

# SCIENCE, POLITICS AND PYGMY-OWLS

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## I. INTRODUCTION.

Section 4 of the Endangered Species Act (“ESA”), 16 U.S.C. § 1533, establishes the criteria and procedures for listing species, as well as the designation of species’ critical habitat, and is one of the most important provisions of the statute. For example, Congress has stated:

The cornerstone of effective implementation of the Endangered Species Act is the process to determine which species should be listed as endangered or threatened and which listed species should be reclassified or removed from the list (delisted). Listing is critically important because it sets in motion the Act’s other provisions, including the protective regulations, consultation requirements and recovery efforts.

S. Rep. No. 97-418, at 16 (1982).

Listing determinations, i.e., placing species on the lists codified at 50 C.F.R. §§ 17.11 (animals) and 17.12 (plants), must be based “*solely* on the basis of the best scientific and commercial data available” after taking into account any efforts being made by any foreign country, state or political subdivision to protect the species. 16 U.S.C. § 1533(b)(1)(A) (emphasis supplied). As explained by Congress, the “addition of the word *solely* [was] intended to remove from the process of listing or delisting of species any factor not related to the biological status of the species.” H. Rep. No. 97-567, at 20 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2820.

The regulations adopted jointly by the Fish and Wildlife Service (“FWS”) for the Department of the Interior and NOAA Fisheries-National Marine Fisheries Service (“NMFS”) for the Department of Commerce implementing Section 4 similarly provide:

In determining whether a particular taxon or population is a species for the purposes of the Act, the Secretary [i.e., FWS or NMFS] shall rely on standard taxonomic distinctions and the biological expertise of the Department and the scientific community concerning the relevant taxonomic group.

50 C.F.R. § 424.11(a). In the preamble to this rulemaking, the Services also emphasized, in response to comments regarding the quality and validity of the biological data used in the listing process, “that listing decisions should not be made on the basis of faulty or inconclusive information.” *Listing Endangered and Threatened Species and Designating Critical Habitat; Final Rule*, 49 Fed. Reg. 38,900, 38,903 (Oct. 1, 1984).

Despite the requirement that listing determinations be based solely on science, however, other considerations often influence agency decisions, particularly where the “species” actually consists of a population of animals. Former FWS director Jamie Rappaport Clark, upon leaving office, noted:

This whole notion of distinct population segments . . . as deployed under the ESA is very much about policy, as much as it is about science.

“Protect the Artic, Warns Outgoing Fish and Wildlife Chief,” *Environment News Service*, January 8, 2001. As Ms. Clark’s candid remark illustrates, the Services’ decision-making process may be improperly influenced by non-scientific considerations.<sup>1</sup>

A prime example of policy influencing the listing process is the listing of the Arizona population of the cactus ferruginous pygmy-owl in 1997. The linchpin of FWS’s listing decision was its determination that the Arizona pygmy-owl population constitutes a distinct population segment (“DPS”) and, therefore, satisfies the definition of a “species” under the ESA. As explained below, the pygmy-owl listing decision was not based on credible scientific data. Instead, FWS created a DPS based on non-scientific factors and listed pygmy-owls in Arizona as an endangered species because Arizona “is the area in which the United States government, through the Department of the Interior, can affect [sic] protection and recovery for this species.” *Determination of Endangered Status for the Cactus Ferruginous Pygmy-Owl in Arizona; Final Rule*, 62 Fed. Reg. 10,730, 10,737 (March 10, 1997) (“CFPO Listing Rule”).

Before discussing the litigation concerning the Arizona pygmy-owl population and FWS’s proposed rule to delist the Arizona pygmy-owl population published last August, this paper will provide a discussion of the listing process and the criteria governing the listing of species under Section 4 and its implementing regulations, and highlight current issues relating to the listing process.<sup>2</sup>

## **II. AN OVERVIEW OF THE PROCESS AND CRITERIA FOR LISTING SPECIES.**

### **A. Key Definitions.**

The definition of the term “species” is found in Section 3 of the ESA and is very broad. The definition includes any “subspecies” of fish, wildlife or plants, as well as any “distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” 16 U.S.C. § 1532(16). The criteria for the treatment of a population of fish or wildlife as a DPS, and therefore as a “species” under the ESA, are set forth in a policy jointly adopted by FWS and NMFS in 1996. *Policy Regarding the Recognition of Distinct Vertebrate Population Segments*,

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<sup>1</sup> Ms. Clark had no difficulty finding employment after leaving her position as FWS Director. She is currently the Executive Vice President of Defenders of Wildlife and has been a frequent critic of the Bush administration. *E.g.*, Press Release, “Circuit Court Blocks Bush Administration End Run Around Endangered Species Act,” August 23, 2005, available at <http://www.defenders.org/releases/pr2005/pr082305b.html> (“The Bush administration continues to . . . turn their back on science and ignore the advice of local biologists, all while pushing plants and animals to the brink of extinction.”).

<sup>2</sup> FWS has published a handbook on the listing process that, while somewhat outdated, provides a significant amount of procedural detail and can be very useful. *Endangered Species Handbook: Procedural Guidance for the Preparation and Processing of Rules and Notices Pursuant to the Endangered Species Act* (4<sup>th</sup> ed. March 1994). See also J.B. Ruhl, *Section 4 of the ESA: The Keystone of Species Protection Law*, in *Endangered Species Act: Law, Policy, and Perspective* 19 (Donald C. Baur & Wm. Robert Irvin eds. 2002).

61 Fed. Reg. 4,722 (Feb. 7, 1996) (“DPS Policy”).<sup>3</sup> Despite Congress’ admonition to FWS use the ability to list populations “sparingly” (S. Rep. No. 96-151, at 7 (1979)), the listing of populations of animals and fish have become increasingly common. See Kate Geoffrey and Thomas Doyle, *Listing Distinct Population Segments of Endangered Species: Has It Gone Too Far?*, in *16 Natural Resources & Environment*, Fall 2001, at 82. The DPS Policy is discussed in more detail in Section III, below.

A species may be listed as “endangered” if it is “in danger of extinction throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6). A species may be listed as “threatened” if it “likely to become endangered in the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(20). See *Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1143-44 (9<sup>th</sup> Cir. 2001) (a species may be considered in danger of extinction “throughout . . . a significant portion of its range” if there are “major geographical areas in which it is no longer viable”); *Defenders of Wildlife v. Secretary, U.S. Dept. of Interior*, 354 F.Supp.2d 1156 (D. Ore. 2005) (applying Ninth Circuit’s interpretation of “significant portion of its range” in *Norton* in holding that FWS rule reclassifying gray wolf DPSs is unlawful). Finally, a third category of species, “candidate” species, has been defined by rule. A candidate species is a species being considered by the agency for listing, but is not yet the subject of a proposed listing rule. 50 C.F.R. § 424.02(b).

## **B. The Process and Criteria for Listing Species.**

### **1. The Procedural Requirements.**

The listing process may be initiated by either the Service (that is, either FWS or NMFS), through the identification of candidate species believed to qualify for listing, or by any “interested person,” who files a written petition containing substantial evidence supporting the proposed listing. See 50 C.F.R. § 424.14. The Service must make a finding on whether a petitioned action may be warranted within 90 days after the petition is filed “to the maximum extent practicable.” 16 U.S.C. § 1533(b)(3)(A); 50 C.F.R. § 424.14(b)(1). The agency’s finding must be published in the Federal Register. *Id.*

If the Service finds that listing may be appropriate or has determined that a petitioned action may be warranted, the agency conducts a status review to evaluate more closely the need to list the species. The agency will request scientific data and information on the species, which allows interested members of the public an opportunity to submit their views on listing the species. Within 12 months from the date on which the petition was filed, the Service must make a formal finding regarding whether listing is warranted. At this point in the process, the agency may determine that listing is warranted, that listing is not warranted or that listing is warranted

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<sup>3</sup> NMFS had previously adopted a policy governing the application of the term “species” to anadromous salmonid species. *Policy in Applying the Definition of Species Under the Endangered Species Act to Pacific Salmon*, 56 Fed. Reg. 58612 (Nov. 20, 1991). This policy adopts the concept of “evolutionarily significant unit” or “ESU.” To be considered an ESU, a population must be reproductively isolated from other population units of the same species, and must represent an important component in the evolutionary legacy of the biological species. See also Robin Waples, *Definition of “Species” under the Endangered Species Act: Application to Pacific Salmon*, NOAA Technical Memorandum NMFS F/NWC-194 (March 1991).

but precluded because of other pending proposals to list or delist species. *See Center for Biological Diversity v. Norton*, 254 F.3d 833, 837-38 (9<sup>th</sup> Cir. 2001) (discussing requirements associated with “warranted, but precluded” petition finding). In any case, the Service must publish a notice of its finding in the Federal Register. 16 U.S.C. § 1533(b)(3)(B); 50 C.F.R. § 424.14(b)(3).

