

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Thirty-first meeting of the Animals Committee
Online, 31 May, 1, 4, 21 and 22 June 2021

Interpretation and implementation of the Convention

Species trade and conservation

Periodic review of species included in Appendices I and II

PERIODIC REVIEW OF *PHOEBASTRIA ALBATRUS*

1. This document has been prepared by the United States of America.*
2. This species was listed under CITES Appendix I in 1975 as *Phoebastria albatrus*, the Short-tailed Albatross.
3. The United States has prepared a Periodic Review of *Phoebastria albatrus*, the Short-tailed Albatross. The United States agreed to undertake this periodic review at the 29th meeting of the Animals Committee (AC29; Geneva 2017) and consulted all range states in the review process. The United States of America, Canada, China, Japan, and Mexico contributed information toward the review.
4. Our review of this Appendix I species indicates that a transfer to Appendix II would be appropriate because there is no known risk to the species from international trade. The Short-tailed Albatross in Japan has recovered from near extinction in the 1930s to an estimated total population of 5,856 individuals today. The Short-tailed Albatross is listed as vulnerable, and is subject to ongoing recovery and management actions, along with trade restrictions under CITES. A transfer of the species to Appendix II is not expected to stimulate increased trade demand.
5. The United States seeks the views of the Animals Committee on whether it would be appropriate to transfer *Phoebastria albatrus* from Appendix I to Appendix II.

* The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.

A. Proposal

To transfer *Phoebastria albatrus* from CITES Appendix I to CITES Appendix II, in accordance with provisions of Resolution Conf. 9.24 (Rev. CoP17), Annex 1.

B. Proponent

This periodic review was provided by the United States of America*:

C. Supporting statement

1. Taxonomy

1.1 Class: Aves

1.2 Order: Procellariiformes

1.3 Family: Diomedidae

1.4 Genus, species or subspecies,
including author and year: *Phoebastria albatrus* (Pallas, 1769)

Taxonomic Serial No. (TSN) 554377

DICKINSON, E.C. (ed.) (2003). The Howard and Moore Complete Checklist of the Birds of the World. Revised and enlarged 3rd Edition. 1039 pp. London (Christopher Helm).

1.5 Scientific synonyms: *Diomedea albatrus* (Pallas, 1769)

1.6 Common names: English: Short-tailed Albatross, Steller's Albatross, Black-footed Albatross
French: Albatros à queue courte, Albatros à pieds noirs, Albatros de Steller
Spanish: Albatros colicorto, Albatros patinegro, Albatros rabón, Albatros

1.7 Code numbers:

2. Overview

As part of the ongoing periodic review of the Appendices, the Animals Committee recommended that the status of the Short-tailed Albatross (*Phoebastria albatrus*) be evaluated. The species was selected for periodic review between CoP17 and CoP18 by the Animals Committee at AC29; Geneva 2017 in accordance with Resolution 14.8 (Rev. CoP17) on Periodic Review of the Appendices.

P. albatrus was listed on CITES Appendix I on 1 July 1975

Since *P. albatrus* was included in CITES Appendix I, exploitation from harvest has diminished. Populations, although significantly small compared to their historic status, are steadily increasing (see section 4). The primary threats *P. albatrus* faces consist of natural events such as habitat erosion, and volcanic activity, both on Torishima; and contaminants such as plastic ingestion. Of the primary threats, only habitat erosion is subject to ongoing management and recovery actions.

Resolution 9.24 resolves that, when considering proposals to amend Appendix I and II, species that are or may be affected by trade should be included in Appendix I if they meet at least one of the biological criteria listed in Appendix I. A species "is or may be affected by trade" if:

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- i) it is known to be in trade (using the definition of 'trade' in Article I of the Convention), and that trade has or may have a detrimental impact on the status of the species; or
- ii) it is suspected to be in trade, or there is demonstrable potential international demand for the species, that may be detrimental to its survival in the wild.

Commercial trade in the species has been minimal, consisting of only pre-convention specimens traded in 2004, with all other trade being scientific (see section 6 and 8). There is no trade demand for *P. albatrus*, and no evidence that international trade is or may be a threat to the survival of this species.

Therefore *P. albatrus* does not meet the criteria for inclusion on Appendix I. *P. albatrus* is eligible for transfer from Appendix I to Appendix II in accordance with Resolution 9.24 (Rev Cop17).

3. Species characteristics

3.1 Distribution

P. albatrus is found in the island chains south of Japan, the Aleutian islands of Alaska, the Hawaiian islands and along the western coast of Canada, the United States, and the Baja Peninsula of Mexico, ranging within the continental shelf and slope regions of the North Pacific Rim^[1]. *P. albatross* occurs in the west region of the North Pacific on Torishima in the Inzu Islands, Minami-kojima and Kitakojima in the Senkaku Islands, and recently Mukojima, Nakodojima, and Yomejima in the Ogasawara Islands south of Japan, with seldom sightings in the East China Sea^{[2][3]}. Distribution continues to north-eastern Japan and into the Kuril Islands, with seldom sightings in the Sea of Okhotsk, across the Kamchatka Peninsula of Russia, along the Aleutian Islands of Alaska, and into the Bering Sea. Recently, a new sighting was recorded in the eastern Chukchi Sea, that is considered to be the farthest northern distribution in history for *P. albatrus*^[4]. Distribution continues east into the Gulf of Alaska, and south along the North American west coast, into Baja California of Mexico, and as far south as the Northwestern Hawaiian Islands^{[3][5]}. Their southern distribution limit is unknown but presumed to be along the North Equatorial Current.

