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Humpback whales

Overview of current stocks and
Distinct Population Segments



Humpback Whale Protection under the ESA & MMPA

Endangered Species Act of 1973 (ESA)

- Provides for the conservation of species that are endangered or threatened throughout all or a significant portion of their range & the conservation of the ecosystems on which they depend.
- A “species” is considered:
 - **endangered** if it is in danger of extinction throughout all or a significant portion of its range
 - **threatened** if it is likely to become an endangered species within the foreseeable future

Marine Mammal Protection Act of 1972 (MMPA)

- Protects all marine mammals, regardless of status.
- Prohibits, with certain exceptions, the “take” of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S.
- Major objective: species or stocks must not be permitted to fall below their optimum sustainable population level (i.e., become “depleted”).



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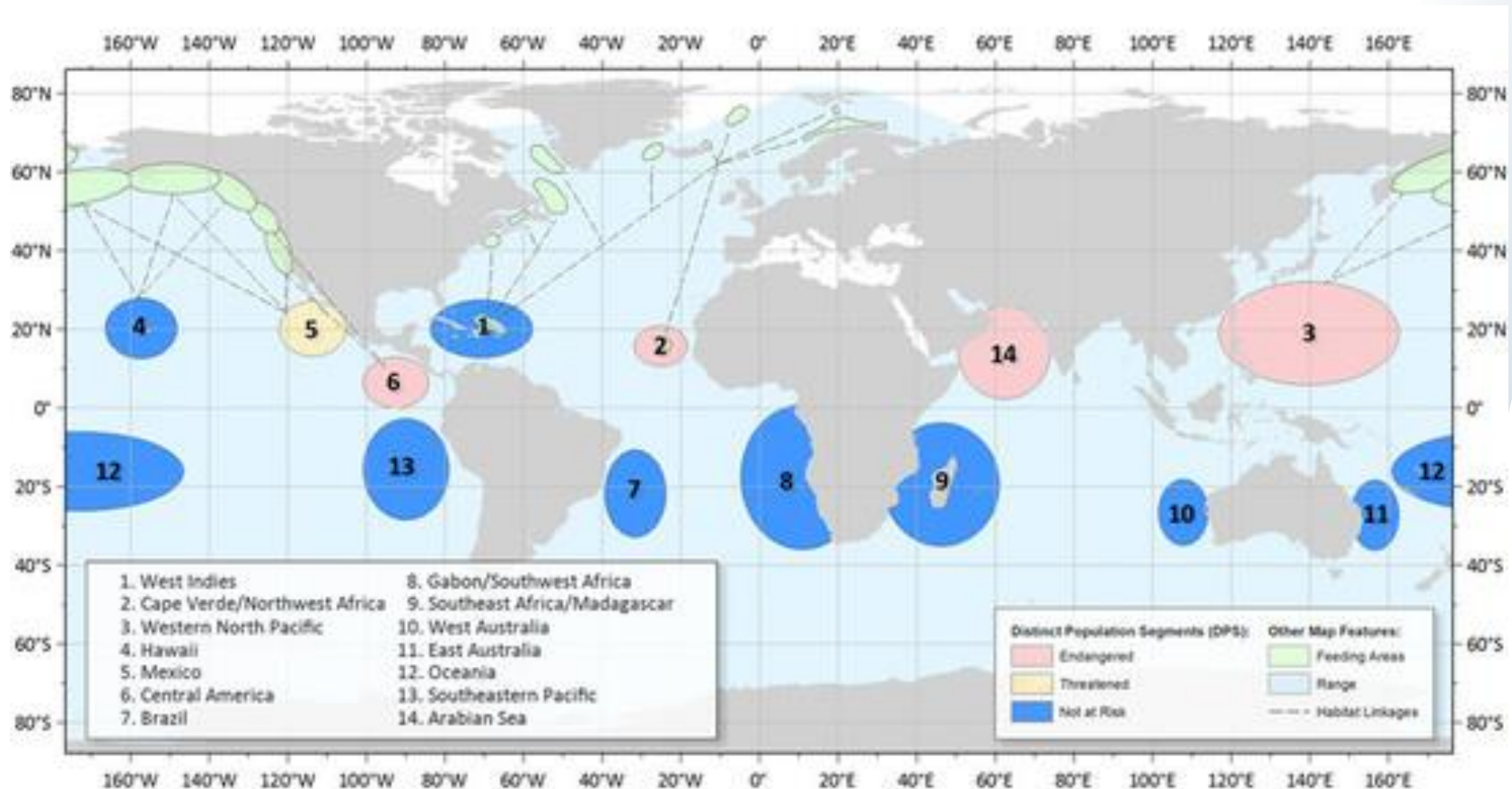
ESA Listing of Humpback Whales

