DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS-HQ-ES-2019-0014; 4500030113]

RIN 1018–BD03

Endangered and Threatened Wildlife and Plants; Endangered Status for the Dolphin and Union Caribou

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service or USFWS), determine endangered status under the Endangered Species Act of 1973 (Act), as amended, for the Dolphin and Union caribou (*Rangifer tarandus groenlandicus* × *peary*), a distinct population segment (DPS) of the barren-ground caribou (*Rangifer tarandus groenlandicus*). After reviewing new survey information received during the public comment period that identified significant decline in the population during a recent 4-year period, we have reevaluated the status of the DPS. Our reassessment concluded that the species is in danger of extinction now. Therefore, we are listing this DPS as endangered under the Act. Listing this DPS as endangered also means that the proposed rule under section 4(d) of the Act will not be finalized or put in place. Rather, the prohibitions under section 9(a)(1) of the Act and our implementing regulations for endangered wildlife will apply to all Dolphin and Union caribou specimens. The Dolphin and Union caribou is native only to Canada.

DATES: The rule is effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: This final rule is available on the internet at *https://www.regulations.gov* under Docket No. FWS-HQ-ES-2019-0014. Comments and materials we received, as well as

supporting documentation we used in preparing this rule, are available for public inspection at *https://www.regulations.gov* under Docket No. FWS-HQ-ES-2019-0014.

FOR FURTHER INFORMATION CONTACT: Rachel London, Acting Chief, Branch of Delisting and Foreign Species, Ecological Services Program, U.S. Fish and Wildlife Service, 5275 Leesburg Pike, MS: ES, Falls Church, VA 22041; telephone 703–358–2491. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, a species may be listed as endangered or threatened throughout all or a significant portion of its range. Listing a species as an endangered or threatened species can only be completed by issuing a rule.

What this document does. This rule revises the List of Endangered and Threatened Wildlife in title 50 of the Code of Federal Regulations in part 17 (50 CFR 17.11(h)) to add the Dolphin and Union caribou DPS as an endangered species. After reviewing new survey information received during the public comment period, which identified drastic decline in the population of the herd, we have reassessed the status of the DPS and determined it to be in danger of extinction.

The basis for our action. Under the Act, we may determine that a species is an endangered or threatened species because of any of five factors, alone or in combination: (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. We have determined that the Dolphin and

Union caribou DPS is in danger of extinction throughout all of its range, meeting the definition of an endangered species. The major threats that impacted the Dolphin and Union caribou are the cumulative effects of climate change and other changes brought about by climate change, such as a long-term decline in sea ice, increase in icing events on land, and increases in shipping traffic as a result of reduced ice.

Peer review and public comment. In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we solicited the expert opinion of five appropriate and independent specialists for peer review of the species report that provides the biological basis for this listing determination. We received responses from all five peer reviewers. The purpose of peer review is to ensure that our listing determinations are based on scientifically sound data, assumptions, and analyses. Their comments and suggestions can be found at *https://fws.gov/library/categories/peer-review-plans*.

Previous Federal Actions

On August 31, 2021, we proposed to list the Dolphin and Union caribou as a threatened species under the Act (86 FR 48619) with a rule issued under section 4(d) of the Act. Please refer to the August 31, 2021, proposed rule for a detailed description of previous Federal actions concerning Dolphin and Union caribou that occurred prior to August 31, 2021.

Summary of Changes From the Proposed Rule

In preparing this final rule, we reviewed and fully considered comments from the public on the proposed rule. During the public comment period, we received new survey information that reveal that the Dolphin and Union caribou experienced a catastrophic decline during the years 2015 to 2018 in which the herd lost 75 percent of its 2015 population (from 18,000 individuals down to 4,000 individuals) in a 4-year timespan. While this decline seems to have somewhat stabilized in the 2020 survey (3,800 individuals), this survey data means that since 1997 the Dolphin and Union caribou herd has now declined from approximately 34,000

individuals to approximately 3,800 individuals. This rapid decline is due to a combination of factors described in both the proposed rule and this final rule. These factors include a decline in foraging quality due to climate change, changes in sea-ice level, an increase in shipping traffic, and parasites. Some population decline due to hunting may also be a contributing factor. For these reasons, we are finalizing the listing of the Dolphin and Union caribou in 50 CFR 17.11(h) as an endangered species under the Act. We have also revised the proposed listing entry by adding specific geographic information about the straits that the Dolphin and Union caribou use when migrating between Victoria Island the mainland; however, this revision to the "Where listed" column is not the result of new information.

Finalizing the listing of the Dolphin and Union caribou as endangered means that the proposed rule under section 4(d) of the Act will not be finalized or put in place, including the proposed trophy import exemption from the prohibition that was provided in the proposed rule. Rather, the prohibitions under section 9(a)(1) of the Act and our implementing regulations for endangered wildlife will apply to all Dolphin and Union caribou specimens. Therefore, for example, when this final rule is effective (see **DATES**, above), all imports and exports will be prohibited, with the exception of those accompanied by section 10(a)(1)(A) permits issued for scientific purposes or to enhance the propagation or survival of the species (see **Available Conservation Measures**, below).

Background

A thorough review of the taxonomy, life history, and ecology of the Dolphin and Union caribou is presented in the species report and the proposed rule (86 FR 48619; Service 2021, pp. 4–10; available at *https://www.regulations.gov* under Docket No. FWS-HQ-ES-2019-0014).

The Dolphin and Union caribou is found on Victoria Island and the Canadian mainland, encompassing the Canadian provinces of Nunavut and the Northwest Territories (NWT). The caribou is a migratory species with a calving period occurring during the summer months on Victoria Island. The herd then crosses the sea ice of the Coronation Gulf, Dolphin and Union

Strait, and Dease Strait to their wintering grounds on the mainland. The primary driver of the Dolphin and Union caribou status is climate change and its effect on the formation and breaking up of sea ice between Victoria Island and the mainland. As of 2020, the herd population was estimated to be 3,815 individuals (Campbell et al. 2021, p. 70). This number represents a decline of approximately 90 percent from the population peak of 34,558 individuals in 1997. After 1997, the population steadily declined to 27,787 individuals in 2007 and 18,413 individuals in 2015. In 2018, the population was 4,105, a decline of over 78 percent from the 2015 population. Possible reasons for this decline are the cumulative effects of known stressors such as the effects of climate change, disease, and parasites (discussed in greater detail below in the Summary of Biological Status and Threats (Campbell et al. 2021, p. 15)). The survey conducted in 2020 confirmed that the 2015–2018 decline did occur, with an estimated size at that time of 3,800 caribou.

Evaluation of the Dolphin and Union Caribou Subpopulation as a Distinct Population Segment

Under section 3(16) of the Act, we may consider for listing any species, including subspecies, of fish, wildlife, or plants, or any DPS of vertebrate fish or wildlife that interbreeds when mature (16 U.S.C. 1532(16)). Those entities are considered eligible for listing under the Act (and, therefore, are referred to as listable entities), should we determine that they meet the definition of an endangered or threatened species.

Under the Service's DPS Policy (61 FR 4722, February 7, 1996), three elements are considered in the decision concerning the determination and classification of a possible DPS as threatened or endangered. These elements include are:

(1) The discreteness of a population in relation to the remainder of the species to which it belongs;

(2) The significance of the population segment to the species to which it belongs; and

(3) The population segment's conservation status in relation to the Act's standards for listing, delisting, or reclassification (i.e., whether the population segment is endangered or threatened).

A population segment of a vertebrate taxon may be considered discrete under the DPS policy 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 Act.

If a population segment is considered discrete under one or more of the conditions described in the Service's DPS policy, its biological and ecological significance will be considered in light of congressional guidance that the authority to list DPSs be used "sparingly" (see Senate Report 151, 96th Congress, 1st Session). In making this determination, we consider available scientific evidence of the DPS's importance to the taxon to which it belongs. Since precise circumstances are likely to vary considerably from case to case, the DPS policy does not describe all the classes of information that might be used in determining the biological and ecological importance of a discrete population. However, the DPS policy describes four possible classes of information that provide evidence of a population segment's biological and ecological importance to the taxon to which it belongs. As specified in the DPS policy, this consideration of the population segment's significance may include, but is not limited to, the following:

(1) Persistence of the DPS in an ecological setting unusual or unique to the taxon;

(2) Evidence that loss of the DPS would result in a significant gap in the range of a taxon;

(3) Evidence that the DPS represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historical range; or

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

To be considered significant, a population segment needs to satisfy only one of these criteria, or other classes of information that might bear on the biological and ecological importance of a discrete population segment, as described in the DPS policy. Below, we summarize discreteness and significance for the Dolphin and Union caribou.

Discreteness

Please refer to the proposed rule for a more in-depth evaluation of the Dolphin and Union status as a DPS of the barren-ground caribou (*Rangifer tarandus groenlandicus*) (86 FR 48619, August 31, 2021). Below is a summary of the analysis and our conclusion.

