



August 20, 2012

Steve Spangle
Field Supervisor
Arizona Ecological Services Office
U.S. Fish and Wildlife Service
2321 West Royal Palm Road
Phoenix, AZ 85021-4951.

RE: Comments of the Society for Conservation Biology on the Recovery Plan Addendum for the Thick-billed Parrot.

Dear Supervisor Spangle,

The Society for Conservation Biology¹ (SCB) would like to offer the following comments on the U.S. Fish and Wildlife Service's (FWS) recovery plan addendum² (hereafter "recovery plan") for the Thick-billed Parrot (*Rhynchopsitta pachyrhyncha*). SCB supports the FWS's recognition of the need for cooperation with Mexico and support of recovery activities in Mexico as the most urgent areas for conservation action because the Sierra Madre Occidental of Mexico currently represents all of the Thick-billed Parrot's current range. However, as a species that was once found in the southwest United States, recovery of the Thick-billed Parrot within its historic U.S. range is also essential. The recovery plan does not provide sufficient detail or a timeline for actions that the FWS should take under all of its authorities under the Endangered Species Act (ESA)³ with respect to habitat protection and future reintroductions. In particular, we believe that the FWS should designate critical habitat within the United States for the Thick-billed Parrot, and that the recovery plan must provide a timeline for accomplishing this activity. Relatedly, the recovery plan should identify agency actions within both the United States and Mexico that would trigger the requirement under Section 7 of the ESA to ensure that Federal agency actions do not jeopardize the Thick-billed Parrot. In addition, the recovery plan should discuss the usage of its authority under Section 10(j) of the ESA regarding the establishment of experimental populations of Thick-billed Parrot within the United States as a means of returning the parrot to its historic range. Finally, the recovery plan should discuss possible FWS law enforcement strategies and efforts that could be used to further stem the illegal parrot trade and rescue birds held illegally in captivity, a violation of the Lacey Act and the Endangered Species Act given its status as an Appendix I species under CITES.

¹ SCB is an international professional organization whose mission is to advance the science and practice of conserving the Earth's biological diversity, support dissemination of conservation science, and increase the application of science to management and policy. The Society's 5,000 members include resource managers, educators, students, government and private conservation workers in over 140 countries.

² U.S. Fish and Wildlife Service. 2012. Thick-billed parrot (*Rhynchopsitta pachyrhyncha*) Draft Recovery Plan Addendum (hereafter RECOVERY PLAN). USFWS, Southwest Region.

³ 16 U.S.C. § 1531 *et seq.*



I. Introduction

The Thick-billed Parrot was first listed in 1970 as an endangered species under the Endangered Species Conservation Act of 1969,⁴ the statute that immediately preceded the current Endangered Species Act of 1973. The parrot was listed as endangered “where found” and included the parrot’s range in both Mexico and the United States.⁵ Historically, the Thick-billed Parrot’s range extended into the central and southwestern Arizona⁶ and possibly southwestern New Mexico, but was extirpated from the U.S. possibly as a consequence of excessive unregulated shooting.⁷ The last confirmed sighting of a naturally occurring flock of Thick-billed Parrot was in 1938. Today, the parrot’s range is limited to high elevations of the Sierra Madre Occidental of Mexico, extending from northwestern Chihuahua and northeastern Sonora and continuing southward into Jalisco, Colima, and Michoacán. The northern-most breeding area for the Thick-billed Parrot is approximately 50 miles south of the U.S./Mexico border.⁸

The Thick-billed Parrot’s decline range-wide has been caused primarily by logging of old-growth, high-elevation, mixed conifer forests, with only one percent of the old-growth forests remaining in the Sierra Madre Occidental.⁹ As obligate cavity nesters, the removal of large-diameter pines and snags from mature forests has reduced nest site availability for the Thick-billed Parrot. Disruption of the natural fire regime, due primarily to heavy livestock grazing and poor forestry practices including fire suppression, and now more recently by climate change, have also negatively impacted the forest habitats of the parrot.¹⁰ The illegal pet trade continues to be a treat to the species, with over 1,000 individual having been removed from the wild between 1984-1994. In 2008, Mexico banned the capture and export of all native parrots, and the species is listed under the Convention on International Trade in Endangered Species (CITES) on Appendix I.¹¹

