Appeals for the Ninth Circuit issued an designation on November 27, 2002 (67 FR 835, 852 (9th Cir. 2003)). In light of the Ninth Circuit’s opinion, we have reassessed the application of the DPS significance criteria to the Arizona population of the pygmy-owl. Based on a review of the available information and science, the public comments received during the public comment period, and our DPS policy, we do not believe that the Arizona DPS of the pygmy-owl qualifies as an entity that can be listed under the Act.

DATES: This rule is effective May 15, 2006.

ADDRESSES: The administrative record for these actions is available for inspection, by appointment, during normal business hours at the Arizona Ecological Services Office, 2321 West Royal Palm Road, Suite 103, Phoenix, Arizona 85021–4951.

FOR FURTHER INFORMATION CONTACT: Steve Spangle, Field Supervisor (see ADDRESSES) (telephone 602/242–0210; facsimile 602/242–2513).

SUPPLEMENTARY INFORMATION:

Background

The cactus ferruginous pygmy-owl (Glaucomys brasilianus cactorum) (pygmy-owl) is in the order Strigiformes and the family Strigidae. It is a small bird, approximately 17 centimeters (cm) (6.75 inches (in)) long. Males average 62 grams (g) (2.2 ounces (oz)), and females average 75 g (2.6 oz). The pygmy-owl is reddish brown overall, with a cream-colored belly streaked with reddish brown. Color may vary, with some individuals being more grayish brown. The crown is lightly streaked, and a pair of black/dark brown spots, outlined in white, occurs on the nape suggesting “eyes.” This species lacks ear tufts, and the eyes are yellow. The tail is relatively long for an owl and is colored reddish brown with darker brown bars (Proudfoot and Johnson 2000). The pygmy-owl is primarily diurnal (active during daylight) with crepuscular (active at dawn and dusk) tendencies. These owls can be heard making a long, monotonous series of short, repetitive notes, mostly during the breeding season (Proudfoot and Johnson 2000).

The pygmy-owl is one of four subspecies of the ferruginous pygmy-owl. It occurs from lowland central Arizona south through western Mexico to the states of Colima and Michoacan, and from southern Texas south through the Mexican States of Tamaulipas and Nuevo Leon. Only the Arizona population of the pygmy-owl was listed as an endangered species (62 FR 10730; March 10, 1997).

Historically, pygmy-owls were recorded in association with riparian woodlands in central and southern Arizona (Bendire 1892; Gilman 1909; Johnson et al. 1987). Plants present in these riparian communities included cottonwood (Populus fremontii), willow (Salix spp.), ash (Fraxinus velutina), and hackberry (Celtis spp.). However, recent records have documented pygmy-owls in a variety of vegetation communities such as riparian woodlands,mesquite (Prosopis velutina and P. glandulosa) bosques (woodlands), Sonoran desertsrub, semidesert grassland, and Sonoran savanna grassland communities (Monson and Phillips 1981; Johnson and Haight 1985; Proudfoot and Johnson 2000) (see Brown 1994 for a description of these vegetation communities). While native and nonnative plant species composition differs among these communities, there are certain unifying characteristics such as (1) the presence of vegetation in fairly dense thickets or woodlands, (2) the presence of trees, saguaros (Carnegiea giganteus), or other columnar cacti large enough to support cavities for nesting, and (3) elevations below 1,200 meters (m) (4,000 feet (ft)) (Swarth 1914; Karalus and Eckert 1974; Monson and Phillips 1981; Johnsngard 1988; Enriquez-Rocha et al. 1993; Proudfoot and Johnson 2000). Large trees provide canopy cover and cavities used for nesting, while density of mid- and lower-story vegetation provides foraging habitat and protection from predators and contributes to the occurrence of prey items (Wilcox et al. 2000).