The Dolphin and Union caribou is markedly separate from other populations of the barren-ground caribou (*Rangifer tarandus groenlandicus*). Behaviorally, the Dolphin and Union caribou is a migratory population that calves on Victoria Island in the summer and winters on coastal tundra on the mainland. This migratory lifestyle is in contrast to the remainder of the subspecies that either spend their entire life cycle on the mainland or on an island (McFarlane et al. 2016, p. 2). In addition to behavioral differences, the Dolphin and Union caribou is also geographically isolated from other members of the subspecies during part of its life cycle. Although the subpopulation's range overlaps with other barren-ground caribou subpopulations during the wintering months on the mainland, while on Victoria Island, the Dolphin and Union caribou is geographically isolated from other subpopulations of the barren-ground caribou on the mainland (McFarlane et al. 2016, p. 16).

Morphological and genetic discontinuities between Dolphin and Union caribou and other subpopulations of the barren-ground caribou provide further evidence of this separation. Morphologically, the Dolphin and Union caribou are smaller and lighter in color than the mainland barren-ground caribou (McFarlane et al. 2009, p. 125). Genetically, the Dolphin and Union caribou is more closely related to the mainland barren-ground caribou than other island

caribou with which it shares Victoria Island (McFarlane et al. 2009, p. 125). Despite being more closely related to mainland subpopulations, the Dolphin and Union caribou also maintains genetic distinctness from them (McFarlane et al. 2016, pp. 8, 14; McFarlane et al. 2009, p. 125, Zittlau 2004, p. 113). Phylogenetic analyses conducted on mitochondrial DNA reveals that, during the caribou recolonization of the Arctic at the end of the last Ice Age, the Dolphin and Union caribou diverged from the other barren-ground caribou subpopulations approximately 3,000 years ago (McFarlane et al. 2016, pp. 15–16).

In summary, we determine that the Dolphin and Union caribou is markedly separated from neighboring caribou subpopulations. At different times of the year, the Dolphin and Union caribou is physically (geographically) and reproductively isolated from the mainland subpopulations. The Dolphin and Union caribou also exhibit unique migratory behavior, and genetic data supports the separation of the subpopulation from the barren-ground caribou. Therefore, we consider the Dolphin and Union caribou subpopulation to be discrete under our DPS policy.

Significance

We found that the Dolphin and Union caribou is significant to the *Rangifer tarandus groenlandicus* taxon because it differs markedly from other members in the taxon in its genetic characteristics.

The barren-ground caribou contains three genetic variants: the mainland subpopulations, the Southampton Island subpopulations, and the Dolphin and Union caribou subpopulations. A study of allelic frequency shows that each subpopulation forms a unique cluster (McFarlane et al. 2016, p. 9), with the Dolphin and Union caribou being closer genetically to the mainland subpopulations than the Southampton subpopulation. This conclusion is further supported by a comparison of the fixation index (F_{ST} value) between the multiple subpopulations including the Southampton, Dolphin and Union, and different mainland subpopulations that yielded a similar conclusion (McFarlane et al. 2016, p. 9; McFarlane et al. 2014, p. 83). The F_{ST} value for the

Southampton subpopulation varies between 0.436 to 0.527. For the Dolphin and Union caribou, values vary between 0.059 and 0.067. For the mainland subpopulations, values vary between 0.004 (a calculation output that can be considered to be a zero) and 0.038. An F_{ST} value of zero means that the two subpopulations being compared are genetically identical, while a value of one suggests that it is possibly a different species. As can be seen here, the Southampton subpopulation has the highest level of genetic distinctness relative to the other two. While not as genetically distinct, the Dolphin and Union caribou still possess an F_{st} value that is greater than the mainland subpopulations, by a large enough margin suggesting genetic distinctness from the rest of the subspecies (McFarlane et al. 2016, p. 9). This conclusion is supported by other publications that also identified the Dolphin and Union caribou as being distinct from all other mainland barren-ground caribou subpopulations (McFarlane et al. 2014, p. 83; Zittlau et al. 2009, as cited in Committee on the Status of Endangered Wildlife in Canada (COSEWIC) 2011, p. 25; Zittlau 2004, p. 113).

In addition to their allelic differences, a study of the gene flow of the Dolphin and Union caribou supports the genetic distinctness of the subpopulation. Gene flow of the Dolphin and Union caribou appears to flow in a southward direction. That is, there is an outward flow of the Dolphin and Union caribou gene into the neighboring mainland barren-ground caribou subpopulation located to the south of Victoria Island. However, the gene flow of the mainland barren-ground caribou into the Dolphin and Union caribou subpopulation is slower (McFarlane et al. 2014, p. 88). This phenomenon can be explained by the behavioral difference between male and female caribous. While female caribous display site fidelity, male caribous tend to wander farther afield. Because female Dolphin and Union calve exclusively on Victoria Island, they are geographically isolated from the mainland barren-ground caribou subpopulation (Nagy et al. 2011, p. 2,335). On the other hand, there is greater detection of first- and second-generation male migrants among other subpopulations of caribou (McFarlane et al. 2016, pp. 11, 14). This result suggests that some male Dolphin and Union caribou may migrate to other barren-ground caribou

subpopulations resulting in outward gene flow. Additionally, in periods of multiple years the dispersal rate is zero, meaning that no gene flow occurred out of the subpopulation (McFarlane et al. 2016, p. 14). Overall, the gene flow patterns reinforce the genetic data, demonstrating that, while occasionally genetic exchange occurs between Dolphin and Union caribou and the mainland barren-ground caribou subpopulations, the Dolphin and Union caribou maintains its genetic uniqueness.

This conclusion is supported by other studies that identified the genetic distinctness of Dolphin and Union caribou from other caribou subpopulations (McFarlane et al. 2014, pp. 82–83; McFarlane et al. 2009, p. 125; Zittlau 2004, p. 113). Additionally, the Dolphin and Union caribou experience geographic isolation on Victoria Island during calving season, which contributes to a limited outward gene flow between the Dolphin and Union caribou and other populations of *Rangifer tarandus groenlandicus* (Nagy et al. 2011, p. 2,335). Although some genetic exchanges with the mainland barren-ground caribou occur through the migration of male Dolphin and Union caribou, the subpopulation's geographic and genetic isolation likely contributed to its genetic uniqueness. Thus, we find that the Dolphin and Union caribou differs markedly from other populations of the species in its genetic characteristics.

Summary

Given that both the discreteness and the significance elements of the DPS policy are met for the Dolphin and Union caribou, we find that the Dolphin and Union caribou constitutes a valid DPS of *Rangifer tarandus groenlandicus*. Because we find the Dolphin and Union caribou subpopulation to be both discrete and significant, we evaluated whether this DPS is endangered or threatened based on the Act's definitions of those terms and a review of the factors listed in section 4(a) of the Act.

Conservation Status of the Dolphin and Union Caribou

In 2004, COSEWIC (2004, entire) evaluated the status of Dolphin and Union caribou and assessed them as a special concern. In February 2011, Dolphin and Union caribou were added to

Canada's Federal Species at Risk Act (SARA or S.C.) as a species of special concern (Stock Assessment Review Committee (SARC) 2013, p. 97). The recovery plan for the Dolphin and Union caribou published in 2018. We discuss the recovery plan in greater detail in **Status of Existing Regulatory Mechanisms** (Governments of the NWT and Nunavut 2018, entire; SARC 2013, p. 97). In 2017, COSEWIC assessed the Dolphin and Union caribou status to be endangered (COSEWIC 2017, p. x). However, as of the publication of this final rule, the Dolphin and Union caribou has not been reclassified as endangered under SARA.

Regulatory and Analytical Framework

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for threatened and endangered species. In 2019, jointly with the National Marine Fisheries Service, the Service issued final rules that revised the regulations in 50 CFR parts 17 and 424 regarding how we add, remove, and reclassify threatened and endangered species and the criteria for designating listed species' critical habitat (84 FR 45020 and 84 FR 44752; August 27, 2019). At the same time the Service also issued final regulations that, for species listed as threatened species after September 26, 2019, eliminated the Service's general protective regulations automatically applying to threatened species the prohibitions that section 9 of the Act applies to endangered species (collectively, the 2019 regulations).

As with the proposed rule, we are applying the 2019 regulations for this final rule because the 2019 regulations are the governing law just as they were when we completed the proposed rule. Although there was a period in the interim—between July 5, 2022, and September 21, 2022—when the 2019 regulations became vacated and the pre-2019 regulations therefore governed, the 2019 regulations are now in effect and govern listing and critical habitat decisions (see *Center for Biological Diversity* v. *Haaland,* No. 4:19-cv-05206-JST, Doc. 168 (N.D. Cal. July 5, 2022; vacating the 2019 regulations and thereby reinstating the pre-2019 regulations) and

In re: *Cattlemen's Ass'n*, No. 22-70194 (9th Cir. Sept. 21, 2022; staying the vacatur of the 2019 regulations and thereby reinstating the 2019 regulations until a pending motion for reconsideration before the district court is resolved)).

