


Marine Life Protection Act Initiative

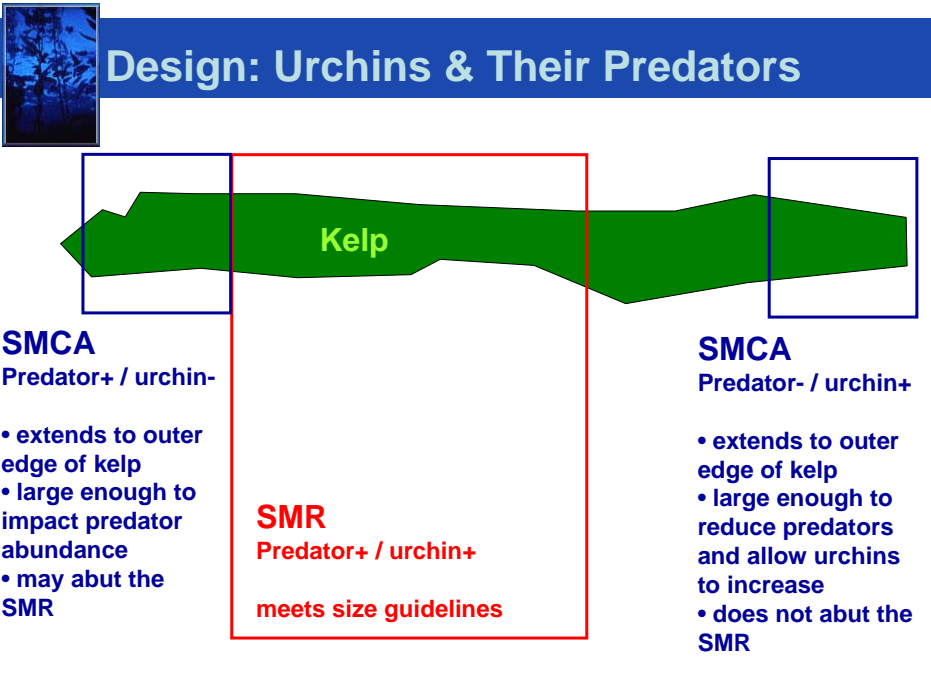


Draft Adaptive Management Evaluations of Round 2 MPA Proposals for the South Coast Study Region

Presentation to the MLPA Blue Ribbon Task Force
July 28, 2009 • Santa Monica, CA

Dr. Mark Carr • SAT Evaluation Work Group and
University of California, Santa Cruz

Design: Urchins & Their Predators



Kelp

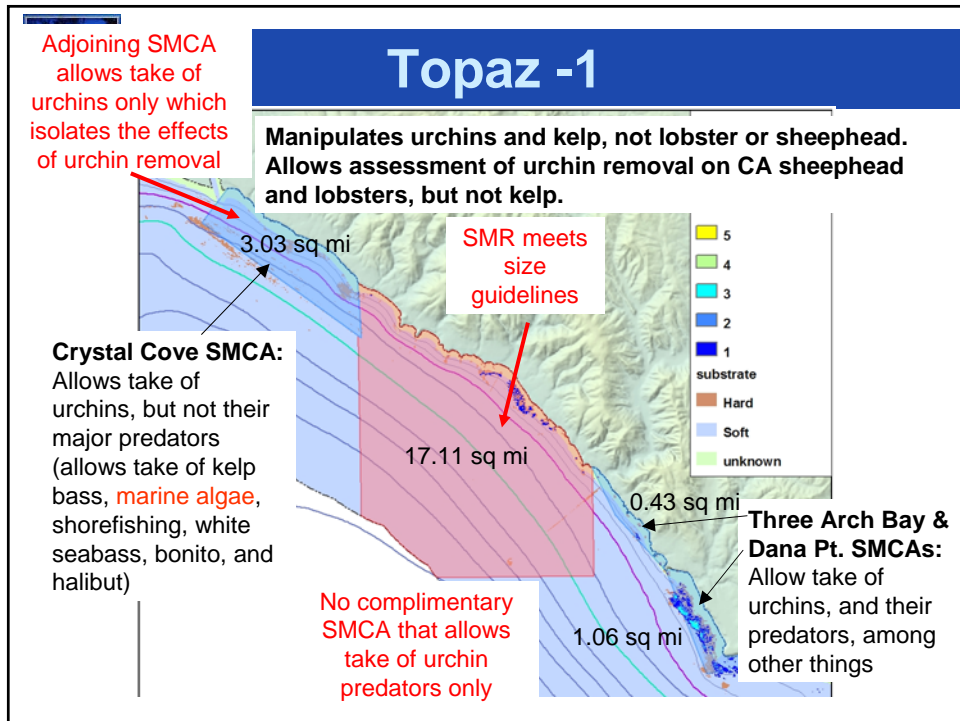
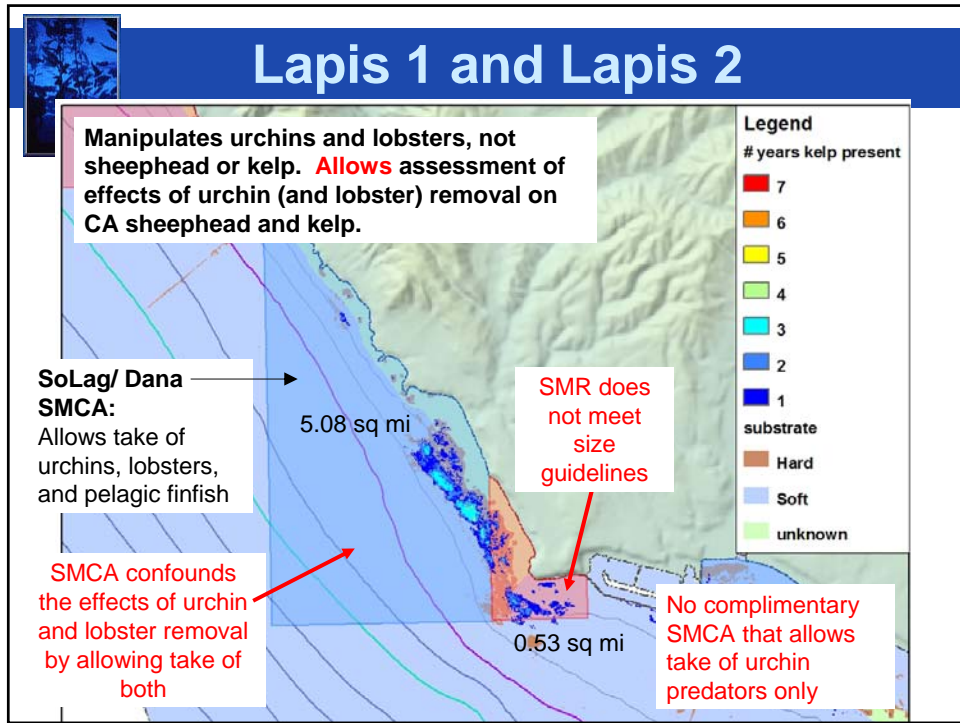
SMCA
Predator+ / urchin-

