

Draft Amendment to the Hawaiian Dark-rumped Petrel and Newell's Manx Shearwater Recovery Plan

Original Approved: [April 25, 1983](#)

Original Prepared by: Pacific Region, U.S. Fish and Wildlife Service

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Species addressed in Draft Amendment: Newell's Townsend's Shearwater (*Puffinus auricularis newelli*) [originally listed as Newell's Manx Shearwater (*Puffinus puffinus newelli*)]

We have analyzed all of the best available information and find that there is a need to amend the recovery criteria for the Newell's Townsend's Shearwater (*Puffinus auricularis newelli*) that have been in place since the recovery plan was completed. In this proposed modification, we discuss the adequacy of the existing recovery criteria, identify amended recovery criteria, and present the rationale supporting the proposed recovery plan modification. The proposed modification is to be shown as an appendix that supplements the recovery plan, superseding only the Objective section (pages 22-24) in Part II (Recovery) of the recovery plan (USFWS 1983).

BACKGROUND INFORMATION

Recovery plans should be consulted frequently, used to initiate recovery activities, and updated as needed. A review of the recovery plan and its implementation may show that the plan is out of date or its usefulness is limited, and therefore warrants modification. Keeping recovery plans current ensures that the species benefits through timely, partner-coordinated implementation based on the best available information. The need for, and extent of, plan modifications will vary considerably among plans. Maintaining a useful and current recovery plan depends on the scope and complexity of the initial plan, the structure of the document, and the involvement of stakeholders.

An amendment involves a substantial rewrite of a portion of a recovery plan that changes any of the statutory elements. The need for an amendment may be triggered when, among other possibilities: (1) the current recovery plan is out of compliance with regard to statutory requirements; (2) new information has been identified, such as population-level threats to the species or previously unknown life history traits, that necessitates new or refined recovery actions and/or criteria; or (3) the current recovery plan is not achieving its objectives. The amendment replaces only that specific portion of the recovery plan, supplementing the existing recovery plan, but not completely replacing it. An amendment may be appropriate in cases where significant plan improvements are needed, but resources are too scarce to accomplish a full recovery plan revision in a short time.

Although it would be inappropriate for an amendment to include changes in the recovery program that contradict the approved recovery plan, it could incorporate study findings that enhance the scientific basis of the plan, or that reduce uncertainties as to the life history, threats, or species' response to management. An amendment could serve a critical function while awaiting a more comprehensive revised recovery plan by: (1) refining and/or prioritizing recovery actions that need to be emphasized, (2) refining recovery criteria, or (3) adding a species to a multispecies or ecosystem plan. An amendment can, therefore, efficiently balance

resources spent on modifying a plan against those spent on managing implementation of ongoing recovery actions.

METHODOLOGY USED TO COMPLETE THE RECOVERY PLAN AMENDMENT

The Hawai‘i listed seabird working group meets in person twice yearly, and via email or phone call as needed, and is comprised of personnel from the U.S. Fish and Wildlife Service (Service), State of Hawai‘i Division of Forestry and Wildlife, National Park Service, and University of Hawai‘i who are associated with managing listed seabirds. In 2009, this group developed a 5-year action plan (Bailey *et al.* 2009), that has since been updated (Bailey *et al.* 2015). This plan outlines short-term recovery objectives and actionable items to further the recovery of the Newell’s shearwater (*Puffinus auricularis newelli*), Hawaiian petrel (*Pterodroma sandwichensis*), and band-rumped storm-petrel (*Oceanodroma castro*). The Service requested the input of this group to develop these draft amended delisting criteria for Newell’s shearwater. The group wanted to ensure consistency between the objectives in the action plan (Bailey *et al.* 2015) and the proposed amended recovery criteria. They met once in person and subsequently by phone and email to develop, refine, and finalize the newly proposed criteria. Further, they included the most up to date information about the species; particularly that provided by the Kaua‘i Endangered Seabird Recovery Program, to assess the population status and current threats to further refine the criteria.