Although the exact historic breeding range of the Thick-billed Parrot remains unknown, there is sufficient evidence that the parrot historically bred within the Chiricahua Mountains of southeast Arizona.¹² Given the progressive loss of pine forests in Mexico, the

⁴ Public Law 91-135

⁵ 35 Fed. Reg. 8,491 (June 2, 1970). In 1979, the Service published a notice in the Federal Register that announced a change in the listing status for the thick-billed parrot, stating that the FWS had failed to consult with the governors of the States of the U.S. where the Thick-billed Parrot was found and that therefore, the U.S. population was not covered under the Endangered Species Act of 1973. Although the 1979 notice claimed to change the listing status of the Thick-billed Parrot, the notice was without legal effect, because the FWS did not go through the proper rulemaking. Thus, in spite of the 1979 notice, the Thick-billed Parrot has been listed as endangered since 1969.

⁶ H.A. Snyder & S.E. Koenig. 1994. *Thick-billed Parrot Releases in Arizona*. The Condor, 96:845-862.

⁷ RECOVERY PLAN at 1.

⁸ *Id.*

⁹ *Id.* at 2.

¹⁰ *Id.*

¹¹ *Id.*

¹² Snyder & Koenig at 848.



FWS concluded in 1985 that the reestablishment of the parrot in Arizona could represent a significant component of conservation of the species as a whole.¹³ A reintroduction program was organized in 1986 to pursue parrot releases on an experimental basis, with the Arizona Game and Fish Department as the lead agency, in cooperation with the U.S. Forest Service and FWS. Between 1986 and 1993, in five separate release events, approximately 88 Thick-billed Parrots were returned to the wild in the Chiricahua Mountains of southeastern Arizona. Sixty-five of these birds were obtained as confiscations by the FWS as a result of law enforcement operations targeting the illegal pet trade, while the remaining 23 birds released were from captive-bred sources. In addition, eight wild-caught adults and 10 parent-reared captive-bred were released in 1991 and 16 wild-caught adults were released in 1992. Most of the reintroduction releases were “soft releases,” in which food and water were left atop the release cages.¹⁴

The successfulness of these five release attempts varied; however, none of them led to the establishment of a self-sustaining population of Thick-billed Parrot. The birds from the first two releases eventually adopted a stable range within the Chiricahuas. During the summer of 1988, one pair of parrots raised two young that migrated south with their parents to the Chiricahuas in mid-fall. Several pairs of parrots attempted to nest in 1989 in locations on the Mogollon Rim of central Arizona. Unfortunately, mortality from Northern Goshawks, ring-tailed cats, and starvation eventually led to the failure of all of the released individuals, and the reintroduction program was terminated in 1993.¹⁵

Snyder and Koenig concluded that reestablishment of Thick-billed Parrots “might succeed if enough high-quality birds could be obtained to support a quantitatively satisfactory release effort.” Some wild-caught translocated parrots settled within Arizona after the release, and a few of the released birds successfully reproduced. These researchers also concluded that reestablishment of Thick-billed Parrots in central Arizona would be more difficult because timber harvests are much more prevalent, and the forests are of generally younger age and less suitable for parrots. Since the 1986-1993 reintroduction efforts, conservation techniques for parrot species have continued to improve.¹⁶ The most important innovation for Thick-billed Parrot appears to be the use of nest-boxes to encourage parrot breeding, which has been limited do the absence of snags for nesting.¹⁷ Nest boxes were not used in the early reintroduction efforts. Currently, there is a source population of 95 Thick-billed Parrots in captivity under a species survival plan that could be used, if augmented, to support a release program.¹⁸

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ White et al. 2012. *Psittacine reintroductions: Common Denominators of Success* Biological Conservation 148:106-114.

¹⁷ RECOVERY PLAN at 32.

¹⁸ RECOVERY PLAN at 31.



