

# **Petition 33: Conserve healthy kelp forest habitat**

Expand Point Dume SMCA and Cabrillo SMR



## *Point Dume State Marine Conservation Area*

Point Dume SMCA



Images of Point Dume SMCA, light blue pixel area showing persistent kelp beds (Arafah-Dalmau), 'medium priority' kelp action orange dots to west of SMCA (Ospina-Giraldo)

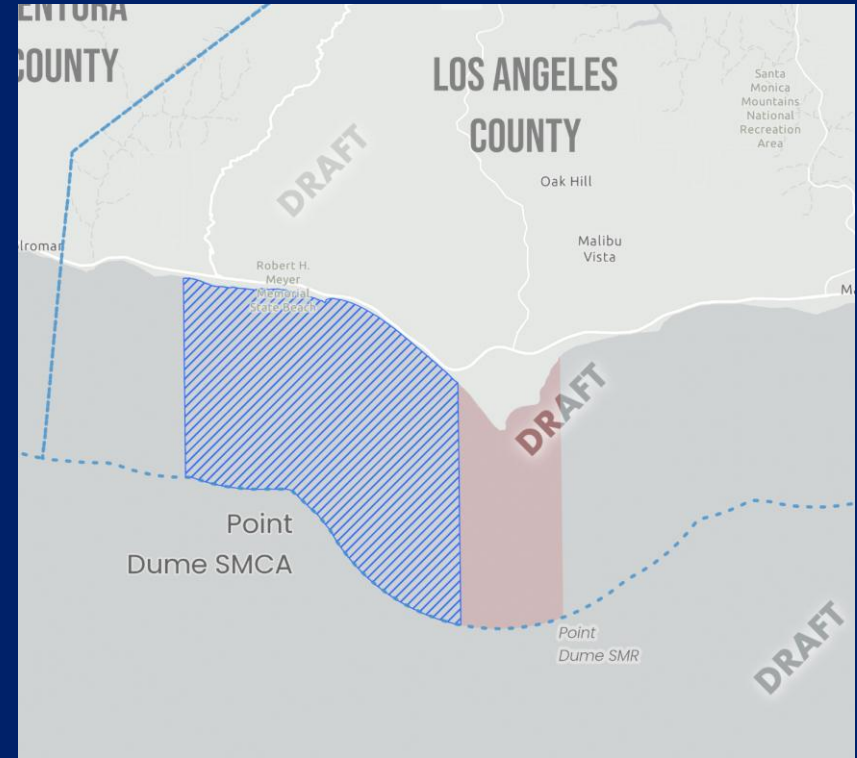
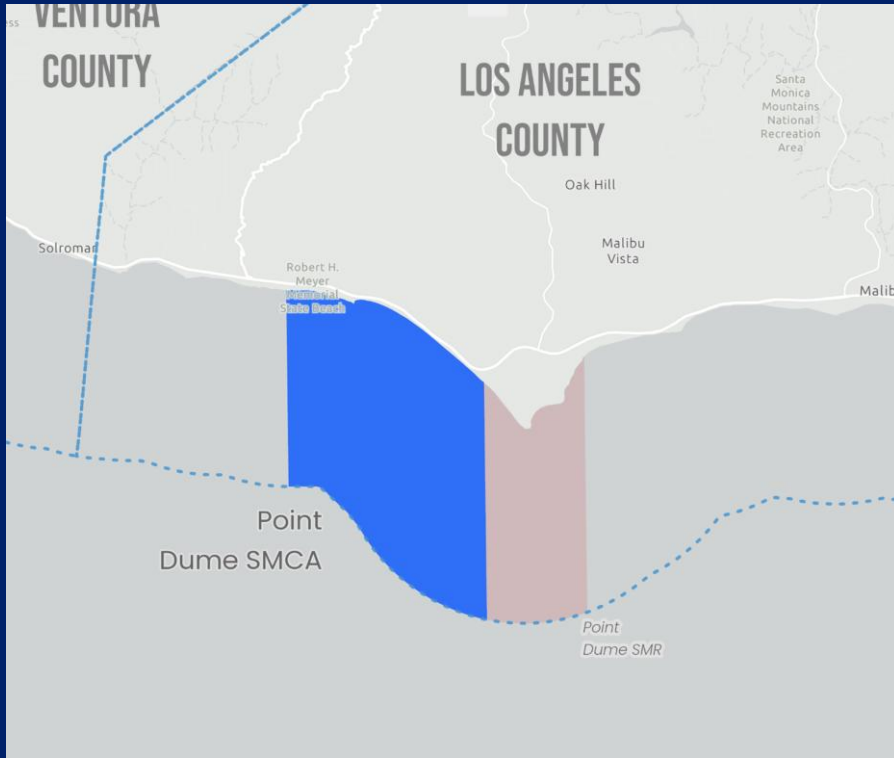