Distinct Vertebrate Population Segment

We must consider a species for listing under the Act if available information indicates that such an action might be warranted. “Species” is defined by the Act as including any subspecies of fish and wildlife or plants, and any distinct vertebrate population segment of fish or wildlife that interbreeds when mature (61 U.S.C. 1532(16)). We, along with the National Marine Fisheries Service (National Oceanic and Atmospheric Administration—Fisheries), developed the Policy Regarding the Recognition of Distinct Vertebrate Population Segments under the Endangered Species Act (DPS Policy) (61 FR 4722, February 7, 1996) to help us in determining what constitutes a DPS. Under this policy, we use three elements to assess whether a population under consideration for listing may be recognized as a DPS: (1)
Discreteness of the population in relation to the remainder of the species to which it belongs; (2) the significance of the population segment to the species to which it belongs; and (3) the population segment’s conservation status in relation to the Act’s standards for listing. A population segment may be considered discrete if it satisfies either one of the following conditions: (1) Marked separation from other populations of the same taxon resulting from physical, physiological, ecological, or behavioral factors, including genetic discontinuity; or (2) populations delimited by international boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of 4(a)(1)(D) of the Act. If a population is considered discrete under one or more of the above conditions, its biological and ecological significance is assessed. Measures of significance may include, but are not limited to, the following: (1) Persistence of the discrete population segment in an ecological setting unusual or unique for the taxon; (2) evidence that loss of the discrete population segment would result in a significant gap in the range of the taxon; (3) evidence that the discrete population segment represents the only surviving natural occurrence of the taxon that may be more abundant elsewhere as an introduced population outside its historical range; and (4) evidence that the discrete population segment differs markedly from other populations of the taxon in its genetic characteristics. If a population segment is discrete and significant, its evaluation for endangered or threatened status will be based on the Act’s definitions of those terms and a review of the factors enumerated in section 4(a).

“Endangered” means the species is in danger of extinction throughout all or a significant portion of its range. “Threatened” means the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

The Ninth Circuit’s opinion held that we did not arbitrarily find the Arizona pygmy-owl to be discrete because differences in conservation status exist across the international boundary between the United States and Mexico. We argued that in this case the term “conservation status” means “the number of individuals left in the population.” We found that conservation status differs because there are differences in the number of owls on either side of the border. The court deferred to our interpretation of the term “conservation status” and stated, “We conclude that ‘conservation status,’ as used in the discreteness test, is a term of art that lends itself to interpretation by the FWS” (CV 00–0903 SRB). The Ninth Circuit’s opinion stated that we did not articulate a rational basis for finding that the discrete population is significant to the taxon, but did not actually rule on whether the DPS is significant. Instead the 9th Circuit remanded the decision of significance, and that is the issue which is addressed in this finding.

Previous Federal Action

Previous Federal actions for the Arizona pygmy-owl DPS can be found in our proposed delisting rule that published in the Federal Register on August 3, 2005 (70 FR 44547). That information is incorporated by reference into this final rule.

Summary of Comments and Recommendations

In the August 3, 2005, proposed delisting rule (70 FR 44547) and associated notifications, we invited interested parties to submit comments or information that might contribute to the final delisting determination for this species. The public comment period closed October 3, 2005. We contacted and sent announcements of the proposed delisting rule to appropriate Federal and State agencies, county governments, scientific organizations, and other interested parties. We established an Internet email address for electronic submittal of comments and hearing requests by any party. We received three requests to hold a public hearing. We received a total of 578 written and oral comments from interested parties. Of this total, 540 of the comments expressed either support or opposition to the proposed delisting without providing any substantial information that would contribute to the final determination. Of these, 16 parties expressed support for the proposed delisting, while 523 parties indicated their opposition to the proposed rule. Thirty-eight commenters provided substantial comments related to our determination, which are either incorporated or addressed in the following summary.

General Comments Issue 1: Basing the Determination on Science

(1) Comment: Several commenters stated that the proposal to delist the pygmy-owl is being driven by politics, not by science.

Our Response: Our reevaluation of the pygmy-owl listing focuses on compliance with our DPS policy and the court’s order. We considered and used the best available scientific and commercial information that existed at the time of and since the listing. Public comments were considered and used to the extent that they fell within the scope of our reevaluation. The available scientific information related to the pygmy-owl was considered. However, we were unable to determine that any of this information substantiated a finding that the Arizona DPS of the pygmy-owl is significant to the taxon as a whole (see analysis below). Therefore, we are unable to conclude that the pygmy-owl is an entity that qualifies for listing under our DPS policy.

(2) Comment: The proposed rule ignores the best available science, as well as the recommendation of the Service’s own biologists as found in a white paper prepared in December 2003.

Our Response: As indicated in our previous response, we used all available scientific information related to the pygmy-owl during our reevaluation of the significance criteria. This included information we had at the time of listing, as well as all information generated since then. A substantial amount of information was also provided to us during the public comment period. Not all of the information submitted was pertinent to our reevaluation of the significance of the Arizona DPS of the pygmy-owl to the taxon as a whole, but we evaluated and used where appropriate all of the information that was pertinent to this issue. The white paper prepared by Service biologists in December 2003 was developed to synthesize all available information that related to determining whether the Arizona DPS of the pygmy-owl satisfied the significance criteria outlined in our DPS policy. This information was considered during our reevaluation of the significance issue. The white paper made no determination of the significance of the Arizona population to the rest of the taxon as a whole. A good deal of the information we reviewed, including the white paper, included discussions related to pygmy-owl issues of a broader context than the Arizona DPS and were not pertinent to our consideration of the significance of the Arizona DPS.

