawing permafrost and impacts to loon populations are unclear and speculative at this time.

More directly, climate-change-induced habitat changes which may have effects on nesting loons as well as their prey, are ongoing (e.g., Arp *et al.* 2010, p. 1630) and are

predicted to continue (see also discussion of this topic in the SSA Report (Service 2014)). The loss of lakes, currently saturated lake habitats, or lake-habitat characteristics needed by yellow-billed loons (especially shallow, vegetated shorelines and access to prey) may negatively affect the quantity or quality of nesting habitat in some areas. It is important to note, however, that lake formation and subsequent drainage is a natural process that has characterized large portions of the arctic for almost 12,000 years, since the end of the Pleistocene (see Jones and Grosse 2013, pp. 3–4 and citations therein). Lakes are numerous and cover extensive parts of the Arctic landscape (e.g., Jones and Grosse 2013, pp. 5–7). The effects of increasing temperatures on the distribution and abundance of lake habitat are likely to be quite variable because the vulnerability of an individual lake to drainage varies depending on the on ice content and ice distribution in the surrounding permafrost, various lake characteristics, the existence of a topographic gradient, and numerous external factors (e.g., presence or absence of nearby erosional features such as streams) (Jones and Grosse 2013, p. 3). Further, permafrost thawing due to warmer air temperatures could have varied results: Some lakes may expand and become suitable, continue to be suitable, or become more suitable for the loon; at some point in the future some expanding lakes could drain depending on conditions in the areas they eventually reach; and some currently suitable lakes may become become less suitable or even unsuitable. The timeframes over which changes may occur also are unclear and will vary to some extent based on local conditions. For example, projections of changes in permafrost due to changes in climate show some areas within the breeding range in Russia are expected to experience partial thawing, whereas other areas are projected to have relatively stable permafrost conditions over the 2020-2050 timeframe (Meleshko *et*

*al.* 2008, p. 16).

Other changes associated with warmer temperatures, such as longer ice-free seasons and increased productivity in running and standing arctic freshwater systems (Prowse *et al.* 2006, pp. 353–357), may positively affect nesting habitat in some areas. In regions with discontinuous and shallow permafrost, vegetative succession near margins of receding lakes may cause permafrost aggradation, which could slow lake contraction and affect surface/ground water flux (Briggs *et al.* 2014, entire document), further complicating predictions for yellow-billed loon habitat change. It is possible that the type, distribution, and abundance of prey fish will also change, possibly with some positive effects to yellow-billed loons. However, additional information regarding potential response of yellow-billed loons and their prey to the effects of climate change is necessary to evaluate or reliably predict future impacts.

Based on the best scientific and commercial data available, the possible indirect and direct effects of climate change, including any effects associated with the increased temperatures observed over the past few decades, have not resulted in a declining trend of the Alaska-ACP population, which is stable or slightly increasing. In light of the current estimated abundance and distribution of the species, the ability to respond to stressors to date as reflected by the population trend data, the extensive area over which habitat occurs, and the mixture of direct and indirect effects that likely will include positive as well as negative aspects for the loon, we do not expect that effects related to climate change will pose a threat to the species in the near term. Over the longer term, the best

scientific and commercial data currently available do not permit reliable predictions regarding type, timing, magnitude, or direction (positive or negative) of future effects, or how they will influence the distribution, abundance, and trend of yellow-billed loons at the population or species level.

*Existing Regulatory Mechanisms:* Russia is the only nation that includes the yellow-billed loon on an endangered or sensitive species list. The countries of Canada, Japan, Norway, Russia, and the United States have laws that prohibit the possession and hunting of migratory birds, such as the yellow-billed loon, unless specific regulations are issued, or unless the animals are harvested for subsistence. Lack of public knowledge of and compliance with regulations may limit their value in some regions or countries. For example, although the species is closed to subsistence hunting in Alaska, harvest surveys and anecdotal observations indicate some harvest continues to take place, possibly resulting from misidentification or noncompliance with subsistence regulations. Additionally, bycatch from fishing activities also occurs (although at an unknown level), which is a violation of the Migratory Bird Treaty Act (16 U.S.C. 703-712), except in the North Slope region where possession for subsistence use of up to 20 yellow-billed loons per year inadvertently caught in subsistence nets may be kept (50 CFR 92).