- June 1970: humpback whales listed as “endangered” under the Endangered Species Conservation Act (ESCA)
- 1973: Endangered Species Act (ESA) replaced the ESCA, and continued to list humpback whales as endangered
- April 2015 **Proposed Rule**: NOAA Fisheries proposed to revise the ESA listing of humpback whales by
 - Identifying 14 distinct population segments (DPS)
 - Listing 2 DPSs as threatened
 - Listing 2 DPSs as endangered
 - Identifying 10 DPSs as not warranted for listing
- September 2016 **Final Rule**: NOAA Fisheries revised the ESA listing for humpback whales by
 - **Identifying 14 DPSs**
 - **Listing 1 DPS as threatened**
 - **Listing 4 DPSs as endangered**
 - **Listing 9 DPSs as not warranted for listing**



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Humpback Whale Distinct Population Segments



ESA & MMPA Population Units

- ESA Species/DPS do not always equate to MMPA stock
- **ESA definition:** The term “**species**” includes any subspecies of fish or wildlife or plants, and any distinct population segment of any vertebrate fish or wildlife which interbreeds when mature.
- **MMPA definition:** the term “**population stock**” or “**stock**” is a group of marine mammals of the same species or smaller taxa in common spatial arrangement, that interbreed when mature.



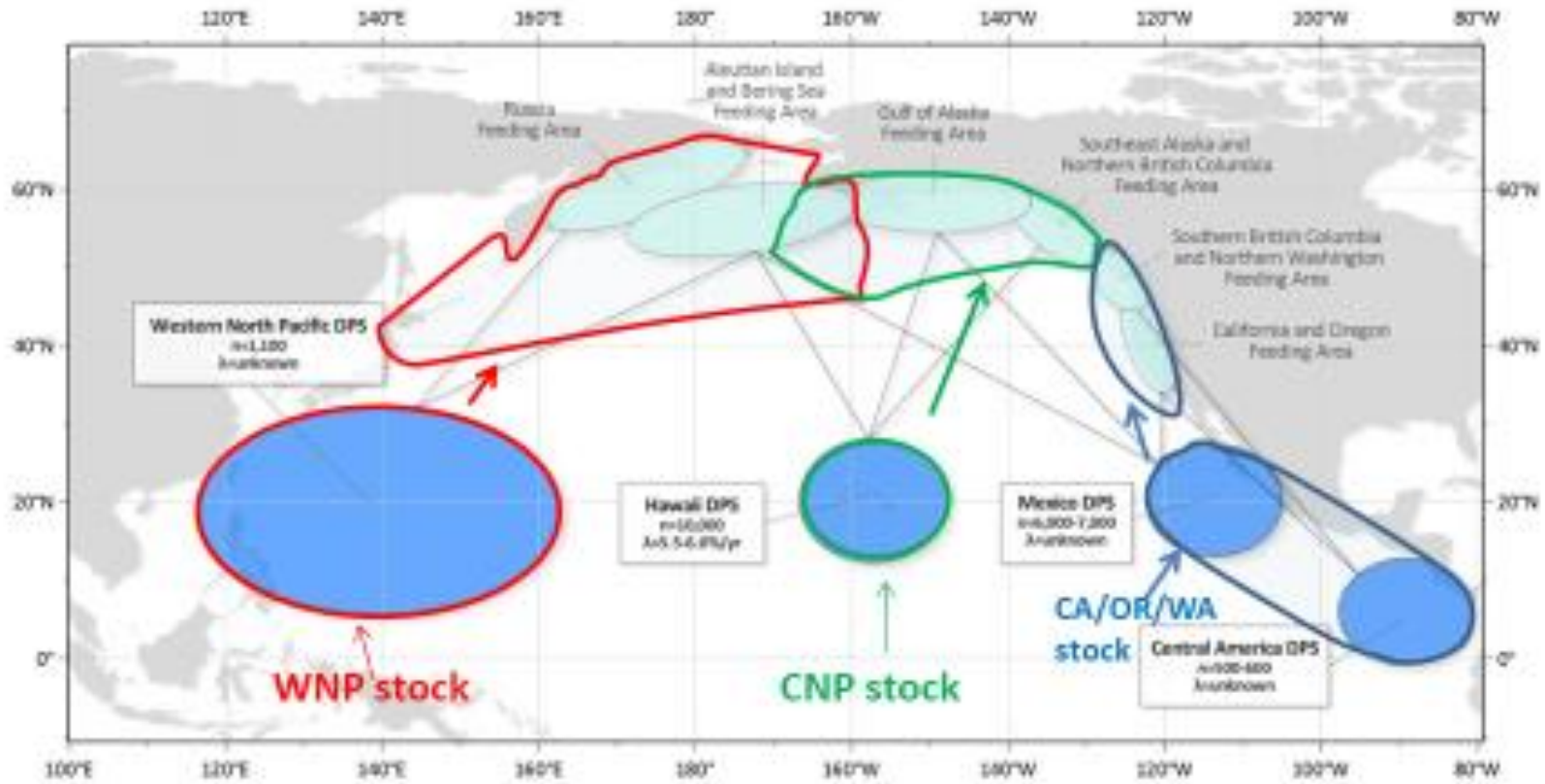
ESA & MMPA Humpback Whale Units Do Not Align