3.2 Habitat

Terrestrial habitats of *P. albatrus* are mainly located on Torishima, where colonial breeding and socialization occurs^[6]. *P. albatrus* nests on isolated, offshore, windblown islands, with limited human access. Historically, nesting was preferred on flat open landscapes with full grass vegetation (predominantly *Miscanthus sinensis* var. *condensatus*) for nesting, stabilizing the soil, protection from strong winds that carry volcanic ash, and providing safety for flight takeoffs and open landings^{[7][8]}. Currently, *P. albatrus* nests on gently sloping to near vertical cliffs due to soil erosion, with scarce vegetation (predominantly *Miscanthus sinensis* var. *condensatus* with *Chrysanthemum pacificum* as a composite)^{[8][9]}. Marine habitats of *P. albatrus* are located all along the North Pacific Ocean, with the species using the west North Pacific for foraging grounds, as well as the Bering Sea, and the Gulf of Alaska where upwelling and high biological activity occur^{[2][10]}. Southern and northeastern Japan is used during breeding, and the Aleutian Islands during immense molting.

3.3 Biological characteristics

P. albatrus is a colonial, monogamous annual breeding seabird that has a lifespan from 12-45 years old^[3]. Their monogamous bond is formed around 6 years of age, taking roughly 2 years to form, with breeding following shortly after^[7]. *P. albatrus* exhibits natal homing, with occasional dispersals to non-natal optimal breeding sites, and begins breeding in late October to late November on Torishima. During this time, around 25% of mating adults may not come back to the breeding colony until a year later^[1]. Breeding cycles last around 8 months, with the female laying a single egg to be incubated for 64-65 days^[3]. If the egg is destroyed during incubation, it is not replaced. Hatching occurs from late December to late January. Bi-parental partnership occurs during incubation and brooding (time between chicks hatch to when they can thermoregulate themselves). Parents alternate foraging trips that last from 2-3 weeks, with males foraging longer than females. Once the chick is able to thermoregulate, both parents will forage concurrently. The chick is fed stomach oil for the first few days and then a combination of stomach oil and regurgitated solid foods, such as flying fish eggs and squid^[7]. The following late May through late June fledgling occurs, and shortly after the parents will leave to their marine distributions until the next breeding season^[3]. Breeding times on Minami-kojima are currently unknown. Their nests are constructed from vegetation, volcanic ash, and sand that are built up in a cylinder-like shape with

a concave impression in the center reaching 2ft in diameter^[1]. *P. albatrus* breeds on Torishima from early October to late June^[3]. Post-breeding, some individuals readily migrate to the Aleutian Islands from June-August, while others migrate to north-eastern Japan and the Kuril Island, until late September they migrate to the Aleutian Islands^[10]. Males tend to readily migrate to the Aleutian Islands, while the females stay around the Kuril Islands. *P. albatrus* spends most of their time post-breeding around the Bering Sea canyons and Gulf of Alaska. Non-breeding, *P. albatrus* is found all along the continental shelf and slope regions of the west coast of North America, and along the North Pacific Rim.

3.4 Morphological characteristics

P. albatrus is a large-sized pelagic bird, reaching lengths from 33-37 inches, with long and narrow wings reaching a wingspan from 84-90 inches^[5]. A distinguishing characteristic that helps identify *P. albatrus* in adulthood is their white back, the only albatross with a white back in the North Pacific, and their golden-yellow head and neck^{[7][11]}. Plumage of adults is predominantly white near the center of the body, golden-yellow on the head and neck, and dark brown at the end points of the wings and tail. Their feet and legs are pastel blue. Plumage of juveniles is predominantly chocolate brown. Their feet and legs are flesh-colored. Adult plumage is reached around 8-10 years of age, and throughout maturity they gradually become whiter. Males and females are indistinguishable across age groups, and plumage stays the same seasonally.

3.5 Role of the species in its ecosystem

P. albatrus is a surface feeding piscivore that consumes secondary predators, such as squid, flying fish eggs, fish, shrimp, and other crustaceans^[12]. *P. albatrus* is an indicator species of large-scale changes in the eastern Bering Sea ecosystem, due to the relationship between its large distribution and response to areas of high biological activity at various temporal and geographical scales^[13].