II. Recovery Planning for Thick-billed Parrot

Section 4(f) of the ESA directs the FWS to develop and implement recovery plans “for the conservation and survival of endangered species and threatened species.”¹⁹ Each recovery plan should include site-specific management actions for the conservation and survival of the species, objective and measurable criteria that would result in a determination that a species is no longer threatened or endangered, and estimates of the time required and the costs to carry out those measures needed to achieve the species’ recovery.²⁰ While the recovery plan for the Thick-billed Parrot contains detailed information about conservation efforts in Mexico, criteria for recovery in the United States are deficient. This deficiency cannot go unaddressed because the ESA is, in part, designed to meet the United States obligations under the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere.²¹

In 2009, Mexico prepared a recovery plan for the Thick-billed Parrot within Mexico.²² FWS began preparing an addendum to the Mexican recovery plan in 2011 that focuses on the agencies’ role, both to conserve the species in Mexico and within the United States. The FWS has proposed the following recovery objectives for the Thick-billed Parrot recovery within the United States:

- Assure the long-term viability of Thick-billed Parrot conservation by cooperating with partners in Mexico and providing any available technical or financial support for implementing recovery actions.
- Preserve and enhance U.S. historical habitat and augment cross border connectivity of habitat.
- Evaluate the need and efficacy of conducting translocations of individuals into historical and potential habitats as part of a comprehensive conservation strategy.²³

The FWS has provided recovery criteria, which if met would lead to the downlisting of the Thick-billed Parrot from “Endangered” to “Threatened” under the ESA, which the FWS estimates will not occur before the year 2050.²⁴ The FWS has not provided recovery criteria for delisting the Thick-billed Parrot from the list of protected species under the ESA because of the projected time needed to stabilize the population, regenerate forest habitat, and

¹⁹ 16 U.S.C. § 1533(f)(1).

²⁰ 16 U.S.C. § 1533(f)(1)(B).

²¹ Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere, 16 U.N.T.S. 193 (1940). In particular, Article V’s requirement to protect and preserve flora and fauna outside of national parks, national reserves, and nature monuments, and Article VIII’s requirement to adopt appropriate measures for the protection of migratory birds of economic or aesthetic value are particularly relevant to the conservation of the Thick-billed Parrot.

²² Comisión Nacional de Áreas Naturales Protegidas (CONANP). 2009. Programa de acción para la conservación de las especies. Cotorras Serranas (*Rhynchopsitta* spp.). Comisión Nacional de Áreas Naturales Protegidas, SEMARNAT, México, D.F. 58 pp.

²³ RECOVERY PLAN at 34.

²⁴ RECOVERY PLAN at 38.



unanswered scientific questions regarding the species.²⁵ SCB supports the decision of the FWS not to provide delisting criteria given the uncertainties about the parrot's population status, biology, the effects of climate change, and the impact of stochastic events. We agree that more research is needed to develop specific recovery tasks prior to delisting. However, we have concerns about the lack of specific recovery criteria and concrete recovery tasks that the FWS has proposed within the United States for the Thick-billed Parrot, and we are concerned that the agency may propose downlisting of the species to "Threatened" even if the species has not re-colonized its former range within the U.S. Therefore, SCB offers the following recommendations for the final recovery plan:

A. Downlisting from "Endangered" to "Threatened" Status Cannot Occur Until at Least One Self-Sustaining Population of Thick-billed Parrot is Established Within the United States that is Connected Via Natural Dispersal to the Mexican Meta-Population.

While the ESA is global in its application, the Act places a high priority on the conservation of biodiversity within the borders of the United States. One of Congress' stated findings regarding the ESA's is that threatened and endangered species "are of esthetic, ecological, educational, historical, recreational, and scientific *value to the Nation and its people.*"²⁶ When a species is extirpated from within its U.S. range, it no longer provides these same values to the United States or its people. Therefore, the ESA allows a species to be listed "within the United States where its principal range is in another country, such as Canada or Mexico, and members of that species are only found in this country insofar as they exist on the periphery of their range."²⁷ The FWS cannot discount the recovery of a threatened or endangered species within its U.S. range on the basis that the species is more plentiful in a foreign nation.²⁸ Accordingly, recovery of the Thick-billed Parrot necessarily entails its recovery within the United States.²⁹

Restoring a population of Thick-billed Parrot within the United States is also biologically important for the species itself. Research indicates that populations at the edge of a species' range play an important role in maintaining the total genetic diversity of a species; especially in situations where habitat fragmentation and habitat loss impact the total range of the species.³⁰ Peripheral populations can be an important genetic resource in that they may be

²⁵ RECOVERY PLAN at 39.

