

Benefits of Marine Protected Areas

Ecosystem Maintenance and Recovery



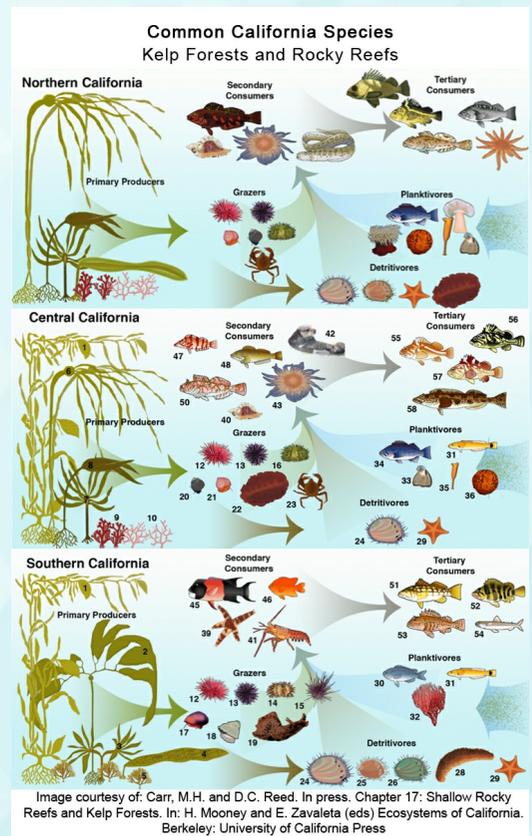
The top image shows an urchin barren. With the loss of apex predators, like the spiny lobster or southern sea otter, urchin populations take over and consume most of the kelp within an ecosystem.

After years of protection (see bottom image) lobster populations are able to rebound and keep urchin populations at bay, allowing kelp forests to thrive- the result of an MPA!

Preserving Biological Diversity

Protecting natural diversity and the abundance of marine life is vital to maintaining the function, structure and integrity of ocean ecosystems.

This image showcases the broad diversity of species within California's kelp forests. The presence of each of these species contributes to the overall health and function of the ecosystem!



Conservation, Sustainability & Protection of Marine Life



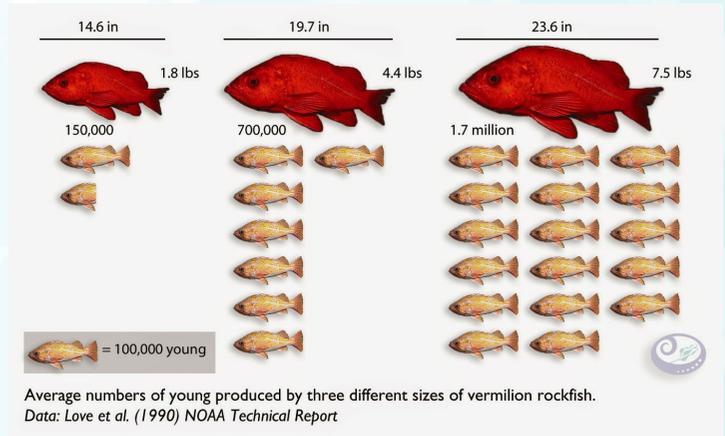
Marine species offer many benefits to their ecosystems, but they can also offer great economic value.

Coastal businesses, local tourism and fishermen depend on a beautiful coastline and healthy fish populations, so it is important to sustain existing populations and rebuild those that have been depleted.

Protection of Mature and Fecund Species

Larger, more mature individuals, especially fish (trophy fish) are often the most highly targeted. But, the big, old, fertile female fish (BOFFFs) produce more young, and they also tend to survive better!

Inside MPAs, fish are able to mature to larger sizes and increase their reproductive output.



The Spillover Effect



As the density or abundance of individuals increases inside a MPA some will move outside the boundaries- or spillover. The amount of spillover depends on the particular species and will change based on the extend of their home range, or how far they will travel in a lifetime.

Through spillover, MPA benefits will not only be seen inside the boundaries, but also exported outside MPA boundaries.

Change Takes Time

While MPAs have been shown to increase biomass, diversity and overall health of the ecosystem, these changes take time. For instance, if a new park were implemented in Africa, would you expect the population of elephants within the protected area to double in 1-2 years? The answer is no, and that is because it takes time for elephants to reach reproductive maturity.

The same concept goes for many marine species. While some mature quickly, like sea urchins, others, like tuna, can take years to mature and reproduce. It is crucial to be patient; it may take years for some species to show positive results from MPAs.