However, given that litigation remains regarding the court's vacatur of the 2019 regulations, we also undertook an analysis of whether the decision would be different if we were to apply the pre-2019 regulations. We concluded that the decision would have been the same if we had applied the pre-2019 regulations. The analyses under both the pre-2019 regulations and the 2019 regulations are included in the decision file for this final rule. The Act defines an endangered species as a species that is "in danger of extinction throughout all or a significant portion of its range," and a threatened species as a species that is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." The Act requires that we determine whether any species is an "endangered species" or a "threatened species" because of any of the following 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.

These factors represent broad categories of natural or human-caused actions or conditions that could affect a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term "threat" to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term "threat" includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those

that indirectly affect individuals such as through alteration of their habitat or required resources (stressors). The term "threat" may encompass—either together or separately—the source of the action or condition, or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an "endangered species" or a "threatened species." In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species—such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an "endangered species" or a "threatened species" only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term "foreseeable future," which appears in the statutory definition of "threatened species." Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term "foreseeable future" extends only so far into the future as the Services can reasonably determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. "Reliable" does not mean "certain"; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions. It is not always possible or necessary to define the foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species'

responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

The species report documents the results of our comprehensive biological status review for the Dolphin and Union caribou, including an assessment of the potential threats to the DPS. The report does not represent a decision by the Service on whether the species should be listed as an endangered or threatened species under the Act. It does, however, provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies. The following is a summary of the key results and conclusions from the report; the full report can be found at Docket FWS-HQ-ES-2019-0014 on *https://www.regulations.gov*.

Summary of Biological Status and Threats

In this portion of the preamble, we review the biological condition of the species and its resources and factors that affect the species to assess the species' overall persistence. The Dolphin and Union caribou live in a harsh environment that is sparsely populated with people. Ecosystems can be complex, and factors affecting the health and viability of species are not always readily apparent. Caribou biologists have suggested a number of factors that may have contributed to the decline of the Dolphin and Union caribou. In addition to the major threats discussed below, we also assessed other threats that we concluded have minor effects on the species; those assessments can be found in our species report. The minor threats include deterioration of the quality and quantity of nutrients available within their habitat, predation (primarily by wolves), and outbreak of parasites or disease. The major threats that will be discussed below are:

- Sea-ice loss;
- Hindered ability to seasonally migrate due to lack of sea ice and possible drowning;
- Hunting;

- Disturbance due to development, oil and gas exploration, or shipping.

A primary factor affecting the Dolphin and Union caribou is the timing of freeze-up and sea-ice connectivity; these conditions are affected by ships breaking up the gray ice (young ice the thickness of which is less than 4–6 inches), other ice-breaking activities for tourism and oil and gas industries, and potential loss of sea ice due to climate change (Leclerc and Boulanger 2018, pp. 39-40; Dumund and Lee 2013, p. 335; Poole et al. 2010, entire). These related factors are discussed in two reports: Sea Ice and Migration of the Dolphin and Union Caribou Herd in the Canadian Arctic: An Uncertain Future (Poole et al. 2010, entire) and the species status report prepared by the Species at Risk Committee for the Dolphin and Union Caribou, published in December 2013, for the Northwest Territories (SARC 2013, entire). Additionally, a draft management plan for the Dolphin and Union caribou was made available for public comment in the spring of 2017 after a reassessment conducted by COSEWIC in 2015–2016 (Leclerc 2017, pers. comm.). We refer readers to these documents, which are available at *https://www.regulations.gov* in Docket No. FWS-HQ-ES-2019-0014, for more detailed information. Here, we summarize the information.

Climate Change

Changes in climate and weather patterns are suspected to be a major contributor to the decline of this caribou (Hansen et al. 2011, pp. 1,917, 1,920–1,922; Miller and Barry 2009, p. 176; Prowse et al. 2009a, p. 269; Tews et al. 2007a, pp. 95–96; COSEWIC 2004, pp. viii, 55–58). The term "climate change" thus refers to a change in the mean or variability of one or more measures of climate (e.g., temperature or precipitation) that persists for an extended period, typically decades or longer, whether the change is due to natural variability, human activity, or both (Intergovernmental Panel on Climate Change (IPCC) 2013, p. 1,450).

The demographic, ecological, and evolutionary responses of caribou to threats from climate change are complicated to predict. The complexity stems from the species' habitat requirements and resilience to the effects of climate change. Current models for the Arctic

predict deeper snow cover, increasing rainfall, increasing rain-on-snow events, warm periods, more thawing–freezing cycles, and a higher risk of ice-layer formation on the soil within the snowpack during the winters of the coming decades (Hansen et al. 2011, p. 1,917; Turunen et al. 2009, pp. 813–814; Putkonen and Roe 2003, entire). Caribou populations respond negatively to the occurrence of more precipitation, greater snowfall, and subsequently more freezing rain events, which makes access to food more difficult (COSEWIC 2015, pp. 44–46; Miller et al. 2007, p. 33). However, other models support a conclusion that caribou may experience increases in population numbers if climate change results in a 50 percent increase of taller, denser vegetation and woody shrubs (Leclerc 2017, pers. comm.; Tews et al. 2007a, p. 95). As ecological systems are dynamic, it is complicated to predict how one change (such as a rise in temperature) will affect other elements within the ecosystem (such as the amount of precipitation that falls as freezing rain, rather than snow) (Parrott 2010, p. 1,070; Green and Sadedin 2005, pp. 117–118; Burkett et al. 2005, p. 357).

For the purpose of this assessment, given that the primary threat to the Dolphin and Union caribou is considered by caribou researchers to be loss of sea ice due to climate change and increase in shipping activities, we rely on climate projection models undertaken by the IPCC (IPCC 2014a, pp. 8–12). Relevant to our discussion, these models discuss future trends for precipitation and air and water temperature, which has an impact on the condition of the caribou habitat. Projections of sea-ice loss using representative concentration pathways (RCP) 4.5 and 8.5 scenarios and rain-on-snow events in the Canadian Arctic vary in their time scale (Mallory and Boyce 2018, p. 2,192; Jenkins et al. 2016, p. 4; Engler and Pelot 2013, p. 21; Stroeve et al. 2012, p. 1,012). While all climate models agree that sea-ice loss will occur in the Canadian Arctic, there is disagreement on when that loss will take place. Some models project the Canadian Arctic will experience ice-free periods as early as 2050, while others project that due to the influx of sea ice from the Arctic Ocean, sea ice in the Canadian Arctic will persist into the 2080s (Li et al. 2019, pp. 1–2; Derksen et al. 2018, p. 198; Mallory and Boyce 2018, pp.

2,194–2,195; Johnson et al. 2017, p. 16; Jenkins et al. 2016, p. 4). This uncertainty is due in part to the flow of sea ice from the Arctic to the east coast of the Canadian Arctic Archipelago (Derksen et al. 2018, p. 218).

In addition to sea-ice loss, the thinning of sea ice can also have an impact on the caribou, because if sea ice is too thin, it will not be able to support the caribou's weight. We thus take into consideration changes in ratio over time between the thinner first-year ice versus the thicker, multiyear ice (Li et al. 2019, p. 2) in the Dolphin and Union caribou's range. In addition to changes in sea ice, because the Dolphin and Union caribou use the Dolphin and Union strait as part of its migration route, we also take into account information on historical, current, and projected shipping traffic through the Dolphin and Union strait. Because of a projected increase in ice-free periods, shipping traffic is highly likely to increase (Governments of the NWT and Nunavut 2018, p. 41).

Most models project that portions of the Canadian Arctic will be ice free by 2040–2060 (Derksen et al. 2018, pp. 198, 218; Johnson et al. 2017, p. 16; Lu et al. 2014, p. 61).

Loss of Sea Ice

Sea ice is an important component of the seasonal migration of the Dolphin and Union caribou. Dolphin and Union caribou migrate across the Dolphin and Union Strait using the temporary, annual seasonal ice bridge from Victoria Island to the mainland. During the months of September and October, Dolphin and Union caribou "stage" on the south coast of Victoria Island waiting for the ice to form for the herds to cross. The caribou may cross at any time during this time period on the newly formed gray ice to their winter range on the mainland (Nishi and Gunn 2004, as cited in COSEWIC 2004, p. 35). More recently, the formation of the sea ice has been delayed, which results in caribou waiting a longer period for ice to form. Due to limited food availability on Victoria Island during the winter months to support the herd during the winter months, longer delays for crossings risk reducing the fitness of individuals within the herd. Furthermore, when crossings do take place, because of the delay in sea ice formation, the

sea ice that forms is often too thin to hold the caribou's weight resulting in individuals falling through the ice. This likely increases energy consumption for the caribou to get out of the water, and increases the likelihood of both individual and mass drowning events (Poole et al. 2010, p. 414; Gunn 2003, as cited in COSEWIC 2004, p. 35).