If the Service decides to proceed with the listing of a candidate species, or if it determines that the petitioned action is warranted, it must publish the complete text of the proposed regulation listing the species, in addition to the notice of its finding, in the Federal Register. The notice must be published at least 90 days before the effective date of the regulation. In addition, FWS must give notice to a variety of different entities. For example, the Service must give notice of the proposed regulation (including the regulation’s complete text) to each state and county in which the species is believed to occur, and invite comments on the proposed listing. 16 U.S.C. § 1533(b)(5)(A); 50 C.F.R. § 424.16(c)(ii). The agency must also give notice of the proposed regulation to each foreign nation in which the species is believed to occur and invite comment. 16 U.S.C. § 1533(b)(5)(B); 50 C.F.R. § 424.16(c)(1)(iv). In addition, notice must be given to professional scientific organizations, and a summary of the proposed regulation must be published in a newspaper of general circulation in each area in which the species is believed to occur. 16 U.S.C. § 1533(b)(5)(C) & (D); 50 C.F.R. § 424.16(c)(1)(v) & (vi).

At this point, interested persons are again given the opportunity to submit formal comments as well as scientific and commercial data regarding the listing proposal. Also, any person may file a request for a public hearing on the proposed action within 45 days after publication of the agency’s notice in the Federal Register. 16 U.S.C. § 1533(b)(5)(E); 50 C.F.R. § 424.16(c)(3).<sup>4</sup>

Ultimately, within one year from the date on which the general notice of the finding that listing is warranted was published in the Federal Register, the Service must either publish in the Federal Register a final regulation implementing the determination (i.e., listing the species) or a notice that the proposed regulation is being withdrawn. 16 U.S.C. § 1533(b)(6)(A)(i); 50 C.F.R. § 424.17. However, if the Service finds that substantial disagreement regarding the sufficiency or accuracy of the scientific data exists, it may extend the time period for not more than six months to solicit additional data on the species. 16 U.S.C. § 1533(b)(6)(B)(i); 50 C.F.R. § 424.17(a)(1)(iv).

The administrative process summarized above is applicable to listing a species, reclassifying a species from threatened to endangered (or vice versa), and removing a species from the threatened and endangered species list. *See* 16 U.S.C. § 1533(b)(3)(A) (authorizing an interested person to submit a petition to either add a species to, or to remove a species from, either of the lists). While these procedural requirements make for dry reading, courts generally take them very seriously, and they provide a fertile ground for lawsuits by environmental groups. *E.g., Biodiversity Legal Foundation v. Badgley*, 309 F.3d 1166 (9<sup>th</sup> Cir. 2002) (granting

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<sup>4</sup> The public hearing is not adversarial in nature. For example, members of the public are not permitted to question agency employees about the basis for the proposed action. Instead, agency employees will typically provide an overview of the action, following which members of the public are invited to present comments. These comments then become part of the administrative record.

injunctive relief to enforce non-discretionary 12-month deadline for final determination on petitioned action).

It is very important for persons impacted by a proposed listing (or proposed critical habitat determination) to participate in this process and, in particular, to submit studies, reports and other scientific data and background information. Any subsequent challenges to a listing determination will be decided on the basis of the record before the agency. *See, e.g., Southwest Center for Biological Diversity v. U.S. Forest Service*, 100 F.3d 1443, 1450-51 (9<sup>th</sup> Cir. 1996) (excluding post-decisional documents in lawsuit challenging timber sale). Do not make the mistake of assuming important documents or information will be included in the administrative record.

## **2. The Criteria for Listing Determinations.**

### **a. Best Available Scientific and Commercial Data.**

As discussed in the introduction, the determination to list a species must be based solely on “the best scientific and commercial data available,” after taking into account any efforts being made by a foreign country, state or political subdivision to protect the species. 16 U.S.C. § 1533(b)(1)(A). The use of the word “solely,” added to the statute in 1982, was intended to “ensure that decisions pertaining to the listing and delisting of species are based solely upon biological criteria and to prevent non-biological considerations from affecting such decisions.” H. Rep. No. 97-567, at 19 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2819. Consequently, in contrast to the designation of critical habitat, the economic and other impacts of listing a species as threatened or endangered are not considered. However, Congress also cautioned that “the listing of a species for emotional reasons or based on improper biological data is just as improper as not listing a species for economic reasons.” *Id.* at 22, *reprinted in* 1982 U.S.C.C.A.N. 2822 (noting that a number of species’ listings were, at that time, probably not justified).

### **b. The Five Statutory Criteria.**

The text of the ESA prescribes five specific factors that must be considered in connection with listing or delisting a species, further limiting the Service’s discretion. Those factors are:

- (1) The present or threatened destruction, modification or curtailment of the species’ habitat or range;
- (2) Overuse for commercial, recreational, scientific or educational purposes;
- (3) Disease or predation;
- (4) The inadequacy of existing regulatory mechanisms to protect the species; or
- (5) Other natural or man-made factors concerning or affecting the species’ continued existence.

16 U.S.C. § 1533(a)(1). *See also* 50 C.F.R. § 424.11 (factors for listing, delisting or reclassifying species). A determination will be arbitrary and capricious if it fails to articulate a rational basis for the agency's decision using the five factors listed above. *See, e.g., San Luis & Delta-Mendota Water Auth. v. Badgley*, 136 F.Supp.2d 1136 (E.D. Cal. 2000) (FWS failed to consider data contrary to proposed listing and failed to provide rational explanation for determination); *Defenders of Wildlife v. Babbitt*, 958 F.Supp. 670, 683-84 (D.D.C. 1997) (FWS acted arbitrarily and capriciously in rejecting views of its own experts).

**c. Efforts to Protect the Species.**

Section 4(b)(1)(A) also requires the Service to “tak[e] into account those efforts, if any, being made by any State of foreign nation, or any political subdivision, to protect” a species being considered for listing. 16 U.S.C. § 1533(b)(1)(A). Generally, courts have strictly construed this language, and have rejected attempts by the Service to avoid listing a species on the basis of prospective management plans and other protective actions that are not currently implemented. For example, in *Oregon Natural Resources Council v. Daley*, 6 F.Supp.2d 1139 (D. Ore. 1998), the court found that NFMS acted arbitrarily and capriciously in declining to list the Oregon Coast coho salmon ESU on basis of a comprehensive state initiative designed to protect salmon and other aquatic resources and a memorandum of understanding made between the state and NFMS. The court stated:

However laudable, Oregon's efforts to employ new management techniques to try to restore the Oregon Coast ESU, such future, voluntary conservation efforts cannot be a legal substitute for listing. . . . Any rational listing decision requires the testing of conservation measures to determine their effectiveness in protecting a species. Should the [state management program] ultimately achieve the results its proponents predict, the Oregon Coast ESU may be delisted.

6 F.Supp.2d at 1159. *See also, e.g., Friends of the Wild Swan, Inc. v. U.S. Fish and Wildlife Service*, 945 F.Supp. 1388, 1398 (D. Ore. 1996); *Biodiversity Legal Foundation v. Babbitt*, 943 F.Supp. 23, 26 (D.D.C. 1996).

In 2003, the Services published a joint policy for evaluating conservation efforts in connection with listing determinations. *Policy for Evaluation of Conservation Efforts When Making Listing Decision*, 68 Fed. Reg. 15,100 (March 28, 2003). Under this policy, two factors are critical to the Service's evaluation: (1) the certainty that the conservation effort will actually be implemented, and (2) the certainty that the conservation effort will be effective. *Id.* at 15,104. With respect to the first factor, the parties must demonstrate that adequate staffing and funding are available; legal and regulatory authority to implement the conservation effort are in place; authorizations (e.g., permits, landowner approvals) have or will be obtained; an implementation plan is in place; and all participating parties have approved the agreement or plan. *Id.* at 15,114-15. To demonstrate the effectiveness of the conservation effort, the nature and extent of the threats and how they will be reduced must be described; and the steps necessary to implement the conservation effort must be identified in detail, along with quantifiable, scientifically valid

parameters to show the achievement of objectives and provisions for monitoring and reporting. *Id.* at 15,115.

Ultimately, the Service “must find that the conservation effort is sufficiently certain to be implemented and effective so as to have contributed to the elimination of one or more threats to the species identified through the Section 4(a)(1) analysis.” *Id.* Even if a conservation plan containing these elements is provided, however, there is no guarantee that the species will not be listed anyway, which creates little incentive for states and private parties to develop conservation programs.

### **3. Other Aspects of the Listing Process.**

#### **a. Emergency Listings.**

A species may be listed on a temporary basis and without completing the procedures discussed above when an “emergency pos[es] a significant risk to the well-being of any species.” 16 U.S.C. § 1533(b)(7). *See also* 50 C.F.R. § 424.20. The emergency rule must be published in the Federal Register and include a detailed discussion of the reasons why the rule is necessary. In addition, if the rule applies to a species found in the United States, the Service must give actual notice to the state agency in each state in which the species is believed to occur. The emergency rule takes effect immediately upon publication or as the Service otherwise determines, in its discretion. An emergency rule remains in effect for a maximum of 240 days unless, within that period, the procedures normally applicable to listing a species are completed. In addition, the Service is required to withdraw an emergency rule anytime it appears, based on the best scientific and commercial data available, that substantial evidence does not exist to warrant the listing.

