

From: [Grizzle, Betty](#)
To: [Shoemaker, Justin](#)
Subject: DPS powerpoint
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Attachments: [DPS Presentation.pptx](#)

Hi Justin - I am attaching a DPS presentation that Kelly Hornaday sent to me a few years ago. Some of the photos/species might need updating given some recent listing actions, but I think this would be helpful way to start the discussion of the second day of the wolverine recommendation meeting. You could add a slide or two to illustrate the history of wolverine DPS over the years.

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Columbia Basin pygmy rabbit



Canada lynx

Distinct Population Segments



Southern rockhopper penguin

History of DPS

- The ESA allows listing of populations as endangered species or threatened species
 - As noted earlier: “species” includes 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
- Congress determined that the Service needed to be able to adopt different management practices for different populations, based on their need
- 1978 ESA Amendments - DPS restricted to vertebrates
- DPSs are to be used “sparingly and only when the biological evidence indicates that such action is warranted”

DPS – Defined by Policy*

- Policy identifies principles that guide the Services' listing, delisting, and reclassification of DPSs of vertebrate species
- Three Elements:
 - **Discreteness** - Discreteness of the population segment in relation to the remainder of the species to which it belongs;
 - **Significance** - The significance of the population segment to the species to which it belongs
 - **Conservation Status** - The population segment's conservation status in relation to the ESA standards for listing



Grizzly bear

*Joint FWS/NMFS policy published February 7, 1996 (61 FR 4722)

Discreteness

- Markedly separate from other populations of same taxon
 - Physical, physiological, ecological, or behavioral factors
 - Genetic or morphological information may be used
- 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 section 4(a)(1)(D) of the Act (that is, are existing regulatory mechanisms designed to protect a species adequate?)



Red tree vole



Marbled murrelet

Significance



- Consider biological and ecological significance
- May include, but not limited to:
 - Persistence of DPS in an ecological setting **unusual or unique** for the taxon
 - Evidence that loss of the DPS would result in a **significant gap** in the range
 - Evidence that the DPS represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historical range
 - Evidence that the DPS **differs markedly** from other populations of the species in its genetic characteristics

Data relevant to Discreteness and Significance

- Genetics
- Morphology/morphometrics
- Biogeography
- Behavior
- Ecology
- Each is sufficient, not all (including genetics) are required

Conservation Status

- Does it meet the Act's definitions of "endangered species" or "threatened species"?
- Example: **Black-footed albatross**
 - Hawaiian Islands DPS and Japanese Islands DPS
 - Determined discrete and significant
 - Discrete based on behavior of strong nest fidelity, physical separation, genetics
 - Significant because loss of 1 population would result in significant gap in range, and markedly different genetics
 - After evaluation, neither of these DPSs warranted listing under the ESA



- Different DPSs of the same vertebrate taxon can be assigned different ESA classifications (E or T).
 - **Example: Atlantic sturgeon**
 - Endangered
 - New York Bight DPS
 - Chesapeake Bay DPS
 - Carolina DPS
 - South Atlantic DPS
 - Threatened
 - Gulf of Maine DPS
 - Discreteness based on genetic differences
 - Unique ecological settings



DPS Summary

- Discreteness, Significance, and Conservation Status Criteria
- Include DPS Analysis in 90-Day Petition Finding, 12-Month Finding, Proposed Listing, and Final Listing (if applicable)



Fisher



Southern resident Killer whales



Arctic grayling