Since the beginning of monitoring in 1979, record low levels of sea ice have occurred in recent years. From 1968 to 2015, sea ice declined at a rate of 6.1 percent per decade (Environment and Climate Change Canada 2016, p. 8). Multiyear ice, which is thick enough to support the caribou's weight, has been declining over time. In the mid-1980s, multiyear ice accounted for 75 percent of all ice in the Arctic. By 2011, it accounted for 45 percent of all ice (Li et al. 2019, p. 2). Climate models indicate that the Arctic will continue to experience accelerated loss of sea ice (Zhang et al. 2010, as cited in in Meier et al. 2011, p. 9-3; Boé et al. 2009, p. 1; Wang and Overland 2009, pp. 1–3).

Additionally, landfast ice has also been decreasing. Landfast ice is important to the Dolphin and Union caribou as the Dolphin and Union strait is a narrow passage that the DPS uses for its migration corridors. Over the 10-year intervals starting in 1976, the maximum extent of landfast ice throughout the Arctic was: 2.1×10^6 km^2 (1976–1985), 1.9×10^6 km^2 (1986–1995), 1.74×10^6 km^2 (1996–2005), and 1.66×10^6 km^2 (2006–2018) (Li et al. 2019, p. 5).

A decrease in sea ice has continued to occur with trends accelerating since the year 2000 (COSEWIC 2015, p. 46). Sea-ice freezing now occurs 8–10 days later in the Dolphin and Union Strait and Coronation Gulf than in 1982 (Poole et al. 2010, pp. 414, 419, 425). Current and projected decreases in sea ice is negatively affecting and is likely to continue to negatively affect the crossings by the Dolphin and Union caribou, including the potential of breaking through the ice and drowning (Governments of the NWT and Nunavut 2018, pp. 41–42; Poole et al. 2010, p. 426). Because the Dolphin and Union strait is located at the southernmost point of the Canadian Arctic Archipelago, sea-ice loss in this region is higher than in other regions farther to the north (Pizzolato 2015, p. 28). Additionally, continued increase in shipping is expected through the

Northwest Passage (Governments of the NWT and Nunavut 2018, p. 42). The effects of increasing shipping will be especially pronounced for the Dolphin and Union caribou because the Dolphin and Union strait is the primary migration route for the caribou and is also a major shipping lane through the Northwest Passage (Engeler and Pelot 2013, p. 9).

As the sea-ice season is shortened and the ice thins, it is more easily broken by ice-breaking ships. A longer shipping season and an increase in ships in the Northwest Passage can fragment the Dolphin and Union caribou's summer and wintering ranges while delaying their migration. Due to the shorter sea-ice season, the number of ships travelling through the Northwest Passage has already increased from four per year in the 1980s to 20–30 per year in 2009–2013. The majority of these transits are icebreakers with trips primarily occurring in August through October, the period of time when the Dolphin and Union caribou are preparing for their southward migration to the mainland (Governments of the NWT and Nunavut 2018, p. 41). For example, in late October 2007, barge ships broke the ice every 12 hours for a few days in the Cambridge Bay to keep a channel open. This channel prevented the caribou from crossing during this time (Poole et al. 2010, p. 426). As stated above, sea-ice freezing in the fall now forms 8–10 days later than it did in 1982. Using RCP models 4.5 and 8.5, the annual time period where the Arctic is ice-free is projected to increase over the course of the 21st century (Governments of the NWT and Nunavut 2018, p. 43; Poole et al. 2010, p. 425). Given the increases in periods of ice-free months, it is reasonable to conclude that shipping traffic through the strait will increase over the course of the 21st century. Therefore, the breaking up of sea ice due to continued increases in shipping traffic, combined with projected sea-ice loss due to climate change will have a significant negative impact on the species now and into the future (Governments of the NWT and Nunavut 2018, pp. 41–44; Leclerc and Boulanger 2018, pp. 39-40; Johnson *et al.* 2017, p. 102.).

Given the Dolphin and Union caribou's current population, it is unlikely that Victoria Island will be able to support the subpopulation if connection to wintering grounds in the mainland is lost (Johnson *et al.* 2017, p. 102*;* Leclerc and Boulanger 2018, p. 39).

Summary of Climate Change

Climate change is negatively affecting and likely to continue to negatively affect the Dolphin and Union caribou in a number of ways. The most significant impact of climate change on the caribou is the timing of the formation of sea ice. As part of their life cycle, Dolphin and Union caribou migrate between calving ground on Victoria Island and wintering ground on the mainland (Nishi and Gunn 2004, as cited in COSEWIC 2004, p. 35). However, sea-ice formation has been delayed with caribou having to wait for a longer period of time before they can cross between Victoria Island and the mainland (Poole et al. 2010, p. 414; Gunn 2003, as cited in COSEWIC 2004, p. 35). In addition to a delay in sea-ice formation, the sea ice that forms tends to be thinner, increasing the likelihood of ice breakup and drowning events (Poole et al. 2010, p. 426).

Overall, the Dolphin and Union caribou subpopulation appears to continue to decline (Leclerc and Boulanger 2018, p. 36; Gunn et al. 2000, pp. 42–43).The delay and loss in the formation of sea ice can impact the Dolphin and Union caribou's ability to migrate between the mainland and Victoria Island thereby increasing the likelihood of mass mortality event as a result of drowning and starvation due to insufficient food resources on Victoria Island during the winter months. Therefore, given the projected impacts of sea-ice loss in the Dolphin and Union strait, we conclude that these effects have had a negative impact on the Dolphin and Union caribou.

Parasitic Harassment by Botflies

Caribou serve as host to two oestrid species: warble flies (*Hypoderma tarandi*) and nose botflies (*Cephenemyia trompe*). In the Arctic region, few hosts are available for parasites; warble flies and nose botflies are particularly well adapted to survive in the Arctic climate using caribou

as their host. Although these oestrids are widespread throughout the summer range of most caribou herds, their populations are considerably smaller in the high Arctic as that is the latitudinal extreme of their range due to temperature, hours of daylight, and wind conditions (Gunn et al. 2011, pp. 12–14; Kutz et al. 2004, p. 114). However, some researchers have expressed concern that, should warming trends continue, the parasitic rate of development and/or infectivity timeframes could become altered, which may increase energy expenditure of Dolphin and Union caribou through harassment (Kutz et al. 2004, p. 114).

Warble Flies

Temperature and cloud cover are vital factors for harassment of caribou by warble flies as these two factors affect the flies' activity level (Weladji et al. 2003, p. 80; Nilssen 1997, p. 301). Warble flies are most active during warm, sunny days; warble fly activity increases with increasing temperature (Weladji et al. 2003, p. 80). Within the Arctic, the annual mean surface temperature has increased at a rate of 0.34 degrees Celsius (°C) (0.61 degrees Fahrenheit (°F)) per decade from 1982 to 2004 (Wang et al. 2012, p. 1). The duration of the melt season has increased by 10–17 days per decade, which is representative of these warmer temperatures (Comiso 2003, p. 3,498).

In Cambridge Bay, Victoria Island, the mean average daily temperature in the winter is between -36.2 and -29.8 °C (-33.2 and -21.6 ºF). In summer, the mean average daily temperature is between -6.8 and 10 °C (37.4 and 44.2 ºF) (Dumund and Lee 2013, p. 330). Average annual temperatures may increase by 3–6 ºC by 2080 (Meier et al. 2011, pp. 9-17–9-18; Olsen et al. 2011, p. 112; Dunkley-Jones et al. 2010, p. 2,411). Based on these anticipated temperatures, we calculated the expected temperatures if the temperature was to increase by 3 °C (scenario 1) and by 6 °C (scenario 2). The climate models used in this table used a previous set of scenarios known as the Special Report on Emissions Scenarios (SRES) to project the low-emissions scenario (SRES B1) and high-emissions scenario (SRES A2). More recently, a newer set of scenarios (i.e., RCPs) was prepared that included a wider range of future conditions and

emissions. SRES B1 is roughly comparable to RCP 4.5 and SRES A2 is similar to RCP 8.5 (Melillo et al. 2014, p. 821). These similarities between specific RCP and SRES scenarios make it possible to compare the results from different modeling efforts over time (Melillo et al. 2014, p. 821). See table, below.

TABLE—CAMBRIDGE BAY, VICTORIA ISLAND, NUNAVUT, CANADA: TEMPERATURE INCREASE SCENARIO UP TO 2080
(ADAPTED FROM ENVIRONMENT CANADA 2013, AS CITED IN DUMOND AND LEE 2013, P. 330).