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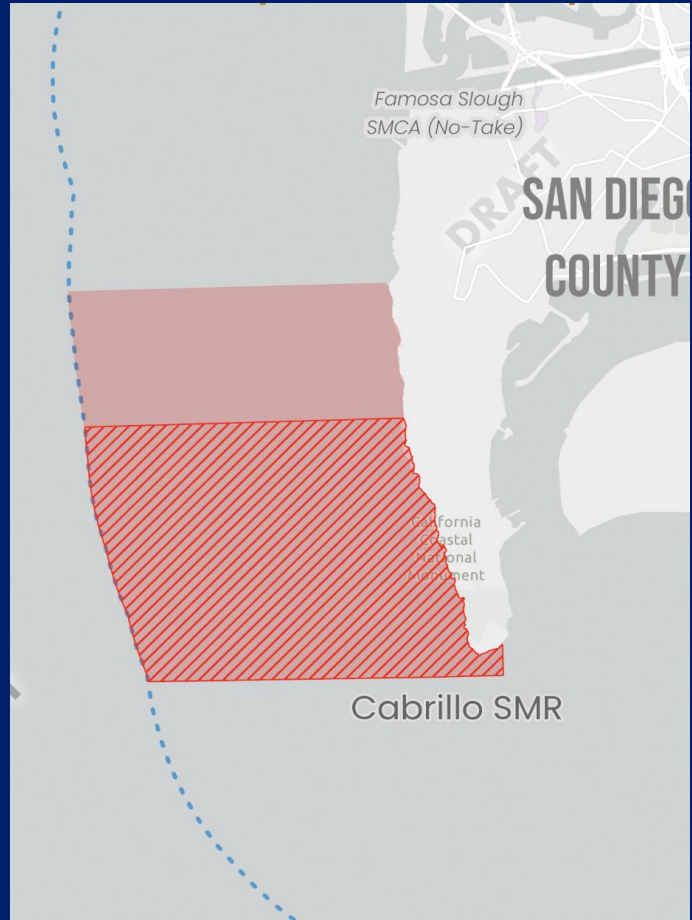
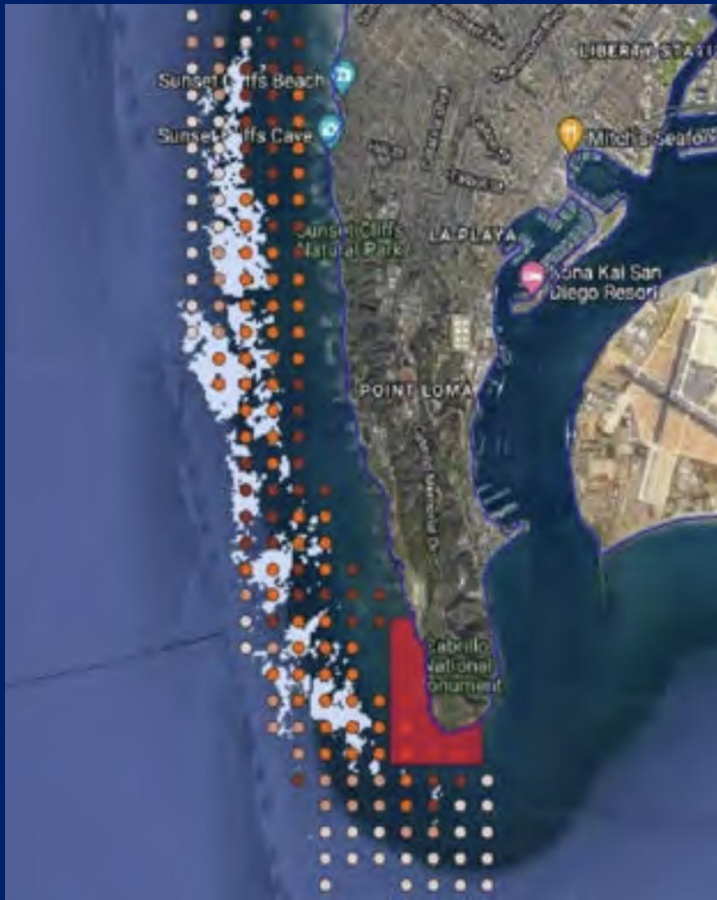
Yellow area shows proposed expansion area at Point Dume by 4.6 Square Miles in original petition