General Comments Issue 2: Unique Ecological Setting

(3) Comment: We received comments both supporting and opposing the notion that pygmy-owls occupy a
unique ecological setting in the Sonoran Desert.

Our Response: Following our reevaluation of all the available information pertinent to this issue, we were unable to conclude that the Arizona DPS of the pygmy-owl occurs in a unique ecological setting. While the Sonoran Desert may make up a relatively small portion of the overall range of the pygmy-owl, the Arizona DPS does not occupy the only area of Sonoran Desert within the range of the taxon.

General Comments Issue 3: Gap in the Range of the Species

(4) Comment: Some parties indicated that they felt the loss of the Arizona DPS of pygmy-owls would create both a genetic gap and a geographic gap in the range of the species. They felt that the loss of the Arizona DPS would result in the loss of genetic variability in the taxon. Other commenters argued that no such gap would be created by the loss of the Arizona DPS of the pygmy-owl. Some commenters indicated that we should consider the percentage of Sonoran Desert occupied by the Arizona DPS versus the total area of Sonoran Desert occupied by the pygmy-owl, including Mexico, when determining if a gap would occur in the range of the taxon.

Our Response: Based on our review of the available information on the genetics of the pygmy-owl, we concluded that the loss of the Arizona DPS of pygmy-owls would not result in a genetic gap within the taxon (see analysis below). We conducted a refined analysis of the current and historical range of the pygmy-owl and concluded that the contribution of the Arizona DPS to the current (approximately 5 percent) and historical (approximately 12 percent) range of the taxon was not significant. The issue regarding the contribution of the Arizona DPS to the range of the pygmy-owl within Sonoran Desert areas is not pertinent to the question at hand. Per our DPS policy and the 9th Circuit’s opinion, we must consider the contribution of the Arizona DPS to the entire range of the taxon.

General Comments Issue 4: Significance of the Arizona DPS as a Peripheral Population

(5) Comment: We received comments both supporting and opposing the significance of the Arizona DPS as a peripheral population, occurring at the northern extent of its range.

Our Response: It is well documented that species at the periphery of their range are less common and more irregular in their occurrence than at the core of their range. However, the mere occurrence of a population at the edge of its range does not, in itself, reduce the significance of that population. Significance does not rely simply on the numerical contribution of a peripheral population. Peripheral populations, even those with reduced numbers, may be significant to the taxon as a whole through contributions to genetic variability, environmental adaptation, and supplying emigrants to other populations. The Arizona DPS of the pygmy-owl may well contribute to the taxon as a whole in these ways, but our review of the available information does not adequately support a determination that this contribution is significant (see “Delisting Analysis” below).

General Comments Issue 5: Genetics of the Pygmy-Owl in Arizona, Texas, and Mexico

(6) Comment: An extension or reopening of the comment period was requested so that genetic information about taxa to be published by Dr. Glenn Proudfoot could be considered in our determination.

Our Response: Our review of Dr. Proudfoot’s work indicates that the information that he will soon publish is related more to the broad issue of pygmy-owl genetics across the entire range of the taxon and does not provide any additional information that shows a marked genetic difference between the Arizona DPS and other portions of the pygmy-owl range. No new information related to the Arizona DPS is presented that is not already found in Proudfoot and Slack 2001, which is available to the public and cited in our proposed rule. We did not rely on any of the work within Dr. Proudfoot’s unpublished papers in making our determination. Therefore, we do not believe that reopening the public comment period after Dr. Proudfoot’s work is published will provide any new information that would contribute to our determination.

(7) Comment: Another party indicated that work by Dr. Proudfoot could not legally be considered in our determination until it had been made available to the public.

Our Response: For the reasons described in our previous response, we did not rely on Dr. Proudfoot’s unpublished work to make our determination.

(8) Comment: Dr. Proudfoot provided comments recommending that the Service should recognize current biological information and ascertain the distribution of what seems to be a genetically fragmented population in Arizona and Sonora prior to delisting the pygmy-owl.

Our Response: Dr. Proudfoot’s comments indicated some genetic differentiation is occurring in south central Sonora, Mexico. As a result, he recommends that pygmy-owls in Sonora and Arizona be considered a separate conservation unit from pygmy-owls throughout the remainder of the western population. However, Dr. Proudfoot’s comments included no additional information showing that the genetic makeup of the Arizona DPS differs markedly from other pygmy-owls within the western population.

