

**FOR PUBLICATION**

**UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT**

CENTER FOR BIOLOGICAL  
DIVERSITY; MARICOPA AUDUBON  
SOCIETY,

*Plaintiffs-Appellants,*

v.

RYAN ZINKE, in his official capacity  
as Secretary of the U.S. Dept. of the  
Interior; GREG SHEEHAN, in his  
official capacity as Acting Director,  
U.S. Fish and Wildlife Service,

*Defendants-Appellees.*

No. 14-17513

D.C. No.  
2:12-cv-02296-  
DGC

OPINION

Appeal from the United States District Court  
for the District of Arizona  
David G. Campbell, District Judge, Presiding

Argued and Submitted February 13, 2017  
San Francisco, California

Filed August 28, 2017

Before: William A. Fletcher and Johnnie B. Rawlinson,  
Circuit Judges, and Robert W. Pratt,\* District Judge.

Opinion by Judge W. Fletcher

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\* The Honorable Robert W. Pratt, United States District Judge for the Southern District of Iowa, sitting by designation.

**SUMMARY\*\***

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**Endangered Species Act**

The panel affirmed the district court’s summary judgment in favor of the U.S. Fish and Wildlife Service (“FWS”) in an action brought by plaintiff environmental groups challenging the FWS’s determination that the Sonoran Desert Area bald eagle was not a distinct population segment eligible for listing under the Endangered Species Act.

In order to qualify as “distinct,” the population segment must be both discrete and significant. The parties agreed that the desert eagle population was discrete, and disputed whether the population was significant.

The panel rejected plaintiffs’ contention that the FWS acted arbitrarily and capriciously in concluding in 2012 that the desert eagle population segment was not significant within the meaning of the distinct population segment policy. Specifically, the panel held that FWS reasonably concluded that, while the combination of unusual characteristics in a discrete population was sufficient to satisfy the persistence factor, those characteristics did not by themselves necessarily require a conclusion that the desert eagle population segment was ecologically or biologically significant for the bald eagle taxon as a whole. The panel further held that the FWS reasonably concluded that if the desert eagle population segment were “extirpated,” this could not create a significant gap in the range of the taxon. Finally, the panel held, contra

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\*\* This summary constitutes no part of the opinion of the court. It has been prepared by court staff for the convenience of the reader.

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to plaintiffs' contention, that the FWS directly addressed climate change in its 2012 decision.

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### COUNSEL

Daniel J. Rohlf (argued), Earthrise Law Center, Portland, Oregon; Justin Augustine, Center for Biological Diversity, Oakland, California; for Plaintiffs-Appellants.

Mark R. Haag (argued), David C. Shilton, H. Hubert Yang, and Kristen L. Gustafson, Attorneys; John C. Cruden, Assistant Attorney General; Environment & Natural Resources Division, United States Department of Justice, Washington, D.C.; Frank Lupo, Office of the Solicitor, Southwest Region, United States Department of the Interior, Albuquerque, New Mexico; for Defendants-Appellees.

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### OPINION

W. FLETCHER, Circuit Judge:

Plaintiffs-Appellants Center for Biological Diversity and Maricopa Audubon Society (collectively "CBD") challenge the determination of the U.S. Fish and Wildlife Service ("FWS") that the Sonoran Desert Area bald eagle ("desert eagle") is not a distinct population segment ("DPS") eligible for listing under the Endangered Species Act. FWS and the National Marine Fisheries Service have promulgated a policy statement to guide determinations whether a particular population segment qualifies as distinct. In order to qualify as distinct, the DPS must be both discrete and significant. *Inter alia*, the policy statement provides a non-exhaustive list

of criteria for determining whether a population segment is “significant.” CBD argues that if one of the criteria is satisfied, FWS is compelled to conclude that the population segment is significant. CBD argues, further, that FWS improperly ignored the desert eagle’s status as a peripheral population, and that FWS failed to evaluate the significance of climate change. We disagree with these arguments and affirm the decision of the district court.

### I. Background

The bald eagle was first listed as an endangered species in 1967, under a predecessor to the Endangered Species Act (“ESA”). *See* Endangered Species Preservation Act of 1966, Pub. L. 89-669, 80 Stat. 926. In 1978, after the passage of the ESA, the bald eagle was listed as endangered in forty-three states and listed as threatened in an additional five states. 43 Fed. Reg. 6230, 6230 (Feb. 14, 1978). In 1995, the bald eagle was listed as threatened in the lower forty-eight states. 60 Fed. Reg. 36000, 36000 (July 12, 1995).