Current SMCA next to proposed amended SMCA at Point Dume  
 Propose: Expand SMCA to include persistent kelp forest  
 Amend: Allow recreational fishing from shore at the Point Dume SMCA



*Proposal: Expand Cabrillo Marine Reserve at Point Loma*



Persistent kelp forest in blue  
(Arafah-Dalmau)  
Orange dots represent medium  
priority sites (Ospina-Giraldo)

*Original and amended proposal to  
expand the MPA at Cabrillo*

# nature

**Southern  
California:  
35% reduction  
in fishing area  
= 225%  
increase in  
total lobster  
catch after  
just 6 years**

**Benefits to spiny lobster fishery from spillover from MPAs in Southern California, lobster are urchin predators**

Article | [Open access](#) | Published: 29 January 2021

## **Evidence that spillover from Marine Protected Areas benefits the spiny lobster (*Panulirus interruptus*) fishery in southern California**

[Hunter S. Lenihan](#) , [Jordan P. Gallagher](#), [Joseph R. Peters](#), [Adrian C. Stier](#), [Jennifer K. K. Hofmeister](#) & [Daniel C. Reed](#)

[Scientific Reports](#) **11**, Article number: 2663 (2021) | [Cite this article](#)

**21k** Accesses | **77** Citations | **226** Altmetric | [Metrics](#)

### **Abstract**

Marine Protected Areas (MPAs) are designed to enhance biodiversity and ecosystem services. Some MPAs are also established to benefit fisheries through increased egg and larval production, or the spillover of mobile juveniles and adults. Whether spillover influences fishery landings depend on the population status and movement patterns of target species both inside and outside of MPAs, as well as the status of the fishery and behavior of the fleet. We tested whether an increase in the lobster population inside two newly established MPAs influenced local catch, fishing effort, and catch-per-unit-effort (CPUE) within the sustainable California spiny lobster fishery. We found greater build-up of lobsters within MPAs relative to unprotected areas, and greater increases in fishing effort and total lobster catch, but not CPUE, in fishing zones containing MPAs vs. those without MPAs. Our results show that a 35% reduction in fishing area resulting from MPA designation was compensated for by a 225% increase in total catch after 6-years, thus indicating at a local scale that the trade-off of fishing ground for no-fishing zones benefitted the fishery.

# Fishing bans help kelp forests withstand marine heatwaves

Scientists estimate that kelp forests' annual exposure to heat will more than quintuple by 2100. New research shows that predator species like California sheephead can help these forests recover by controlling sea urchins and other grazers that feed on vulnerable kelp.

## In brief

- Kelp forests around the world will be exposed to more frequent and intense marine heatwaves in the coming decades because of climate change.
- Marine heatwaves have already diminished kelp forests and caused kelp-eating sea urchin populations to boom off the California coast.
- Protecting marine predators like spiny lobsters and California sheephead can help kelp recover by keeping sea urchins in check.

## Global Change Biology

RESEARCH ARTICLE |  Open Access |   

### Marine Protected Areas That Preserve Trophic Cascades Promote Resilience of Kelp Forests to Marine Heatwaves

[Joy A. Kumagai](#) ✉ [Maurice C. Goodman](#) [Juan Carlos Villaseñor-Derbez](#) [David S. Schoeman](#),  
[Kyle C. Cavanaugh](#), [Tom W. Bell](#), [Fiorenza Micheli](#), [Giulio De Leo](#), [Nur Arafeh-Dalmau](#)

First published: 11 December 2024 | <https://doi.org/10.1111/gcb.17620> | [VIEW METRICS](#)



*Engaging stakeholders and building support across the region*

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