(9) Comment: We should only be considering the significance of the Arizona DPS in relation to the western population because it has been shown that the eastern and western pygmy-owl populations are genetically different.

Our Response: Information found in Proudfoot and Slack (2001) does indicate that there is a marked genetic difference between the eastern and western populations of the pygmy-owl. However, we have not determined that these two populations are separate listable entities under the Act (species, subspecies, or DPS), and therefore, separate taxons. Accordingly, as required by our DPS policy, we evaluated whether the Arizona DPS is significant in relation to the taxon as a whole.

(10) Comment: There is not a marked genetic difference between pygmy-owls in Mexico and Arizona, and the loss of the Arizona DPS would not result in a decrease in genetic variability.

Our Response: Following a review of all the available information related to pygmy-owl genetics, we determined that the Arizona DPS of the pygmy-owl does not differ markedly in its genetic makeup from other pygmy-owls within the western population. Current information indicates some genetic differentiation occurring within Arizona and within the state of Sonora in Mexico. However, none of this information indicates that this differentiation is a marked genetic difference. Nonetheless, the Arizona DPS of the pygmy-owl does contribute to the genetic variability within the taxon and the loss of the Arizona DPS would result in the loss of some genetic variability within the species. However, we have determined that, because there is not a marked genetic difference, the contribution of the Arizona DPS is not significant to the taxon as a whole.
Comment: A number of commenters provided information showing that pygmy-owls and pygmy-owl habitat in Arizona are being affected by drug smuggling, illegal immigration, law enforcement activities, urban development, and fire.

Our Response: These comments are related to threats and impacts to the pygmy-owl that would be appropriate for an analysis of the five factors outlined in the Act’s standard for listing and which are considered in determining whether a listable entity is endangered or threatened. These comments do not inform our determination of the significance of the Arizona DPS of the pygmy-owl. We have determined that the Arizona DPS of the pygmy-owl is not a listable entity and, therefore, the five-factor analysis related to the Act’s standard for listing is not relevant.

Comment: The introduction of invasive, non-native grass species and a changing fire regime is resulting in the conversion of native vegetation communities in both Sonora, Mexico, and Arizona to habitats that are not suitable for the pygmy-owl.

Our Response: As we indicated in our response to the previous comment, these are issues that are related to the five factors we consider in determining if a listable entity is endangered or threatened and not in determining the significance of the Arizona DPS.

General Comments Issue 7: Application of the Service’s DPS Policy

Comment: Commenters indicated that our evaluation of the significance of the Arizona DPS of the pygmy-owl is not restricted to the factors listed in the proposed rule. They argue that the significance of the Arizona DPS to the population of pygmy-owls in the United States should be considered.

Our Response: While our DPS policy does indicate that factors related to significance other that those discussed in the proposed rule can be considered, the 9th Circuit’s opinion clearly stated that considering the significance of the Arizona DPS of the pygmy-owl to just the United States was not appropriate.

Comment: The Service’s DPS policy needs to be revised to conform to the intent of the Act and the DPS policy.

Our Response: As indicated in the 9th Circuit’s opinion, the revision of the Service’s DPS policy is not the issue at hand.

Comment: Commenters indicated that the Act cannot control the management or protection of the pygmy-owl in Mexico and that we should not have to rely on Mexico for protection of this species. Rather, we should protect it in the United States, where the Act has authority.

Our Response: Under the Act, it is possible to list and afford the protections of the Act to species that occur outside of the boundaries of the United States. However, we also acknowledge our limitations in prescribing and implementing conservation actions in other countries. Cooperative management of endangered species in coordination with other countries is a high priority within our agency. However, as discussed in our previous response, the 9th Circuit’s opinion clearly stated that we cannot narrow our analysis of significance to just the United States. We must consider whether the Arizona DPS of the pygmy-owl is significant to the taxon as a whole.

General Comments Issue 8: Relationship of the Proposed Delisting to the 9th Circuit’s Opinion and Other Court Cases

Comment: The courts did not strip the Arizona DPS of its endangered status; therefore the Service should not be proposing delisting. The courts upheld the Service’s determination of discreteness and did not find that the Arizona DPS was not significant.