In 1963, there had been an estimated 487 breeding pairs of bald eagles in the United States. 72 Fed. Reg. 37346 (July 9, 2007). In 2007, there were an estimated 9,789 breeding pairs. *Id.* As a result of this remarkable recovery, FWS removed the bald eagle from the list of threatened species in 2007. *Id.* The delisting does not affect the protection that continues to be provided under the Bald and Golden Eagle Protection Act, 16 U.S.C. § 668, and the Migratory Bird Treaty Act, 16 U.S.C. § 703. In 2004, while delisting of the bald eagle was being considered, CBD filed a petition asking FWS to list the Sonoran Desert Area bald eagle as a DPS. FWS denied the petition. This litigation followed.

The desert eagle population includes “all bald eagle territories within Arizona, the Copper Basin breeding area in California near the Colorado River, and the territories of interior Sonora, Mexico, that occur within the Sonoran Desert and adjacent transitional communities.” 77 Fed. Reg. 25792, 25792 (May 1, 2012). In its initial response to CBD’s petition, FWS found in 2006 that the desert eagle did not “constitute[ ] a valid DPS.” 71 Fed. Reg. 51549, 51556 (Aug. 30, 2006). CBD challenged this finding in the district court, and the court set it aside as arbitrary and capricious. *Ctr. for Biological Diversity v. Kempthorne*, 2008 WL 659822 (D. Ariz. Mar. 6, 2008). The court concluded that there was evidence that FWS officials in Washington, D.C. had given “marching orders” to FWS field personnel to deny the petition. *Id.* at \*12. The court remanded the petition to FWS with directions to conduct a full status review. *Id.* at \*15–16.

In 2010, FWS again found that the desert eagle population did not constitute a DPS. 75 Fed. Reg. 8601, 8620 (Feb. 25, 2010). CBD again challenged the finding, and the district court again remanded to FWS. *See Ctr. for Biological Diversity v. Salazar*, 2011 WL 6000497, at \*14 (D. Ariz. Nov. 30, 2011). The court found that FWS’s 2007 delisting procedure “failed to comport with the notice, comment, and consultation requirements of the law.” *Id.* at \*9. The court ordered FWS to make a new finding based on information gathered during the status review. *Id.* at \*14.

In 2012, FWS found for a third time that the desert eagle did not constitute a DPS. 77 Fed. Reg. at 25792, 25828 (May

1, 2012). CBD again challenged FWS. In a careful and thorough opinion, the district court granted summary judgment to FWS.

CBD timely appealed.

## II. Standard of Review

We review the district court's grant of summary judgment *de novo*. *Biodiversity Legal Found. v. Badgley*, 309 F.3d 1166, 1175 (9th Cir. 2002). Review of agency decisions under the ESA is governed by the Administrative Procedure Act ("APA"). *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1023 (9th Cir. 2011). An agency action can be overturned when arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. *Id.* An agency action must be reversed when the agency has "relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Pac. Coast Fed'n of Fishermen's Ass'ns v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1034 (9th Cir. 2001) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)). A court cannot substitute its judgment for that of the agency. *Greater Yellowstone Coal., Inc.*, 665 F.3d at 1023. "The only question before us is whether the Service, in reaching its ultimate finding, 'considered the relevant factors and articulated a rational connection between the facts found and the choices made.'" *Nw. Ecosystem Alliance v. U.S. Fish & Wildlife Serv.*, 475 F.3d 1136, 1145 (9th Cir. 2007) (quoting

*Nat'l Ass'n of Home Builders v. Norton*, 340 F.3d 835, 841 (9th Cir. 2003)).

### III. Discussion

The ESA requires FWS to identify and list species that are “endangered” or “threatened.” 16 U.S.C. § 1533. An interested person may petition FWS to add to or remove from the list a particular species. § 1533(b)(3)(A). Upon receiving such a petition, FWS must promptly determine whether the petition is supported by “substantial scientific or commercial information.” *Id.* If so, FWS must “commence a review of the status of the species concerned.” *Id.* FWS is required to make a finding on the status of the species within twelve months and publish its finding in the Federal Register. § 1533(b)(3)(B). FWS must make its decision “solely on the basis of the best scientific and commercial data available.” § 1533(b)(1)(A). If FWS finds that a petitioned action is warranted, it must promptly publish a proposed regulation to implement its finding. § 1533(b)(3)(B)(ii).

