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bcc

Subject significance comments

Doug,

I've incorporated your comments into the significance argument and attached the file below. I also spoke with Sarah about it and she has forwarded the file I sent this morning to the FO and requested that they provide comments related to any factual statements I have made (specifically with regard to the biological opinions). I'll be working to incorporate PDM comments into the discreteness/threats analysis from Sarah.



DPS significance DK comments.doc

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**Draft - Significance language for Sonoran desert nesting bald eagle 90-day rule
(WO 7/24/06)**

(Place language immediately following the discreteness analysis)

Significance

If we determine that a population segment is discrete under one of the above conditions, we must then consider its biological and ecological significance to the taxon to which it belongs, within the context that the DPS policy be used “sparingly” while encouraging the conservation of genetic diversity (61 FR 4722; February 7, 1996). This consideration may include, but is not limited to the following: (1) Evidence of the persistence of the population segment in an ecological setting that is unique for the taxon; evidence that loss of the population segment would result in a significant gap in the range of the taxon; (3) evidence that the population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside of its historic range; and (4) evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics.

1. Persistence of the population segment in an ecological setting that is unique for the taxon.

Information Provided in the Petition

The petition contends that the Sonoran desert nesting bald eagle persists in the unique ecological setting of the Sonoran life zones of the desert Southwest (AGFD 1999a, 2000; Hunt et

al. 1992; USFWS 2002a, 2003b). With the exception of a single 8,000 foot (2,438 meter) elevation nest (Luna BA), the petition states that all known Arizona BAs are located in the Sonoran Desert in the central part of the State in Upper and Lower Sonoran Desert habitats from elevations of 1,080 feet (330 meters) to 5,640 feet (1,720 meters), and are closely associated with the Salt, Verde, and Gila River drainage waters (Beatty and Driscoll 1994, 1996a; Beatty et al. 1995a, 1995b, 1998; Driscoll and Beatty 1994; Driscoll et al. 1992; Hunt et al. 1992). The petition further identifies several Arizona tree species native to the desert Southwest as representative vegetation for these areas (Brown 1994).

Response to the Petition

The breeding range of the bald eagle is associated with aquatic habitats (coastal areas, river, lakes, and reservoirs) with forested shorelines or cliffs in North America (Buehler 2000). The ecological setting in which the bald eagle persists in the Sonoran desert may at first seem uncommon for the species. However, despite the desert setting, bald eagles of the Sonoran desert are consistently associated with preferred bald eagle habitat, the riparian ecosystem (USFWS 1982). The petition clearly states that the Sonoran desert nests are closely associated with the Salt, Verde, and Gila River drainage waters and cites Brown (1994) when describing the forested vegetation of these areas. As with all populations of bald eagles throughout the lower 48 ~~S~~states, suitable riparian habitat is an essential prerequisite to successful eagle reproduction in the desert Southwest (USFWS 1982). Riparian ecosystems occupied by nesting bald eagles in the Sonoran life zones of the desert Southwest, therefore, do not constitute a unique setting for the species. The persistence of the bald eagle in this setting ~~in fact~~ likely represents an example

of a species occupying the ~~extreme~~ edge of its range of suitable habitats. Therefore, we conclude that the petition does not present substantial evidence that the population is persisting in an ecological setting that is unique for the taxon.

2. Loss of the population segment would result in a significant gap in the range of the taxon.

Information Provided in the Petition

The petition contends that for more than twenty years, ~~the Service~~USFWS has recognized the fact that the Southwest represents a “significant portion of the bald eagle range” and further states that it follows logically then that loss of the [Sonoran] Desert nesting population would result in a significant gap in the range of the bald eagle (Hunt et al. 1992; USFWS 1982, 1994a, 1995, 2001a). The petition claims that bald eagles in the Southwestern United States have been considered as a distinct population for the purposes of consultation and recovery efforts under the Act (USFWS 2003b).

The petition further contends that several authors have speculated about the consequences of this population’s loss (AGFD 1994b; Hunt et al. 1992), and ~~CBD~~the petitioners can find no credible evidence that bald eagles elsewhere possess the ability to adapt to the unique and hostile environmental habitat in which the [Sonoran] Desert nesting population has evolved. Specifically the petition quotes Hunt et al. (1992):

“[W]ere the [Southwestern Desert Nesting Bald Eagle] population extirpated, there is no firm reason to believe that bald eagles released into Arizona from elsewhere would posses [sic] the adaptations required to increase their numbers.”