#### **b. Five-Year Status Reviews.**

Another important, but often overlooked, provision in Section 4 requires the Service to conduct a review of all listed species at least once every five years. 16 U.S.C. § 1533(c)(2). *See also* 50 C.F.R. § 424.21. In addition, the Service may review the status of any species at any time based on a petition or any other data that becomes available to the agency. 50 C.F.R. § 424.21. The purpose of this review is to determine whether a species should be delisted or be reclassified from threatened to endangered (or vice versa). Determinations are made under this provision in accordance with the criteria specified in Section 4(a)(1) and utilizing the notice-and-comment procedures specified in Section 4(b). The Service must publish a notice in the Federal Register indicating each species currently under active review. *Id.*

Despite the mandatory nature of the five-year review requirement and the important role that this requirement plays in ensuring that species are properly listed, relatively few status reviews are conducted. This situation is likely attributable to the significant number of species listed (currently over 1,850), which would require, on average, the status of 370 species to be reviewed each year. Typically, reviews are triggered by new information or other circumstances that raise questions regarding a species’ current classification. *See, e.g., 5-Year Review of Lesser Long-nosed Bat, Black-capped Vireo, Yuma Clapper Rail, Pima Pineapple Cactus, Gypsum*

*Wild-Buckwheat, Mesa Verde Cactus, and Zuni Fleabane, Notice of Review*, 70 Fed. Reg. 5,461 (Feb. 2, 2005).<sup>5</sup>

#### 4. More on Species' Delisting.

As previously discussed, the same criteria and procedures apply to all listing determinations, including determinations on whether to remove a species from the list of endangered and threatened species, i.e., “delist” the species. *See* H.R. Rep. No. 97-567, at 12 (1982) (“In order to clarify that delisting should be based on the same criteria and conducted according to identical procedures as listing a species, the Committee amended Section 4 to include delisting in all cases where listing is addressed.”). The overriding requirement is, again, that listing and delisting decisions be made “*solely* on the basis of the best available scientific and commercial information.” 50 C.F.R. § 424.11(b) (emphasis in original); *compare* 50 C.F.R. § 424.11(d) (“removal [from the list] must be supported by the best scientific and commercial data available to the Secretary after conducting a review of the status of the species”).<sup>6</sup>

A species may be delisted “only if” the best scientific and commercial data available substantiate that it is neither endangered nor threatened for one or more of three reasons: (1) extinction, (2) recovery, or (3) the original data supporting listing were “in error.” 50 C.F.R. § 424.11(d). In explaining the last reason for delisting, the rule states: “Subsequent investigations may show that the best scientific or commercial data available when the species was listed, or the interpretation of such data, were in error.” *Id.*

In evaluating whether to delist a species, the Service “shall consult as appropriate with affected States, interested persons and organizations, other affected Federal agencies, and, in cooperation with the Secretary of State, with the country or countries in which the species concerned are normally found . . . .” 50 C.F.R. § 424.13. The Service “may” review such data as “scientific or commercial publications, administrative reports, maps or other graphic materials, information received from experts on the subject, and comments from interested parties.” *Id.*

A final rule promulgated under Section 4 of the ESA normally will take effect not less than 30 days after publication in the Federal Register. 50 C.F.R. § 424.18(b)(1). A survey of final delisting rules from the past five years indicates that the Services’ typical practice is to make delisting rules effectively immediately (i.e., foregoing the 30 day waiting period) by invoking 5 U.S.C. § 553(d). For example, in making its rule delisting the Mariana mallard and the Guam broadbill immediately effective, FWS explained:

In accordance with 5 U.S.C. 553(d), we have determined that this rule relieves an existing restriction and good cause exists to make

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<sup>5</sup> Serious questions have been raised about the propriety of listing several of the species included in this status review. *See, e.g.*, “‘Endangered’ cactus may be prolific,” *Arizona Daily Star* (mobile edition May 9, 2004) (Pima pineapple cactus); “Bat’s ‘endangered’ listing a blunder, many experts say,” *Arizona Daily Star* (mobile edition Sept. 19, 2004) (lesser long-nosed bat).

<sup>6</sup> In addition, FWS must concur with any delisting (or classification) of a species proposed by NFMS. 16 U.S.C. § 1533(a)(2)(B).

the effective date of this rule immediate. Delay in implementation of this delisting could cost government agencies staff time and monies in conducting formal section 7 consultation on actions that may affect a species no longer in need of protection under the Act. Relieving the existing restrictions associated with this listed species will enable Federal agencies to minimize any delays in any ongoing or future project planning and implementation actions that may have affected the Mariana mallard and Guam broadbill.

*Removing the Mariana Mallard and the Guam Broadbill; Final Rule*, 69 Fed. Reg. 8,116, 8,118 (Feb. 23, 2004). See also *Final Rule To Remove the Tinian Monarch From the Federal List of Endangered and Threatened Wildlife*, 69 Fed. Reg. 56,367, 56,372 (Sept. 21, 2004); *Final Rule To Remove the Douglas County Distinct Population Segment of Columbian White-Tailed Deer From the Federal List of Endangered and Threatened Wildlife*, 68 Fed. Reg. 43,647, 43,657 (July 24, 2003).

Species have been delisted for a variety of reasons. For example, species have been delisted due to revelations about the science underlying their original listing and its impact on the Service's taxonomic classification. In reviewing the status of the Truckee barberry, for instance, FWS explained:

We have carefully assessed the best scientific and commercial information available regarding the taxonomic classification of *Berberis* (=Mahonia) *sonnei* and have determined that previous classification of the species is not taxonomically correct and that the entity listed as *B. sonnei* does not meet the definition of "species" in the Act. Therefore, we have determined that it is appropriate to delist or remove *Berberis* (=Mahonia) *sonnei* from the List of Endangered and Threatened Plants.

*Delisting of the Berberis* (=Mahonia) *sonnei* (*Truckee barberry*); *Final Rule*, 68 Fed. Reg. 56,564, 56,566 (Oct. 1, 2003).

Similarly, in its rule delisting the Umpqua River cutthroat trout ESU, NMFS explained:

New information collected during the coastwide status review indicate that the Umpqua River populations are part of a larger Oregon Coast ESU that previously was determined to be neither threatened nor endangered under the ESA (64 FR 16397, April 5, 1999). Therefore, NMFS concludes that the Umpqua River cutthroat trout should be removed from the Federal List of Endangered and Threatened species, thereby removing all protections provided by the ESA. FWS concurs with this action in accordance with 4(a)(2)(B) of the ESA.

*Final Rule to Remove Umpqua River Cutthroat Trout From the Federal List of Endangered and Threatened Species, Final Rule*, 65 Fed. Reg. 20,915, 20,918 (April 19, 2000). See also 12-

*Month Finding on a Petition to Delist the Preble's Meadow Jumping Mouse (Zapus hudsonius preblei) and Proposed Delisting of the Preble's Meadow Jumping Mouse*, 70 Fed. Reg. 5,404 (Feb. 2, 2005) (new scientific data indicates the Preble's meadow jumping mouse is not a distinct taxonomic unit, i.e., a subspecies of meadow jumping mouse); *Proposed Removal of the Plant Agave arizonica (Arizona agave) From the Federal List of Endangered and Threatened Plants*, 70 Fed. Reg. 1,858 (Jan. 11, 2005) (the Arizona agave determined to be a sporadically occurring hybrid of two common agave species and therefore not a distinct taxon). As more taxonomic classifications are reviewed utilizing more advanced analytical techniques and methods, such as the examination of DNA evidence, the number of taxonomic errors of this nature is likely to increase.

Delistings may also be justified when the data demonstrate that a species simply no longer qualifies for listing. Often, more obscure species are not studied intensively, and little is known about them until the species has been listed. *See, e.g., Delisting the Plant Frankenia johnstonii (Johnston's frankenia) and Notice of Petition Finding; Proposed Rule*, 68 Fed. Reg. 27,961 (May 22, 2003):

Due to an expansion of our knowledge of the species' known range, the number of newly discovered populations, some with large numbers of individual plants, increased knowledge of the life history requirements of this species, and clarification of the degree of threats to its continued existence, we have determined that Johnston's frankenia is not in danger of extinction throughout all or a significant portion of its range now or within the foreseeable future.

*See also 90-Day Finding on Petition To Delist the Stephens' Kangaroo Rat and Initiation of a 5-Year Review*, 69 Fed. Reg. 21,567, 21,568 (April 21, 2004) (“We have found that substantial information relating to the distribution of the species and factors threatening its continued existence has become available since the Stephens' kangaroo rat was listed as an endangered species. We believe that it is appropriate to consider this information, and any other new information available about this species and the threats it may face, in a status review.”).

The recent 90-day finding on a petition to delist the Pacific coast population of the western snowy plover offers insight into the type of information FWS finds “substantial.” The primary evidence offered in support of the petition was a master's thesis undermining the agency's determination that the Pacific coast population is isolated from other populations. FWS explained:

The Gorman thesis and the information in our files regarding possible interbreeding raise issues relevant to a DPS determination that we conclude should be examined more closely in a status review. During this review, we will reevaluate our DPS determination for this population in accordance with our DPS policy (61 FR 4722). The petition also presents information regarding the significance of the Pacific Coast [population] under the DPS policy, and regarding the extent to which the population

may actually be threatened. We will address that information more thoroughly in the status review.