Our Response: The courts have upheld our determination of the discreteness of the Arizona DPS. However, the 9th Circuit’s opinion clearly stated that our determination of the Arizona DPS of the pygmy-owl was arbitrary and capricious because we were unable to articulate the significance of this DPS to the taxon as a whole. The District Court of Arizona remanded the listing of this DPS to us for reconsideration in light of the 9th Circuit’s opinion. We have reconsidered our determination using the information available at the time of the listing, information related to pygmy-owls that has been generated since the listing, and public comments received during the public comment period. We have determined that the Arizona DPS of the pygmy-owls does not meet the criteria for significance as contained in our DPS policy (see “Delisting Analysis” below).

Comment: The proposed delisting appears to be contrary to court rulings related to the tiger salamander in California, the gray wolf in Vermont and Oregon, and the green sturgeon in California.

Our Response: The cases mentioned have no bearing on determining the significance of a DPS and set no precedent that is pertinent to our determination.

Comment: It is illegal to consider new information in making our determination. If new information is considered, the issue of discreteness should be revisited by the Service.

Our Response: The Arizona District Court order specifically indicated that we could consider information related to the pygmy-owl that has been generated since the listing in 1997. The courts upheld our determination of the discreteness of the Arizona DPS. No information was presented during the public comment period that compelled us to reconsider our determination of discreteness.

General Comments Issue 9: Effect of the Delisting on Local Conservation Planning Efforts

Comment: A number of commenters were concerned that if the pygmy-owl is delisted, the work of local communities will be undermined with regard to ongoing conservation planning efforts.

Our Response: To the contrary, absent the protections of the Act, we believe that these local conservation efforts are even more important and can make significant contributions to the conservation of the pygmy-owl in Arizona. This final rule in no way diminishes the Service’s mission to conserve fish and wildlife resources for the benefit of the American people. Our determination is the result of further analyses concerning our DPS policy and the direction of the courts. We continue to support the conservation of the pygmy-owl using all available conservation tools. We will continue to work in coordination with local entities to complete the ongoing conservation planning efforts. In addition, we will look for opportunities to use other tools, such as candidate conservation agreements, to further the conservation of the pygmy-owl. We will continue to coordinate with the Arizona Game and Fish Department and other pygmy-owl researchers in implementing conservation activities for this species.

General Comments Issue 10: Information on the Historical Distribution, Current Numbers, Habitat Preferences, Population Trends, etc., as Basis for a “Not Significant” Determination

Comment: Some parties provided extensive information on the historical distribution, current numbers, habitat preferences, population trends, etc., in support of a “not significant”
determination and the delisting the Arizona DPS of the pygmy-owl.

Our Response: The information provided (some of which are documents not previously in the Service’s record on this action) does not constitute significant new information relevant to our determination. Much of the content involves issues, data, analyses, and discussions that have been debated since the listing of the Arizona DPS recovery planning and other processes associated with the pygmy-owl. For example, the issues of historical occurrence of the pygmy-owl in riparian vs. desert scrub communities, the interpretation of historical data, current vs. historical range and associated population numbers, the contribution to the overall population of pygmy-owls in Tucson and northward as compared to those closer to Mexico have all been debated during the development of the draft recovery plan, as well as critical habitat proposals. There has been a history of scientific disagreement regarding the interpretation of this information. Since our rationale for a “not significant” determination is provided elsewhere in this final rule, and because we do not believe this information is pertinent to our determination, we do not address these comments here.

General Comments Issue 11: Numbers of Pygmy-Owls Outside of Arizona

(21) Comment: Some parties indicated that the additional pygmy-owls located in Mexico since the listing in 1997 support the idea that the Arizona DPS is not significant.

Our Response: As stated in a previous response, the significance of a population is not solely related to the numbers of individuals within that population. Populations may be significant to the taxon as a whole through contributions to genetic variability, environmental adaptation, and supplying emigrants to other populations. The Arizona DPS of the pygmy-owl may well contribute to the taxon as a whole in these ways, but our review of the available information did not indicate that this contribution is significant (see “Delisting Analysis” below).

(22) Comment: The numbers of pygmy-owls in Mexico are also declining, making the pygmy-owls in Arizona more significant to the taxon.

Our Response: Information submitted during the public comment period included one study that showed a short-term decline in the number of pygmy-owl numbers in Arizona. We considered this study in determining whether loss of pygmy-owls in northern Sonora, Mexico, would result in Arizona pygmy-owls occupying a unique ecological setting (i.e., a desert habitat); however, we did not find this to be the case (see “Delisting Analysis” below). This information is more relevant to a discussion concerning the status of an entity, in other words, whether the entity is threatened or endangered under the definitions in the Act. The question at issue for us was whether the Arizona population of pygmy owl is a valid listable entity under the DPS policy. Since we determined that the discrete population was not significant to the taxon as a whole, we are not required to evaluate the status and therefore this information is irrelevant to our determination.