²⁶ 16 U.S.C. § 1531(a)(3) (emphasis added).

²⁷ H.R. Rep. No. 93-412 (July 27, 1973).

²⁸ *Defenders of Wildlife v. Babbitt*, 958 F.Supp. 670, 684-85 (D.D.C. 1997).

²⁹ SCB also notes that even if the Thick-billed Parrot were to fully recover in Mexico, it would still qualify as a threatened or endangered species because the United States range of the parrot is a significant portion of the species' range.

³⁰ Channell, R. and M.V. Lomolino. 2000. *Dynamic biogeography and conservation of endangered species*. *Nature* 403:84-86.



beneficial to the protection of evolutionary processes that are likely to generate future evolutionary diversity.³¹ This may be particularly important considering the potential impacts of climate change and the changes in habitat that may result in both Mexico and the United States. The ability for Thick-billed Parrots to use habitat within the United States is therefore ecologically and biologically important to the recovery of the species.

Unfortunately the draft recovery plan's recovery criteria focus only on Thick-billed Parrot populations in Mexico, stating that the species will be considered for downlisting after 15 years of systematic surveys "document a stable or increasing trend in at least 5 known wild thick-billed breeding populations" in Mexico and minimum viable population size and number of breeding colonies are established through research and modeling.³² There are no measurable recovery criteria for any populations in the United States. Instead, the only downlisting criteria is that the "potential for the U.S. to support naturally dispersing or actively relocated thick-billed parrots is assessed, including a review of U.S. historical habitat, current habitat management, and habitat connectivity with Mexico. The need and efficacy of translocating parrots are included in the assessment."³³ An assessment of recovery within the United States is insufficient as a recovery objective for downlisting.

While SCB acknowledges that it is critical that populations of Thick-billed Parrot be stabilized in Mexico, given the projected timeline before the FWS considers downlisting the species in 2050, we recommend that a recovery criterion should be added to the plan that requires at least one self-sustaining population of Thick-billed Parrot within the United States prior to downlisting the species from endangered to threatened. In addition, the recovery plan should address (1) the demographic parameters of a self-sustaining parrot population within the United States in the context of minimum viable populations to maintain the adaptive potential of the species (in light of threats such as climate change),³⁴ and (2) the ability of the U.S. population to naturally exchange individuals with populations in Mexico in terms of effective migrants per generation.³⁵ Discussion of these parameters in the recovery plan is critical because species whose genetic health remains dependent on translocations are considered "intensively managed," which is a more precarious conservation status than "self-sustaining" or "conservation-dependent" (an otherwise self-sustaining species for which continued efforts are required to limit human-caused mortality).³⁶ The ESA makes clear that

³¹ Peter Lesica; Fred W. Allendorf. 1995. *When Are Peripheral Populations Valuable for Conservation?* Conservation Biology 9:753-760.

³² RECOVERY PLAN at 35.

³³ RECOVERY PLAN at 38.

³⁴ See, e.g., Lynch, M., and R. Lande. 1998. *The critical effective size for a genetically secure population.* Animal Conservation 1:70-72. The 50/500 rule specifies that retention of allelic diversity through a long-term balance between mutation and genetic drift may require that such subpopulations be part of a larger metapopulation with an $N_e > 500$. However, Lynch and Lande have proposed that to retain an "evolutionary" minimum viable population size, the effective population may need to be at 5000 individuals

³⁵ Mills, L. S., and F. W. Allendorf. 1996. *The One-Migrant-per-Generation Rule in Conservation and Management.* Conservation Biology 6:1509-1518.