Month	Mean Average Daily Temp.	Current Conditions		Scenario 1 (temperature increase by 3 °C)		Scenario 2 (temperature increase by 6 °C)	
December	Low	-36.2 °C	-33.2 °F	-33.2 °C	-26 °F	-30.2 °C	-20 °F
	High	-29.8 °C	-21.6 °F	-26.8 °C	-16.2 °F	-23.8 °C	-10.8 °F
July	Low	6.8 °C	44.2 °F	9.8 °C	49.6 °F	12.8 °C	55 °F
	High	10 °C	50.0 °F	13 °C	55.4 °F	16 °C	60.8 °F

The low-temperature threshold for warble fly activity is around 10 °C (50 °F) (Vistness et al. 2008, p. 1,312; Weladji et al. 2003, p. 81; Nilssen 1997, pp. 296, 300; Breyev 1956, 1961, as cited in Nilssen and Anderson 1995, p. 1,236). Before pupation, warble fly larvae can move at least 30 centimeters (12 inches) per day at 4 °C (39.2 °F). At 4 °C (39.2 °F), pupation did not occur, but larvae were observed to be alive (crawling) up to 47 days after exit from the host (Nilssen 1997, p. 298). The transition of warmer temperatures to areas of cooler air creates a barrier north of which pupation may not occur. Because parasitic fly harassment is low below 13 °C (55.4 °F), and no oestrid harassment occurs below 10 °C (50 °F), this temperature threshold is significant for caribou, particularly the Dolphin and Union caribou with respect to oestrid harassment. Under both scenarios, summer temperatures are projected to increase to a high of 13–16 °C where the Dolphin and Union caribou occur, which would result in an increase in warble fly harassment.

Infestations by both warble flies and botflies result in metabolic costs, such as behavioral responses (Witter et al. 2012, p. 292; Nilssen and Anderson 1995, p. 1,237). Caribou increase

and modify their movement when harassed by warble flies (Witter et al. 2012, p. 284). When warble flies are present, caribou spend a greater proportion of time avoiding insects, rather than resting or feeding (Witter et al. 2012, p. 292; Fauchald et al. 2007, p. 496). Avoidance behaviors include jumping, running, leg stomping, and, with respect to nose botflies, sudden nose dropping (Fauchald et al. 2007, p. 496; Colman et al. 2003, p. 15). Cows were observed temporarily disassociating themselves from their calves in an attempt to avoid flies (Thomas and Kiliaan 1990, p. 415). Additionally, reduced fitness may result in a reduction of available milk for calves in lactating females (Weladji et al. 2003, p. 84). The projected increase in temperature during the summertime will result in an increase in botfly activities, which will likely result in a reduction in fitness for the Dolphin and Union caribou.

Nose Botflies

Caribou experts consider the potential negative effects of nose botfly on caribou to be less than warble flies. While the types of effects are similar between the two species of flies, such as causing avoidance behavior in caribou, the magnitude of those effects are not as extreme for the nose botfly as that caused by the warble fly. This species enters the caribou through the caribou's nose and lives in the caribou's throat for part of its life cycle. The caribou exhibit distress from this species—they have been observed to duck their heads under water to avoid nose botflies (Witter et al. 2012, p. 284; Fauchald et al. 2007, p. 496). An increase in the temperature by more than 3 or 6 °C in July could increase harassment of nose botflies on the Dolphin and Union caribou, although the severity will not be as high as that caused by warble flies.

Summary of Parasitic Harassment

Currently, oestrids that use caribou as their hosts are at the latitudinal extreme of their range due to temperature, hours of daylight, and wind conditions (Vistness et al. 2008, p. 1,307). We note that a threat to the Dolphin and Union caribou and the caribou's response to that threat are not, in general, equally predictable or foreseeable. Oestrid flies could expand their range, and

they could possibly negatively affect the Dolphin and Union caribou if the temperature increases by 3 to 6 °C by 2080. The low-temperature threshold for warble fly activity has been determined to be around 10 °C (50 °F) (Vistness et al. 2008, p. 1,312; Weladji et al. 2003, p. 81; Nilssen 1997, pp. 296, 300; Breyev 1956, 1961, as cited in Nilssen and Anderson 1995, p. 1,236). However, a warmer climate is likely to increase the distribution and abundance of warble flies and will lead to greater impact on the Dolphin and Union caribou.

Conservation Measures: Legal Protection

Under the Act, we are required to evaluate whether the existing regulatory mechanisms are adequate. With respect to existing regulatory mechanisms, the Dolphin and Union caribou was listed as special concern under SARA in 2011 and the Government of the Northwest Territories Species at Risk Act (SARC 2013, p. v). "Special concern" means that the Northwest Territories (NWT) manage a species on the basis that it may become threatened if it is not managed effectively. Species listed as of special concern are not protected under prohibitions that apply to threatened and endangered species. For these species, conservation benefits are provided through a management plan that is prepared after the species is listed (S.C. Ch. 65). In 2017, COSEWIC recommended the herd be listed as endangered due to population decline within the past 20 years and continued persistence of threats related to climate change (COSEWIC 2017, p. x). However, as of 2022, the Dolphin and Union caribou has not yet been changed from a species of special concern to endangered under SARA.

The management plan for the Dolphin and Union caribou was published in 2018 (NWT 2018, entire; SARC 2013, p. 97). The management plan contains a list of recommended actions, including holding regular meetings between management agencies and local communities to make recommendation on the management of the Dolphin and Union caribou, monitoring changes in the Dolphin and Union caribou's population and habitat, and obtaining better harvest data (Governments of the NWT and Nunavut 2018, pp. 56–61). However, these recommendations are voluntary (Governments of the NWT and Nunavut 2018, p. 3). While the

management plan does not commit any parties to any actions, the management and hunting of the Dolphin and Union caribou is mutually agreed upon by the native people (Inuit and Inuvialuit) and the territorial governments (NWT and Nunavut). Species experts note that the jurisdictional structure of caribou management in Canada is complex (Festa-Bianchet et al. 2011, p. 422). Wildlife management in the territories is under a co-management structure and falls under the Land Claims Agreement of the different indigenous groups. Caribou conservation involves legislation at the Federal and Territorial levels, in addition to wildlife management boards (COSEWIC 2004, p. 61).

Hunting

Caribou are an integral element of human society in the high Arctic (Taylor 2005, as cited, in Maher et al. 2012, p. 78; Miller and Barry 2009, p. 176). Under SARA, exceptions to prohibitions enable indigenous peoples to exercise their harvesting rights (COSEWIC 2015, p. 52). The Dolphin and Union caribou is currently hunted by the Inuit and Inuvialuit for subsistence, and this subsistence hunting is managed by local governments and the communities. However, concerns about the sustainability of hunting exist due to the lack of accurate harvesting data, although mandatory reporting has recently been implemented for indigenous communities (Governments of the NWT and Nunavut 2021, p. 2; Governments of the NWT and Nunavut 2018, pp. 20, 67; Governments of Nunavut and the NWT 2011, p. 18). Caribou are protected by land claim agreements, and hunts are co-managed by boards such as the Nunavut Wildlife Management Board, the Government of Nunavut, Department of Environment (GN–DOE), and hunting associations (COSEWIC 2004, p. 61). The Wildlife Management Advisory Council for the Inuvialuit Settlement Region in the Northwest Territories, Nunavut Wildlife Management Board for the Nunavut Territory, the GN–DOE, and the Inuit and Inuvialuit native people all play a role in the regulation of hunting of the Dolphin and Union caribou population.

Although there are no harvest limitations of the Dolphin and Union caribou for indigenous communities, Inuit hunters who hunt caribou for subsistence have voluntarily placed

moratoriums on hunts in the past (Governments of the NWT and Nunavut 2018, pp. 20–21). Based on extrapolations of harvest between 1996 and 2001 of the communities of Kugluktuk, Cambridge Bay, Umingmaktok, and Bathurst Inlet, subsistence harvest of the "island" caribou (which may include individuals not from the Dolphin and Union herd) in Nunavut was estimated to be from 2,000 to 3,000 annually for those years (Schneidmiller 2011, p. 1). From 1988 to 1997, annual harvest of Dolphin and Union caribous by the community of Ulukhaktok varied between 178 and 509 per year (Governments of the NWT and Nunavut 2018, p. 20). Since then, local communities have tried to reduce the annual harvests of the caribou through the implementation of a quota system (Governments of the NWT and Nunavut 2021, in litt.). Data for 2010–2014 reveal a decline of annual harvest to 10–80 caribou per year (Governments of the NWT and Nunavut 2018, p. 20). In 2021, as a result of the decline of the herd in the past few years, harvest quota was reduced to 50 animals (Governments of the NWT and Nunavut 2021, in litt.). While the reporting of this data is voluntary, the reduction in annual harvest since the 1990s indicate that local communities have regulated hunting by its members as the Dolphin and Union caribou population has declined.

In contrast to indigenous communities, Canadian citizens and resident immigrants are limited to a specific number of caribou they can hunt per year. Non-subsistence hunting including sport-hunting by nonindigenous residents and nonresidents is managed through an annual quota system (Governments of the NWT and Nunavut 2018, pp. 68–69). In the NWT, Canadian citizens and residents are allowed to take up to two bulls per year during the hunting season (August 15 – November 15). Nonresident and non-Canadian citizens are allowed the same number but need to be accompanied by a guide. In Nunuvut, residents can hunt up to five caribou per year (Governments of the NWT and Nunavut 2018, pp. 68–69). Despite the availability of hunting tags, in the past several years, no tag-based sport-hunting of Dolphin and Union caribou has occurred in Nunavut (Governments of the NWT and Nunavut 2018, p. 69;

Leclerc 2017, pers. comm.; Governments of Nunavut and the NWT 2011, p. 18). Hunting is now currently restricted to indigenous hunters (Governments of the NWT and Nunavut 2021, in litt.).