The lack of knowledge of regulations in the United States by the subsistence community and the potential lack of regulation enforcement and knowledge in other countries may affect the yellow-billed loon at the individual level in some portions of its range. However, because we have not identified any stressor or combination of stressors

that rises to the level of a threat to the yellow-billed loon, we do not consider the existing regulatory mechanisms to be inadequate either now or in the future.

*Summary of Stressors:* We identified oil and gas exploration and development, collisions with structures, degradation of marine habitats in migration and wintering areas, research activities, disease, predation, oil spills, subsistence activities, commercial fishing by-catch, pollution, and various possible effects related to changes in climate as stressors that may be, or are, affecting individual yellow-billed loons. The Alaska-ACP breeding population, for which we have the most information, is subject to all of these identified stressors. Since 1986, the Alaska-ACP breeding population has been characterized by a stable or increasing trend, and this trend reflects population-level response to all stressors to which the population is exposed. Therefore, we conclude that the identified stressors, acting individually and collectively, are not currently resulting in population-level effects that are causing a decline in the Alaska-ACP population, as the population trend is stable or slightly increasing. Although the best available information generally lacks the specificity needed to evaluate how exposure or response to stressors may vary across the species' broad range, we found no evidence to suggest that any stressor varies geographically in severity or magnitude to such extent that differential response should be expected in other breeding populations.

## **Finding**

Section 4 of the Act (16 U.S.C. 1533) and implementing regulations (50 CFR 424) set forth procedures for adding species to, removing species from, or reclassifying

species on the Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4(a)(1) of the Act, a species may be determined to be endangered or threatened based on any of the following five factors:

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

The Act 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 any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

As outlined above, we considered the five factors in assessing whether the yellow-billed loon meets the definition of an endangered or threatened species. We examined the best scientific and commercial data available regarding the past, present, and future threats faced by the yellow-billed loon. We reviewed the petition, information available in our files, other available published and unpublished information, and we consulted with recognized yellow-billed loon experts and other Federal, State, and tribal

agencies. The Service and its partners worked specifically in the Bering Strait-Norton Sound region to understand subsistence hunting practices and harvest levels to elucidate previous concerns and inform interpretation of harvest survey reports. We also requested comments and information from all interested parties in each of our CNORs from 2010 to 2012, and in preparation for this finding. Additionally, we convened a 1-day meeting to coordinate with yellow-billed loon experts, exchange information, and discuss availability of new data since the 2009 finding.

To evaluate the status of the yellow-billed loon, we compiled and evaluated information regarding stressors faced by yellow-billed loons throughout their range and considered these stressors within the context of the five factors outlined in the Act. Below, we provide a summary of our evaluation for each factor, but refer the reader to the SSA report (Service 2014) for additional details on our analysis.

A key consideration in our evaluation is the time period over which we believe the best scientific and commercial data available provide a basis for reaching reasonable conclusions regarding the type, magnitude, and extent of stressors and the likely effects of stressors, considered individually and in combination, on populations and the species as a whole. Our ability to evaluate and reach conclusions regarding the likely response of the species to various stressors was influenced by consideration of climate change effects. Although we consider it essentially certain that temperatures will continue to increase in the face of a changing climate, the best scientific and commercial data available do not provide a basis for drawing long-term conclusions regarding whether or how increasing

temperatures will alter various conditions in terms of direct and indirect effects on the yellow-billed loon, and whether or how any such altered conditions will result in positive or negative effects, how the effects may change over time, or population- or species-level responses.

Generally, projected increases in global average temperature are relatively similar across model scenarios for the near term (roughly the next 25-40 years), largely because GHGs already in the atmosphere have a substantial influence on changes in the next few decades. After about mid-century, however, the magnitude and rate of projected warming begins to depend more strongly on the scenario used for modeling and projections become increasingly different and have greater variance in out-years (IPCC 2013, p. 89), reflecting different assumptions regarding the future size of human populations, economic conditions, policy choices regarding sources and uses of energy, and other factors that influence the future level of GHGs in the atmosphere (e.g., see IPCC 2013, p. 89; Stewart *et al.* 2013, p. 7). This situation is made even more challenging due to uncertainty about the degree of exposure the yellow-bill loon will experience to various stressors, or how it will respond at a population or species level. Over the longer term, the best scientific and commercial data available do not permit reliable predictions on how future effects may manifest, or the timing, magnitude, or direction of these effects, or the likely response in terms of the distribution, abundance, and trend of yellow-billed loons at the population or species levels. Therefore, we conclude that the near term (roughly 25 to 40 years) is the appropriate timeframe to use as the foreseeable future for this particular finding.