*90-Day Finding on a Petition To Delist the Pacific Coast Population of the Western Snowy Plover and Initiation of a 5-Year Review*, 69 Fed. Reg. 13,326, 13,328 (March 24, 2004).

### **III. THE PYGMY-OWL DPS LITIGATION.**

#### **A. Overview of “Distinct Population Segments.”**

The classifications of plant and animal species entitled to protection under the ESA have changed significantly over time. Under an early version of the ESA, only groups of animals classified as “species” were entitled to protection. See Pub. L. No. 89-669, Sections (a) and (b), *reprinted in* 1966 U.S.C.C.A.N. 1096. Later, either “species” or “subspecies” could be afforded such protection. Pub. L. No. 91-135, Section 3(a), *reprinted in* 1969 U.S.C.C.A.N. 300.

In 1973, when the current form of the ESA was enacted, the classifications entitled to the statute’s protections were expanded to include species, subspecies, and “any other group of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when mature.” Pub. L. No. 93-205, Section 3(11), *reprinted in* 1973 U.S.C.C.A.N. 981. In 1978, Congress amended the definition of species to include any “distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” Pub. L. No. 95-632, Section 2(5), 92 Stat. 3752 (1978).

The following year, Congress reconsidered its decision to allow the Services to list DPSs based on concerns that the agencies may arbitrarily designate a listable entity by carving out small groups of animals that individually, yet not collectively, warrant ESA protection. In proposing an amendment to the definition of “species,” the General Accounting Office expressed its fear that “this could result in the listing of squirrels in a specific city park, even though there is an abundance of squirrels in other parks in the same city, or elsewhere in the country.” S. Rep. No 96-151, at 6-7 (1979). The Services “oppose[d] such change on the basis that it would severely limit their ability to require the appropriate level of protection for a species based on its *actual biological status*.” *Id.* (emphasis added). Ultimately, Congress did not restrict the Service’s authority to list populations of animals, but cautioned: “the committee is aware of the *great potential for abuse* of this authority and expects the FWS to use the ability to list populations sparingly and only when the *biological evidence* indicates that such action is warranted.” *Id.* (emphasis added).

Unfortunately, it has become increasingly common for populations of animals to be treated as species and listed. From 1978 through 2000, approximately 60 DPSs have been listed. However, 39 of those DPSs were listed *after* 1995. Kate Geoffroy and Thomas Doyle, *Listing Distinct Population Segments of Endangered Species: Has It Gone Too Far?*, *supra*, at 84. My review of recent listing decisions suggests that this trend has continued. See <http://endangered.fws.gov/federalregister/index.htm>. As a result, litigation involving the designation of animal populations has increased. See, e.g., *Defenders of Wildlife v. Secretary*, 354 F.Supp.2d. at 1169 - 73 (enjoining rule establishing three DPSs for the gray wolf, two of which were reclassified from endangered to threatened); *Alesea Valley Alliance v. Evans*, 161

F.Supp.2d 1154 (D. Ore. 2001), *aff'd on other grounds*, 358 F.3d 1181 (9<sup>th</sup> Cir. 2004) (vacating listing of “naturally spawned” coho salmon because that population was genetically indistinguishable from “hatchery spawned” coho salmon and did not qualify as a separate DPS).

The balance of this paper will focus on the listing of the cactus ferruginous pygmy-owl DPS in Arizona. In August 2003, the Ninth Circuit held that FWS acted arbitrarily and capriciously in treating the Arizona pygmy-owl population as a DPS. *Nat'l Ass'n of Home Builders v. Norton*, 340 F.3d 835 (9<sup>th</sup> Cir. 2003). The court held that FWS erroneously focused on the significance of the two populations in the United States, while ignoring the larger, contiguous Mexican population, thus failing to follow the DPS Policy's requirements. The Ninth Circuit's opinion effectively declared that the pygmy-owl population in southern Arizona is not a “species,” i.e., not an entity that is eligible for listing under the ESA. Remarkably, more than two years later, the Arizona pygmy-owl population remains listed, and land uses continue to be restricted in southern Arizona to protect the population's habitat.

## **B. Background on the Pygmy-Owl.**

The species ferruginous pygmy-owl is found throughout tropical and subtropical North and South America.<sup>7</sup> The cactus ferruginous pygmy-owl is one of at least four subspecies of ferruginous pygmy-owl. Its range is extensive, extending from southern Arizona, south through western Mexico to the States of Colima and Michoacan, and from southern Texas south through eastern Mexico to the States of Tamaulipas and Nuevo Leon. In southern Mexico and throughout Central America, the subspecies cactus ferruginous pygmy-owl is replaced by another subspecies of ferruginous pygmy-owl, *ridgwayi*. The cactus ferruginous pygmy-owl (hereinafter, “pygmy-owl”) is considered common in the majority of its range in Mexico. The Arizona and Texas populations are found at the northern fringe of the pygmy-owl's range.

The pygmy-owl's habitat varies widely, and includes subtropical scrub and woodland communities such as riverbottom woodlands, woody thickets, coastal plain oak associations, thornscrub and desertscrub, generally at lower elevations. In southern Arizona and northern Mexico, pygmy-owls frequently occupy various Sonoran desertscrub associations of palo verde, bursage, ironwood, mesquite, acacia and giant cacti such as saguaro and organ pipe. The pygmy-owl is also a prey generalist with a diverse diet that includes birds, reptiles, insects, small mammals and amphibians.

FWS suggested in the CFPO Listing Rule the pygmy-owl was common in Arizona in the late 1800s and early 1900s. *See, e.g.*, CFPO Listing Rule at 10,735 and 10,740 (“Population numbers have been drastically reduced in Arizona, which once constituted its major United States range.”). However, the pygmy-owl has never been common in Arizona. Drs. R. Roy Johnson and Steven W. Carothers recently conducted a thorough review of ornithological records from Arizona, finding that the pygmy-owl was rarely mentioned. R. Roy Johnson and Steven W. Carothers, *Distributional History and Current Status of the Cactus Ferruginous Pygmy-Owl* (Sept. 2005) (“Johnson and Carothers Status Report”) at 2-3, 14-17 and Appendix B (specimen

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<sup>7</sup> General background on the pygmy-owl is available in the FWS's published listing and critical habitat determinations. *See also Ecology and Conservation of the Cactus Ferruginous Pygmy-Owl in Arizona*, General Technical Report RMRS-6TR-43 (USDA Forest Service 2000).

and written records for the pygmy-owl in Arizona from 1872 through 1971).<sup>8</sup> There were numerous expeditions to southern Arizona during the late nineteenth century and first half of the twentieth century, and large numbers of professional and amateur ornithologists, as well as specimen collectors, were active in Arizona during this period. *Id.* at 14-16, 17-21. Yet few pygmy-owl specimens were collected. *Id.* at 4 (Tables 2 and 3), 14 and Appendix B (listing records).<sup>9</sup> Similarly, the pygmy-owl was not mentioned in some 200 ornithological papers on southern Arizona written in the late 1800s and early 1900s. *Id.* at 1-2 and Table 1 (listing papers).

Moreover, the small number of pygmy-owl specimens and literature reports are primarily associated with riparian areas, not upland desert. *Id.* at 3-4 and 14-15. For example, in the Tucson area, pygmy-owls were sighted historically along Rillito Creek and in Sabino Canyon. The recent sightings of pygmy-owls in upland desertscrub in northwest Tucson and Marana are probably attributable to favorable conditions created by low-density suburban development, which ultimately cannot support a healthy, breeding population. Johnson and Carothers Status Report at 11-12.

In contrast to other owls, pygmy-owls are diurnal, noisy, and relatively easy to detect. If pygmy-owls were common in Arizona, a much larger number would have recorded and far more specimens taken. *Id.* at 4, 14-22 and Appendices B and C. At best, pygmy-owls were locally common in a small number of wet riparian areas. As Drs. Johnson and Carothers explain, the pygmy-owl is much like other neotropical species whose range barely extends into the southwestern United States. *Id.* at 24-29 and Appendix A. In any case, it is well documented that since 1920, pygmy-owls have rarely been sighted in Arizona. *E.g.*, R. Roy Johnson, et al., *Cactus Ferruginous Pygmy-Owl in Arizona, 1872-1971*, in *The Southwestern Naturalist*, Sept. 2003, at 389.

### **C. The 1997 Listing Rule.**

In May 1992, five environmental organizations submitted a petition requesting that the pygmy-owl be listed as an endangered species. After receiving multiple 60-day notices of intent to sue over its failure to act, FWS published a proposed rule listing the Arizona and Texas populations of the pygmy-owl in December 1994. *Proposed Rule to List the Cactus Ferruginous Pygmy-Owl as Endangered with Critical Habitat in Arizona and Threatened in Texas*, 59 Fed. Reg. 63,975 (Dec. 12, 1994). At that time, FWS believed that the pygmy-owl was dependant on riparian habitat because most historic sightings of pygmy-owls occurred near rivers and other wet riparian areas in southern and central Arizona. *Id.* at 63,977 and 63,983. Consequently, FWS also proposed critical habitat in Arizona consisting entirely of riparian areas along lower elevation rivers and streams, including portions of the Salt and Verde Rivers, portions of the San Pedro River, portions of the upper and middle Gila River, and the Santa Cruz River and several tributaries near Tucson. *Id.* at 63,989 (map).