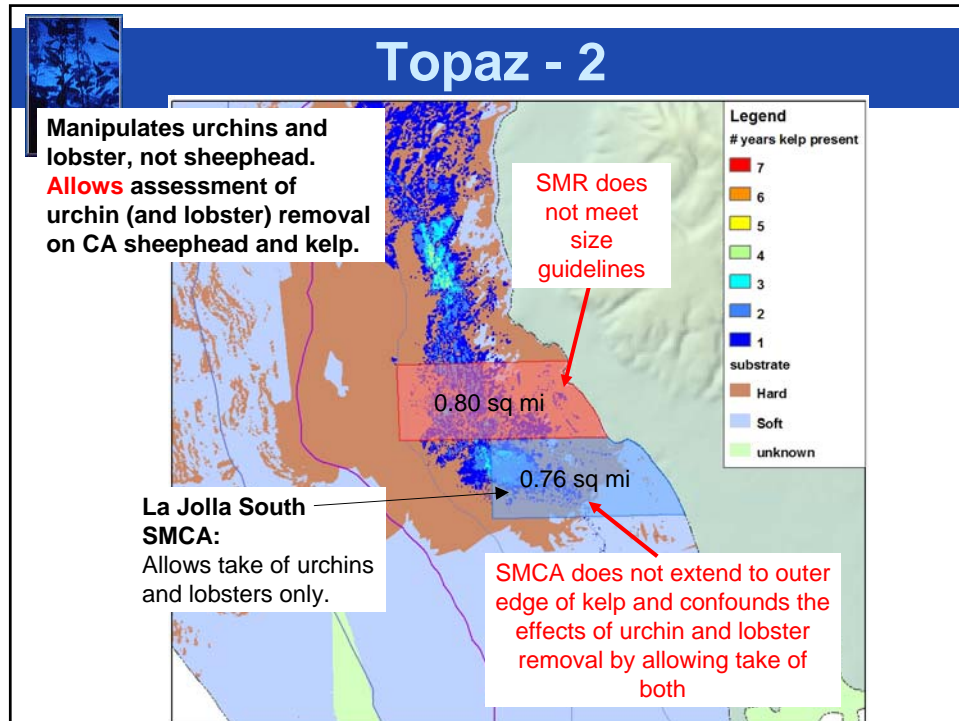
- extends to outer edge of kelp
- large enough to impact predator abundance
- may abut the SMR

SMR
Predator+ / urchin+
meets size guidelines

SMCA
Predator- / urchin+

- extends to outer edge of kelp
- large enough to reduce predators and allow urchins to increase
- does not abut the SMR





Design: Urchins & Their Predators

Toward cleaner designs:

- Lapis 1 and 2: currently confounds urchin and lobster removals -- potentially confounding relative effects of different urchin species on sheephead and kelp, and does not allow assessment of removal of urchins on lobsters
- Topaz -1: Will allow an assessment of urchin removal on CA sheephead and lobsters, but not kelp if it isn't there.
- Topaz -2: same as Lapis 1 and 2, but also problematic spillover from offshore portion of kelp forest. Would be better to extend SMCA to offshore edge of reef.