“Species” is defined to include “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” § 1532(16). The ESA does not define the term “distinct population segment.” FWS and the National Marine Fisheries Service, the two agencies charged with implementing the ESA, have jointly promulgated a policy statement to guide determinations whether DPS status is warranted. *See Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act*, 61 Fed. Reg. 4722 (Feb. 7, 1996) (“DPS Policy”). We have previously determined that “the DPS Policy is a reasonable construction of ‘distinct population

segment” and “is entitled to *Chevron* deference.” *Nw. Ecosystem Alliance*, 475 F.3d at 1141–45.

The DPS Policy sets forth two requirements for DPS status: the “[d]iscreteness of the population segment in relation to the remainder of the species to which it belongs,” and the “significance of the population segment to the species to which it belongs.” 61 Fed. Reg. at 4725. “Discreteness” is satisfied if a population segment is “separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors,” or if a population’s boundaries are marked by international borders. *Id.* “Significance” is determined using, *inter alia*, four factors listed below. *Id.* A population qualifies as a DPS if it is both discrete and significant. *Id.* If a population is found to be a DPS, the inquiry proceeds to whether it is endangered or threatened. *Id.* The parties agree that the desert eagle population is discrete, and that it therefore satisfies the first of the two criteria for achieving DPS status. They dispute whether the population is significant.

The DPS Policy provides in relevant part:

*Significance:* If a population segment is considered discrete . . . , its biological and ecological significance will then be considered in light of Congressional guidance . . . that the authority to list DPS’s be used “ \* \* \* sparingly” while encouraging the conservation of genetic diversity. In carrying out this examination, the Services will consider available scientific evidence of the discrete population segment’s importance to the taxon to which it belongs. This

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consideration may include, but is 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 a taxon,

3. Evidence that the discrete population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range, or

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

Because precise circumstances are likely to vary considerably from case to case, it is not possible to describe prospectively all the classes of information that might bear on the biological and ecological importance of a discrete population segment.

*Id.* (“\* \* \*” elision in original).

FWS concluded in 2012 that the desert eagle population segment is not significant within the meaning of the DPS Policy. On appeal, CBD argues on three grounds that FWS

acted arbitrarily and capriciously in reaching that conclusion: (1) in addressing the first significance factor, FWS properly concluded that the desert eagle population was persistent in its unusual or unique ecological setting, but improperly concluded that it was not significant despite its qualification under this factor; (2) in addressing the second significance factor, FWS improperly concluded that the loss of the desert eagle population would not create a significant gap in the bald eagle population as a whole, ignoring the importance of peripheral populations; and (3) in evaluating the significance of the desert eagle population to the bald eagle population as a whole, FWS improperly failed to consider the impact of climate change. We consider, and reject, these arguments in turn.

A. Persistence in an Ecological Setting  
Unusual or Unique for the Taxon

FWS concluded that the desert eagle population segment satisfied the persistence factor of the DPS Policy, but nonetheless concluded that the population did not satisfy the significance requirement. 77 Fed. Reg. at 25806–08. CBD argues that if FWS finds that a population segment satisfies any of the four listed significance factors, it is required to conclude that the population segment is significant. CBD frames the question as follows: “FWS’ interpretation of its DPS Policy thus poses a very clear question for this Court: May FWS determine that a population meets one of the DPS Policy’s express indicators of ‘significance’ and nonetheless still find that the population is not significant within the meaning of the Policy?” Our answer to CBD’s question is “yes.”

In evaluating the desert eagle population's persistence, FWS provided an extensive analysis of the ways in which the desert eagle's ecological setting is unusual or unique, and the ways in which the desert eagle has responded to that setting. FWS noted at the beginning of its analysis:

Bald eagles are highly adaptable, wide-ranging habitat generalists. Across the range of the species, there is no "usual" ecological setting, in terms of the elevation, temperature, prey species, nest tree species, or type of water source, for the taxon. The bald eagle is capable of inhabiting areas throughout North America, so long as a sufficient food source persists.