- Currently, there are 14 recognized ESA DPSs for humpback whales worldwide & 4 recognized MMPA stocks in U.S. waters.
- NOAA Fisheries is in the process of developing a stock designation policy under the MMPA and reviewing humpback whale stock structure in light of the 14 DPSs. A complete revision of the humpback whale stock designation is on hold until this review and policy are complete.

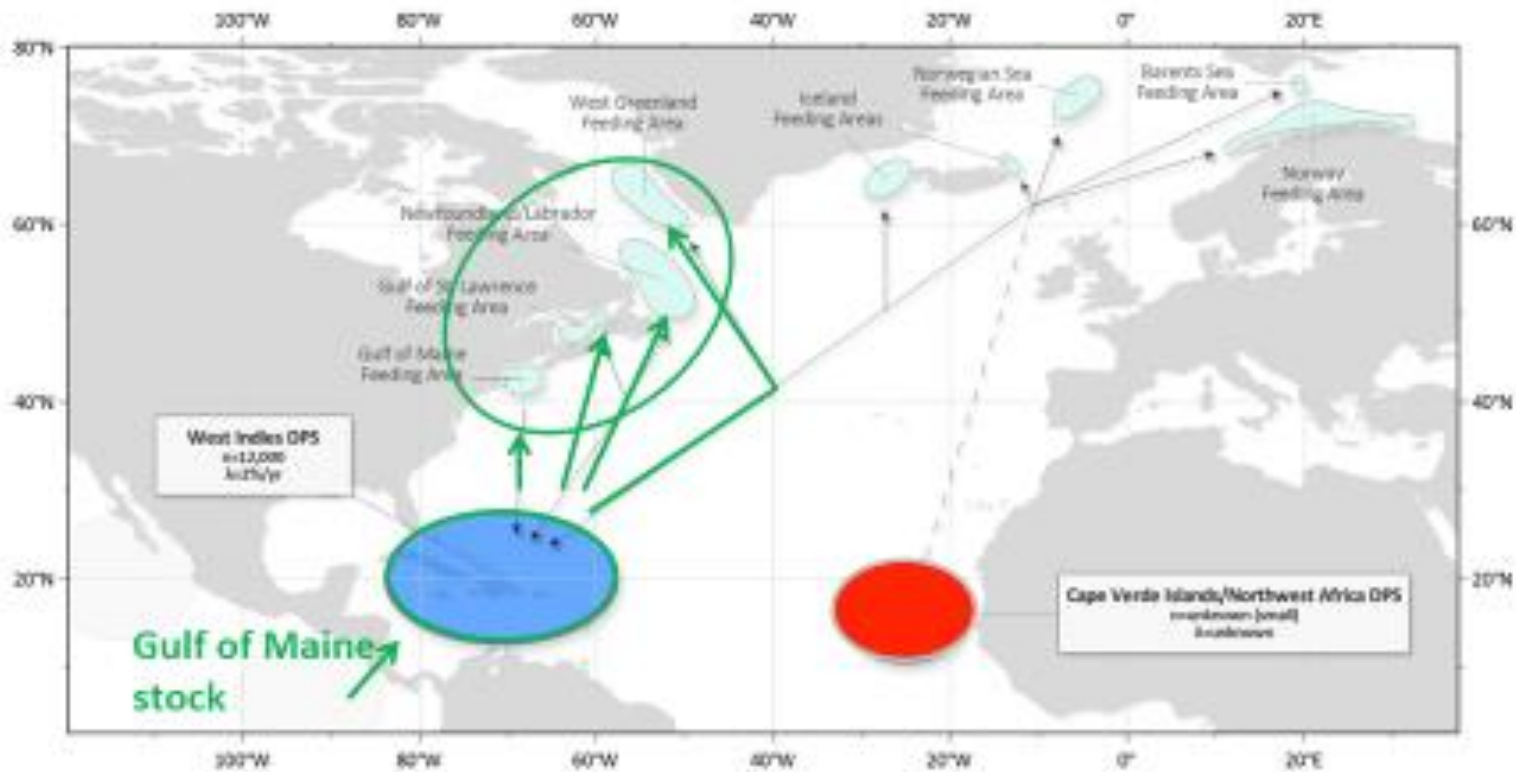


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North Pacific ESA DPSs & Current MMPA stocks



North Atlantic ESA DPSs and current MMPA stock



Humpback Whale Protected Status

ESA Endangered - *2 distinct population segments*

Central America DPS

Western North Pacific DPS

ESA Endangered, Foreign - *2 distinct population segments*

Arabian Sea DPS

Cape Verde Islands/Northwest Africa DPS

ESA Threatened - *1 distinct population segment*

Mexico DPS

CITES Appendix I - Throughout Its Range

MMPA Protected - Throughout Its Range

MMPA Depleted - *3 stocks*

Western North Pacific stock

Central North Pacific stock

California/Oregon/Washington stock



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Abundance – ESA Units

Central America DPS (Endangered)

N_{multi} 783

Western North Pacific DPS (Endangered)

N_{multi} 1,066

Mexico DPS (Threatened)

N_{multi} 2,806

Hawaii DPS (not listed)

N_{multi} 11,571

West Indies DPS (not listed)

$N_{\text{best}} \sim 1,200$

N_{multi} Source: Wade (2017)



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Abundance – MMPA Units

Western North Pacific stock

N_{est} 1,107, trend unknown

Central North Pacific stock

N_{est} 10,103, increasing

CA/OR/WA stock

N_{est} 2,900, increasing

Gulf of Maine stock

N_{best} 896 (biased low), trend unknown

Current active Unusual Mortality Event, 96 mortalities between 2016 and May 20, 2019