4. Status and trends

4.1 Habitat trends

Historically, there were 15 known islands that *P. albatrus* used for breeding habitats^[3]. Torishima, Minami-kojima, Kitakojima, Mukojima, Nakodjima, Yomejima, Midway Atoll, and Kure Atoll are the only islands that *P. albatrus* currently inhabits^{[2][3]}. Habitat trends that Torishima has experienced consist of habitat degradation, destruction, and restoration. In 1902, 1939, and 2002 Torishima experienced volcanic eruptions, with 1902 and 1939 being the most catastrophic, destroying a large portion of the initial breeding habitats by burying nest sites and vegetation^[9]. After the 1939 eruption, Tsubamezaki has experienced scarce vegetation, with a composite grass (*Chrysanthemum pacificum*) replacing the partial loss of the original native grasses (*Miscanthus sinensis var. condensatus*), but the soils still show to be unstable^[7]. Unstable soils from the loss of vegetation has made *P. albatrus* more vulnerable to strong winds that distribute volcanic ash, which could be partially liable for the lower reproductive success of *P. albatrus* towards the end of the 1970s. From the 1960s to early 1970s, *P. albatrus* primarily inhabited the eastern sub colony at Tsubamezaki, where the grass (*Miscanthus sinensis var. condensatus*) was abundant, but as populations increased they inadvertently trampled the grass, leading to immense degradation of vegetation at the breeding habitats at Tsubamezaki^[3]. As this degradation occurred, *P. albatrus* migrated to the western sub colony at Hatsunezaki where vegetation was more plentiful. In effect to this migration, vegetation has been degraded as well in Hatsunezaki. In 1981, restoration attempts occurred at Tsubamezaki to stabilize loose volcanic soils by transplanting native grasses to nesting sites^[9]. Following restoration, breeding success was seen to improve. In 1987, Torishima experienced a severe landslide on the breeding habitats at Tsubamezaki, along with succeeding mud flows that significantly reduced the breeding success that year below 50%. In 1995, Torishima experienced a typhoon right before the breeding season of *P. albatrus*, that destroyed most of the vegetation at Tsubamezaki. Overall, the breeding success of *P. albatrus* is significantly lower during consequential typhoons. The distribution of *P. albatrus* coincides with their historic range, but their populations have decreased significantly^[7]. New marine habitat has in fact been acquired in the Chukchi Sea northward of the North Pacific Ocean, that has never before been inhabited by *P. albatrus* in recorded history^[4]. This northward shift in distribution is presumed to be from *P. albatrus* following changes in squid distribution, that is primarily caused by climatic and oceanic changes^{[4][10]}. *P. albatrus* has experienced marine habitat change caused by radiation released into the coastal waters from the Fukushima Daiichi Nuclear Power Plant^[2]. Significant levels of radiation were not detected in the diet of *P. albatrus*, leading to believe no long-term effects will occur.

4.2 Population size

The total population size of *P. albatrus* is estimated to be 5,856 individuals, following the breeding season from 2016-2017^[3]. Populations are steadily increasing at a yearly rate of 8.5%. The most recent estimate of the breeding population is from 2014 and is roughly 1,928 individuals^[10].

4.3 Population structure

There is no genetic information of *P. albatrus* prior to being overexploited and nearing extinction^[9]. It was presumed that genetic diversity was lost during the harvest overexploitation. As of recently, genetic studies have been conducted on *P. albatrus*, concluding that high levels of genetic diversity still remain regardless of the bottleneck effect they endured^[2]. This new evidence suggests that *P. albatrus* found on Torishima, and the Senkaku Islands originated from two separate historical populations, with the difference comparable to other Diomedidae sister species.

4.4 Population trends

P. albatrus was on the brink of extinction due to overexploitation from harvest from 1887-1933^[10]. Population records of *P. albatrus* prior to exploitation is unknown, but during exploitation roughly 5 million birds were harvested for their feathers^[7]. In 1949, *P. albatrus* was presumed extinct, due to their absence from all known historical breeding sites^[14]. In 1950, nesting pairs were seen to have returned to Torishima, totaling 10 birds, and in 1971 to Minami-kojima, totaling 12 birds. Information on historic population records is unknown on Minami-kojima. Ensuing 1954, populations steadily increased at a rate of 6-7% per year through 2008, with a mean breeding success of 53%, and mean adult survival of 96%. On Torishima from 2003-2009, 1,346 chicks fledged^[9]. During that time, their survival rates of juvenile and subadults were 94%, with a total population of subadults roughly 1,114 from 2008-2009. From 2013-2014, there were roughly 609 breeding pairs, representing a mature population of 1,624 individuals^[2]. There is no data recorded after 2002 for Minami-kojima^[9]. Assuming that Minami-kojima is experiencing the same population trends as Torishima, an estimate of subadult populations would be roughly 213 individuals from 2002-2009, and breeding adults roughly 293 individuals from 2013-2014. As of recently, 2013-2014, there have been four new records of active breeding sites found in the Ogasawara Islands, and in the Northwestern Hawaiian Islands. There is an estimation that roughly 11 adults inhabit these breeding sites. Overall, the global population of breeding individuals from 2008-2009 was roughly 2,572, and from 2013-2014 was roughly 1,928 breeding individuals^{[2][9]}.

4.5 Geographic trends

The 15 historic breeding islands *P. albatrus* inhabited consisted of Torishima in the Inzu Islands of Japan, Mukojima, Yomeshima, Nishinoshima, and Kitanoshima in the Ogasawara Islands of Japan, Minami-daitojima, Okino-daitojima, and Kita-daitojima in the Daito Islands of Japan, Minami-kojima, Uotsurijima, and Kobisho in the Senkaku Islands of Japan, Iwo Jima in the western Volcanic Islands (Kazan-Retto) of Japan; Agincourt and Pescadore Islands of Taiwan, and Midway Atoll of the Northwestern Hawaiian Islands^{[3][7][15]}. Due to decreased populations from overexploitation from harvest, the historic breeding islands were restricted to only Torishima in 1950, until 1971 when *P. albatrus* was observed inhabiting Minami-kojima, and the leeward Hawaiian Islands. In 2008, *P. albatrus* was reintroduced to Mukojima, and was later observed on Nakodojima in 2013, and on Yomejima in 2016. In 2010, *P. albatrus* was observed breeding at Midway Atoll, and attempting to breed at Kure Atoll, with Kure Atoll being a new geographic distribution in recorded history. The historic marine distribution of *P. albatrus* coincides with their current distribution, with new found presence northward in the Chukchi Sea of the Arctic Ocean and Kure Atoll of the Northwestern Hawaiian Islands^{[3][4]}.

