Decadal Management Review: Appendix G Supplemental Tables



Giant kelp forest. Credit - Stephen Wertz, CDFW



About this Document

The Decadal Management Review (Review) includes available sources of information about the Marine Protected Area (MPA) Network. This Appendix contains supplemental tables detailing legislative and regulatory amendments (adopted, proposed, and rejected), and MPA literature.

Appendix G Contents

- Table G1 Codified Legislative Amendments
- Table G2 Adopted and Currently Proposed Regulatory Amendments
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Alphabetical Order of Acronyms in Appendix G

- CDFW California Department of Fish and Wildlife
- CFGC California Fish and Game Commission
- DEWG MPA Decadal Evaluation Working Group
- LED Law Enforcement Division
- MLPA Marine Life Protection Act
- MMAIA Marine Managed Areas Improvement Act
- MPA marine protected area
- SCP scientific collecting permit
- SMCA state marine conservation area
- SMR state marine reserve
- SMRMA state marine recreational management area
- USD United States dollar



Table G1. Summary of legislative amendments to improve the management of California's MPA Network and Management Program.

| CODE SECTION(S) | YEAR | REQUEST | RATIONALE | ADAPTIVE MANAGEMENT ACTION TAKEN |
|--|------|--|---|---|
| FISH AND GAME CODE - Add section 2850.5 | 2013 | State Senate Bill 96: Established Ocean Protection Council's responsibility for direction of policy of MPAs. | Existing law establishes the Ocean Protection Council in state government, and prescribes the membership, terms of office, and functions and duties of the council. | This bill requires that, commencing on July 1, 2013, the Ocean Protection Council assume responsibility for the direction of policy of marine protected areas. |
| FISH AND GAME CODE - Amend section 12000 | 2015 | State Assembly Bill 298: provides wildlife enforcement officers with the flexibility to cite recreational MPA violations as an infraction or misdemeanor. | All recreational MPA violations were cited as misdemeanors prior to 2015. The courts generally considered this an overly severe punishment for the crime. Thus, District Attorneys were reluctant to pursue charges or judges would frequently dismiss cases. | Wildlife officers now have the increased flexibility to cite MPA violations with penalties like a traffic ticket, while egregious violations can still be prosecuted as misdemeanors. |
| FISH AND GAME CODE Amend sections 7857 and 12000 Add section 12012.5 | 2018 | State Assembly Bill 2369: improve commercial fishing compliance with MPA regulations. | Prior to 2018, penalties for commercial fishing violations could not exceed \$1,000, a relatively small amount for commercial business. Thus, there was little incentive against poaching in MPAs. | Strengthened penalties for illegal commercial fishing operations within MPAs. The law increased penalties for commercial MPA poaching from a previous maximum of \$1,000 per violation to \$40,000 (USD) for first time offenders, while repeat offenders could also face jail sentences, heavier fines, and suspension of their commercial fishing license. |



| PUBLIC RESOURCES CODE 2021 - Amend section 36710 | State Assembly Bill 63: list restoration as an allowed activity within the SMCA definition. | The MMAIA includes many references to restoring habitats, species, and ecosystems as purposes for designating an area an MPA, including within SMCAs. However, the SMCA classification failed to include restoration as an allowed activity within the definition of the area. | Authorized the designating entity or managing agency to permit restoration activities in SMCAs. |
|--|---|---|---|
|--|---|---|---|



Table G2. Summary of regulatory amendments implemented or currently proposed to the CFGC to approve changes to California Code of Regulations, Title 14, Section 632 to improve the management of California's MPA Network and Management Program.

| ACTION TYPE | YEAR | REQUEST | RATIONALE | ADAPTIVE MANAGEMENT ACTION TAKEN |
|-------------|------|--|---|--|
| Implemented | 2008 | Address ongoing Morro Bay SMRMA maintenance concerns. | Following implementation of Central Coast MPAs in 2007 the city of Morro Bay noted the loss of their ability to perform harbor maintenance including dredging. | Adopted regulation to allow for dredging within the <u>Morro Bay SMRMA</u> with required valid permits, and harbor maintenance necessary for ongoing operations. |
| Implemented | 2011 | Correct Southeast Farallon Island Special Closure access issue. | Following implementation of North Central Coast MPA, an error was identified for the <u>Southeast Farallon</u> <u>Island Special Closure</u> was identified. The area from Fisherman's Bay to East Landing was intended to be a seasonal closure (December 1 through September 14) but was adopted as a year-round closure. | Adopted regulation now specifies area from Fisherman's Bay to East Landing is a seasonal closure rather than year-round closure. |
| Implemented | 2012 | Correct Blue Caverns Onshore SMCA anchoring prohibition. | Following implementation of South Coast MPA regulations, expansion of the pre- existing Catalina Marine Science Center Marine Life Refuge boundary, resulted in a no anchoring or mooring within the entire onshore Blue Cavern SMCA. This caused a public safety concern, especially for the diving community. | Adopted regulations allow for anchoring and mooring within the <u>Blue Cavern Onshore SMCA</u> except within the original Catalina Marine Science Center Marine Life Refuge. |
| Implemented | 2014 | Refine MPA regulations to make them more enforceable, including deleting errors and inconsistencies. | Stakeholders and LED reported inconsistencies and errors in regulations making enforcement and prosecution of MPA regulations difficult. | Adopted regulations to improve clarity of MPA regulations including clarifying that the CDFW, not the CFGC, may issue SCPs; adding Pacific bonito to the pelagic finfish definition; clarifying that spearfishermen may transit through MPAs to improve public safety; and MPA name changes, boundary amendments, and take methods. |