³⁶ Redford, K. H. et al. 2011. *What does it mean to successfully conserve a (vertebrate) species?* Bioscience 61:39-48.



the goal of the act is to “preserve the ability of natural populations to survive in the wild.”³⁷ This is best accomplished by sufficiently large wild populations, as part of the larger metapopulation, to exchange individuals and maintain genetic diversity.

As discussed above, the recovery objectives within the United States are limited to providing technical and financial support, enhancing historic habitat and connectivity, and evaluating the need for translocation. Here again, these recovery objectives are too conservative and vague. While it is imperative to achieve the objectives listed above, more concrete objectives and criteria must be specified to either (1) make dispersal and re-colonization *likely*, not just possible, via naturally connected landscapes, and (2) create objectives that will require translocation should natural re-colonization be unlikely. Currently, there is limited or no dispersal of Thick-billed Parrots from Mexico to the United States. The FWS should create objectives that more specifically address this issue, as will be discussed below in the remainder of SCB’s comments. Recovery objectives and downlisting criteria must clearly relate back to the larger goal of restoring the Thick-billed Parrot in the United States, not just Mexico.

B. The Recovery Plan Should Provide a Timeline for Designating Critical Habitat for the Thick-billed Parrot within the United States.

While the decline of the Thick-billed Parrot within the United States was due initially to excessive shooting, the primary drivers of the species’ decline range-wide is the loss of its old-growth forests due to timber harvesting and overgrazing that has altered the fire-regime of southwest forests.³⁸ Restoration of southwestern forests throughout its range will be critical to the long-term conservation of the species. One of the objectives of the recovery plan is to preserve and enhance historical habitat within the United States and augment cross-border connectivity. The best and most effective approach that would provides a unifying management approach to accomplish this task would be to designate critical habitat for the Thick-billed Parrot within the United States.

Critical habitat identifies areas that contain essential biological and physical habitat features for the conservation of threatened and endangered species, and those lands that may require special management or protection. Critical habitat would provide significant benefits to the Thick-billed Parrot because it mandates a higher habitat conservation standard during Endangered Species Act section 7 consultations, and because it provides detailed guidance on the location of areas essential to the conservation of listed species.³⁹ Most importantly, Section 7 of the ESA requires that all Federal agencies consult with the FWS if a proposed

³⁷ *Trout Unlimited v. Lohn*, 559 F.3d 946, 957 (9th Cir. 2009).

³⁸ RECOVERY PLAN at 1.

³⁹ Emphasizing the importance of critical habitat, the House Committee on Merchant Marine and Fisheries stated “If the protection of endangered and threatened species depends in large measure on the preservation of the species’ habitat, then the ultimate effectiveness of the Endangered Species Act will depend on the designation of critical habitat.” House Committee on Merchant Marine and Fisheries, H.R. Rep. No. 887, 94th Cong. 2nd Sess. at 3 (1976).



agency action might destroy or adversely modify critical habitat.⁴⁰ Thus, if restoring Thick-billed Parrots is the ultimate objective for the FWS, then the first logical step to both restore historic habitat and to enhance connectivity for the parrot would be to identify those areas within the United States that are most likely to support the species. Identifying remaining old-growth and mature forests, and areas where unsuitable practices such as grazing are occurring, is a first step to the recovery of the Thick-billed Parrot.

Under the ESA, the FWS may designate unoccupied habitat as critical habitat if “such areas are essential for the conservation of the species.”⁴¹ In the case of the Thick-billed Parrot, its entire range within the United States is currently unoccupied. But since the ESA also requires the recovery of threatened and endangered species within the United States, habitat within the United States is essential for the conservation of the Thick-billed Parrot. Therefore, SCB recommends that the FWS begin the process of identifying critical habitat including those habitats (mature pine forests) that supported reintroduced Thick-billed Parrots. The recovery plan should propose a timeline for an initial designation of critical habitat in a proposed rulemaking, and a timeline for a final rulemaking to designate critical habitat.⁴² The recovery plan should also establish a timeline for when the FWS will assess how climate change could alter historic habitat, existing habitat, and could also create future suitable habitat for the parrot. Without a detailed discussion of climate change in the context of potential critical habitat and reintroductions under Section 10(j), the recovery plan will not move the species towards recovery within the United States. Finally, as the FWS identifies potential critical habitat, the recovery plan should also lay out a process to help identify, and verify through scientific experimentation, management strategies to actively restore forests in the southwest United States that could support the Thick-billed Parrot.⁴³

C. The Recovery Plan Should Identify Agency Actions that Trigger Section 7 Consultations Under the Endangered Species Act.