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<sup>8</sup> A copy of the Johnson and Carothers Status Report is attached to this paper.

<sup>9</sup> From 1872 to 1953, 39 pygmy-owls and 11 egg sets were collected – 50 specimens in 81 years. In contrast, ornithologists and collectors amassed thousands of avian specimens from southern Arizona during that same period. *Id.*

FWS received over 120 written comments in response to the proposed listing rule, the majority of which criticized the proposal, including comments from other agencies within the Department of the Interior, the Governor of Arizona, the Arizona State Land Department and the Arizona Game and Fish Department. Nevertheless, a rule listing the Arizona pygmy-owl population (but not the Texas population) as an endangered species was ultimately published in March 1997, without critical habitat. CFPO Listing Rule, 62 Fed. Reg. 10,730 (March 10, 1997).

Most critically, FWS determined the Arizona pygmy-owl population constitutes a DPS and therefore is a “species” under the definition of that term. In the preamble to the Listing Rule, FWS explained that the pygmy-owl is believed to be one of four subspecies of ferruginous pygmy-owl, and that there may be two distinct populations of this subspecies, a western population found in southern Arizona and western Mexico and an eastern population found in southern Texas and northeastern Mexico. These eastern and western populations are believed to be geographically separated and tend to occupy somewhat different habitat types. FWS, accordingly, determined that the eastern and western populations constitute distinct population segments and satisfy the definition of a “species” under the ESA. *Id.* at 10,731. That determination was primarily based on the existence of the higher elevation Sierra Madre and Occidental ranges in northern Mexico and the Mexican Plateau in central Mexico, which are believed to geographically isolate the two populations.

With little explanation, however, FWS went on to subdivide the western pygmy-owl population at the international border into Arizona and western Mexico populations, thereby creating a DPS consisting solely of pygmy-owls in Arizona. *Id.* at 10,731 and 10,737. Notably, at that time, FWS believed that although pygmy-owls are common in southern Sonora, a 150-mile gap exists between the international border and the nearest pygmy-owls in northern Sonora. *Id.* at 10,741. Data collected after 1997, however, show that a significant breeding pygmy-owl population exists in the area immediately south of the international border. Aaron D. Flesch and Robert J. Steidl, *Distribution, Habitat, and Relative Abundance of Cactus Ferruginous Pygmy-owls in Sonora, Mexico* (Dec. 2000) (available on the Arizona Ecological Services Office website). Flesch and Steidl observed breeding pygmy-owls within three miles of the international border. *Id.* at 14.

Further, in the CFPO Listing Rule, the Service identified only two locations in Arizona containing pygmy-owls, northwest Tucson and Organ Pipe Cactus National Monument, with the majority of pygmy-owls found in northwest Tucson. CFPO Listing Rule at 10,741. In contrast, we now know pygmy-owls are present at various locations in southern Arizona extending from the Altar Valley, west through the Tohono O’odham Nation and Organ Pipe Cactus National Monument to the Cabeza Prieta National Wildlife Refuge. *E.g.*, *Designation of Critical Habitat for the Arizona Distinct Population Segment of the Cactus Ferruginous Pygmy-Owl (Glaucidium brasilianum cactorum)*; *Proposed Rule*, 67 Fed. Reg. 71,032 (Nov. 27, 2002) (“Proposed CH Rule”). The core of the Arizona pygmy-owl population is *not* in northwest Tucson, as believed in 1997, but actually is much closer to the international border, and likely centered in the Tohono O’odham Nation.

#### **D. Impacts of the DPS Listing on Southern Arizona.**

Because of the pervasive nature of federal regulatory programs, many real estate developments, housing projects and other private land uses require some sort of federal permit. The granting of such permits, as well as federal licenses, contracts, leases, easements, rights-of-way and grants-in-aid from federal programs, constitute “actions” as defined in the Service’s regulations governing interagency consultation, 50 C.F.R. § 402.02, and create a federal nexus that may require consultation under Section 7 of the ESA, 16 U.S.C. § 1536(a)(2). In addition, the listing of the Arizona pygmy-owl population made private land users subject to the prohibition on unlawful “takings” of listed species under Section 9 of the ESA. 16 U.S.C. § 1538. *See, e.g., Defenders of Wildlife v. Bernal*, 204 F.3d 920 (9th Cir. 2000) (rejecting claim that construction of high school in northwest Tucson would “take” pygmy-owls).

Developers and homebuilders in southern and central Arizona, particularly in Tucson, Arizona’s second largest metropolitan area, found their projects subject to new restrictions, imposed by FWS during the Section 7 consultation process, designed to protect potential pygmy-owl habitat. These conditions have included:

- The acquisition and preservation of off-site “conservation” land (typically three or four times the area disturbed by the project), funded solely by the landowner.
- Land disturbance is limited to 30% or less within the development – thus, if the landowner owns 80 acres, he is allowed to actually disturb 24 acres, regardless of what the local government has authorized through its planning and zoning process.
- The mandated open space within the development must be permanently maintained and access to those areas restricted in case a pygmy-owl does decide to fly across the property at some future time.
- Pesticides may not be used within the development.
- Exterior lighting and outdoor activities, such as organized events and outdoor cooking, may be restricted to preserve the attractiveness of the area for pygmy-owls.
- An education program for construction workers and/or residents in the development may be required.
- Cats, dogs and other pets must be kept on leashes if allowed outdoors.

These “conservation measures” have been included in various biological opinions issued by FWS during the past five years, which are available for review on the website of the Arizona Ecological Services Office, <http://arizonaes.fws.gov>. Notably, these requirements were *not* imposed as part of an incidental take statement to minimize the taking of species. Instead, these requirements were imposed on the landowner by including them as conditions of the Clean Water Act permit. If the permit applicant refused to accept these conditions, he or she would be

faced with the prospect of a “jeopardy” determination or, at a minimum, protracted negotiations with local FWS employees and significant project delays.

The CFPO Listing Rule has also led to litigation by environmental groups attempting to limit real estate development and other land uses. For example, environmental groups sued the U.S. Army Corps of Engineers to prohibit the use of certain nationwide permits in southern Arizona based on alleged impacts to pygmy-owl habitat caused by development activities. *Defenders of Wildlife v. Ballard*, 73 F.Supp.2d 1094 (D. Ariz. 1999). Environmental groups also sued to enjoin the construction of a new high school in northwest Tucson, alleging that the construction and operation of the school would “take” pygmy-owls. *Defenders of Wildlife v. Bernal*, *supra*. In another lawsuit, environmental groups challenged the failure of the Corps to consult with FWS in issuing individual permits for road and utility line crossings in connection with real estate projects in areas alleged to contain pygmy-owl habitat. Those claims were rejected in *Defenders of Wildlife v. Flowers*, 414 F.3d 1066 (9<sup>th</sup> Cir. 2005).

Environmental groups also challenged the transfer of NPDES permitting authority to the State of Arizona under Section 402(b) of the Clean Water Act, 33 U.S.C. § 1342(b). *Defenders of Wildlife v. U.S. Environmental Protection Agency*, 420 F.3d 946 (9<sup>th</sup> Cir. 2005). In the opinion, the court, by a 2-1 vote, vacated the Environmental Protection Agency’s (“EPA”) decision approving Arizona’s application for authority to issue permits for the discharge of pollutants into navigable waters pursuant to Section 402(b) of the Clean Water Act. 33 U.S.C. § 1342(b). Forty-four states have previously obtained authorization to administer this program. However, the decision authorizing Arizona’s program was vacated based on alleged harm to endangered species.

The environmental groups did *not* contend that Arizona’s program failed to meet the criteria established by Congress in the Clean Water Act and in EPA’s implementing regulations. Instead, they argued EPA violated the ESA because the agency failed to properly consult with FWS under Section 7(a)(2) of that statute. 16 U.S.C. § 1536(a)(2). In determining that it was appropriate to vacate EPA’s decision, the majority singled out the pygmy-owl, stating that fewer than 100 owls are currently known to exist. *Defenders of Wildlife*, 420 F.3d at 978.

Moreover, in 1999 FWS designated more than 700,000 acres of land as critical habitat for the Arizona pygmy-owl population, including some 136,000 acres of private land. *Designation of Critical Habitat for the Cactus Ferruginous Pygmy-Owl; Final Rule*, 64 Fed. Reg. 37,419 (July 12, 1999). A substantial portion of that private land, about 25,000 acres, was located in the Tucson metropolitan area. At that time, FWS determined that the designation of critical habitat would have no economic or other impacts, on the basis that all of the impacts to land uses were the result of the population’s listing. *Id.* at 37,432-33. *Compare* 16 U.S.C. § 1533(b)(2) (FWS must “tak[e] into consideration the economic, and any other relevant impact, of specifying any particular area as critical habitat”).

