Steller Sea Lion

The difference between sea lions and seals

- They are all called pinnipeds which means “fin-footed” in Latin.
- Seals have furry, stubby front feet with thinly webbed flippers and a claw on each small toe. Which appear petite compared to the elongated skin-covered flippers of the sea lion.
- Seals’ hind flippers angle backwards and unlike those of the sea lions don’t rotate, making them more suited to life in the water, rather than on land where they are basically just belly crawlers.
- Seals tend to be smaller and more aqua dynamic than sea lions. On the other hand sea lions are able to “walk” on land by rotating their hind flippers forwards and underneath their large bodies.
- Seals are quieter, more solitary and less social than their sea lion cousins and spend more time in the water, only coming together once a year to mate. Sea lions congregate in gregarious herds of often more than 1,500 individuals. These are noisy, and Steller sea lions vocalise in in loud, deeper more audible roars than the seals’ softer grunts.
- The sea lion family is known as Otariidae, which basically means “eared”, whereas seals and walruses have holes for ears.

About the species

- The Stellar (or northern) sea lion (Eumetopias jubatus) is the largest member of the family Otariidae, the “eared seals.”
- They are sexually dimorphic, meaning the males (2,500 lbs) are much larger than the females (800 lbs).
- They live for 20 to 30 years.
- They are named after Georg Wilhelm Steller, the German surgeon and naturalist on the Bering expedition who first described and wrote about the species in 1742.
- They share part of their range with a smaller related species, California sea lions, but tend to roar whereas the Californian sea lions bark.

Population status

- Steller sea lions used to be highly abundant throughout many parts of the coastal North Pacific Ocean. Indigenous peoples and settlers hunted them for their meat, hides, oil and other products. They are still an important subsistence resource for Alaska Natives. Because of widespread, unexplained population declines in Alaska, Steller sea lions were first listed under the **Endangered Species Act** in 1990.
- There are two population segments of Steller sea lions.

    1. The western DPS (distinct population segment) from all rookeries west of Cape Suckling (long.144°) those in the Gulf of Alaska, the Aleutian Islands, the Bering Sea, and Asia.
    2. The eastern DPS east originating from rookeries in Southeast Alaska, British Columbia, Washington, Oregon, and California.

- The western DPS population saw a decline of roughly 77% - 81% from the 1970s to the early 2000s, but since 2003 has been increasing slowly. The eastern DPS population increased 4.25% a year between 1987 and 2017. These differences in population trends between the two regions is likely due to the different magnitude of threat the species faces throughout its range.

Threats

Fishing Effects
- Fisherman used to blame Steller sea lions for stealing their fish and then they would kill them. Now threats include: boat strikes, pollutants, illegal hunting, encounters with fishing equipment and becoming entangled in the gear, as well as habitat degradation.

- Many safeguards have been put in to place to protect major haul-out areas to protect the species. They are endangered, and the NMFS (National Marine Fisheries Service) has implemented a measure to not have fisheries compete with Steller sea lions required need for fish.

Climate Change
- Sea level rises that could destroy their rookeries and haul out sites.

- Temperature changes and marine heatwaves have already shown to reduce Steller sea lion survival.

- Ocean acidification are likely to impact their food web.

- Toxins from harmful algal blooms cause sickness and death in Steller sea lions (and humans).

Disease and parasites
- Adults females and pups are most at risk. Climate change-related shifts in the distribution of other species into their range can introduce Steller sea lions to novel disease vectors or parasites.

Increased toxicity and contaminants
- Oil and gas activities

- Vessel accidents and sinking spilling cargo and fuel

- Local industrial development, wastewater discharges at-sea processing, runoff, toxic waste sites, nuclear testing, industrial accidents, and natural sources.

Other human-caused injuries and mortality
- Steller sea lions can be disturbed by humans using power vessels, drones, kayaks etc. causing them to stampede into the water during which pups and juveniles can be crushed by panicked adults.

- Feeding of sea lions is illegal and can cause close interactions between humans and sea lions that pose risks to both.

- Unless you are a Native Alaskan, it is illegal to shoot a Steller sea lion but it still takes place.