A recovery plan is needed to help identify and guide Federal agencies in meeting their obligation under Section 7(a)(1) of the ESA, which requires all Federal agencies to “utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species.”⁴⁴ More importantly, recovery plans provide “context and a framework for implementation of other provisions of the ESA with respect to a

⁴⁰ 16 U.S.C. § 1536(a)(2).

⁴¹ 16 U.S.C. § 1533(5)(A)(ii).

⁴² SCB recognizes that because the Thick-billed Parrot was listed in 1969, the FWS is not required to designate critical habitat for the species. However, the ESA still provides the FWS the discretion to designate critical habitat for species listed prior to 1978. 16 U.S.C. § 1533(5)(B).

⁴³ While SCB supports the general principle of forest restoration through management activities, the efficacy of those species for the forests and the benefits such restoration provide to threatened and endangered species must be carefully evaluated. SCB believes that an experimental approach guided by an Environmental Impact Statement is the best procedural means of meeting this goal. For more information, see SCB’s letter to the Department of Interior on ecological forestry:

http://www.conbio.org/images/content_policy/Letter_to_DOI_FINAL.pdf

⁴⁴ National Marine Fisheries Service & U.S. Fish and Wildlife Service. 2010. *Interim Endangered and Threatened Species Recovery Planning Guidance, Version 1.3* at 1.1-2.



particular species, such as section 7(a)(2) consultations on Federal agency activities.”⁴⁵ In addition to requiring consultations to avoid destruction or adverse modification of critical habitat, as discussed above, Section 7(a)(2) requires *all* Federal agencies to ensure that “*any* action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of listed species” anywhere in the world.⁴⁶ The recovery plan does not provide a detailed framework with respect to Federal agency actions that reach beyond the U.S. border into Mexico, which might impact the Thick-billed Parrot. This failure is particularly egregious because the Mexican government is planning to identify critical habitat within Mexico under its analogous endangered species-protection law.⁴⁷

The Thick-billed Parrot recovery plan is incorrect where it states that the FWS “has no section 7 authority outside the boundaries of the U.S.”⁴⁸ Congress did not intend, and the plain language of the ESA makes clear, that the Section 7 consultation mandate is not limited geographically to the United States. The implementing regulations that the FWS are following, found at 50 C.F.R. § 402.01, that limit the scope of consultations to within the territorial boundaries of the United States conflict with the plain meaning of the ESA. On June 12, 2012, SCB filed an administrative petition with the FWS and the National Marine Fisheries Service, which implements the ESA with respect to marine species, requesting that the Services revise this regulation such that it no longer is in conflict with the text of the ESA.⁴⁹

Even if the FWS believes that it does not have a duty to consult on Federal agency actions outside the territorial boundaries of the United States, the FWS *retains the discretion to do so* where it views such actions as appropriate. For example, in *Defenders of Wildlife v. Norton*,⁵⁰ the Bureau of Reclamation (BOR) entered into consultations with the Services regarding a long-term Multi-Species Conservation Plan regarding its routine, ongoing operations of dams along the lower Colorado in both the United States and Mexican reaches of the river. The BOR initially defined the action area for its lower Colorado River operations as extending from Lake Mead to the U.S.-Mexico International Border and analyzed the effect of its operations on protected species within that action area over the next five years. In response to the draft Biological Assessment, the FWS directed the BOR to analyze impacts on Mexican populations of the Yuma Clapper Rail, the Southwestern Willow Flycatcher, and the Desert Pupfish, as well as to consult with NMFS regarding the possible impacts to two species found in the Gulf of California, the Totoaba Bass and the Vaquita Harbor Porpoise.