Under Factor A (present or threatened destruction, modification, or curtailment of its habitat or range), our assessment showed that while some stressors may be impacting yellow-billed loon habitat now and in the foreseeable future, the impacts generally are expected to be localized and therefore affect loons at the individual level only. In general, yellow-billed loons occur throughout the year at low densities in remote terrestrial areas or marine waters where at most a small proportion of the landscape or seascape has been developed or is projected to be developed in the future. For example, although oil and gas development may render some habitat less suitable through various mechanisms, to date there has been minimal oil and gas development within the range of the yellow-billed loon, including Canada, Alaska, and Russia (Service 2014, p. 32). Thus, any potential effects of oil and gas exploration and development upon yellow-billed loon habitat have been minimal and are expected to continue to be so into the foreseeable future.

Many yellow-billed loons, including the Alaska-ACP population, winter in Asian marine waters with elevated concentrations of persistent environmental pollutants. Sampling of yellow-billed loons nesting on the Alaska-ACP, which presumably reflects exposure to environmental contaminants in Asian marine waters during winter, indicated minimal exposure to PCB congeners (Hoffman *et al.* 1996, p. 191). Sampling for mercury, also on the Alaska-ACP, found concentrations in blood at “background levels,” although concentrations in feathers and eggs indicated exposure commensurate with possible reproductive impairment for a small proportion of individuals (Evers *et al.* 2014,

pp. 153–155). Contaminant concentrations, including mercury, are projected to increase in arctic (Sunderland *et al.* 2009, p. 12) and Asian (Evers *et al.* 2014, p. 155) marine waters in the future, which may result in decreased productivity of yellow-billed loons. Based on these projections, we are mindful of the need to monitor contaminant exposure and response of loons in the future and acknowledge that future changes in climate also could influence contaminants. However, we currently are unable to predict the rate, magnitude, or extent of increasing environmental contaminant loads that might occur, or potential population- or species-level response. The best scientific and commercial data available do not indicate that pollution poses a threat to yellow-billed loons at the population or species level now or in the foreseeable future.

Similarly, while increasing temperatures and other climate changes are occurring and are expected to continue, predictive capabilities regarding the timing, magnitude, geographic scale, and possible effects of various impacts to habitat of the yellow-billed loon are quite limited, particularly over the long-term. The mechanisms through which climate changes will affect yellow-billed loon habitat (e.g., changes in suitability of lakes, including prey, for nesting and for rearing young), the timing of the changes, the proportion of habitat affected and whether or where effects will be positive or negative or changing between those, and the likely responses (positive, negative, or none) of the loon populations are unclear at this time. Given projections for impacts of climate change to arctic ecosystems, we acknowledge the need to improve predictive capabilities and apply them as appropriate to yellow-billed loon management over the longer term. We do know, however, that there are thousands of lakes within the breeding range of the species,

and many that are suitable are likely to remain so in areas where permafrost thawing is not expected, or is expected to be limited in the foreseeable future. Further, although some currently suitable lakes will drain or otherwise become unsuitable as permafrost thaws in some locations it is likely that some lakes currently unsuitable for the loon will become suitable, and that some new lakes will form. In addition, the fact that the Alaska-ACP population trend has been stable to increasing since 1986 despite any climate-related effects in their habitat indicates the species has some capacity to respond and withstand such stressors. Thus, at this time, the best available information does not indicate that habitat effects related to climate changes in arctic or marine systems pose a threat to yellow-billed loon populations or the species rangewide now or in the foreseeable future.

Under Factor B (overutilization for commercial, recreational, scientific, or educational purposes), we are aware of limited use of yellow-billed loons (except use by subsistence hunters and incidental bycatch in subsistence and commercial fisheries, which are addressed under Factor E). The best available scientific and commercial information suggests few individual yellow-billed loons may be affected by research projects specifically studying yellow-billed loons, primarily in Alaska, but the limited scale of research projects indicates that population- or species-level impacts are implausible.