5. Threats

5.1 Human induced

Historic exploitation of *P. albatrus* for their feathers is no longer a threat to the species, specifically there is no existing commercial harvest. Bycatch of the species from commercial fishing and contaminants do pose a threat to the species from human activity. Refer to the U.S. Fish and Wildlife Service's 2009 and 2014 5-year review for more information on the threats discussed below^{[2][9]}.

Commercial fishing bycatch

Since 1988, 14 *P. albatrus* mortalities related to commercial fisheries have been reported worldwide^{[2][9]}. In recent years, advancements have been made towards reducing the adverse effects commercial fisheries have on the bycatch of avian species. Although the current mortality rates reported on *P. albatrus* is under the rate of individuals that would cause management concerns, *P. albatrus* is still exposed to the threats of bycatch from commercial fisheries in the United States, Russia, and Japan. *P. albatrus*, like many other seabirds, will get hooked or snagged from longline fishing vessels, both pelagic and demersal, from attacking the baited hooks they deploy. When this happens, they can be dragged underwater and potentially drown. Between 1990 and 2004, incidental take rates decreased substantially when streamer lines were free to obtain. The incidental take of *P. albatrus* during that time decreased by roughly 70%.

Contaminants and Natural Threats (for these additional threats see Table 1)

5.2 Competition

The Black-footed Albatross nests on Torishima alongside *P. albatrus*, and has been seen extending their nesting sites into the nesting sites of *P. albatrus* in 1987, when their populations were increasing^[7]. Although populations of the Black-footed albatross were believed to be decreasing in 2007, they have still been reported competing over nesting sites with *P. albatrus*^{[1][9]}. The Laysan Albatross is believed to be in competition with *P. albatrus* over marine foraging areas along the southwestern coastline of North America. While this belief is hard to discredit, recent data from diet (stable isotope) and satellite telemetry suggest that the two species inhabit different marine habitats and exhibit important foraging niche differences, even though their distributions overlap in certain areas.

5.3 Predation

Shark predation has been recorded for other albatross species, preying on fledging chicks, but has yet to be recorded for *P. albatrus*^[6]. Crow predation has been recorded for *P. albatrus*, preying on chicks, but the species is not present on Torishima today. Rats and cats were introduced to Torishima during exploitation, with rats still present, whereas cats have not been observed since 1973. There is no information on the effects rats and cats have had on *P. albatrus*, but rats and cats have been observed preying on eggs and chicks of other sea birds.

5.4 Disease and parasites

Avian pox has been found in other species of Albatross chicks on Midway Atoll, but it is unknown if it infects *P. albatrus*^[6]. It's unknown if the disease affects the mortality of the Albatross species, but overall *P. albatrus* is susceptible to disease due to low numbers of breeding sites and population size. Historically, *P. albatrus* has been infested by parasites such as feather louses', bloodsucking ticks, and carnivorous beetles, but currently there is no evidence of parasites today. There was no evidence found that showed parasites having an impact on the mortality of *P. albatrus*.

6. Utilization and trade

6.1 National utilization

P. albatrus was harvested around 1885 by a Japanese entrepreneur named Tamaoki Han'emon, who exported down feathers of *P. albatrus* to the United States and Europe^[16]. His massive success was broadly reported, influencing other Japanese opportunists to harvest *P. albatrus*. The colonies of *P. albatrus* were exploited to near extinction between 1887-1933. *P. albatrus* was utilized mainly for their feathers by creating hats, quilts, pillows, and writing quills^[1]. Their bodies were used for rendering fat and being processed into fertilizer, along with their eggs being used for subsistence. Prior to overexploitation, evidence shows that *P. albatrus* was used for subsistence by the inhabitants of the Aleutian Islands, making a major contributor to the Aleut diet^[7]. Currently, there is no national utilization other than permitted use for recovery actions, education, and scientific purposes.

6.2 Legal trade

The CITES trade database reports legal trade totaling 157 imports and 6 exports during the period of 1975-2019^[17]. Legal trade consisted of 2 bodies, 3 carvings, 3 specimens, 1 unspecified, 150 bones,

and 4 skins. Imports were from the Soviet Union, Great Britain, United States, Switzerland, Japan, Canada, and New Zealand, and known exports were from Japan, Switzerland, United States, and introduction from the sea. These transactions were mainly for scientific purposes, with 1.2% being commercial. Sources were mainly pre-convention specimens, with 4.3% being specimens taken from the wild, and 0.6% being the marine environment not under jurisdiction of any State.

