Collaborative Monitoring of the Spiny Lobster in the Channel Islands Marine Protected Areas
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Northern Channel Islands

Logbooks
Effective long-term monitoring requires a historical baseline to evaluate spatial and temporal variation. We used commercial lobster logbooks from the California Department of Fish & Game (DFG) for our baseline of catch data. We recorded previously unused trap locations for catch and catch performance data for our study area, and identified common landmarks. Our results include this historical baseline with improved spatial resolution (1999 – 2003 seasons), a landmark gazetteer, and an applied analysis of lobster catch value.

Recommendations
• Publish our historical baseline data
• Adopt our landmark gazetteer

Question
How will marine protected areas (MPAs) in the northern Channel Islands affect long-term lobster population demographics and behavior?
Approach
We designed a one-year pilot study for a long-term lobster monitoring plan. We recommend standardized study sites located within, near and far from MPAs at Santa Rosa, Santa Cruz and Anacapa Islands. Our pilot study will provide data for estimating juvenile and adult size distribution, abundance, sex ratios, and reproductive characteristics. We propose a mark-recapture method that will allow for direct comparison of individual lobster growth and movement over time.

Recommendations
• Implement pilot study
• Use pilot study data to refine long-term monitoring plan

Pilot Study
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Recommendations
• Form a Steering Committee
• Formalize leadership roles and research agreements

Collaboration
Long-term lobster monitoring requires participation by all stakeholders; each party brings unique skills and expertise to the collaborative process. Agencies provide policy guidance and access to data and resources; lobster trappers provide local knowledge, technical fishing expertise, and socioeconomic and cultural realities; and researchers provide scientific guidance and field expertise. To foster positive interactions, we focused on the dynamics of building trust and healthy relationships among stakeholders.

Recommendations
• Implement pilot study
• Use pilot study data to refine long-term monitoring plan

Connecting with researchers at the Wrigley Institute on Catalina Island

Proposed sample sites on Santa Cruz Island; MPA in green.
Tag placed between carapace and abdomen

Morse Point
Gull Island

Santa Cruz Island

Landmarks have uncertain spatial distribution of lobster catch.

Landmarks are points, islands, reefs, bays, etc.

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