Similarly, we found that disease and predation under Factor C have limited potential for effecting yellow-billed loons at the population or species level, although

certainly some individuals are impacted. It is hypothesized that predator abundance has increased near human settlements or industrial development sites such as oil and gas facilities, but we find no evidence that anthropogenic factors have elevated predation rates above natural rates, and we therefore conclude that potential for population- or species level effects is negligible. We have no basis for determining whether or how increasing air or water temperatures or other effects of climate change might alter disease or predation in a way that will result in negative impacts to loons at the population or species levels. We conclude disease or predation does not rise to the level of a threat to the yellow-billed loon now or in the foreseeable future.

Under Factor D (the inadequacy of existing regulatory mechanisms), we find that the existence of regulatory mechanisms, public awareness and compliance, and enforcement likely vary significantly across the species' broad range. Countless regulations exist that directly or indirectly provide benefit to yellow-billed loons, including those to protect terrestrial and marine habitat, reduce spills of oil and other contaminants, regulate harvest and fishing practices, minimize disturbance of wildlife, and others. We do not have evidence of population- or species-level response of yellow-billed loon to unmanaged or unregulated threats or anthropogenic impacts. Thus, we conclude that the existing regulations are adequate for this species now and in the foreseeable future.

Under Factor E (other natural or manmade factors affecting its continuing existence), we considered the effects of oil spills, collisions with human-built structures,

subsistence hunting, and incidental bycatch in subsistence and commercial fishing. Large marine spills from oil exploration and development potentially could occur, but such spills are expected to be unlikely based on observed spill rates in Alaska and elsewhere and the scarcity of offshore development within the yellow-billed loon's range.

Individual yellow-billed loons would be affected if they were present at the time of a spill and came into contact with oil, but yellow-billed loons generally occur in low densities in marine waters, so the risk of spills large enough or frequent enough to result in population- or species-level effects is very low. Although birds, particularly those migrating over water, occasionally collide with human-built structures such as offshore oil and gas facilities, we are aware of no records of yellow-billed loons doing so and conclude that collisions may pose an individual-level risk but do not threaten populations or the species rangewide, now or in the foreseeable future.

In 2009, the Service published a warranted-but-precluded 12-month finding for the yellow-billed loon (74 FR 12932, March 25, 2009), after concluding that subsistence harvest survey data indicated that hunting posed a threat to the species. Subsequently, the Service and its partners expanded efforts to improve understanding of harvest, particularly in the Bering Strait-Norton Sound region where high harvest was reported. Based on this new information, which includes local and traditional ecological knowledge and ethnographic information, we now conclude that only a small proportion of the total rangewide population is harvested annually; that harvest practices or use of loons have not changed or increased significantly, nor are they likely to do so in the foreseeable future; and that the current population trend of stable or increasing on the

Alaska-ACP likely reflects population-level response to ongoing harvest levels. In contrast to interpretation in our 2009 finding, we now conclude, based on the best available scientific and commercial data, that subsistence harvest is not a threat to the yellow-billed loon at the population or species level, nor is it likely to become so in the foreseeable future.

We also evaluated bycatch in subsistence and commercial fisheries. In both cases, information is incomplete and subject to immeasurable bias, and, therefore, the overall magnitude of impact to yellow-billed loons from bycatch is unknown at this time. However, we find no evidence of extreme mortality levels, and the best scientific and commercial information does not suggest a population- or species-level effect, as evidenced by the stable to slightly increasing population trend on the Alaska-ACP.