Peer review of the updated delisting criteria will be concurrent with the public review and comment period on the draft amendment, and comments received will be incorporated into the final recovery plan amendment.

ADEQUACY OF RECOVERY CRITERIA

Section 4(f)(1)(B)(ii) of the Endangered Species Act (Act) requires that each recovery plan shall incorporate, to the maximum extent practicable, “objective, measurable criteria which, when met, would result in a determination...that the species be removed from the list.” Legal challenges to recovery plans (see *Fund for Animals v. Babbitt*, 903 F. Supp. 96 (D.D.C. 1995)) and a Government Accountability Audit (GAO 2006) also have affirmed the need to frame recovery criteria in terms of threats assessed under the five listing factors.

Recovery Criteria

See previous version of criteria in Part II. Recovery, pages 22-41 of the Hawaiian Dark-Rumped Petrel and Newell’s Manx Shearwater Recovery Plan (USFWS 1983).

Synthesis

An estimated 90 percent of the population of Newell’s shearwaters occurs on Kaua‘i (Ainley *et al.* 1997; and USFWS unpublished). Research and management by the Kaua‘i Endangered Seabird Recovery Project has increased our understanding of the status of the population on Kauai, and surveys on the other main Hawaiian Islands have provided some information about its distribution on those islands.

Ornithological radar surveys have been conducted at 13 sites across Kaua‘i since 1993, thus providing documentation of the population trend for that period of time. Ornithological radar has been used to monitor the summer movement patterns and provides an accurate estimate of

numbers of birds as they transit through the detection area (Day and Cooper 1995; Raine *et al.* 2017). Analysis of this data (Day and Cooper 1995; Raine *et al.* 2017) has shown an appreciable reduction in the number of shearwaters transiting to and from montane breeding colonies between 1993 and 2013. The overall mean number of shearwaters detected across all 13 radar sites surveyed in 1993 was 524 ± 207 radar targets/h; in 2013 it was 33.5 ± 9.2 targets/h, representing a significant decrease of 94 percent between the two periods ($t = 2.37$, $P = 0.03$; Raine *et al.* 2017). All of the 13 sites showed a large decrease in movement rates over the entire period, with movement rates at 12 out of 13 (92 percent) sites showing statistically significant declines across the entire study period (Raine *et al.* 2017). Using the radar data as a proxy for the breeding population, the Newell's shearwater population on Kaua'i declined at a mean annual rate of 13 percent over the 20-year period (Raine *et al.* 2017). This most recent analysis of the Newell's Shearwater population trend is comparable to the mean annual 11.2 percent decline reported by Day *et al.* (2003) for 1993 to 2001.

Threats to Newell's shearwater described in the original listing rule and the recovery plan continue largely unabated. Fallout from artificial light attraction (attraction of seabirds to lights, causing disorientation and grounding away from the ocean), collision with infrastructure (including power lines), predation, and habitat loss continue to threaten this species. Although shielding of lights in recent years in localized areas has somewhat reduced the exposure of fledglings to this threat, annual fallout from artificial light continues to impact this declining population. Further, we now know that collision with power lines and transmission lines is a much greater threat than was previously considered (Travers *et al.* 2016). Predator control has been implemented at several sites as part of a habitat conservation plan, and via funding from the National Fish and Wildlife Foundation and American Bird Conservancy. However, the threat posed by introduced predators remains significant throughout the species' range as these efforts protect only a fraction of the breeding population. Predators (particularly cats and feral pigs) take adults as well as eggs and juveniles. This is especially devastating to this long-lived species which does not reach reproductive maturity until about age 6 and has a high proportion of nonbreeding adults. As none of the predator control sites are surrounded by predator-proof fences, predator ingress is constant.

Little progress has been made toward addressing the chief threats to, or meeting the recovery criteria for, Newell's shearwater. The population on Kaua'i has declined 94 percent since 1993, or 13 percent annually (Raine *et al.* 2017). Breeding colonies on other islands have not been delineated and thus are not managed. These colonies are certainly subject to predation by alien mammals, as well as from the threat of light attraction and infrastructure collision, and likely are dwindling as well.