In short, substantial project delays, increased costs, and lawsuits filed by environmental groups attacking specific projects as well as federal permitting programs caused the real estate industry and private landowners in southern Arizona to look critically at the science underlying the pygmy-owl’s listing. As it turned out, the treatment of pygmy-owls in Arizona as a DPS, i.e.,

a “species” eligible for listing, was based primarily on land use policy rather than biology, prompting Home Builders’ legal challenges.

#### **E. The District Court Litigation.**

The National Association of Home Builders, the Southern Arizona Home Builders Association and the Home Builders Association of Central Arizona (“Home Builders”) originally filed suit in the district court in May 2000, challenging FWS’s decision to list the Arizona pygmy-owl population as an endangered species in 1997 and the agency’s designation of critical habitat for the pygmy-owl in 1999. Home Builders argued to the district court that in classifying the Arizona population of pygmy-owls as a DPS, and thereafter listing that population as an endangered species, FWS impermissibly relied solely upon the existence of the international border with Mexico, as opposed to scientific or biological information. Home Builders further argued that FWS acted unlawfully and arbitrarily in failing to investigate the status of the pygmy-owl in Mexico, which contains the bulk of the pygmy-owl’s range. These actions, Home Builders contended, resulted in the listing of a “species” that did not qualify for protection under the ESA.

In September 2001, the district court issued an order granting summary judgment against Home Builders on their challenge to the CFPO Listing Rule. *Nat’l Ass’n of Home Builders v. Norton*, No. CIV-00-0903-PHX-SRB (Order filed Sept. 21, 2001), 2001 WL 1876349 (D. Ariz.) (unpublished). After stating the only issue is “whether the species is facing extinction here in the United States,” the district court held that “FWS’ decision to divide the ‘western population,’ at the international border between Arizona and Mexico in order to protect the population segment facing extinction within the United States is not only permissible, it is consistent with the policy and intent of the ESA.” 2001 WL 1876349 at \*5. The district court also held that the administrative record contained an adequate explanation for FWS’s division of the western (Arizona and western Mexico) pygmy-owl population at the international border, and supported FWS’s finding that a significant decline in the Arizona population had occurred due to the historic loss of riparian habitat. *Id.* Therefore, FWS’s failure to investigate and consider the status of the pygmy-owl in Mexico was not arbitrary or capricious. Home Builders appealed from the district court’s ruling affirming the CFPO Listing Rule.

#### **F. The Ninth Circuit’s Opinion.**

The central issue on appeal was whether FWS violated the DPS Policy in listing the Arizona pygmy-owl population as an endangered species. Under the DPS Policy, a population of animals may be listed only if that population is both “discrete” (i.e., separated from other populations of the same species) and “significant” (i.e., important to the welfare of the species as a whole).

##### **1. The Test for “Discreteness.”**

An animal population is “discrete” if “it is markedly separated from other populations of the same taxon as a consequence of some physical, physiological, ecological or behavioral factors,” or if “it is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms

exist that are significant in light of section 4(a)(1)(D) of the [ESA].” DPS Policy, 61 Fed. Reg. at 4,725. FWS has acknowledged that “the use of international boundaries . . . may introduce an artificial and non-biological element to the recognition of DPS’s.” *Id.* at 4,723. However, population units may be “delimited by international boundaries when these coincide with differences in the management, status, or exploitation of a species.” *Id.*

In the case of the Arizona pygmy-owl population, Home Builders contended that FWS failed to adequately explain how the test for discreteness was satisfied. In the CFPO Listing Rule, FWS simply stated:

[T]he Service has determined that it is reasonable to recognize units delimited by international boundaries when these units coincide with differences in the management, status, or exploitation of a species. With respect to the pygmy-owl, the Service believes the status of the species in Arizona is different from that in Sonora with records currently indicating a higher number of individuals in Sonora as discussed in this final rule.

While the area classified as the range of the Arizona population may only represent a small percentage of its total range, it is the area within which the United States Government, through the Department of the Interior, can affect protection and recovery for this species. The Service believes that data indicate a decline of this species within its United States range, and that listing in Arizona is warranted.

CFPO Listing Rule, 62 Fed. Reg. at 10,737. Thus, the primary basis for treating pygmy-owls in southern Arizona as a discrete population was that there are fewer pygmy-owls in Arizona than in Mexico, and that, as a matter of policy, the federal government should protect and recover pygmy-owls in Arizona.<sup>10</sup> Home Builders argued that this determination was conclusory and inconsistent with the intent of the DPS Policy, and would allow a population to be treated as discrete whenever there are more members of a species in another country.

## **2. The Test for “Significance.”**

The second step in determining whether a population of animals qualifies as a DPS is determining the population’s “significance” relative to the taxon (i.e., the species or subspecies) as a whole. Under the DPS Policy, a discrete population is “significant” (1) if it “persist[s] in an ecological setting unusual or unique to the taxon,” (2) if its loss “would result in a significant gap in the range of the taxon,” (3) if it is the “only natural surviving occurrence of the taxon,” or (4) if it “differs markedly from other populations of the species in its genetic characteristics.” 61 Fed. Reg. at 4,725. FWS stated in the DPS Policy that this requirement is the primary means by which the agency will ensure that its ability to treat a population of animals as a “species” is used sparingly:

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<sup>10</sup> As previously discussed, FWS also believed in 1997 that a gap of 150 miles exists between the international border and pygmy-owls in Sonora. CFPO Listing Rule, 62 Fed. Reg. at 10,741.

The measures of discreteness and significance serve decidedly different purposes in the policy, as explained above. The Services believe that both are necessary for a policy that is workable and that carries out congressional intent. The interests of conserving genetic diversity would not be well served by efforts directed at either well-defined but insignificant units or entities believed to be significant but around which boundaries cannot be recognized.

DPS Policy, 61 Fed. Reg. at 4,724. *See also id.* at 4,725 (“If a population is considered discrete . . . its biological and ecological significance will then be considered in light of Congressional guidance”).

There was no dispute that the Arizona pygmy-owl population belongs to the taxon “cactus ferruginous pygmy-owl” and that the members of this taxon are found principally in Mexico. However, FWS did not investigate the pygmy-owl’s status below the border. Instead, once the agency determined that there are four discrete pygmy-owl populations, Arizona, Texas, western Mexico and eastern Mexico, FWS focused solely on differences believed to exist between the Arizona and Texas populations. FWS noted that the two United States populations are geographically separated, occupy different habitat types (which is not surprising as the climate and vegetation in southern Arizona differ from south Texas) and exhibit other floristic differences, suggesting potential genetic differences, and found the loss of either population would create a “gap” that the other United States population would not fill. CFPO Listing Rule, 61 Fed. Reg. at 10,731 and 10,737. The fact that both United States populations existed at the northern fringe of a much larger Mexican population was simply ignored by FWS, which, Home Builders contended, violated the DPS Policy’s requirement that the *entire* taxon be investigated and considered in determining the population’s significance.

## **G. The Ninth Circuit’s Ruling.**

### **1. Is the Arizona Population “Discrete”?**

In evaluating Home Builders’ challenge, the court applied the two-part test in the DPS Policy, initially addressing whether the Arizona pygmy-owl population is discrete. The court framed the issue as being “whether the FWS acted arbitrarily in determining that significant differences in conservation status exist across the international boundary” between Arizona and Mexico. *Nat’l Ass’n of Home Builders*, 340 F.3d at 843. As discussed, Home Builders argued that more is required to show a “significant” difference in “conservation status” than simply finding that pygmy-owls are common in Mexico and rare in Arizona. The court, however, deferred to FWS’s interpretation, concluding that it was not clearly erroneous. *Id.* at 843-44. The court also rejected Home Builders’ argument that the pygmy-owl has always been rare in Arizona, again deferring to FWS’s interpretation of the historic evidence. *Id.* Therefore, the court held that FWS did not act arbitrarily in relying on the international border to treat the Arizona pygmy-owl population as discrete, even though the CFPO Listing Rule failed to contain a reasoned explanation of differences in the pygmy-owl’s “conservation status.”

## 2. Is the Arizona Population “Significant”?

The court then turned to the issue of whether Arizona pygmy-owl population is significant to the taxon as a whole. The court began by noting “[t]he purpose of the significance element is ‘to carry out the expressed congressional intent that this authority [to list DPSs] be exercised sparingly as well as to concentrate efforts undertaken under the Act on avoiding important losses of genetic diversity.’” *Id.* at 844, *quoting* DPS Policy, 61 Fed. Reg. at 4,724. In this case, FWS relied on the second and fourth significance factors, discussed above: the loss of the population would result in a significant gap in the taxon’s range, and the population differs markedly from other populations of the species in its genetic characteristics. *Id.* at 844-45.

### a. Would the Loss of the Arizona Population Create a “Significant Gap” in the Range of the Taxon?

In reviewing whether the loss of the population would create a significant gap in the taxon’s range, the court first considered what constitutes a “gap.” Home Builders argued that a gap, by definition, must occur in the middle of a taxon’s range, preventing genetic interchange, and not at the periphery of a taxon’s range. FWS, in contrast, argued that the loss of a peripheral population would create a gap due to the potential importance of such populations. *Id.* at 845. After noting that the ordinary dictionary definition of “gap” is ambiguous, the court discussed several other recent listing rules and, deferring again to the agency, determined that FWS’s interpretation of gap is not plainly erroneous. *Id.* at 845-46.