In summary, our evaluation identified and evaluated a number of known and hypothetical stressors to yellow-billed loons. In general, information on the stressors and potential or known response by yellow-billed loons is limited to the Alaska-ACP population. Because this species is broadly distributed within and across seasons, we expect that exposure and response of yellow-billed loons to identified stressors varies in time and space. However, for the other four breeding populations, we found little information on the occurrence, magnitude, and frequency of identified stressors, or on biological status or population trend. Despite the incomplete information, we have no information to suggest that status or trends in these populations differ from those in the Alaska-ACP population or should be expected to do so. Identified stressors to this

species are not concentrated in any particular location, and the available information suggests that stressors to the species elsewhere are likely to be similar to those experienced by the species on the Alaska-ACP. Thus, for the purposes of this evaluation, we conclude that the Alaska-ACP population is representative of the other breeding populations of yellow-billed loon over the foreseeable future. As stated earlier, despite being exposed to numerous stressors, the Alaska-ACP breeding population has not declined in abundance over the past 28 years and is estimated to have had an average annual population increase of 1.4 percent per year since 1986. Therefore, we deduce, having no basis to conclude differently, that the other four breeding populations have stable or slightly increasing population trends as well. We also have no information indicating that status in any of the five breeding populations is likely to change within the foreseeable future.

Our review of the information pertaining to the five factors does not support the assertion that there are threats acting on the species or its habitat that rise to the level of causing the yellow-billed loon to be in danger of extinction (i.e., endangered) or likely to become so in the foreseeable future (i.e., threatened), throughout all or a significant portion of its range. Therefore, based on our review of the best available scientific and commercial data, we find that the yellow-billed loon does not meet the definition of an endangered or a threatened species under the Act, and listing is not warranted at this time.

#### *Distinct Vertebrate Population Segment*

Because we determined that the yellow-billed loon does not warrant listing throughout its range as an endangered or a threatened species, we next assess whether a distinct population segment (DPS) of the yellow-billed loon exists, and if so, whether it meets the definition of an endangered or a threatened species. Under the Service's Policy Regarding the Recognition of Distinct Vertebrate Population Segments under the Endangered Species Act (61 FR 4722, February 7, 1996), three elements are considered in the decision concerning the establishment and classification of a possible DPS. These elements are discreteness of the population segment in relation to the remainder of the species to which it belongs; the significance of the population segment to the species to which it belongs; and the population segment's conservation status in relation to the Act's standards for listing (i.e., is the population segment, when treated as if it were a species, endangered or threatened?). This policy then allows vertebrate species to be subdivided into populations that can have different classifications under the Act so long as they meet the criteria for distinct population segments (i.e., they are discrete and significant). Subdividing a species into distinct population segments would be pointless, however, if all segments have the same status. Further, ascertaining heterogeneity in status requires adequate spatial resolution in the available information regarding the species' status and/or threats it faces.

In the case of the yellow-billed loon, we have found that the species does not meet the definition of an endangered or a threatened species across its range. Our analysis of the best scientific and commercial data available does not indicate that the species' populations trends, or threats that may affect populations, are substantially different in the

five breeding populations or localized areas elsewhere within the species' range.

Because we have not identified separate populations of yellow-billed loons that are likely to have different status under the Act, we have not, therefore, applied criteria for discreteness and significance to determine if the populations qualify as DPSs.

### *Significant Portion of the Range*

Under the Act and our implementing regulations, a species may warrant listing if it is an endangered or a threatened species throughout all or a significant portion of its range. The Act defines “endangered species” as any species which is “in danger of extinction throughout all or a significant portion of its range,” and “threatened species” as any species which is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The term “species” includes “any subspecies of fish or wildlife or plants, and any distinct population segment [DPS] of any species of vertebrate fish or wildlife which interbreeds when mature.” We published a final policy interpreting the phrase “significant portion of its range” (SPR) (79 FR 37578, July 1, 2014). The final policy states that (1) if a species is found to be an endangered or a threatened species throughout a significant portion of its range, the entire species is listed as an endangered or a threatened species, respectively, and the Act’s protections apply to all individuals of the species wherever found; (2) a portion of the range of a species is “significant” if the species is not currently an endangered or a threatened species throughout all of its range, but the portion’s contribution to the viability of the species is so important that, without the members in that portion, the

species would be in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range; (3) the range of a species is considered to be the general geographical area within which that species can be found at the time the Service or the National Marine Fisheries Service makes any particular status determination; and (4) if a vertebrate species is an endangered or a threatened species throughout 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 SPR policy is applied to all status determinations, including analyses for the purposes of making listing, delisting, and reclassification determinations. The procedure for analyzing whether any portion is an SPR is similar, regardless of the type of status determination we are making. The first step in our analysis of the status of a species is to determine its status throughout all of its range. If we determine that the species is in danger of extinction, or likely to become so in the foreseeable future, throughout all of its range, we list the species as an endangered (or threatened) species and no SPR analysis will be required. If the species is neither an endangered nor a threatened species throughout all of its range, we determine whether the species is an endangered or a threatened species throughout a significant portion of its range. If it is, we list the species as an endangered or a threatened species, respectively; if it is not, we conclude that listing the species is not warranted.