(23) Comment: Other commenters stated that, even though the pygmy-owl appears to be more common in Mexico than in Arizona, this does not reduce the significance of the Arizona population because of ongoing issues in Mexico, including the invasion of non-native species; the loss of soil organic carbon, soil litter and vegetative cover; more intense drought effects, including higher nighttime minimum temperature increasing evapotranspiration; and increased fire.

Our Response: As stated in previous responses, these threats would be considered in an evaluation of threatened or endangered status if we had determined that the Arizona DPS was a listable entity under the DPS policy.

General Comments Issue 12: Other DPS Configurations

(24) Comment: The Service should consider a DPS configuration for all Sonoran Desert areas, including Sonora, Mexico.

Our Response: While we have initiated some work to evaluate the potential of other DPS configurations through the development of the December 2003 white paper, we note that we did not receive any new information during the open comment period. Additional biological research and evaluation of existing data are needed to determine whether a different DPS configuration could be delineated consistent with our DPS policy and whether such an entity would merit consideration for listing.

Delisting Analysis

Application of the Significance Criteria to the Pygmy-Owl in Arizona

In the discussion below we evaluate the significance of the Arizona DPS in light of our DPS policy and the Ninth Circuit’s ruling in this case. We considered the best available scientific information and public comments in this analysis. This information known at the time of the listing of the pygmy-owl, as well as information obtained subsequently, was considered.

(1) Persistence of the discrete population segment in an ecological setting unusual or unique for the taxon.

Approximately 80 percent of the historical distribution of the pygmy-owl falls within biotic communities classified as Forest, Woodland, or Scrubland communities. This includes pygmy-owls of southern Texas south through the Mexican states of Tamaulipas and Nuevo Leon, which occupy mesquite forest, riparian forest, thorn forest, tropical deciduous forest, and areas more tropical in nature, including cypress groves (Cartron et al. 2000; Proudfoot and Johnson 2000; Leopold 1950). It also includes areas in southern Sonora, Sinaloa, and Nayarit where pygmy-owls occur within the tropical Sinaloan thornscrub and Sinaloan deciduous forest community types and associated riparian communities (Leopold 1950; Brown 1994; Phillips and Comus 2000).

Approximately 20 percent of the historical distribution, including pygmy-owls in Arizona, south through western Mexico and into the state of Sonora, falls within drier, desert-like communities, including Desertlands and Grasslands. In Arizona, the pygmy-owl is found within Sonoran Desert scrub or Semidesert Grassland biotic communities and associated riparian and xeroriparian (dry washes) communities (Cartron et al. 2000; Proudfoot and Johnson 2000). In northern Sonora, Mexico, the ecological setting in which the pygmy-owl is found exhibits similar ecological conditions to the range of the Arizona pygmy-owl with regard to vegetation, climate, soils, etc. (Leopold 1950; Brown 1994; Phillips and Comus 2000; http://mexicochannel.net/maps/vegetation.gif; http://mexicochannel.net/maps/fauna.gif; http://mexicochannel.net/maps/soils.gif; http://mexicochannel.net/maps/temperatures.gif; http://mexicochannel.net/maps/climates.gif).

Approximately 45 percent of the pygmy-owl range supporting these desert-like communities occurs in Arizona, with the remainder occurring in Sonora, Mexico. These numbers indicate that, while the area of Desertland and Grassland communities occupied by pygmy-owls within their overall range is considerably less than the wetter, more tropical vegetation...
communities. Arizona does not support the only, or even a majority, of these biotic communities within the historical range of the pygmy-owl.

In northern Sonora, Mexico, millions of acres of Sonoran Desert and thornscrub are being converted to buffelgrass (Pennisetum ciliare) which represents both a direct and an indirect loss of habitat because of invasion into adjacent areas and increased fire frequency and intensity (Burquez-Montijo et al. 2002). This conversion of habitat may ultimately result in the creation of an ecological setting in northern Mexico that is very different than the Sonoran desert scrub currently found in Mexico and Arizona. However, in determining the significance of the Arizona DPS, we must consider the current conditions occupied by the species. The direct and indirect threats associated with the conversion of Sonoran desert scrub to exotic grasslands is more appropriately considered under the determination of endangered or threatened status rather than the significance of the DPS. We find that there is not adequate information to indicate that Arizona pygmy-owls occupy an ecological setting differing enough from pygmy-owls in northern Sonora, Mexico, to be considered unique for the taxon.