Under the DPS Policy, however, the gap in the taxon’s range must be significant. The court noted that under the DPS Policy, the term “significant” is intended to have its “commonly understood” meaning, which is “important.” *Id.* at 846, *quoting* DPS Policy, 61 Fed. Reg. at 4,723. In the CFPO Listing Rule, FWS did not explain why the gap caused by the loss of Arizona pygmy-owls would be important to the pygmy-owl taxon. Although citing decisions in which the Ninth Circuit has required agencies to “articulate a satisfactory explanation” for their actions, the court nevertheless considered several arguments made by FWS, which, Home Builders contended, were simply post hoc rationalizations.

First, the court rejected the argument that the loss of the Arizona pygmy-owl population would reduce the genetic variability of the taxon. The administrative record contained no evidence showing genetic differences between pygmy-owls in Arizona and northwest Mexico, and no finding of such differences appeared in the CFPO Listing Rule. *Id.* at 846-47. The court stated that “[w]hile the FWS can draw conclusions based on less than conclusive scientific evidence, . . . it cannot base its conclusions on no evidence.” *Id.* at 847.

Next, the court rejected the argument that the gap is significant because it would reduce the overall range of the pygmy-owl taxon. The court reviewed several recent DPS listing rules, concluding from them that either the reduction in the size of taxon’s range must be significant or the population itself must constitute a large percentage of the total number of taxon members. *Id.* at 847-48. In the case of Arizona pygmy-owl population, however, FWS acknowledged that Arizona contains only a “small percentage” of the western population’s total range, and that there are very few pygmy-owls in Arizona, as compared to northwest Mexico. *Id.* at 848.

The court then considered FWS's argument that the gap is significant because the loss of Arizona pygmy-owls would reduce the historic range of the taxon. In connection with this argument, the court considered *Defenders of Wildlife v. Norton*, 258 F.3d 1136 (9th Cir. 2001), which, as noted above, involved the issue of whether a species' range had declined sufficiently to support a determination that the species is "endangered." The court stated that, "[b]y analogy, the historic range of a taxon would be reduced 'if there are major geographical areas in which it is no longer viable but once was.'" *Nat'l Ass'n of Home Builders*, 340 F.3d at 849, quoting *Defenders of Wildlife*, 258 F.3d at 1145. In the case of the pygmy-owl, however, there was no explanation for, nor any evidence in the administrative record supporting, a finding that the Arizona portion of pygmy-owl's historic range is significant to the taxon as a whole. *Id.* Consequently, the court rejected this argument.

FWS's last argument concerning the significance of the gap was that the loss of the Arizona pygmy-owl population would deprive the United States of a major portion of its range. The court flatly rejected that argument: "The gap caused by the loss of the pygmy-owl's Arizona range cannot be significant to the range of the taxon as a whole simply because that range is in the United States. There must be some significance to the entire taxon." *Id.* The court noted that in other DPS listings, FWS had found some additional factor to be present, and did not simply rely on the loss of the species' United States population. *Id.* at 849-50. Therefore, FWS's argument was not supported by administrative record and was rejected by the court. *Id.* at 850.

**b. Does the Arizona Population Differ Markedly from Other Populations in its Genetic Characteristics?**

The court then turned to the fourth significance factor, whether the population is significant because it "differs markedly from other populations of the species in its genetic characteristics." *Id.* at 850, quoting DPS Policy, 61 Fed. Reg. at 4,725. FWS stated in the CFPO Listing Rule, and argued on appeal, that eastern and western pygmy-owls potentially differ genetically. *Id.* at 850-51. The court noted, as a preliminary matter, that FWS had divided Arizona and western Mexico pygmy-owls into two separate populations. Therefore, the issue is whether those populations differ markedly in their genetic characteristics, as opposed to the eastern and western pygmy-owl populations. *Id.* at 850.

The court then considered the evidence in the administrative record, concluding it failed to support the existence of "marked" genetic differences: "The fourth significance factor, however, requires not only actual genetic differences, but that those actual genetic differences be appreciable. In this case, the FWS was not even sure if the genetic differences between the eastern and western pygmy-owl populations were actual, let alone appreciable." *Id.* at 851. The court also noted that the lone genetic study conducted on pygmy-owls found little difference between Texas and northeastern Mexico pygmy-owls, which did not support finding genetic differences between the eastern and western populations. *Id.*

Finally, the court addressed FWS's argument that the DPS Policy mandates conservation of the genetic diversity of the United States' portion of the western pygmy-owl population. *Id.* at 851-52. Again, the court rejected the notion that species' populations in the United States are more important than species' populations in foreign countries, stating that "[u]nder the DPS

Policy, a discrete population segment must be significant ‘to the taxon to which it belongs.’ . . . The FWS’s argument, however, emphasizes the significance of the Arizona pygmy-owls to the United States, not to its taxon.” *Id.* at 852, *quoting* DPS Policy, 61 Fed. Reg. at 4,725. Therefore, the court held FWS failed to articulate a rational basis, consistent with its DPS Policy, for concluding that the Arizona pygmy-owl population is significant. *Id.*

## **H. Proceedings on Remand.**

### **1. Home Builders’ Second Appeal.**

Although the Ninth Circuit held that FWS acted arbitrarily and capriciously in designating the Arizona pygmy-owl population as a DPS, and reversed the district court’s judgment, the court did not set aside the CFPO Listing Rule. Instead, the court remanded the case “for further proceedings consistent with [its] opinion.” *Id.* On remand to the district court, Home Builders requested entry of a final judgment vacating the CFPO Listing Rule pursuant to Rule 58, *Fed.R.Civ.P.* Despite their disagreement on how the unlawful rule should be treated, all parties agreed that the CFPO Listing Rule had been found to be arbitrary and capricious based on a substantive violation of the ESA and the DPS Policy. The district court stated: “The question thus becomes whether the Court may leave a *substantively-flawed agency rule* in place pending remand to the agency for reconsideration, or must vacate such a rule.” Order at 3-4 (filed June 28, 2004; emphasis supplied).

Home Builders argued that the Administrative Procedures Act’s plain language required the CFPO Listing Rule to be vacated. Under that statute, a reviewing court “shall hold unlawful and set aside agency actions . . . found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). There is no exception for cases involving the ESA. *E.g., Tinoqui-Chalola Council of Kitanemuk and Yowlumne Tejon Indians v. U.S. Dept. of Energy*, 232 F.3d 1300, 1305 (9th Cir. 2000) (“an administrative decision involving the ESA will be set aside if the agency action was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law”). Moreover, vacatur is necessary when an agency’s action is found to be substantively defective.<sup>11</sup> The district court, however, concluded that it was not required to vacate the CFPO Listing Rule, and instead evaluated a series of “equitable concerns” to conclude that the listing should be left in place:

The Court will remand the Listing Rule to Defendant FWS for reconsideration but leave the Listing Rule in place for the duration of the agency’s deliberations. Therefore final judgment is inappropriate at this time.

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<sup>11</sup> In contrast, where the agency’s violation is procedural in nature, and can be corrected by completing the omitted procedure, the Ninth Circuit has allowed agency actions to stand while the procedural error is remedied in accordance with the Court’s direction. *E.g., Idaho Farm Bureau*, 58 F.3d at 1405-06 (FWS directed to allow public review and comment on an undisclosed USGS report); *Western Oil and Gas Ass’n v. U.S. Environmental Protection Agency*, 633 F.2d 803, 813 (1980) (EPA directed to provide opportunity for, and to consider comments on, agency rule).

Order at 10 (filed June 28, 2004). The district court ordered FWS to provide a status report concerning its “reconsideration” of both the CFPO Listing Rule and the proposed rule designating critical habitat by January 31, 2005, but imposed no deadline for the completion of the remand proceeding.

Home Builders appealed the district court’s order and moved to expedite the appeal. FWS filed what it termed a “protective” notice of appeal, and opposed Home Builders’ motion to expedite. Intervenor Defenders of Wildlife and Center for Biological Diversity moved to dismiss Home Builders’ appeal on the ground that remand orders are not “final decision of the district courts” under 28 U.S.C. § 1291, relying primarily on *Alsea Valley Alliance v. Dept. of Commerce*, 358 F.3d 1181 (9<sup>th</sup> Cir. 2004).<sup>12</sup> In *Alsea Valley*, environmental group attempted to appeal a district court’s order vacating a rule listing a population of “naturally-spawned” coho salmon. The Ninth Circuit stated that remand orders are not ordinarily considered final, and the appellants did not qualify for a narrow exception that is available only to the affected agency. *Id.* at 1184-85. See, e.g., *Collard v. U.S. Dept. of the Interior*, 154 F.3d 933, 935 (9<sup>th</sup> Cir. 1998) (criteria for determining when a remand order is final). Compare Richard J. Pierce, *Administrative Law Treatise* § 18.1 at 1324 (4<sup>th</sup> ed. 2002) (a district court’s remand order is normally appealable).