When we conduct an SPR analysis, we first identify any portions of the species' range that warrant further consideration. The range of a species can theoretically be

divided into portions in an infinite number of ways. However, there is no purpose to analyzing portions of the range that are not reasonably likely to be significant and either an endangered or a threatened species. To identify only those portions that warrant further consideration, we determine whether there is substantial information indicating that (1) the portions may be significant and (2) the species may be in danger of extinction in those portions or likely to become so within the foreseeable future. We emphasize that answering these questions in the affirmative is not a determination that the species is an endangered or a threatened species throughout a significant portion of its range—rather, it is a step in determining whether a more detailed analysis of the issue is required. In practice, a key part of this analysis is whether the threats are geographically concentrated in some way. If the threats to the species are affecting it uniformly throughout its range, no portion is likely to warrant further consideration. Moreover, if any concentration of threats applies only to portions of the range that clearly do not meet the biologically based definition of “significant” (i.e. the loss of that portion clearly would not be expected to increase the vulnerability to extinction of the entire species), those portions will not warrant further consideration.

If we identify any portions that may be both (1) significant and (2) endangered or threatened, we engage in a more detailed analysis to determine whether these standards are indeed met. The identification of a SPR does not create a presumption, prejudice, or other determination as to whether the species in that identified SPR is an endangered or a threatened species. We must go through a separate analysis to determine whether the species is an endangered or a threatened species in the SPR. To determine whether a

species is an endangered or a threatened species throughout an SPR, we will use the same standards and methodology that we use to determine if a species is an endangered or a threatened species throughout its range.

Depending on the biology of the species, its range, and the threats it faces, it may be more efficient to address the “significant” question first, or the status question first. Thus, if we determine that a portion of the range is not “significant,” we do not need to determine whether the species is an endangered or a threatened species there; if we determine that the species is not an endangered or a threatened species in a portion of its range, we do not need to determine if that portion is “significant.”

We examined the potential threats from the effects of oil and gas exploration and development, research, disease, predation, collisions with structures, subsistence harvest, commercial fishing bycatch, pollution and degradation of marine habitats, and effects from climate change. These stressors affect individual yellow-billed loons throughout their range. Our analysis of the best scientific and commercial data available does not suggest threats are concentrated or substantially greater in a specific area as compared to other areas of the species’ range. Therefore, we find that factors affecting the yellow-billed loon are essentially uniform throughout its range, indicating no portion of the range warrants further consideration of possible endangered or threatened species status under the Act.

#### *Conclusion of 12-Month Finding*

Our review of the best scientific and commercial data available indicates that the yellow-billed loon is not in danger of extinction (an endangered species) nor likely to become endangered within the foreseeable future (a threatened species), throughout all or a significant portion of its range. Therefore, we find that listing the yellow-billed loon as an endangered or threatened species under the Act is not warranted at this time.

We request that you submit any new information concerning the status of, or threats to, the yellow-billed loon to our Fairbanks Fish and Wildlife Office (see **ADDRESSES**) whenever it becomes available. New information will help us monitor the status of yellow-billed loon and encourage its conservation. In the event that threats or the species' status changes, we could consider again whether it is appropriate to list the species as an endangered or a threatened species under the Act. We will continue to provide technical assistance to Federal, State, and other entities and encourage them to address the conservation needs of yellow-billed loon through collecting additional biological information, monitoring the status of the species, and monitoring the progress and efficacy of conservation efforts.

### **References Cited**

A complete list of references cited is available on the Internet at <http://www.regulations.gov> and upon request from the Fairbanks Fish and Wildlife Office (see **ADDRESSES**).

## **Authors**

The primary authors of this notice are staff members of the Fairbanks Fish and Wildlife Office.

**Authority**

The authority for this section is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: September 22, 2014

Stephen Guertin

Acting Director, Fish and Wildlife Service

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