77 Fed. Reg. at 25806. FWS concluded that the ways in which the desert eagle population differed from other bald eagle populations were not "adaptations . . . that could be significant to the conservation of the taxon as a whole." *Id.*

FWS described a number of unusual characteristics of the desert eagle population segment. First, birds in the desert eagle population segment are smaller than, and breed earlier than, other bald eagles. *Id.* at 25806–07. FWS concluded that these variations correlated to latitude rather than to the desert environment. *Id.* For example, Florida bald eagles, who live further south than desert eagles, are even smaller, and Baja California bald eagles, who also live further south, breed even earlier. *Id.* at 25807. Second, a study found that the desert eagle population's eggs are less porous than those of California bald eagles. However, the small sample size (four eggs) and lack of analysis in the study meant that any conclusion was not "scientifically robust." *Id.* Third, the

desert eagle population segment has a “preference for cliff nests” that was unusual among other bald eagle populations. *Id.* at 25808. FWS concluded that the preference was explained by the availability of nesting sites in the desert and by the “flexibility in nest site selection that bald eagles have throughout [their] entire geographic range.” *Id.* Finally, differences in migration patterns in young desert eagles were consistent with the “wide variety of migration strategies throughout the range of the species.” *Id.* We have no basis to set aside these factual and scientific conclusions of FWS.

Nor do we have any basis for holding, as a matter of law, that if one of the four significance factors is satisfied, FWS is compelled to conclude that a discrete population segment is significant. While binding on the agency, *Nw. Ecosystem Alliance*, 475 F.3d at 1138, the DPS Policy is open-ended. It specifically provides that the agency’s “consideration may include, but is not limited to” the four listed factors. 61 Fed. Reg. at 4725. It provides, further, “Because precise circumstances are likely to vary considerably from case to case, it is not possible to describe prospectively all the classes of information that might bear on the biological and ecological importance of a discrete population segment.” *Id.* The policy nowhere provides that if one of the listed factors in the policy is satisfied, the agency is compelled to conclude that the discrete population segment at issue is significant.

CBD contends that FWS has always found significance when it has found one of the four factors satisfied. FWS disputes that this is so. But even assuming *arguendo* that the FWS has always found significance after a finding that one of the four factors is satisfied, this would show only that each of the four factors is a powerful indicator of significance. A close look at the persistence finding in this case illustrates the

weakness of CBD's argument. As summarized above, FWS analyzed all of the unusual characteristics of the desert eagle population segment. Though many of its characteristics are indeed unusual, each characteristic (except the variation in egg porosity, whose importance has not been established) can be found in other bald eagle populations. FWS thus reasonably concluded that, while the combination of unusual characteristics in a discrete population was sufficient to satisfy the persistence factor, those characteristics did not by themselves necessarily require a conclusion that the desert eagle population segment was ecologically or biologically significant for the bald eagle taxon as a whole.

#### B. Loss of Discrete Population Segment Resulting in Significant Gap in the Range of the Taxon

FWS concluded that if the discrete population segment of desert eagles were "extirpated," this would not result in a significant gap in the range of the bald eagle taxon. 77 Fed. Reg. at 25809. CBD argues that FWS's 2012 analysis is flawed. It cites a 2009 draft prepared by FWS staff members concluding, contrary to the conclusion reached by the FWS in 2012, that the loss of the desert eagle population would create a significant gap. The draft discussed the importance of the desert eagle population segment as a "peripheral population." The 2012 FWS analysis does not use the term "peripheral population."

The existence of the 2009 draft, which came to a contrary conclusion about the significance of the gap that would be created, is not irrelevant; but neither is it determinative. Agencies may change course. *Nat'l Ass'n. of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 659 (2007) (observing that "the fact that a preliminary determination by a local

agency representative is later overruled at a higher level within the agency does not render the decisionmaking process arbitrary and capricious.”). Our task is to review the change of course to ensure that it is based on new evidence or otherwise based on reasoned analysis. *See Defenders of Wildlife v. Zinke*, 856 F.3d 1248, 1262 (9th Cir. 2017) (“However, an agency also ‘must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.’”) (quoting *Humane Soc’y of U.S. v. Locke*, 626 F.3d 1040, 1051 (9th Cir. 2010)). In so doing, “we must defer to the agency’s interpretation of complex scientific data.” *Nw. Ecosystem Alliance*, 475 F.3d at 1150 (citing *United States v. Alpine Land & Reservoir Co.*, 887 F.2d 207, 213 (9th Cir. 1989) (“Deference to an agency’s technical expertise and experience is particularly warranted with respect to questions involving engineering and scientific matters.”)).