⁴⁵ *Id.*

⁴⁶ *Defenders of Wildlife v. Lujan*, 911 F.2d 117, 125 (8th Cir. 1990) *rev'd on other grounds by Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992).

⁴⁷ RECOVERY PLAN at 104.

⁴⁸ RECOVERY PLAN at 27.

⁴⁹ SCB's petition can be found at: http://www.conbio.org/images/content_policy/SCB_Petition_to_Restore_Section_7_Consultations_Global_Scope.pdf

⁵⁰ 275 F.Supp.2d 53 (D.D.C. 2003).



While Federal agency actions that might affect the Thick-billed Parrot will be rare, it is possible that future Federal activities will impact the species. For example, on April 1st, 2012, the United States, Mexico, and Canada pledged to create work towards an integrated, continental energy grid.⁵¹ The development of such a grid would involve multiple federal agencies, and would by definition, have an effect beyond the borders of the United States. The building and siting of transmission lines in the Thick-billed Parrot's range could require consultations with the FWS depending on the route chosen, especially if such a project were to occur in areas that the Mexican government has identified as critical habitat. Thus, the recovery plan should provide sufficient guidance as to where consultations might be required under Section 7 for Federal agency activities that occur or have effects upon parrots or their potential habitat either within the United States or in Mexico.

D. The Recovery Plan Should Discuss Tasks that Will Lead to the Establishment of an Experimental Population Under Section 10(j) of the Endangered Species Act.

The ESA defines conservation to include the transplantation of species from one location to another.⁵² This authority is further expounded in Section 10(j) of the Act, which gives the FWS the ability to establish experimental populations of threatened and endangered species outside of such species' current range.⁵³ Experimental populations are treated as "Threatened" under the ESA, even if the species itself is "Endangered," thereby providing more management flexibility to address possible economic conflicts with experiment populations.⁵⁴ Thus, experimental populations provide an innovative tool to restore and recover endangered species. Unfortunately, the draft recovery plan does not address the use of this tool as a means of restoring the Thick-billed Parrot to the United States. SCB recommends that an objective be considered to use restoration in the future under Section 10(j) and to develop recovery tasks to plan for such events, specifically determining the historic range in the United States, increasing the captive population via the parrot's species survival plan, and continuing to refine release techniques for captive-bred parrots.

Under the FWS's regulations, reintroductions of experimental populations are permitted within a species "probable historic range."⁵⁵ Determining the historic range of the Thick-billed Parrot is problematic. As explained by Snyder and Koenig:

breeding of the species in the U.S. could easily have been overlooked. None of the early first-hand accounts of the species in the U.S. were from trained biologists likely to have been interested in looking for nests....Thick-billed Parrots tend to nest in high-elevation pine forest...few residents of southern Arizona and New Mexico frequented this zone historically. Furthermore,

⁵¹ Joint Statement by North American Leaders, April 2nd 2012.

<http://www.whitehouse.gov/the-press-office/2012/04/02/joint-statement-north-american-leaders>

⁵² 16 U.S.C. § 1532(3).

⁵³ 16 U.S.C. § 1539(j)(1).

⁵⁴ 16 U.S.C. § 1539(j)(2)(C).

⁵⁵ 50 C.F.R. § 17.81(a).



Thick-billed Parrots nest extremely late in the year (mid-summer to mid-fall), a season when most naturalists do not search for bird nests. It is also notable that extremely few historical nest records exist for the species in Mexico. The absence of nesting records from the U.S. must be judged from a perspective that acknowledges the very low probability of Thick-billed Parrot nests being reported from any location.

Because of the lack of certainty regarding the Thick-billed Parrot's historic range, the recovery plan should set forth a process wherein FWS can analyze areas of suitable parrot habitat in conjunction with a proposed critical habitat designation identifying the historic range of the species. Given the nesting attempts of the parrot in southeastern Arizona and along the Mogollon Rim in central Arizona during the late 1980's, SCB recommends that the FWS have a relatively flexible standard in defining the probable historic range of the parrot in Arizona and southwestern Arizona.

