

# Kelp Forests: More than just seaweed

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Photo: Brandon Cole

# Kelp Forests: Ecosystems for Climate Resilience

- Local amelioration of OAH
- Carbon cycling and storage
- Buffering coastlines from storms
- High biodiversity
- Support diverse fisheries
- Aquaculture species of interest



# Kelp Forests: Ecosystems for Climate Resilience

An aerial photograph of a kelp forest. The water is a vibrant turquoise color, and the kelp appears as dense, dark brown and black patches. The kelp is concentrated in a large, irregular shape on the right side of the image, with smaller, scattered patches on the left. The overall scene is a healthy, thriving marine ecosystem.

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- Carbon cycling and storage
- Buffering coastlines from storms
- **High biodiversity**
- Support diverse fisheries
- Aquaculture species of interest

Home to many important and threatened species



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Home to many important and threatened species

Photo by Fritz Batson



Home to many important and threatened species



Photo: Brandon Cole



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Photo: GEMM Lab/MMI/OSU under NOAA/NMFS permit #21678

Home to many important and threatened species



# Kelp forests as case studies for 21st century ocean management

- **How do we do marine restoration?**
- How to respond quickly and in the face of uncertainty?
- How do we build a conservation and restoration workforce?
- How do we support Indigenous co-management?

*Purple urchins graze on defoliated kelp stipes during an ORKA survey at Cape Arago.*



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*ORKA volunteer Grant Hogan holds up a hammer he is using to cull urchins from Nellie's Cove in 2021.*



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*A Port Orford fisherman alerted ORKA to a sighting of Sunflower Sea Star caught in his fishing line.*



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*An ORKA field trip that took Tribal resource managers for their first time snorkeling in Oregon.*

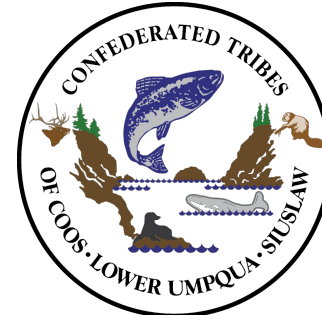


# Kelp forests as case studies for 21st century ocean management



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- **How do we support Indigenous co-management?**

*Top: Image of a ocean-faring canoe from the Coquille Indian Tribe website. Bottom: Seals of the four recognized coastal tribes in Oregon, as well as one tribe in northern California with claim to Oregon lands and waters.*



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- **Ecosystems for climate resilience**
  - **Critical habitat for important and threatened species**
  - **Case studies for 21st century ocean management**





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COASTAL OCEAN SCIENCE



# Thank you!

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