We hold that FWS reasonably concluded that if the desert eagle population segment were “extirpated,” this would not create a significant gap in the range of the taxon. “For purposes of the ‘gap in the range’ analysis, the term ‘significant’ has its ‘commonly understood meaning,’ which is ‘important.’” *Nw. Ecosystem Alliance*, 475 F.3d at 1146 (quoting *Nat’l Ass’n of Home Builders*, 340 F.3d at 846). The DPS Policy does not, however, define what constitutes a “gap.” *See* 61 Fed. Reg. at 4725. Since the definition of gap is ambiguous, the FWS is entitled to deference in interpreting its own regulations, unless its interpretation is plainly erroneous. *Stinson v. United States*, 508 U.S. 36, 45 (1993).

In some prior cases, FWS has interpreted “gap” to include the loss of peripheral populations. *See Determination of*

*Endangered Status for the So. Calif. Distinct Vertebrate Population Segment of the Mountain Yellow-Legged Frog*, 67 Fed. Reg. 44382, 44385 (July 2, 2002) (finding that “the loss of the southern California frogs on the periphery of the species’ range” would create a gap in the range of the taxon); *Final Rule to List the Santa Barbara County Distinct Population of the Calif. Tiger Salamander as Endangered*, 65 Fed. Reg. 57242, 57244 (Sep. 21, 2000) (finding that the loss of the “southernmost population of the species” would create a gap in the range of the taxon); *Determination of Threatened Status for the Northern Population of the Copperbelly Water Snake*, 62 Fed. Reg. 4183, 4184 (Jan. 29, 1997) (concluding that “[t]he loss of the peripheral, isolated, northern population . . . would result in a significant reduction in the range of the taxon.”).

Peripheral populations are important to “significant gap” analysis because, “[a]s a general matter, peripheral populations often face ecological circumstances not found elsewhere in the taxon’s range, and may consequently develop distinctive morphological, behavioral, or genetic characteristics through adaptation to local conditions.” *Nw. Ecosystem Alliance*, 475 F.3d at 1146. Peripheral populations thus help to create and preserve genetic variations in the taxon. *Nat’l Ass’n of Home Builders*, 340 F.3d at 846. Such genetic variations can help ensure the survival of the species in times of stress when other parts of the taxon are vulnerable to new and threatening conditions. The absence or disappearance of a peripheral population can thus constitute a “significant gap,” which in turn may require that the peripheral population be protected as a DPS.

In its 2012 decision, FWS emphasized the small size of the desert eagle population segment. In 2009, in the Arizona

portion of the Sonoran Desert Area, where most of the desert eagle population lives, there were only 48 breeding pairs. 77 Fed. Reg. at 25809. Counting the bald eagle taxon as a whole, including in Alaska and Canada, the desert eagle population segment “represents much less than one half of a percent of the number of breeding pairs throughout the range of the species.” *Id.* FWS determined that loss of the desert eagle population would create a gap in the taxon’s range, and that it is “unknown” whether bald eagles would repopulate the Sonoran Desert Area if the desert eagle population were “extirpated.” *Id.* But FWS concluded that there is “no evidence of distinctive traits or genetic variations among the Sonoran Desert Area population that suggests that loss of the population would have a negative effect on the bald eagle as a whole.” *Id.* In so concluding, FWS did not use the term “peripheral population,” but the substance of its analysis necessarily takes into account the benefits a peripheral population, with its genetic variations, would confer on the taxon as a whole.

### C. Climate Change

CBD’s final argument is that “FWS ignored climate change as a factor in assessing whether desert eagles are significant to their taxon.” This is not true. FWS directly addressed climate change in its 2012 decision. It concluded, “We are uncertain about the magnitude of the threat posed by climate change . . . However, based on the best information available, we conclude that climate change is not a significant threat” to the bald eagle. *Id.* at 25826. The bald eagle is “highly adaptable.” *Id.* “This . . . contributes to the ability of the Sonoran Desert Area population of the bald eagle to continue to exist even under some of the possible effects from climate change.” *Id.* FWS then concluded that, given that the

desert eagle does not exhibit noticeable genetic variance from the taxon as a whole, it is reasonable to assume that its inherent characteristics exist in the species as a whole.

### Conclusion

For the foregoing reasons, the district court's summary judgment order is **AFFIRMED**.