Distinct Population Segments (DPS)

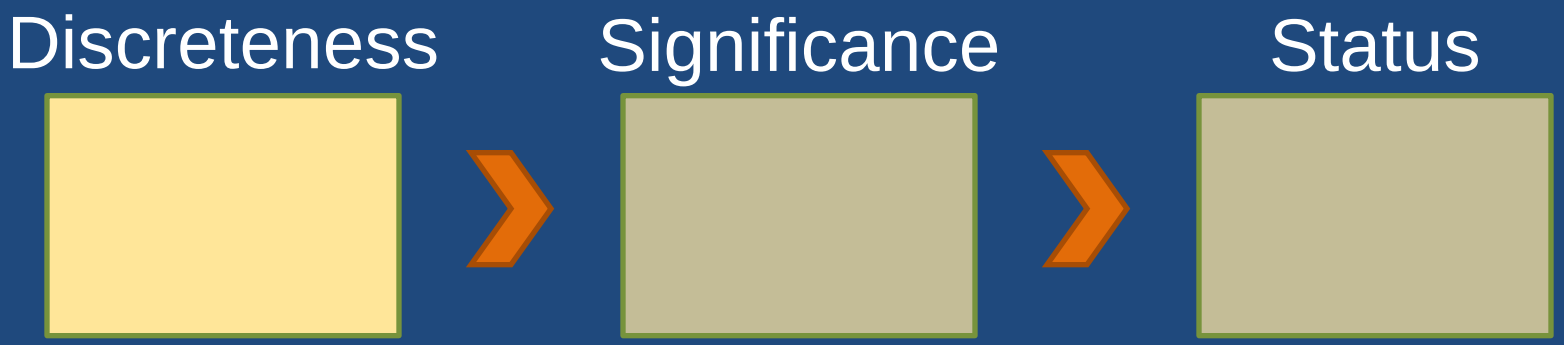
Distinct Population Segment (DPS)

Definition of species in the Endangered Species Act:

"…includes any subspecies of fish or wildlife or plants, or any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature"

DPS Policy

- **Joint FWS/NMFS policy published 1996**
- **Identifies principles that guide listing, delisting, and reclassification of DPSs of vertebrate species**



Intent of DPS Policy

Achieve the interrelated goals of:

1. **Conserving genetic resources; and,**
2. **Maintaining natural systems and biodiversity over a representative portion of their historic occurrence**

Intent of DPS Policy

- **<u>Effects of the Policy (1)</u>: Listing, delisting, or reclassifying DPSs may allow the Services to protect and conserve species and the ecosystems upon which they depend before large-scale decline occurs that would necessitate listing a species or subspecies throughout its entire range.**

Intent of DPS Policy

- **<u>Effects of the Policy (2)</u>: Allow protection and recovery of declining organisms in a more timely and less costly manner, and on a smaller scale than the more costly and extensive efforts that might be needed to recover an entire species or subspecies.**

Intent of DPS Policy

- **<u>Effects of the Policy (3)</u>: The Services' ability to address local issues (without the need to list, recover, and consult rangewide) will result in a more effective program.**

Sparing Use of the DPS policy

- **Congressional guidance to use DPS authority "sparingly."**
- **The policy qualifies that we will use our DPS authority sparingly <u>while encouraging the conservation of genetic diversity</u>.**

The DPS policy language is less than two columns in the *Federal Register*

The following principles will guide the Services' listing, delisting and reclassification of DPS's of vertebrate species. Any proposed or final rule affecting status determination for a DPS would clearly analyze the action in light of these guiding principles.

Policy

Three elements are considered in a decision regarding the status of a possible DPS as endangered or threatened under the Act. These are applied similarly for addition to the lists of endangered and threatened wildlife and plants, reclassification, and removal from the lists:

1. 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 (i.e., is the population segment, when treated as if it were a species, endangered or threatened?).

Discreteness: A population segment of a vertebrate species may be considered discrete if it satisfies either one of the following conditions:

1. It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors. Quantitative measures of genetic or morphological discontinuity may provide evidence of this separation.
2. It is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the Act.

Significance: If a population segment is considered discrete under one or more of the above conditions, its biological and ecological significance will then be considered in light of Congressional guidance (see Senate Report 151, 96th Congress, 1st Session) 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 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.