In the NWT, the governments reported that 25 tags are available annually for outfitted sport-hunting on Dolphin and Union caribou, but no such hunts have occurred in more than 20 years (Governments of NWT and Nunavut 2011, p. 10). At a more local scale, committees and trapper associations are involved in monitoring caribou. In 2007, nonbinding management recommendations were made to maintain a balanced harvest for subsistence (i.e., harvest different age classes and sexes of animals depending on the season and avoid shooting pregnant cows during the spring) (Dumund 2007, p. 44).

With respect to imports into the United States, as noted above, no tag-based non-subsistence hunting (sport-hunting) has occurred in Nunavut or NWT in recent years, and no trade data indicates that Dolphin and Union caribou are hunted and subsequently imported into the United States. This caribou entity is not listed in the Appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (*https://www.cites.org*; also see **Conservation Status of the Dolphin and Union Caribou**). CITES is an international agreement between governments with the purpose of ensuring that international commercial and noncommercial trade in wild animals and plants does not threaten their survival. CITES entered into force in 1975 and is an international treaty among 184 parties, including Canada and the United States. A review of the Service's Law Enforcement Management Information System (LEMIS) database indicated that caribou are not currently tracked by subspecies (LEMIS contains information on caribou at the species level), so we do not currently have data on the import of the Dolphin and Union caribou.

Hunting has not been implicated as a current threat to Dolphin and Union caribou. While unsustainable hunting may have contributed to a historical decline in the Dolphin and Union caribou, currently subsistence hunting is managed, and sport hunting is not taking place. (Dumond and Lee 2013, p. 329; SARC 2013, p. ix; Dumund 2012, unpaginated). The Dolphin

and Union caribou is being monitored closely by the Government of Nunavut, the Government of the Northwest Territories, and the Government of Canada. In summary, hunting may have played a role in the decline of the Dolphin and Union caribou in the past; however, management of the Dolphin and Union caribou has reduced the impact of hunting.

Protected Areas

The southwestern portion of the Dolphin and Union caribou range lies within the boundaries of Tuktut Nogait National Park (COSEWIC 2017, p. 4). While protected, this area constitutes a small portion of the DPS's overall range. On the other hand, the calving ground for the Dolphin and Union caribou on Victoria Island is not protected. Studies are currently under way to define a calving strategy and determine suitable habitat (Leclerc and Boulanger 2018, pp. 37-38). Caribou biologists indicate that areas that are suitable for calving but are currently unused should be anticipated and managed for potential future use (Nagy 2011, p. 35). The best available information suggests that current protected areas are well managed.

Shipping, Exploration, and Developmental Activities

The Northwest Passage, which includes the Dolphin and Union Strait, is likely to become more navigable to large ships in the near future due to decreased ice in the passage, and thus could be exposed to increased exploration activities. Ships traveling through the Northwest Passage could be routed through the Dolphin and Union Strait as temperatures become substantially warmer. In recent years, the strait has been ice free for 2 months during the summer, leading to increased maritime traffic with heavy ship traffic concentrating around the strait used by the Dolphin and Union caribou (Leclerc 2017, pers. comm.; Pizzolato et al. 2016, pp. 12,148–12,149). Given that ice levels in the 2010–2012 periods have been the lowest since 1968, it is very likely that shipping traffic through the strait will increase (Howell et al. 2013, as cited in Pizzolato et al. 2016, p. 12,152). Currently, traffic to the Beaufort Sea is the second highest in the Northwest Passage after the Hudson Bay (Pizzolato et al. 2016, p. 12,149; SARC 2013, p. 94). Shipping traffic through the strait increases in years where multiyear-ice levels,

which present significant impediment to ship traffic, are low (Pizzolato et al. 2016, p. 12,152). In the Victoria Strait region (located at the opposite end of the channel to the Dolphin and Union strait), shipping activity tripled during the 2006–2013 period (Pizzolato et al. 2016, p. 12,152). Shipping traffic negatively affects the migration of the Dolphin and Union caribou by causing ice breakup during the winter (SARC 2013, p. 47).

If the warming trend continues in this region as climate models indicate, conditions for offshore oil and gas exploration and production will likely improve, increasing the likelihood of shipping traffic (Pizzolato et al. 2016, p. 12,152; Barber et al. 2008, p. 17). The potential increase in mining and shipping traffic in the Dolphin and Union Strait could have demographic and ecological consequences for the Dolphin and Union caribou. A larger number of Dolphin and Union caribou on the mainland have been sighted with thicker coats of fur, suggesting that more of them are falling through the ice (Poole et al. 2010, p. 416). While increasing shipping traffic will lead to the breakup of the ice, some Inuit have indicated ships run through the straits during the summer months, which is outside of the primary migration months (SARC 2013, p. 47). However, the reduction in multiyear ice in the strait over time will result in greater shipping traffic even during the winter (Pizzolato et al. 2016, p. 12,152; SARC 2013, p. 94).

Compounding the increasing trend of shipping traffic is a complicated regulatory environment. Shipping traffic through the Artic is governed by a complex set of international agreements, national regulations, and territorial laws that affects different types of shipping (Porta et al. 2017, p. 66). At the international scale, the basic legal framework of shipping is organized under the United Nations Convention on the Law of the Sea (UNCLOS) which identify maritime zones and the rights and obligations states have within that zone (Porta et al. 2017, p. 69). At the national scale, Canadian shipping is regulated through the Arctic Waters Pollution Prevention Act of 1969 and the Arctic Shipping Pollution Prevention Regulation of 1978 (Grove 2017, pp. 65, 68). These regulations sought to balance the commercial interest of shipping companies and the potential effects of shipping on local indigenous communities and

the environment (Porta et al. 2017, p. 77). While the preamble to the Arctic Waters Pollution Prevention Act underscores Canada's commitment to Arctic development to occurs in lockstep with environmental stewardship and protection, exploitation of natural resources of the Canadian Arctic is occurring at greater scale than in the past with larger and more frequent shipping vessels travelling through the area (Porta et al. 2017, p. 77). Furthermore, current shipping routes pass through areas that have been considered to be environmentally sensitive areas (Porta et al. 2017, p. 78).

In an attempt to better coordinate these different regulations and protect environmentally sensitive areas, Canada began to implement the Northern Marine Transportation Corridors (NMTC) Initiative in 2017. This initiative involves multiple governing agencies including the Canadian Coast Guard, Transport Canada and the Canadian Hydrographical Service. The initiative sought to limit the ecological impact of shipping by identifying routes where service levels and supporting infrastructure are available at the highest level. One of the routes identified would pass through the Dolphin and Union strait. While local communities and civil society has expressed general support for the initiative, concerns remain regarding the integration and creation of protection for environmentally and culturally sensitive areas (Porta et al. 2017, p. 67). This suggest that more efforts and coordination need to take place between governing agencies, the shipping industry, and local communities to better manage and mitigate the effects of shipping on the environment. Overall, while Canada has undertaken efforts to better manage environmentally sensitive areas, in light of increasing shipping traffic as a result of loss of sea ice, more coordination will likely be needed to mitigate the effects of shipping on the local ecosystem.

Stochastic (Random) Events and Processes

Species endemic to small regions, or known from few, widely dispersed locations, are inherently more vulnerable to extinction than widespread species because of the higher risks from localized stochastic (random) events and processes, such as industrial spills and drought.

Those species face an increased likelihood of stochastic extinction due to changes in demography, the environment, genetics, or other factors, in a process described as an extinction vortex (a mutual reinforcement that occurs among biotic and abiotic processes that drives population size downward to extinction) (Courtois et al. 2003, pp. 394, 402). The negative impacts associated with vulnerability to random demographic fluctuations or natural catastrophes can be further magnified by synergistic interactions with other threats.

The Dolphin and Union caribou is known from a single geographic population that migrates between Victoria Island and the Canadian mainland (SARC 2013, p. xiv; Governments of NWT and Nunavut 2011, p. 2; Poole et al. 2009, p. 415). As a result, the Dolphin and Union caribou is vulnerable to stochastic processes and is highly likely to be negatively affected by these processes. Year-to-year variation in the timing of sea-ice formation, shipping traffic, and usage of icebreakers, in combination with other threats, could impact the migration of the Dolphin and Union caribou (Poole et al. 2010, pp. 414, 419, 425; Sharma et al. 2009, p. 2,559). Therefore, it is likely that stochastic processes have negative impacts on the species in combination with other factors such as sea-ice loss and shipping. Given the recent, significant decline in the Dolphin and Union caribou, the effects of stochastic events on the herd will be magnified resulting in greater vulnerability.