AMENDED RECOVERY CRITERIA

Recovery criteria serve as objective, measurable guidelines to assist in determining when an endangered species has recovered to the point that it may be downlisted to threatened, or that the protections afforded by the Act are no longer necessary and the Newell's shearwater may be delisted. Delisting is the removal of a species from the Federal Lists of Endangered and Threatened Wildlife and Plants. Downlisting is the reclassification of a species from endangered to threatened. The term "endangered species" means any species (species, subspecies, or distinct population segment) that is in danger of extinction throughout all or a significant portion of its

range. The term “threatened species” means any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

We provide delisting criteria for the Newell’s shearwater, which will supersede those included in the Hawaiian Dark-Rumped Petrel and Newell’s Manx Shearwater Recovery Plan, as follows:

Downlisting Recovery Criteria

Not applicable

Delisting Recovery Criteria

The Newell’s shearwater will be considered for delisting when the following four criteria are met:

- Criterion 1: At least one viable Newell’s shearwater metapopulation occurs on seven of the eight main Hawaiian Islands (excluding Ni‘ihau), with at least two viable metapopulations on Kaua‘i and Maui Islands (for a minimum total of nine viable metapopulations). This metapopulation approach is intended to capture the ecological, morphological, behavioral and genetic diversity of the species among the islands, which will help ensure the persistence of the species. A viable population is self-supporting and is well represented, resilient, and redundant. A metapopulation means a population that exists as a series of subpopulations, linked by movement between them.
- Criterion 2: Quantitative surveys show that the number of individuals in each disjunct nesting population has been stable or increasing for 30 consecutive years, or demographic monitoring shows that each population exhibits an average intrinsic growth rate not less than 1.0 over a period of at least 30 consecutive years.
- Criterion 3: Fifty percent of suitable Newell’s shearwater breeding habitat is protected and managed (e.g., ungulate/predator-proof fencing, intensive small mammal and avian predator control) to achieve Criteria 1 and 2 above.
- Criterion 4: The threats responsible for the decline of Newell’s shearwaters have been sufficiently managed to achieve Criteria 1 and 2 above, and the needed threat management will be in place for the foreseeable future.

All classification decisions consider an analysis of the following five factors: (1) is there a present or threatened destruction, modification, or curtailment of the species’ habitat or range; (2) is the species subject to overutilization for commercial, recreational scientific or educational purposes; (3) is disease or predation a limiting factor; (4) are there inadequate existing regulatory mechanisms in place outside the Act (taking into account the efforts by states and other organizations to protect the species or habitat); and (5) are other natural or manmade factors affecting its continued existence. When delisting or downlisting a species, we first propose the action in the *Federal Register* and seek public comment and peer review of our analysis. Our final decision is announced in the *Federal Register*.

Rationale for Recovery Criteria

The amended delisting criteria are based upon the most up to date information about the species' biology, the most recent 5-year review (USFWS 2017), the Newell's Shearwater Landscape Strategy (USFWS unpubl.), the Newell's Shearwater, Hawaiian Petrel, and Band-Rumped Storm-Petrel Action Plan (Bailey *et al.* 2015), and expert opinion.

The recovery criteria reflect the best available and most up-to-date information about the species and its habitat. The recovery criteria reflect all known threats to this species. These include protection of suitable habitat to sustain the ecological, morphological, behavioral and genetic diversity of the species (Factor A), predation (Factor C), and management of anthropogenic threats (Factor E) such that the populations are self-sustaining and stable. Please see USFWS (2017) for the most recent analysis of threats to, and ongoing conservation efforts for, the Newell's shearwater.

The amended recovery criteria for Newell's shearwater support representation by ensuring the ecological, morphological, behavioral and genetic diversity of the species is conserved throughout its range. The criteria support resiliency through stable or increasing populations. The criteria support redundancy by recommending distribution throughout the species' historical range. The recovery criteria are objective and measurable. Information is accurate, unbiased, and based upon the best available data known at this time.

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