6.3 Parts and derivatives in trade

Parts and derivatives in trade consisted of the body, feathers, bones, specimens, skin, and carvings of *P. albatrus*^[17]. Major importers and exporters were both Canada and the United States, with a legal record of the US exporting 150 bones to Canada in 2010, and an illegal record of Canada exporting 632 bones to the United States in 2017, both for scientific purposes.

6.4 Illegal trade

There is one record of *P. albatrus* being illegally traded in 2017, with Canada exporting 632 bones for scientific purposes to the US^[17]. Specimens were confiscated or seized.

6.5 Actual or potential trade impacts

If live specimens of *P. albatrus* were being extensively traded, there would be potential adverse effects on the species populations. Since the species is slow to mature, has significantly low annual reproduction rates, and has small populations, the species would be more vulnerable to environmental change if live specimens were taken from their small populations.

7. Legal instruments

7.1 National

The conservation of *P. albatrus* is protected through national legislation under endangered-species, wildlife, and accompanying regulations. The following countries have legislation that restricts trade of the species, along with ongoing conservation measures: Canada, China, Japan, Mexico, Russia, and the USA. (see Table 2).

7.2 International

The following international legal instruments that protect *P. albatrus* are listed and defined below.

- Agreement on the Conservation of Albatrosses and Petrels - Annex 1 [14]- conserve *P. albatrus* by mitigating threats to their populations.
- Convention on International Trade of Endangered Species - Appendix I [17]- includes species threatened with extinction and prohibits utilization and trade, with strict exceptions.
- Convention on Migratory Species - Appendix I (as *Diomedea albatrus*) [18]- conserving and restoring *P. albatrus* and their habitats by mitigating threats to their migration and other survival factors, as well as prohibiting utilization, with strict exceptions.

8. Species management

8.1 Management measures

The species management of *P. albatrus* consists of national and international recovery and conservation plans. National plans have been created by Canada, Japan, and the USA. (see Table 3)

8.2 Population monitoring

The Short-tailed Albatross Recovery Plan (USFWS) 2008 program monitors the populations and habitats of *P. albatrus* on Torishima and the Senkaku Islands^[1]. The Tsubamezaki and Hatsunezaki breeding colonies on Torishima have been monitored annually since the early 1980s and are significant to understanding population trends and status. Monitoring of *P. albatrus* populations on Minami-kojima has been irregular due to limitations with accessibility. Aircraft-based telemetry studies may be a

feasible alternative. Annual monitoring of the translocated colony from Tsubamezaki to Hatsunezaki on Torishima has been conducted to observe nesting rate and fledging success.

8.3 Control measures

8.3.1 International

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) included *P. albatrus* in Appendix I^[12]. CITES regulates international trade of plant and animal species to prevent the species from becoming endangered or extinct, and guarantees trade is not harmful to the survival of wild populations^[6].

8.3.2 Domestic

The following are domestic control measures for *P. albatrus*: (China) Law of the People's Republic of China on the Protection of Wildlife^[19], (Russia) Protected under the Union of Soviet Socialist Republic, Convention Concerning the Conservation of Migratory Birds and Their Environment (USA-Russia) 1976 (as *Diomedea albatrus*)^[20], (USA) Migratory Bird Treaty Act of 1918^[21], and the Endangered Species Act (1973) - Endangered^[6] (see Table 2 & 3 for details).

8.4 Captive breeding and artificial propagation

The 2008 recovery plan for *P. albatrus* entails the translocation of breeding populations from the Tsubamezaki colony to the Hatsunezaki site on Torishima, and from Torishima to Mukojima^[1]. For both translocations, decoys of *P. albatrus* and recorded playbacks of breeding sounds were used to successfully establish populations at the new sites. In addition, the translocation from Torishima to Mukojima consisted of hand-reared chicks that were artificially raised and released at adulthood for a successful establishment.

8.5 Habitat conservation

The habitats of *P. albatrus* are conserved through national and international marine protected areas, national wildlife refuges, and as national monuments^[1]. The breeding habitats of *P. albatrus* such as Torishima, and the Ogasawara Islands have become designated national monuments, and the marine foraging habitats have become marine protected areas. (see Table 4)

8.6 Safeguards

P. albatrus is safeguarded under international, national, and state laws that prohibit takings of the species from the wild unless the purpose falls under the recovery of the species. There are no current quotas in place for this species^[17].

9. Information on similar species

Most of the Albatross species occur in the Southern hemisphere, with few residing in the Northern hemisphere^[7]. *P. albatrus* has the closest resemblance to the Wandering Albatross (*D. exulans*) and the Southern Royal Albatross (*D. epomophora*), due to all three exhibiting white backs exclusively from any other albatross species. Confusion with distinguishing between *D. exulans* and *D. epomophora*, with *P. albatrus* is unlikely due to the fact *P. albatrus* exists in the northern hemisphere, and the other two exist in the southern hemisphere. What distinguishes *P. albatrus* from the other North Pacific albatrosses, Laysan Albatross (*Phoebastria immutabilis*) and the Black-footed Albatross (*Phoebastria nigripes*), and throughout all age groups, is their large stout bill that is 5-6 in long with external tubular nostrils and a prominent hook at the end, the bill being pink with a black base and blue tip^[22]. Adult *P. albatrus* can be confused with *P. immutabilis*, and to distinguish the two, *P. immutabilis* is significantly smaller with a dark brown back^[7]. Juvenile *P. albatrus* can be confused with *P. nigripes*, and to distinguish the two, *P. immutabilis* is also significantly smaller with dark brown bills, legs, and feet.