Synergistic Interactions Between Threat Factors

We have evaluated the individual threats to the Dolphin and Union caribou throughout its range. The primary threat affecting the Dolphin and Union caribou is the loss of sea ice due to climate change and increased shipping through the straits. Other factors, though not as severe as loss of sea ice and shipping, can become threats in the future due to the cumulative effects they will have on the Dolphin and Union caribou. For the Dolphin and Union caribou DPS, warble fly and nose botfly harassment, disease, and predation are threats that, synergistically, could have an impact on the Dolphin and Union caribou.

As discussed above in this document, the Dolphin and Union caribou population continues to decline from its recent peak in 1997 (Dumond and Lee 2013, p. 334). While the exact cause of the decline is not known, a number of factors acting synergistically can put additional pressure on the population. Botfly harassment has the potential to increase if surface temperature increases by more than 3–6 °C (Dumund and Lee 2013, p. 330). One recent climate-projection model points toward an increase in botfly activity, which will increase the energy expenditure of caribou (Witter et al. 2012, p. 284). Although these factors individually do not amount to a significant threat to the Dolphin and Union caribou, acting synergistically with major threats of sea-ice loss and shipping, they can have a detrimental impact.

Summary of Comments and Recommendations

In our August 31, 2021, proposed rule (86 FR 48619), we requested that all interested parties submit written comments on the proposal by November 1, 2021. We also contacted appropriate Federal agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposed rule. We did not receive any requests for a public hearing. All substantive information provided during the comment period either has been incorporated directly into the final rule or is addressed below.

Peer Reviewer Comments

In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we sought the expert opinions of five appropriate specialists regarding the species report. The peer reviewers have expertise that includes familiarity with Dolphin and Union caribou and its habitat, biological needs, and threats. We received five responses, which informed the species report and proposed rule. The purpose of peer review is to ensure that our listing determination is based on scientifically sound data, conclusions, and analyses. The comments we received helped inform the status of the DPS.

Peer reviewer comments and expert opinions were incorporated into the species report (USFWS 2022, entire).

Public Comments

We received 12 public comments in response to the proposed rule. We reviewed all comments we received during the public comment period for substantive issues and new information regarding the proposed rule. Two commenters provided substantive comments or new information concerning the proposed listing and 4(d) rule for Dolphin and Union caribou. Below, we provide a summary of the two substantive issues raised in the public comments we received. Comments outside the scope of the proposed rule, and those without supporting information, did not warrant an explicit response and, thus, are not presented here. Similar comments have been consolidated.

(1) The Governments of Nunavut and the Northwest Territories provided additional information on the hunting program currently implemented in Canada. Specifically, the comment identified current harvesting quotas and types of individuals who are allowed to hunt.

Response: We have incorporated the new information on hunting quotas for the Dolphin and Union caribou in Canada into this rule and the species report.

(2) Two comments, one from the Governments of Nunavut and the Northwest Territories, provided updated information resulting from surveys conducted in 2018 and 2020. As noted above, these new surveys identified significant decline in the herd after 2015.

Response: The new information presented indicated that the herd is in more serious decline than we were aware of when we proposed to list the Dolphin and Union caribou as a threatened DPS. The decline is due to a combination of threats mentioned in this rule, including the effects of climate change on sea ice and icing events, shipping traffic through the straits, and parasites. After reviewing the new information and consulting with species experts in Canada, we conclude that the DPS is in danger of extinction now. As such, we are finalizing the listing of this DPS as endangered under the Act.

Determination of Dolphin and Union Caribou Status

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of "endangered species" or "threatened species." The Act defines an "endangered species" as a species that is in danger of extinction throughout all or a significant portion of its range and a "threatened species" as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of "endangered species" or "threatened species" because of any of the following 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. For a more detailed discussion on the factors considered when determining whether a species meets the definition of "endangered species" or "threatened species" and our analysis on how we determine the foreseeable future in making these decisions, please see **Regulatory and Analytical Framework**, above.

Status Throughout All of Its Range

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats to the Dolphin and Union caribou. In section 3(6), the Act defines an "endangered species" as any species that is in danger of extinction throughout all or a significant portion of its range and in section 3(20), defines a "threatened species" as any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The best available information indicates that the Dolphin and Union caribou has experienced a steep decline (Leclerc and Boulanger 2018, p. 36). A number of threats including sea ice loss, icing events, and parasitic harassment, acting synergistically likely played a role in reducing the population. We have concluded that the

decline was primarily as a result of loss of sea ice due to climate change and an increase in shipping traffic (Factor A). Other threats, including parasitism (Factor C), predation (Factor C), and hunting (Factor B), have a limited or unknown impact at this time, but could become more serious threats in the future.

Although the herd has changed its migration patterns and its resource use in the past, access to the wintering ground on the mainland played an important role in the historical recovery of the species (Leclerc and Boulanger 2018, p. 37; Nishi and Gunn 2004, as cited in COSEWIC 2004, p. 35). Current trends indicate sea-ice loss in the Dolphin and Union caribou's range will continue through the end of the 21st century (Meier et al. 2011, pp. 9-2–9-3; Wang and Overland 2009, p. L07502; Boé et al. 2009, p. 1). While crossings are still taking place suggesting that current sea-ice thickness is sufficient for crossing (Governments of the NWT and Nunavut 2018, p. 30), the continued decline in the DPS population suggests that other stressors are having a larger effect in negatively affecting the Dolphin and Union caribou's current overall resilience.

One such factor in addition to sea-ice loss from climate change is the increase in shipping traffic through the Dolphin and Union caribou's habitat, which delays the formation of sea ice. Sea ice between Victoria Island and the mainland now forms 8–10 days later than it did in 1982, a trend that will continue to accelerate (Poole et al. 2010, p. 414). Additionally, because the Dolphin and Union strait occurs at the southernmost point of the Northwest Passage, shipping traffic is more concentrated in this region than in other portions of the Canadian Archipelago (Pizzolato et al. 2016, pp. 12,148–12,149). The continued increase in shipping traffic combined with projected ice loss in this region will have a significant effect on the Dolphin and Union caribou by delaying or preventing the migration to wintering grounds on the mainland (Poole et al. 2010, p. 414). Additionally, the breaking up of the sea ice can result in caribous falling through the thinner ice and increases the likelihood of mass drowning events.

Although the Dolphin and Union caribou was able to adapt in the past after the caribou ceased migration to the mainland during the early 1900s due to introduction of firearms (USFWS 2021, pp. 9-10), the trend since 1997 suggests a steady decline. Furthermore, given the decline in the DPS population, it is unlikely that Victoria Island will be able to support the Dolphin and Union caribou (Leclerc and Boulanger 2018, p. 39). Additionally, with only one extant population, the Dolphin and Union caribou possess very limited redundancy making it highly susceptible to stochastic events. The Dolphin and Union caribou representation is also limited as little to no genetic exchange occurs with adjacent caribou subspecies. As noted in *Significance*, above, while genetic outflow occurs from the Dolphin and Union caribou herd into other barren-ground caribou subpopulations on the mainland, very little genetic inflow occurs from the other barren-ground caribou subpopulations. Overall, given the decline in the population and its restricted range and population, we assessed the Dolphin and Union caribou to currently possess low resiliency, redundancy, and representation.

In addition to the potential loss of connectivity between Victoria Island and the mainland, the Dolphin and Union caribou also experience impacts from other threats. The impacts of these other threats, however, are more uncertain. Insect harassment from warble flies increases the energy expenditure of affected animals (Scheer 2004, pp. 10–11). With regard to disease, although local communities have identified affected individuals, the impact on the overall subpopulation is unknown (SARC 201, p. 80). Predation could have an impact on the Dolphin and Union caribou. Earlier reports suggest that predation does not represent a major threat, but lingering concerns remain (COSEWIC 2017, p. 27; Gunn 2005, pp. 10–11, 39–41). Lastly, while unregulated hunting played an important role in the historical decline of the Dolphin and Union caribou, current management efforts in place regulate hunting, and sport hunting is not currently taking place. However, the DPS continues to decline (Dumond and Lee 2013, p. 329; SARC 2013, p. ix; Dumond 2012, unpaginated). As noted elsewhere, the Dolphin and Union caribou has consistently declined within the past 20 years to around 3,800 individuals from 34,000

individuals, and the resiliency of the DPS has been significantly compromised, affecting its ability to withstand stochastic events (Campbell et al. 2021, p. 2). Furthermore, with only one extant population, the Dolphin and Union caribou has very limited redundancy and representation.