Source: draft 2018 SARs



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Major Threats to Humpback Whales

- Vessel strikes
- Entanglement
- Climate change



Critical Habitat

When a species is listed under the ESA, NOAA Fisheries is required to designate critical habitat to the maximum extent prudent and determinable. Once critical habitat is designated, other federal agencies consult with NOAA Fisheries to ensure actions they fund, authorize, or undertake are not likely to destroy or adversely modify the critical habitat.

Critical habitat is defined as:

- Specific areas within the geographical area occupied by the species at the time of listing that contain physical or biological features essential to conservation of the species and that may require special management considerations or protection; and
- Specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation.



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Critical Habitat

The listing revision in 2016 (listing 5 DPSs), triggered the requirement under the ESA to designate critical habitat (to the maximum extent prudent and determinable).

In March 2018, the agency was sued for failure to designate critical habitat by the statutory deadline. A court-approved settlement agreement stipulates that NMFS must have a proposed rule submitted for publication by 9/26/19.

Per ESA implementing regulations, critical habitat cannot be designated within foreign countries or in areas outside the jurisdiction of the United States. Thus, NMFS is developing and is planning to propose critical habitat for the Central America, Mexico, and Western North Pacific DPSs.



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Questions?



Photo credit: Brenda Rone, Alaska Fisheries Science Center, NOAA Fisheries Service



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