10. Consultations

Input was sought from the following range states in 2017/2018: The United States of America, Canada, China, Japan, Republic of Korea, Russian Federation, Mexico, Marshall Islands, and the Federated States

of Micronesia. **The United States** through the USFWS provided documents on the ecological services and migratory bird management of *P. albatrus*, along with several other documents to aid throughout the periodic review. The Association of Fish and Wildlife Agencies provided a state-by-state summary document of the information compiled relative to the state of knowledge for *P. albatrus*. The National Oceanic and Atmospheric Administration provided several documents to aid with information throughout the periodic review. Input was sought from Oregon State University that provided publications of updated information on the biology and at sea distribution of *P. albatrus*, along with the input from the University of Massachusetts Amherst that provided population estimates. **Canada** provided status report and recovery strategy documents of the species throughout its range. **China** provided the status of the *P. albatrus* in China. **Japan** provided information based on the 2014 Red Data Book of the Ministry of the Environment, Japan, along with information about utilization and trade, and domestic protections. The Yamashina Institute for Ornithology provided the most recent data of *P. albatrus* breeding in Ogasawara Islands. **Mexico** provided the Avian Conservation Assessment Database website for information on *P. albatrus*. The Republic of Korea, Russian Federation, Marshall Islands, and the Federated States of Micronesia did not respond to our consultation.

11. Additional remarks

- 2008 IUCN Red List of Threatened Species - Vulnerable [40]- listed as vulnerable
- Alaska Listed as Endangered[1]- NatureServe Subnational Conservation Status Rank - S1 (Critically Imperilled)
- Hawaii[1]- NatureServe Subnational Conservation Status Rank - S1 (Critically Imperilled)
- Red Data Book of Japan (as *Diomedea albatrus*) – Vulnerable [24]- published studies on threatened fauna and flora of Japan, with the implementation of protecting ecosystems for future policy.
- This proposal is consistent with other proposals accepted by the Conference of the Parties, which sought to transfer populations to Appendix II because of intensive management and protection with no trade (e.g., CoP16 Prop. 1, *Rupicapra pyrenaica ornata*; CoP16 Prop. 20, *Tympanuchus cupido attwateri*; and CoP14 Prop. 23, *Nolina interrata*).

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Table1 Additional Threats – Contaminants and Natural Threats

Contaminants	
Effects of environmental contaminants on birds includes immune deficiency, inhibits thermoregulation, disrupted endocrine balance, genetic mutations, inhibits reproduction, and direct mortality ^[1] .	
Plastic ingestion	A major factor in plastic ingestion of <i>P. albatrus</i> is the North Pacific central gyre, which contains plastics roughly six times the amount of plankton in surface waters ^[9] . Plastics have been discovered throughout age groups in nearly all the albatross species. Albatross are known to ingest plastics throughout their foraging range, mistaking the items for food, or ingesting plastic items that flying fish eggs have attached to. On Torishima, <i>P. albatrus</i> regularly regurgitates significant amounts of plastic waste. Ingesting sharp plastic items can lead to internal injuries and mortality. Ingesting large amounts of plastic items can lead to limited gut volume for food availability and water absorption, causing malnutrition, dehydration, and a lower resistance to the effects of the avian pox virus, and lead poisoning. Before learning how to regurgitate, chicks are highly susceptible to plastic ingestion effects, resulting in increased mortality rates. Albatross can also experience direct toxic contaminant effects when ingesting plastic items. There has been a notable increase in the abundance of plastics in <i>P. albatrus</i> on Torishima throughout the past 10 years. The impacts of plastic ingestion on the survival and population growth of <i>P. albatrus</i> is unknown. Overall, recent evidence suggests that plastic ingestion could have adverse effects on the performance of future <i>P. albatrus</i> populations.
Radiation	In 2011, an earthquake occurred off the northeastern coast of Japan, resulting in a tsunami that damaged the Fukushima Daiichi Nuclear Plant ^[2] . This caused the release of roughly 520 PBq of radiation, approximately 80% of this has entered the North Pacific Ocean. <i>P. albatrus</i> are known to use the marine regions east of the nuclear plant as significant foraging sites during the breeding season. Even though recent studies indicate that there are no detectable levels of radiation found in <i>P. albatrus</i> , adverse effects from the radiation on the species' food resources could possibly occur, and in turn impact <i>P. albatrus</i> .
Organochlorines, pesticides and metals	<i>P. albatrus</i> could possibly be introduced to organochlorine contaminants such as PCBs and pesticides (i.e. DDTs, HCHs), and toxic metals such as mercury, and lead, through atmospheric and oceanic movements ^[2] . Bioaccumulation and biomagnification of these contaminants could have adverse effects throughout the growth and development of <i>P. albatrus</i> ^[9] . Studies have shown that organochlorine, mercury and other metal concentrations found in <i>P. albatrus</i> have resulted in a decreased immune system response. Such contaminants have been discovered in the eggs, feathers, and blood of <i>P. albatrus</i> . High levels of DDT in Laysan Albatrosses showed effects of eggshell thinning, and high levels of lead showed nerve damage effects. <i>P. albatrus</i> is expected to have similar responses, with a potential different threshold level of DDT concentrations. The extent to which any of these toxic contaminants adversely affect <i>P. albatrus</i> is unknown ^[2] .
Oil spills	Oil spills can occur in several areas throughout the marine distribution of <i>P. albatrus</i> , and can harm the species in the following ways by: inhibiting thermoregulation by soiling the feathers, causing direct toxicity by ingestion through preening, causing embryotoxic effects, contaminating food resources, and decreasing prey abundance from toxic effects through contamination on prey species ^[9] . The risk of oil spills has significantly increased throughout the North Pacific, especially in the Bering Sea and along the Aleutian Islands of Alaska, where the overlap of <i>P. albatrus</i> distributions is the most prevalent, and northwards into the Arctic Ocean ^[2] . This increased risk is due to the retreat of Arctic ice caused by global warming, which is anticipated to increase