(2) Evidence that loss of the discrete population segment would result in a significant gap in the range of the taxon.

In the listing rule (March 10, 1997; 62 FR 10730), we found that the gap in the range of the taxon through loss of the Arizona pygmy-owls would be significant because it would (a) decrease the genetic variability of the taxon; (b) reduce the current range of the taxon; (c) reduce the historical range of the taxon; and (d) extirpate the western pygmy-owls from the United States.

With regard to genetic variability, factor (a) above, in our listing rule we were able to determine genetic distinctness between western and eastern pygmy-owls; however, we did not have evidence of genetic differences between pygmy-owls in Arizona and northwestern Mexico. Proudfoot and Slack (2001) found that there were distinct differences between pygmy-owls in Arizona and Texas. Their work also showed genetic differences between pygmy-owls in eastern and western Mexico. Dr. Proudfoot has conducted considerable work on pygmy-owl genetics since the 2001 report. However, he has presented no new information that would indicate that pygmy-owls in Arizona differ materially in their genetic makeup from other pygmy-owls within the western population.

Genetic divergence tends to occur at the periphery of a species’ range (Lesica and Allendorf 1995). The peripheral nature of the Arizona pygmy-owls may increase the potential for the population to diverge from populations in Sonora and Sinaloa, Mexico at some point in the future. However, significance must be judged based on the current facts regarding the species, not on future possibilities. Because there is currently no indication that pygmy-owls in Arizona are genetically distinct from those in northern Sonora, we have no evidence to suggest that the contribution of the Arizona DPS to the genetic diversity of this species as a whole is significant.

With regard to factor (b), a reduction in current range, the court found that determining a gap to be significant based on the curtailment of a taxon’s current range requires the loss of a geographic area that amounts to a substantial reduction of a taxon’s range. In this case, the taxon’s (Glauucidium brasiliannum cactorum) range includes both the western and eastern pygmy-owl populations, occurring from lowland central Arizona south through western Mexico to the States of Colima and Michoacan, and from southern Texas south through the Mexican states of Tamaulipas and Nuevo Leon. As stated in the 1997 listing rule, Arizona pygmy-owls would only represent a small percentage of the total range of the taxon. Our reevaluation of the current distribution of the pygmy-owl indicates that Arizona makes up approximately 5 percent of the entire range. We do not believe that this is sufficient evidence to support a determination that loss of Arizona pygmy-owls represents a substantial reduction in the taxon’s range based on the geographic area which would be lost. Therefore we find that the geographic area of the current range that would be lost, in and of itself, is not significant.

The current range of the pygmy-owl in Arizona could also be significant if the population in Arizona is numerous or constitutes a significant percentage of the total number of pygmy-owls within the taxon, the loss of which would be a significant gap in the population. However, pygmy-owls in Arizona are not numerous. Nor do we believe they represent a significant percentage of the pygmy-owls within the taxon. We do not find that the numbers of pygmy-owls in Arizona, both currently and historically, represent a basis for determining that the loss of the Arizona DPS would result in a significant gap in the population numbers of the taxon as a whole.

With regard to factor (c) above, we found in our listing rule that the gap would be significant because the Arizona population is at the periphery of the western pygmy-owls’ historical range, and that this peripheral population was always a stable portion of that range. We do believe that protection and management of peripheral populations may be important to the survival and evolution of species. Maintaining genetic diversity within the western population and the taxon as a whole is even more important in the face of documented land use changes, primarily effects from converting native vegetation to agricultural crops and buffelgrass pastures for livestock grazing, in Mexico (Burquez and Martinez-Yrizar 1997). Peripheral populations often persist when core populations are extirpated (Channell and Lomolino 2000a, 2000b; Lomolino and Channell 1995). In the face of changing environmental conditions, what constitutes a peripheral population today could be the center of the species’ range in the future (Nielsen et al. 2001). Peripheral populations survive more frequently than do core populations when species undergo dramatic reductions in their range (>75 percent; Channell and Lomolino 2000a). However, the court found that this factor alone does not make Arizona a “major geographical area” in the western pygmy-owl’s historical range.