In summary, the Dolphin and Union caribou has experienced significant population change over the past century. The Dolphin and Union caribou experienced a significant decline in the early 20th century due to the introduction of firearms and excessive hunting (COSEWIC 2004, p. 41; Gunn et al. 2011, p. 37; Manning 1960, pp. 9–10). The population rebounded in the latter half of the 20th century reaching its maximum size in 1997. Since then, however, the single population of the Dolphin and Union caribou has declined once more. Surveys conducted in 2007 revealed a modest decline of the species (Dumond and Lee 2013, p. 334). A survey in 2015 revealed that the decline continues (Governments of the NWT and Nunavut 2018, p. 36; Leclerc and Boulanger 2018, p. 36). Additionally, recent survey data in 2018 and 2020 documented continued, major decline from approximately 18,000 individuals in 2015 to about 3,800 individuals in 2020 (Campbell et al. 2021, p. 2). We find that a number of threats, including primarily sea-ice loss due to climate change and shipping, and to a lesser extent insect harassment, predation, and hunting, acting in tandem and synergistically, has negatively impacted the species to such a degree that is in danger of extinction.

Given the new information regarding the continued decline and current population size of the species, we have reevaluated the status of the species. In the proposed rule, we concluded that continuation of the current trends would likely result in the species becoming in danger of extinction within the foreseeable future. We now find that a number of threats, including primarily sea-ice loss due to climate change and shipping, and to a lesser extent insect harassment, predation, and hunting, acting in tandem and synergistically, has negatively impacted the species to such a degree that it is already in danger of extinction, even in the absence of future intensification of the threats.

Therefore, after evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we conclude that the Dolphin and Union caribou is currently in danger of extinction throughout all of its range as a result of the ongoing and projected decline caused by the increase in threats described above that has already occurred.

Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. We have determined that the Dolphin and Union caribou is in danger of extinction throughout all of its range and accordingly did not undertake an analysis of any significant portion of its range. Because the Dolphin and Union caribou warrants listing as endangered throughout all of its range, our determination is consistent with the decision in *Center for Biological Diversity* v. *Everson*, 2020 WL 437289 (D.D.C. Jan. 28, 2020), in which the court vacated the aspect of the Final Policy on Interpretation of the Phrase "Significant Portion of Its Range" in the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species" (79 FR 37578, July 1, 2014) that provided the Service does not undertake an analysis of significant portions of a species' range if the species warrants listing as threatened throughout all of its range.

Determination of Status

Our review of the best available scientific and commercial information indicates that the Dolphin and Union caribou DPS meets the definition of an endangered species. Therefore, we are listing the Dolphin and Union caribou DPS as an endangered species in accordance with sections 3(6) and 4(a)(1) of the Act.

Available Conservation Measures

The purposes of the Act are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as

may be appropriate to achieve the purposes of the treaties and conventions set forth in the Act. Under the Act there are a number of tools available to advance the conservation of species listed as endangered or threatened species under the Act. As explained further below, these conservation measures include: (1) recognition, (2) recovery actions, (3) requirements for Federal protection, (4) financial assistance for conservation programs, (5) prohibitions against certain activities.

Recognition through listing results in public awareness, as well as in conservation by Federal, State, Tribal, and local agencies, foreign governments, private organizations, and individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species.

Our regulations at 50 CFR part 402 implement the interagency cooperation provisions found under section 7 of the Act. Under section 7(a)(1) of the Act, Federal agencies are to use, in consultation with and with the assistance of the Service, their authorities in furtherance of the purposes of the Act. Section 7(a)(2) of the Act, as amended, requires Federal agencies to ensure, in consultation with the Service, that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of a listed species or result in destruction or adverse modification of its critical habitat.

A Federal "action" that is subject to the consultation provisions of section 7(a)(2) is defined in our implementing regulations at 50 CFR 402.02 as all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. With respect to the Dolphin and Union caribou, actions that may require consultation under section 7(a)(2) of the Act include incidental take of the caribou on the high seas. Additionally, no critical habitat will be designated for this species because, under 50 CFR 424.12(g), we will not designate critical habitat within foreign countries or in other areas outside of the jurisdiction of the United States.

Section 8(a) of the Act (16 U.S.C. 1537(a)) authorizes the provision of limited financial assistance for the development and management of programs that the Secretary of the Interior determines to be necessary or useful for the conservation of endangered or threatened species in foreign countries. Sections 8(b) and 8(c) of the Act (16 U.S.C. 1537(b) and (c)) authorize the Secretary to encourage conservation programs for foreign listed species, and to provide assistance for such programs, in the form of personnel and the training of personnel.

The Act puts in place prohibitions against certain actions with listed species. The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. The prohibitions of section 9(a)(1) of the Act, codified at 50 CFR 17.21, make it illegal for any person subject to the jurisdiction of the United States to import; export; deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any species listed as an endangered species. In addition, it is unlawful to take (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these) endangered wildlife within the United States or on the high seas. It is also illegal to possess, sell, deliver, carry, transport, or ship, by any means whatsoever any such wildlife that has been taken illegally. Under section 9(g) of the Act it is also unlawful for any person subject to the jurisdiction of the United States to attempt to commit, solicit another to commit, or cause to be committed, any of these prohibited acts. Certain exceptions apply to employees of the Service, the National Marine Fisheries Service, other Federal land management agencies, and State conservation agencies

We may issue permits to carry out otherwise prohibited activities involving endangered wildlife under certain circumstances. Regulations governing permits for endangered wildlife are codified at 50 CFR 17.22, and general Service permitting regulations are codified at 50 CFR part 13. With regard to endangered wildlife, a permit may be issued for the following purposes: For scientific purposes, to enhance the propagation or survival of the species, and for incidental take

in connection with otherwise lawful activities. The Service may also register persons subject to the jurisdiction of the United States through its captive-bred-wildlife (CBW) program if certain established requirements are met under the CBW regulations (50 CFR 17.21(g)). Through a CBW registration, the Service may allow a registrant to conduct certain otherwise prohibited activities under certain circumstances to enhance the propagation or survival of the affected species: take; export or re-import; deliver, receive, carry, transport or ship in interstate or foreign commerce, in the course of a commercial activity; or sell or offer for sale in interstate or foreign commerce. A CBW registration may authorize interstate purchase and sale only between entities that both hold a registration for the taxon concerned. The CBW program is available for species having a natural geographic distribution not including any part of the United States and other species that the Director has determined to be eligible by regulation. The individual specimens must have been born in captivity in the United States. Sections 9 and 10 of the Act also contain certain statutory exemptions from the prohibitions for certain qualifying specimens and activities.

It is our policy, as published in the *Federal Register* on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a final listing on proposed and ongoing activities within the range of a listed species. Based on the best available information, the following actions are unlikely to result in a violation of section 9, if these activities are carried out in accordance with existing regulations and permit requirements; this list is not comprehensive:

(1) Take of the Dolphin and Union caribou in its native range in Canada; and

(2) Trade in the Dolphin and Union caribou and its products that is both outside the United States and conducted by persons not subject to U.S. jurisdiction.

Based on the best available information, the following activities may potentially result in a violation of section 9 of the Act if they are not authorized in accordance with permits or exemptions under the Act; this list is not comprehensive:

(1) Import into the United States of the Dolphin and Union caribou and its products, without obtaining permits required under section 10 of the Act.

(2) Export of the Dolphin and Union caribou and its products from the United States without obtaining permits required under section 10 of the Act.

(3) Take of the Dolphin and Union caribou within the United States or on the high seas, or possess, sell, deliver, carry, transport, or ship, by any means whatsoever any such wildlife and its products that has been taken illegally.

(4) Deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce the Dolphin and Union caribou and its products.

(5) Attempt to commit, solicit another to commit, or cause to be committed, any of these prohibited acts with Dolphin and Union caribou and its products.

Separate from its listing as an endangered species, applicable wildlife import/export requirements established under section 9(d)–(f) of the Act, the Lacey Act Amendments of 1981 (16 U.S.C. 3371, et seq.), and 50 CFR part 14 must also be met for Dolphin and Union caribou imports and exports. Questions regarding whether specific activities would constitute a violation of section 9 of the Act should be sent to the Division of Management Authority of the Service's International Affairs Program (managementauthority@fws.gov; 703–358–2104).

Required Determinations

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

We have determined that we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (42 U.S.C. 4321 et seq.) in connection with listing a

species under the Act. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244).

References Cited

A complete list of references cited is available on *https://www.regulations.gov* under Docket Number FWS-HQ-ES-2019-0014.

Authority

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

Authors

The primary authors of this rule are the staff members of the Branch of Delisting and Foreign Species, Ecological Services, U.S. Fish and Wildlife Service.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

Regulation Promulgation

Accordingly, we hereby amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

AUTHORITY: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

2. Amend § 17.11 in paragraph (h) by adding an entry for "Caribou, barren-ground [Dolphin and Union caribou DPS]" in alphabetical order under Mammals to the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
MAMMALS				
* * * * * * *				
Caribou, barren-ground [Dolphin and Union caribou DPS]	*Rangifer tarandus groenlandicus*	Canada (Victoria Island, Coronation Gulf, Dolphin and Union Strait, Dease Strait, and Canadian Mainland in Nunavut and Northwest Territories)	E	87 FR [Insert *Federal Register* page where the document begins], [Insert date of publication in the *Federal Register*].
* * * * * * *				

Martha Williams,
Director,
U.S. Fish and Wildlife Service.

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