	marine shipping traffic, and could significantly impact <i>P. albatrus</i> . A future threat that <i>P. albatrus</i> may face is the possibility of oil development along the Senkaku Islands of Japan ^[9] .
<i>Natural events</i>	
<i>Climate change</i>	With increase in intensity and frequency of stormy weather and rising sea level predictions, coastline breeding habitats on Midway Atoll and Kure Atoll are expected to be lost by 2100 ^[2] . Climatic and oceanic changes are expected to continue over decades to come, and it is uncertain how these alterations will impact <i>P. albatrus</i> directly, indirectly, or not at all.
<i>Erosion / Monsoon Rains</i>	The main breeding colonies of <i>P. albatrus</i> exist at Tsubamezaki on Torishima, which is steeply sloped with scarce vegetation resulting in unstable volcanic soils, with a sub colony at Hatsunezaki, which is gently sloped with minimal vegetation ^[2] . Tsubamezaki is highly susceptible to monsoon rains that occur frequently and result in recurring mudslides and severe erosion, causing loss of habitat, nesting sites, and increased chick mortality ^[9] . In 1987, succeeding mud flows after a landslide that occurred at Tsubamezaki decreased the breeding success of <i>P. albatrus</i> that year to under 50%. In 1995, a typhoon demolished most of the vegetation present at Tsubamezaki, that resulted in an overall decrease in breeding success that given year, and in any year typhoons occur. Also, in 2010 roughly 10 chicks were buried after a landslide event at Tsubamezaki ^{[2][9]} . Loss of vegetation, that is solely responsible for protecting eggs and chicks from natural events, such as monsoon rains, landslides, sandstorms, land and shore erosion, and strong winds, has increased the species risk of mortality from such events.
<i>Volcanic activity</i>	Habitat loss and degradation from volcanic eruptions on Torishima presents a great threat to the recovery of <i>P. albatrus</i> , considering Torishima holds 80-85% of the world's populations ^[1] . In extreme events, roughly 63% of the population on Torishima could potentially be wiped out by a volcanic eruption, or roughly 54% of the global population ^[9] . These extreme volcanic eruptions could also hinder reproduction of <i>P. albatrus</i> by making their breeding sites uninhabitable. Volcanic eruptions on Torishima are unpredictable in time, magnitude, and intensity. Modeling suggests that random volcanic eruptions would lead to a decline in the growth rate of populations on Torishima by 0.3%. Although 54% of the global population of <i>P. albatrus</i> could potentially be wiped out in an extreme volcanic eruption, this presumes that all breeding adults are present in that given year on Torishima and are killed by the eruption. This is highly unlikely due to the estimation that 20-25% of breeding adults may not come back to the breeding colony until a year later ^[1] . In the extreme event of a volcanic eruption, non-breeding adults and juveniles would serve as an "extinction buffer", due to the fact that they remain out at sea until they reach breeding ages around 5-7 years old ^{[7][9]} . Following these extreme volcanic events, these "extinction buffers" would recolonize suitable habitats on Torishima that are available. It is unknown what <i>P. albatrus</i> would do if there were no existing suitable breeding habitats available.

Table 2. National legal instruments of *P. albatrus*.

Country	Law	Protection
Canada	Migratory Bird Convention Act 1994 ^[25]	Protecting and conserving populations, individuals, and nests of migratory birds
Canada	Committee on the Status of Endangered Wildlife in Canada ^[12]	Assigns the national status of wildlife species believed to be at risk
Canada	Species at Risk Act – Threatened ^[26]	Protects and conserves species at risk through law enforcement
China	Law of the People’s Republic of China on the Protection of Wildlife ^[19]	Restricts the introduction and importation of plants and animals that are harmful to migratory birds
Japan	Wildlife Protection and Hunting Law ^[27]	Protect wildlife and endangered species by protecting habitats, regulating hunting, and preventing any illegal killings
Japan	Law for the Conservation of Endangered Species of Wild Fauna and Flora (1992, Law No 75) ^[27]	Guarantees and contribute to the conservation of endangered species and their natural surroundings for current and future generations
Japan	Domestic Endangered Species (1993) (Environment Agency, Japan 1993) ^[1]	Protects and enhances habitats and populations through continued management and monitoring programs, along with legal protection
Mexico	Protected under Treaty between Mexico and USA (family Diomedidae listed) ^[28]	Protects migratory birds found in Mexico and the U.S. from utilization through laws, regulations, and provisions
Russia	Protected under the Union of Soviet Socialist Republic, Convention Concerning the Conservation of Migratory Birds and Their Environment (USA-Russia) 1976 (as <i>Diomedea albatrus</i>) ^[20]	Prohibits the utilization and trade of protected migratory birds, with exceptions made from specific laws and regulations
USA	Migratory Bird Treaty Act of 1918 ^[21]	Prohibits utilization and trade of protected migratory birds without special authorization by USFWS
USA	Endangered Species Act (1973) – Endangered ^[6]	Conserves plants, animals, and their habitats that are threatened or endangered, and prohibits the taking of these species by law