Second, the recovery plan should include tasks and possible funding needs to augment the captive population of Thick-billed Parrots that are part of the species survival plan (SSP). Because Thick-billed Parrots are a gregarious species, and require flocks to effectively forage and evade predators, Snyder and Koenig concluded that future reintroduction programs would require substantially more birds than the 88 birds released during the 1988-1993 releases. While the early releases involved translocated wild parrots from Mexico, this option may no longer be available because Mexican law now prohibits the export of any wild or captive parrot species. Furthermore, depleting wild populations in Mexico to initiate a U.S. population would be difficult to justify. Therefore, more effort needs to go into building a captive population that can provide individuals for release into the wild. Given the potential expense of such a project, the recovery plan should discuss in greater detail ways to develop new conservation partnerships to accomplish this specific task. Currently, the recovery plan only identifies the development of partnerships generally as a recovery goal. This level of detail is insufficient, especially in light of the many qualified private conservation organizations and zoo facilities with specialized skills regarding captive-breeding and release of endangered species.

Third, in order to make future releases, more effort needs to be done to improve release techniques for captive-bred parrots. As was described by Snyder and Koenig, captive-raised individuals had higher mortality than wild-translocated parrots. However, the authors also acknowledged that such releases could be successful when sufficient efforts were made to train parrots on proper foraging techniques and predator avoidance. Such work could be in conjunction with use of artificial nest boxes and more modern hatch techniques.

E. The Recovery Plan Should Discuss FWS Law Enforcement Efforts to Stem the Illegal Parrot Trade and Rescue Birds Held Illegally in Captivity.

As stated in the recovery plan, the main threat to the Thick-billed Parrot other than habitat loss and degradation is illegal capture for the pet trade. Between 1984 to 1994 more



than 1,000 parrots were estimated to be captured and illegally smuggled into the U.S. for the pet market, and the Thick-billed Parrots was eighth in a list of the top ten parrot species seized at the southern border by USFWS for the period 1995-2005.⁵⁶ Yet, despite the seriousness of this threat, the recovery plan's criteria with respect to pet trade are limited and vague. While SCB recognizes that the FWS's law enforcement resources are limited, the recovery plan should identify concrete steps to improve its efforts to combat the illegal pet trade along the U.S./Mexico border and to further crack down on commercial sale or transport of listed parrot species within the United States. Given its listing as an Appendix I species under CITES, importation, interstate trade in, or possession of the Parrot, without a permit, such as one for scientific research, is a violation of both the ESA and the Lacey Act, making prosecution for such violations more efficient and less complex than for some other acts that may also harm the species.

More individual parrots are likely needed to augment the captive zoo populations for there to be sufficient numbers for a successful reintroduction program in Arizona. Taking birds out of the wild to augment the captive population should be viewed as a last-resort measure only because in-situ conservation is generally preferred over ex-situ conservation efforts.⁵⁷ Therefore, one way of increasing the captive population without impacting wild populations would be to increase law enforcement efforts to confiscate illegally held parrots. Increased law enforcement efforts would also potentially serve as a deterrent to additional trade in illegally-captured parrots, thereby reducing some pressure on wild populations. The recovery plan should identify areas where FWS can provide additional law enforcement resources to the illegal parrot trade and efforts to confiscate birds already held within the United States as a means of augmenting the captive-breeding population for later release into the wild.

Conclusion

Cooperation with Mexico and support of recovery activities in Mexico are the most urgent priorities to stabilize the Thick-billed Parrot within its current range, and SCB supports the FWS's collaborative approach to assist Mexico in this objective. However, as a species that was once found in the southwest United States, recovery of the Thick-billed Parrot within its historic U.S. range must be planned for as soon as possible. The recovery plan must provide recovery criteria and recovery tasks that will lead to this objective as well, including the designation of critical habitat within the United States in light of factors such as climate change, and plans to reintroduce the species under Section 10(j) of the ESA. Thank you for your consideration.

John Fitzgerald, J.D.
SCB Policy Director

⁵⁶ RECOVERY PLAN at 25.

⁵⁷ N. Snyder et al. 1996. *Limitations of Captive Breeding in Endangered Species Recovery*. Conservation Biology 10:338-348.



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Brett Hartl, J.D.
SCB Policy Fellow