The petition further quotes an Arizona Game and Fisheries Department interoffice memo (1994b):

“Because Arizona continues to possess nearly the entire breeding population within the Southwestern Region, concerns remain over retaining the genetic integrity of this population...Should a population crash occur in Arizona, the pool of eagles to repopulate the Southwest could be left to the few pairs in the neighboring states or Mexico. However, at this time, there is no documentation of eagles from these neighboring Southwestern ~~S~~states breeding in Arizona or vice versa.”

Response to the Petition

The petition cites several ~~USFWS-Service~~ publications (1982, 1994a, 1995, 2001a) in addition to a report prepared by Hunt et al. (1992) when making their claim, but does not make specific reference to instances in which the ~~“USFWS-Service has “has-~~recognized the fact that the Southwest represents a significant portion of the Bald Eagle range”. Therefore, for this analysis we will assume that the petition is referring to the fact that the ~~USFWS-Service~~ has continued to identify the Southwest population of the bald eagle as one of five recovery

populations in the lower 48 Sstates for more than twenty years (Hunt et al. 1992; USFWS 1982, 1994a, 1995, 2001a).

In establishing a recovery program for the species in the mid-1970's, the Service divided the bald eagles of the lower 48 Sstates into five recovery populations, based on geographic location, termed Recovery Regions. This was due to the wide distribution of the bald eagle in the lower 48 Sstates. Recovery plans were prepared for the five Recovery Regions, including the Southwest Recovery Region (USFWS 1982), by separate recovery teams composed of species' experts in each geographic area. The Service views the establishment of recovery regions as a management tool allowing for effective regional coordination and planning among State and Federal conservation agencies and species' experts. The existence of a recovery region does not, in itself, imply significance, as defined in the DPS policy (USFWS 1996). -as the petitioner claims and therefore the Southwester Recovery Region is not a DPS for the purposes of recovery.

In the 1994 proposed rule to reclassify the bald eagle from endangered to threatened, the Service determined that current information indicates the population is at risk and remains in danger of extinction due to excessively low survival rates and the need for intensive management, particularly at nest sites (USFWS 1994a). This decision was based on the understanding that the population was isolated and thus subject to the genetic, demographic, and environmental threats known to be associated with small populations. Data provided in the Hunt et al. (1992) publication indicated there had been no immigration to the Southwestern population of bald eagles. At that time the Service recognized the Southwestern Recovery Region as a DPS based on evidence that it appeared to be reproductively isolated (USFWS 1994a). However, in

the 1995 final rule to reclassify bald eagles from endangered to threatened, the Service affirmed that the Southwestern Recovery Region of the bald eagle is not a DPS but instead part of the same bald eagle population as that of the remaining lower 48 States (USFWS 1995). This determination was based on evidence of immigration into the population (USFWS 1995), inter-population movements (Mabie et al. 1994), and the existing genetic data which do not support the Services previous assertion that the bald eagles of the Southwestern Recovery Region are reproductively isolated (Hunt et al. 1992).

On July 6, 1999, the Service and the National Marine Fisheries Service jointly published a policy that clarifies the Agencies' interpretation of the phrase "distinct population segment of any species of vertebrate fish or wildlife" for the purposes of listing, delisting, and reclassifying species under the Act (USFWS and NMFS 1996). The policy identifies three elements that are to be considered in a decision regarding the status of a possible distinct population segment (DPS). These elements include (1) the discreteness of the population segment 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.

Subsequent to publication of the Distinct Vertebrate Population policy, the Service published a proposed rule to remove the bald eagle in the lower 48 States from the list of endangered and threatened wildlife (USFWS 1999). On February 16, 2006 the Service reopened the comment period for the proposed rule (USFWS 2006). In both of these publications the Service recognized a single listed population of bald eagles throughout the lower 48 States as had been done in the earlier 1995 final rule (USFWS 1995), although a formal analysis

consistent with the 1996 Distinct Vertebrate Population policy had not been completed for the Southwestern Recovery Region (USFWS 1999, 2006).