Table 3. Species management of *P. albatrus*.

Country	Species Management	Purpose
Canada	Recovery Strategy for the Short-tailed Albatross (<i>Phoebastria albatrus</i>) and the Pink-footed Shearwater (<i>Puffinus creatopus</i>) in Canada ^[6]	Assessment for creating management initiatives for the threats <i>P. albatrus</i> faces from bycatch, contaminants, marine industrial development, and climate change. These assessments will create regulations, habitat protection, international initiatives, education, and research programs. Management goals are to increase populations throughout the Canadian distribution of <i>P. albatrus</i> .
Canada	Wings Over Water: Canada's Water bird Conservation Plan - High Conservation Concern 2003 ^[29]	Initiates conservation efforts through the planning of implementation programs for population monitoring, habitat conservation, education and outreach, and research. A 3-year evaluation has taken place in 2006, and since then every 5-year evaluation assessments following.
Canada	National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries ^[30]	Implements integrated management through establishing monitoring priorities, and thresholds that don't threaten the recovery or survival of <i>P. albatrus</i> .
Japan	Feral Goat Eradication Plan established from 1997-2004 on Mukojima ^[1]	Eradicate goats on Mukojima that are causing ecosystem degradation and loss of biodiversity from overgrazing.
Japan	Japan's National Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries 2009 ^[31]	Initiates mitigation actions to reduce incidental takings of seabirds, based on former policy, while incorporating migration patterns and breeding sites.
Taiwan	Taiwan's National Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries ^[32]	Protection from bycatch of seabirds through mitigating threats, promoting conservation programs, continued research and periodic assessments, and continued participation in the international effort to conserve and protect.
USA	Short-tailed Albatross Recovery Plan (2008) ^[1]	Manages habitats, populations, and threats to <i>P. albatrus</i> , through erosion control, and translocation efforts to non-volcanic sites. Decoys and sound systems have been used to attract <i>P. albatrus</i> to non-volcanic sites. To understand the movements of <i>P. albatrus</i> , telemetry studies and tracking have been conducted.
USA	United States National Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries ^[33]	Develop and implement mitigation for bycatch of seabirds, as well as provide national-level policy to reduce such events, and an assessment to determine if this issue exists elsewhere in U.S. longline fisheries.
International	North American Water bird Conservation Plan - High Conservation Concern ^[34]	Protects the species habitat, migratory, distribution, biodiversity, and abundance through conservation and restoration within North America, Central America, and the Caribbean.

Table 4. Habitat conservation measures for *P. albatrus*.

Country	Conservation Measure	Description
Canada	Race Rocks Proposed Marine Protected Area 1988 ^[35]	Established by the British Columbia Parks Ministry, this protected area is located in the Strait of Juan de Fuca, and is roughly 2 km ² .
Canada	The Bowie Seamount Marine Protected Area 2008 ^[36]	This protected area is located off the coast of British Columbia in the Northeast Pacific and is roughly 1,320 km ² .
Canada	The Gwaii Haanas National Marine Conservation Area Reserve and Haida Heritage Site 2010 ^[12]	Established under the Canada National Marine Conservation Areas Act, this protected area is located in the Hecate Strait and Queen Charlotte Shelf and is roughly 3,400 km ² .
Canada	Hecate Strait/Queen Charlotte Sound Glass Sponge Reef Proposed Marine Protected Area 2017 ^[37]	Established designated under the Ocean Act, this protected area is located in the Northern Shelf Bioregion off the coast of British Columbia, and is roughly 2,410 km ² .
Canada	Scott Islands Marine National Wildlife Area 2018 ^[38]	Established under the Canada Wildlife Act, this protected area is located in the Scott Islands of Northwest of British Columbia and is roughly 11,546 km ² .
Japan	National Wildlife Protection Area established 1954 on Mukojima ^[1]	Protects the biodiversity and habitats of <i>P. albatrus</i> .
Japan	Natural Monument (1958) Special Natural Monument (1962) ^[39]	Protects the biodiversity and habitats of <i>P. albatrus</i> .
Japan	Torishima Island Natural Monument 1965 ^[5]	Prohibits harvest and human disturbance is restricted.
Japan	National Park and Marine Park established 1972 in the Ogasawara (Bonin) Islands ^[1]	Protects the biodiversity and habitats of <i>P. albatrus</i> .
International	Ogasawara (Bonin) Islands and Papahānaumokuākea Marine National Monument ^[40]	Conserves and protects the biodiversity and habitats of marine life.