Status: If a population segment is discrete and significant (i.e., it is a distinct population segment) 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). It may be appropriate to assign different classifications to different DPS's of the same vertebrate taxon.

Relationship to Other Activities

The Fish and Wildlife Service's Listing and Recovery Priority Guidelines (48 FR 43098; September 21, 1983) generally afford DPS's the same consideration as subspecies, but when a subspecies and a DPS have the same numerical priority, the subspecies receives higher priority for listing. The Services will continue to generally accord subspecies higher priority than DPS's.

Any DPS of a vertebrate taxon that was listed prior to implementation of this policy will be reevaluated on a case-by-case basis as recommendations are made to change the listing status for that distinct population segment. The appropriate application of the policy will also be considered in the 5-year

Elements of a DPS analysis

- **Discreteness**
- **Significance**
- **Status**

Discreteness

- **Markedly separate from other populations of same taxon**
- **Delimited by international boundaries**

Discreteness – Marked Separation

Factors to Consider

- Physical
- Physiological
- Ecological
- Behavioral
- Morphology
- Genetics

Discreteness – International Boundary

Differences in:

- Control of exploitation
- Management of habitat
- Conservation status
- Regulatory mechanisms

Significance

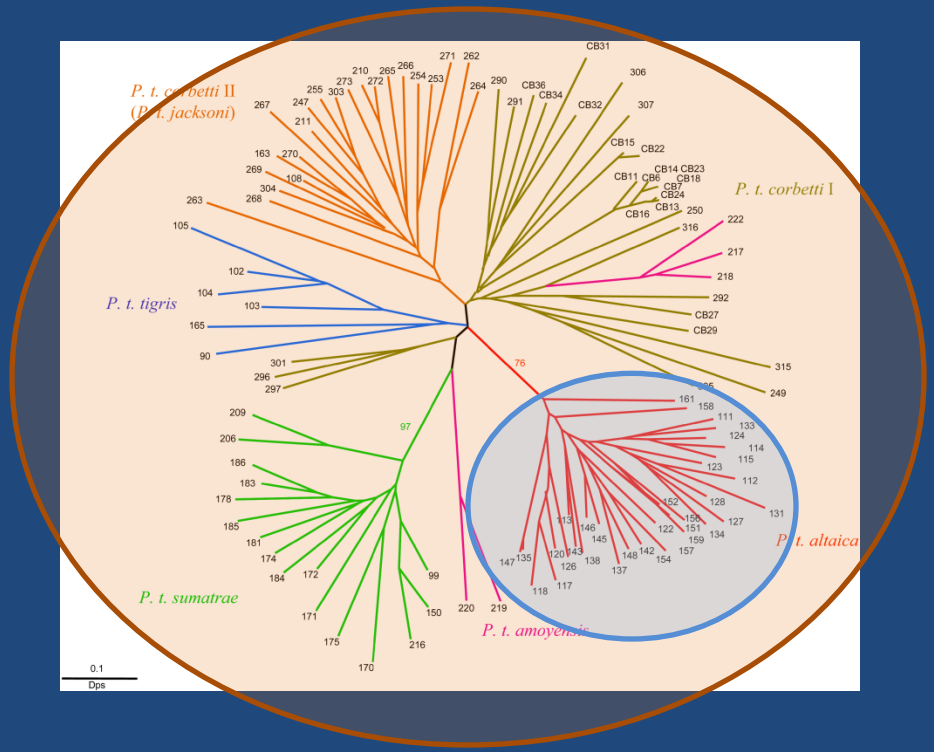
If we determine a population is discrete, we analyze significance

Discreteness → Significance → Status

Significance

Assessed relative to “the taxon”

- Taxon can be either subspecies or species



Significance

May include, <u>but not limited to</u>:

- Persistence in a unique or unusual ecological setting
- Loss would result in a significant gap in the range
- Only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historical range
- Differs markedly from other populations of the species in its genetic characteristics

Conservation Status

Discreteness

Significance

Status

Conservation Status

- **Evaluate the status of the population based on the ESA threat factors and consider definitions of threatened and endangered.**
- **Different DPSs of the same vertebrate taxon can be assigned different ESA classifications (E or T).**

Questions

The 1996 DPS policy is available online:

http://1.usa.gov/1yuch3o