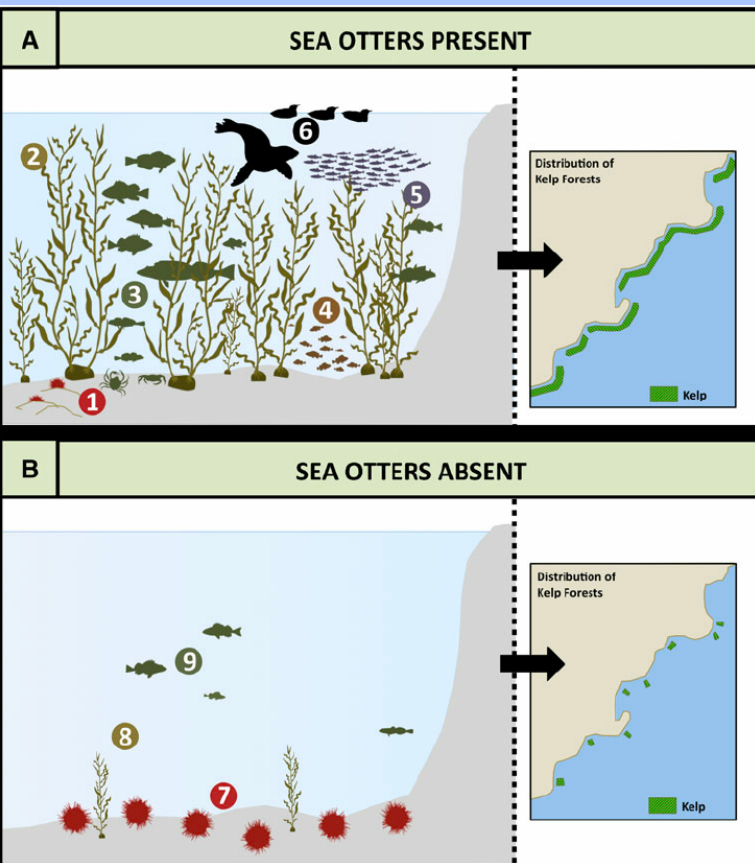


Southern Sea Otters

The Problem

Southern sea otters are a **keystone species**, keeping populations balanced and ecosystems healthy, but are endangered due to **oil spills, chemical runoff, plastic pollution, and disease** which threatens these sensitive ecosystems. To help sea otters and reduce the issue, we must **cut down on pollution**, specifically chemicals and household waste, and better **manage oil usage**. The goal is to see otters with a stable population, from "endangered" to "least concern" on the IUNC's red list. .



Why should you care?

- Sea otters eat 25% of their bodyweight in food. They eat sea urchins, which in turn allow kelp populations to thrive, supporting a healthy ecosystem. Without sea otters, the ecosystem might collapse, which makes them a **keystone species**. There's a negative feedback loop here, meaning that if the population of otters goes up, the population of sea urchins goes down, which leads to kelp populations rising, which are able to support a healthy and diverse ecosystem! According to a research paper, sea otters are a **sentinel of marine health** because they are so easily affected by their tremendous diets.
- Sea otters are being affected by humans, namely by pollution. This pollution and comes in many forms, like:
 - Household cleaners, including cat litter
 - Oil spills
 - Organic pollutants (used to prevent barnacles and slime on boat hulls, according to a research paper*)
 - Fishing equipment

Breaking it down

- **Social impacts:**
 - Gives opportunity for public engagement; helping clean waters.
 - New water cleanup or regulations can create new jobs.
- **Economic impacts:**
 - Southern sea otters live on the California coast, which aids to the area's tourism, helping fuel the economy.
 - Supporting eco-friendly business tactics and new tools allow businesses to grow.
- **Ecological impacts:**
 - Conservation cleanups of water prevent disease and parasites from spreading.
 - Helps maintain healthy kelp and marine ecosystems.

Possible solutions

What is already being done?

- Because the issue of fish net entanglement, there are new mandated fishing regulations to help prevent such pollution and accidental trappings.

Let's take it a step further...

- Entrepreneurship should be supported in creating new tools for cleaning waters. We should not only engage with the general public to help clean waters, but also businesses to make sure waters are clean at a more thorough level (removing chemical pollutants).
- There should be new regulation in oil management as well, as the oil in California poses a very dangerous risk if not well maintained, we need to learn from the Exxon Valdez oil spill which killed 3,000 sea otters in 1989.