Arizona makes up only about 12 percent of the historical range of the pygmy-owl, and we do not find that the loss of 12 percent of the historical range represents a significant geographic area. We found no information indicating that the population of pygmy-owls found in this 12 percent of the historical range made contributions to the entire taxon that were unique to Arizona. We have not found sufficient information to indicate that the contribution of this historical proportion of the range contributes to the long-term survival of the species. Additionally, as noted above, we also do not have evidence that the historical range of the pygmy-owl in Arizona supported a marked genetic difference between Arizona pygmy-owls and pygmy-owls in western Mexico. Because we found that the 12
percent of the pygmy-owl’s historical range found in Arizona does not constitute a major geographic area, nor does it, as a peripheral population, contribute significantly to the overall genetic diversity of the species, we are unable to determine that the loss of the Arizona DPS would represent a significant gap in the range of the pygmy-owl based on the reduction of the historical range.

With regard to (d) above, we determined that a gap would be significant because it would deprive the United States of its portion of the western pygmy-owl’s range. The Ninth Circuit rejected this argument as a misconstruction of this criterion. The court found that in designating a DPS under the DPS policy, we must find that a discrete population is significant to the taxon as whole, not to the United States. We determined in our listing rule that Arizona pygmy-owls represented only “a small percentage” of the total range of the western pygmy-owls. As noted above, the taxon includes both the western and eastern pygmy-owl populations, occurring from lowland central Arizona south through western Mexico to the States of Colima and Michoacan, and from southern Texas south through the Mexican States of Tamaulipas and Nuevo Leon. We do not believe that we have sufficient evidence to support a determination that the Arizona pygmy-owls represent a significant portion of the geographical range of the taxon in light of the court’s finding that we can not rely on the value of the United States’ portion of the range in applying the DPS policy.

(3) Evidence that the discrete population segment represents the only surviving natural occurrence of the taxon that may be more abundant elsewhere as an introduced population outside its historical range.

This criterion does not apply to the pygmy-owl.

(4) Evidence that the discrete population segment differs markedly from other populations of the taxon in its genetic characteristics.

As discussed above, a marked difference between the eastern and western pygmy-owl population segments has been documented, but no information exists that provides evidence to support that there is a marked genetic difference between pygmy-owls in Arizona and the rest of the western population of pygmy-owls.

Effects of the Final Rule

This action removes the Arizona DPS of the pygmy-owl from the List of Endangered and Threatened Wildlife. The prohibitions and conservation measures provided by the Act no longer apply to this species. Federal agencies are no longer required to consult with us on their actions that may affect the pygmy-owl and to insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of the pygmy-owl. At this time we can’t speculate about the future of lands conserved through previous section 7 consultations. The conservation of those lands will depend upon the mechanisms by which they were conserved and the purpose of the conservation. Federal agencies are also relieved of their responsibilities under section 7(a)(1) of the Act to use their authorities to further the conservation of the pygmy-owl. Additionally, we will not finalize the designation of critical habitat nor will we complete a final recovery plan. The critical habitat designation for the pygmy-owl, as described in 50 CFR 17.95, is removed.

Currently, we provide technical assistance to the public to minimize effects from non-Federal projects to the pygmy-owls and their habitat. We will likely no longer receive these types of requests.

Permitted scientific take as a result of surveys and research will likely continue to be regulated by the State of Arizona, Arizona Game and Fish Department, and will be considered in the context of potential effects to population stability.

Future Conservation Measures

The 1988 amendments to the Act require that all species delisted due to recovery be monitored for at least five years following delisting. The pygmy-owl is being delisted because it fails to meet the criteria outlined in our DPS policy and, therefore, does not qualify as a listable entity. Therefore, no monitoring period following delisting is required.

Required Determinations

Paperwork Reduction Act

OMB regulations at 5 CFR 1320, which implement provisions of the Paperwork Reduction Act, require that Federal agencies obtain approval from OMB before collecting information from the public. Implementation of this final rule does not include any collection of information that requires approval by OMB under the Paperwork Reduction Act.

National Environmental Policy Act (NEPA)

We have determined that Environmental Assessments and Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining our reasons for this determination was published in the Federal Register on October 25, 1983 (48 FR 49244).

References Cited

A complete list of references cited in this final rule is available from the Arizona Ecological Services Field Office (see ADDRESSES).

Authors

The primary authors of this document are staff located at the Arizona Ecological Services Office (see ADDRESSES).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

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


§ 17.11 [Amended]

2. Amend § 17.11(h) by removing the entry for “Pygmy-owl, cactus ferrugineus” under “BIRDS” from the List of Endangered and Threatened Wildlife.

§ 17.95 [Amended]

3. Amend § 17.95(b) by removing designated critical habitat for “Cactus Ferruginous Pygmy-Owl (Glaucidium brasilianum cactorum)” under “BIRDS”.


H. Dale Hall,
Director, U.S. Fish and Wildlife Service.
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