Home Builders, in response, argued their appeal was substantially different from *Alsea Valley* because their appeal raised only a single legal issue, i.e., the district court’s authority to allow continued enforcement of a substantively defective rule for an undetermined period, and they were not contesting the remand of the CFPO Listing Rule to FWS. By contrast, in *Alsea Valley*, the appellants were contesting the merits of the district court’s decision that the salmon population did not qualify as a DPS, as shown by their briefs to the court. Home Builders argued the court had jurisdiction under the collateral order doctrine, e.g., *Does I thru XXIII v. Advanced Textile Corp.*, 214 F.3d 1058, 1066 (9<sup>th</sup> Cir. 2000), or alternatively that the district court’s order should be reviewable by mandamus. In a very brief order, issued after Home Builders’ opening brief was filed, the Ninth Circuit dismissed the appeal, citing *Alsea Valley*. *Nat’l Ass’n of Home Builders v. Norton*, Nos. 04-16553 and 04-16691 (Order filed Oct. 22, 2004).

## **2. The Proposed Delisting Rule.**

On January 28, 2005, FWS filed a two-page status report, essentially stating that agency has not decided what to do. Subsequently, on July 29, 2005, FWS filed a second status report, indicating that the agency would shortly publish a proposed rule to delist the Arizona pygmy-owl DPS.

In August 2005 – nearly two years after the Ninth Circuit’s opinion was issued – FWS published a proposed delisting rule. *Proposed Rule to Remove the Arizona Distinct Population Segment of the Cactus Ferruginous Pygmy-Owl from the Federal List of Endangered and Threatened Wildlife; Proposal to Withdraw the Proposed Rule to Designate Critical Habitat; Proposed Rule*, 70 Fed. Reg. 44,547 (Aug. 3, 2005) (the “Proposed Rule”). The Proposed Rule stated that FWS has “reassessed the application of the DPS significance criteria to the Arizona

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<sup>12</sup> FWS did not join the intervenors’ motion to dismiss, but did suggest, in opposing Home Builders’ motion to expedite the appeal, that district court’s order was not appealable.

pygmy-owl” in light of the Ninth Circuit’s opinion and, based on this reassessment, does “not believe that the available information and science satisfy the criteria to indicate that pygmy-owls in Arizona are an entity that qualifies for listing.” *Id.* The Proposed Rule requested comments regarding the proposal to delist, including new and additional biological information on the pygmy-owl. A public hearing was held in Tucson on September 20, 2005, and the comment period officially closed on October 3, 2005.

There are several issues that FWS will be required to address based on the unusual posture of the Proposed Rule. As a preliminary matter, it is unclear whether what test applies when a court has determined that FWS (or NMFS) acted unlawfully in listing a species. A species may be delisted “only if” the best scientific and commercial data available substantiate that the species is neither endangered nor threatened for one or more of three reasons: (1) extinction, (2) recovery, or (3) the original data supporting listing were “in error.” 50 C.F.R. § 424.11(d). Presumably, this case falls into the latter category, i.e., “the best scientific or commercial data available when the species was listed, or the interpretation of such data, were in error.” *Id.* In listing the Arizona pygmy-owl population, however, FWS failed to follow the DPS Policy and, moreover, failed to obtain and consider any data concerning the importance of that population to the overall welfare of the pygmy-owl taxon. As discussed, FWS made a policy decision, as opposed to a biological decision, to protect pygmy-owls in the United States.

Moreover, it is uncertain whether FWS may solicit and consider new data at this time. FWS explained in the Proposed Rule that it has “gathered and evaluated new information related to the pygmy-owl that has become available since the 1997 listing and [is] seeking any other pygmy-owl information.” Proposed Rule, 70 Fed. Reg. at 44,547. However, an agency rule is based on and supported by the administrative record in existence at the time of the rule’s adoption. *Cf. Nat’l Ass’n of Home Builders*, 340 F.3d at 841 (“Our review of an agency decision is based on the administrative record and the basis for the agency’s decision must come from the record.”), *citing Arizona Cattle Growers’ Ass’n v. U.S. Fish & Wildlife Service*, 273 F.3d 1229, 1236 (9th Cir. 2001). *See also Southwest Center for Biological Diversity, supra*, 100 F.3d at 1450-51. The administrative record supporting the CFPO Listing Rule contains only pre-1997 data and no evaluation of the status of the pygmy-owl in Mexico.<sup>13</sup> It would be anomalous for FWS to create an entirely new record to support a rule adopted nearly nine years ago.

Assuming it is appropriate to create a new administrative record after the fact, the DPS Policy requires that a population of animals be *both* discrete and significant to qualify as a DPS. However, in the Proposed Rule, FWS stated its reassessment will be limited to the application of the DPS significance criteria; apparently, the DPS Policy’s discreteness requirement will not be addressed. Proposed Rule, 70 Fed. Reg. at 44,547-48. Although the Ninth Circuit affirmed the Service’s 1997 determination that the Arizona pygmy-owl population was discrete, that conclusion has been undermined by scientific data developed after 1997. If FWS decides to consider post-decisional data, it should consider all data, including data relevant to the discreteness determination.

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<sup>13</sup> FWS erroneously stated in the Proposed Rule that the court’s ruling was based on FWS’s failure to explain its action. Proposed Rule, 70 Fed. Reg. at 44,548. This characterization ignores the fact that the administrative record contains no scientific or commercial data on the pygmy-owl’s status in Mexico, where the pygmy-owl is common, because the agency failed to collect such data.

As previously discussed, data collected after 1997 show that a significant breeding pygmy-owl population exists in the area immediately south of the international border, which was thought to be devoid of owls in 1997. Further, in the CFPO Listing Rule, FWS identified only two locations in Arizona containing pygmy-owls, northwest Tucson and Organ Pipe Cactus National Monument, with the majority of pygmy-owls found in northwest Tucson. CFPO Listing Rule, 62 Fed. Reg. at 10,741. We now know pygmy-owls are present at various locations in southern Arizona that extend from the Altar Valley, west through the Tohono O’odham Nation and Organ Pipe Cactus National Monument to the Cabeza Prieta National Wildlife Refuge. The core of the Arizona pygmy-owl population is *not* in northwest Tucson, as believed in 1997, but actually is much closer to the international border, and likely centered in the Tohono O’odham Nation.

FWS is aware of this new data and their implications. For example, in 2002, the agency explained in its proposed rule redesignating critical habitat for the pygmy-owl:

[T]he recent sightings [of pygmy-owls] on non-Tribal areas east, west and south of the U.S. portion of Tohono O’odham Nation lead us to reasonably conclude that these Tribal lands may support meaningful numbers of pygmy-owls. Consequently, we believe that it is highly likely that the overall pygmy-owl population in Arizona is maintained by the movement and dispersal of owls among groups of pygmy-owls in southern Arizona and northern Mexico resulting from the connectivity of suitable habitat.

*Critical Habitat for the Arizona Distinct Population Segment of the Cactus Ferruginous Pygmy-Owl (Glaucidium brasilianum cactorum); Proposed Rule*, 67 Fed. Reg. 71,032 (Nov. 27, 2002). See also *id.* at 71,041 and 71,042 (discussing critical habitat units 1 and 5, and explaining that both units are occupied and provide connectivity with pygmy-owls in Mexico and the Tohono O’odham Nation).<sup>14</sup>

Pygmy-owls in southern Arizona, in close proximity to the larger Sonoran population, are stable and are found on lands protected and managed by federal agencies, including the Buenos Aires National Wildlife Refuge (118,000 acres) and Organ Pipe Cactus National Monument (330,688 acres), in addition to the Tohono O’odham Nation (3,000,000 acres) and State trust lands. Moreover, much of this land has not been surveyed for pygmy-owls. Proposed CH Rule, 67 Fed. Reg. at 71,032 and 71,035. Had FWS known in 1997 that significant numbers of pygmy-owls are found in close proximity on both sides of the international border, in areas containing suitable breeding habitat with no barriers to movement, it seems unlikely that FWS would have relied on the international border – a non-biological factor – to list the Arizona pygmy-owl population.

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<sup>14</sup> For example, in discussing critical habitat unit 5, which extends from the international border north along the western boundary of the Tohono O’odham Nation, and contains over 440,000 acres of land primarily owned and managed by the federal government, the Service explained: “This CHU contains numerous pygmy-owl locations, including breeding sites. ... this CHU is essential to pygmy-owl conservation because it provides breeding habitat contiguous with known pygmy-owls in Mexico and on the Tohono O’odham Nation.” *Id.* at 71,042.

Unfortunately, it is uncertain when FWS will issue a final rule in response to the Ninth Circuit's August 2003 ruling. As previously discussed, the deadline for the publication of a final rule on a proposed listing action is one year from the date of a proposed rule's publication, which in this case would be August 2, 2006. 16 U.S.C. § 1533(6)(A). However, FWS is authorized to act relatively quickly and, at least in theory, could issue a final rule 90 days after the publication of the Proposed Rule, provided that the statute's procedural requirements are satisfied. 16 U.S.C. § 1533(5). Thus, a final rule could be published as early as November 1, 2005. In its July 29, 2005, status report, FWS advised the court that the agency "will review all comments received and proceed to make a final determination as expeditiously as possible." Accordingly, a final rule should be published shortly.

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