The petition is correct in that early biological opinions, as part of consultations with Federal action agencies under section 7 of the Act, finalized by the Arizona Fish and Wildlife Office referred to the Southwestern population as a distinct population segment (DPS) (USFWS ~~xxxx~~). However, in the 1995 final rule to reclassify bald eagles from endangered to threatened (USFWS 1995), the Service affirmed that the Southwestern population of the bald eagle is not a DPS. Some biological opinions dated after the final rule note that the Southwestern population of the bald eagle was previously considered a DPS, but no longer is considered as such (USFWS ~~xxx~~). In the February 16, 2006 reopening of the comment period for the proposed rule to delist the bald eagle, the Service further explains that when preparing ~~b~~Biological ~~o~~Opinions under section 7 of the Act the potential effects to the ~~S~~southwestern or any of the other four recovery regions of the bald eagle~~populations~~ are considered in terms of whether they appreciably reduce the likelihood of both survival and recovery of the bald eagle throughout the lower 48 States, not solely for the geographic area in which the impacts may occur (USFWS 2006). Therefore, the bald eagles in the Southwestern United States are not considered as a distinct population for the purposes of consultation ~~and recovery efforts~~ under the Act.

The bald eagle ranges throughout much of North America, nesting on both coasts from Florida to Baja California, Mexico in the south, and from Labrador to the western Aleutian Islands, Alaska in the north (Gerrard and Bartolotti 1988). While the statements of two authors who have “speculated” about the consequences of the Sonoran desert population’s loss are

accurately quoted, these statements do not specifically address how the loss of the Sonoran desert nesting bald eagle population would constitute a significant gap in the range of the species. Furthermore, the petitioner provides no supporting evidence to substantiate the authors' speculations.

~~Therefore, we conclude that the petition does not present substantial information that the bald eagles in the Southwestern United States are not considered as a distinct population for the purposes of consultation or recovery and therefore, the petition does not present substantial information that~~ loss of the Sonoran desert nesting ~~the population of the bald eagle segment~~ would result in a significant gap in the range of the ~~bald eagle~~species.

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

The petition does not address this factor. The bald eagle occurs naturally throughout the contiguous 48 ~~S~~states, Alaska, Canada and Mexico (Buehler 2000).

4. The discrete population segment differs markedly from other populations of the species in its genetic characteristics.

Information Provided in the Petition

The petition contends that review of all information regarding genetic analysis of the Southwestern desert nesting bald eagle reveals consistent uncertainty and the current understanding of genetics does not refute the discrete and isolated nature of the ~~d~~Desert ~~n~~Nesting ~~b~~Bald ~~e~~Eagle (CBD 2004e; Hunt et al. 1992; SWCBD 1999). The petition specifically quotes excerpts from Hunt et al. (1992) which discuss the enzyme electrophoresis and the DNA fingerprinting study methods, results, and conclusions.

Response to the Petition

We have addressed the genetic evidence provided by the petitioner ~~under~~ in our analysis of discreteness. Although we have determined that substantial information is provided in the petition to suggest that the Sonoran desert nesting population may be discrete, we also find that the best available genetic information is inconclusive with regard to discreteness of the population and is therefore also inconclusive with regard to significance. We conclude that the petition does not present substantial information that the population differs markedly from other populations of the species in its genetic characteristics.

Further, the petition did not present nor are we aware of any other factors that would lead us to believe that the Sonoran population of the bald eagle differs markedly from the taxon as a whole.

Finding

We have reviewed the information presented in the petition, and have evaluated the information in relation to information readily available in our files. On the basis of our review, we find that the petition does not present substantial scientific or commercial information to indicate that ~~listing~~ the Sonoran desert nesting population of the bald eagle ~~may be warranted~~ constitutes a valid DPS. ~~This finding is based on the lack of substantial scientific evidence to indicate that the Sonoran desert nesting population of the bald eagle constitutes a valid DPS.~~ Although the population is discrete, neither the information in the petition nor the information readily available in our files constitutes substantial scientific information that the Sonoran desert nesting population of the bald eagle is significantly unique in relation to the remainder of the taxon. Therefore, we conclude that the Sonoran desert nesting population is not a listable entity pursuant to section 3(15) of the ~~Act~~ ESA.

Additional Literature Citations

Buehler, D.A. 2000. Bald Eagle (*Haliaeetus leucocephalus*). In *The Birds of North America* No. 506 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

USFWS and National Marine Fisheries Service (NMFS) 1996. Notice of policy; Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act; Departments of the Interior and Commerce; Federal Register 61 FR 4722; February 7, 1996).

USFWS 2006. Proposed rule; reopening of public comment period with new information, Endangered and Threatened Wildlife and Plants; Removing the Bald Eagle in the Lower 48 States from the list of Endangered and Threatened wildlife; Department of the Interior Fish and Wildlife Service^{2,5}; Federal Register 71 FR 8238; February 16, 2006.