| ACTION TYPE | YEAR | REQUEST | RATIONALE | ADAPTIVE MANAGEMENT ACTION TAKEN |
|-------------|------|---|--|---|
| Implemented | 2015 | Refine MPAs regulations to address aquaculture activities; increase the accuracy of coordinates in regulations; and change Año Nuevo SMCA classification to Año Nuevo SMR to align with original design intention. | Fix conflict between pre-existing aquaculture activities to improve industry compliance within MPAs. Spatial planning software used during the planning process only went out to 2-decimal degrees, with a margin of error of +/- 100 ft. An existing kelp bed lease prohibited the Regional Stakeholder Group from designating Año Nuevo as an SMR, once the lease expired action was needed to align with the original intent. | Adopted regulations clarify regulatory language, correct existing errors, and update allowable activities, including deleting the allowance for aquaculture within <u>Drakes Estero</u> <u>SMCA</u> aligning it with federal regulations; amending the list of approved aquaculture species within <u>Morro Bay SMRMA</u> to align with permit species; redesignating Año Nuevo SMCA as <u>Año Nuevo SMR</u> ; and improving boundary accuracy as requested by enforcement personnel. |
| Implemented | 2016 | Amend regulations to exempt Cher-Ae Heights Indian Community of the Trinidad Rancheria and Resighini Rancheria from area and take regulations within the Reading Rock SMCA. | Within the north coast planning region, regulations were adopted to exempt specific federally recognized tribes from take regulations in specified MPAs. However, regulations did not include the Cher-Ae Heights Indian Community of the Trinidad Rancheria and Resighini Rancheria. They provided documentation of their historical use of that area of Reading Rock SMCA after the fact. | Adopted regulations added Cher-Ae Heights Indian Community of the Trinidad Rancheria and Resighini Rancheria to the list of tribes exempt from the area and take regulations for <u>Reading Rock SMCA</u> . |
| Implemented | 2016 | Amend regulation to address tribal name change. | Smith River Rancheria officially changed their name to Tolowa Dee-Ni' Nation so the regulations needed to be updated to reflect this change. | Adopted regulations change the tribal name Smith River Rancheria to Tolowa Dee-Ni' Nation. |
| Implemented | 2017 | Amend Stewarts Point SMR and SMCA boundaries. | Stewarts Point SMR and SMCA boundaries were petitioned to be changed at the request of the Kashia Band of Pomo Indians of the Stewarts Point Rancheria to better align with their ancestral lands. | Adopted regulations shifted boundaries to align <u>Stewarts Point SMCA</u> with tribal lands acquired by the Kashia Band of Pomo Indians of the Stewarts Point Rancheria, allowing tribal members direct access to culturally significant shoreline areas and marine resources for ceremonial, cultural, and subsistence purposes. |



| ACTION TYPE | YEAR | REQUEST | RATIONALE | ADAPTIVE MANAGEMENT ACTION TAKEN |
|---|------|--|--|--|
| Implemented | 2017 | Amend regulations to repeal Rockport Rocks Special Closure located on private lands. | In 2015, the CFGC learned the offshore rocks comprising Rockport Rocks Special Closure are privately owned and therefore should have never been made a special closure. | The Rockport Rocks Special Closure was repealed. |
| Implemented | 2017 | Amend south coast MPA regulations to allow for tribal take by the Santa Ynez Band of Chumash Indians within their ancestral lands. | The Santa Ynez Band of Chumash Indians petitioned for tribal take at four south coast MPAs, <u>Kashtayit</u> , <u>Naples</u> , <u>Point</u> <u>Dume</u> , and <u>Anacapa Island</u> SMCAs. The petition provided evidence of the tribe's historical record of collecting in those areas. | Adopted regulations allow for members of the Santa Ynez Band of Chumash Indians to take marine resources from these four SMCAs. |
| Implemented (in California Code of Regulations, Title 14, Section 650) | 2018 | Amend regulations to improve the SCP program, and to better track and document the projects occurring within MPAs. | SCP program needed a better mechanism for issuing and tracking of projects within MPAs. MPAs are areas of enhanced protection as well as locations of frequent research activity. | Adopted regulations are now consistent with 2012 statutory changes, including implementation of an enhanced permitting process, and language requiring an SCP for any work in MPAs that could result in take. |
| Implemented | 2022 | Amend SMRMA regulations to prohibit take from within their boundaries as originally designed by stakeholders | In 2015, the CFGC adopted amendments intended to clarify MPA regulations. However, the rulemaking unintentionally removed the take restrictions within five SMRMAs: South Humboldt Bay, Russian River, Estero Americano, Estero de San Antonio, and Morro Bay. | CFGC adopted regulation amendments to match similar language used prior to 2015 regarding take of living marine resources. The amendments also now prohibit take of geological and cultural marine resources to align SMRMAs with SMR and SMCA definitions. |
| Currently proposed | 2022 | Petition submitted to authorize surf fishing in a portion of Vandenberg SMR | Modify the existing MPA restrictions to allow fishing on the one-half mile stretch of beach known as Surf Beach. The modification would allow for subsistence fishing, and/or provide a low cost/no-cost recreational option for the residents of Lompoc and the surrounding area | Petition referred to CDFW for review – decision deferred until after decadal management review |



Table G3. Proposed or petitioned regulatory amendments to California Code of Regulations, Title 14, Section632 that were rejected or not pursued.

| ACTION TYPE | YEAR | REQUEST | RATIONALE | ADAPTIVE MANAGEMENT ACTION TAKEN |
|--------------------------------------|------|--|---|--|
| Petition denied | 2013 | Petition submitted to the CFGC to allow take of sea urchins in MPAs | Not available | No further action taken |
| Petition denied | 2013 | Petition submitted to the CFGC to allow take of non-native species from MPAs | Not available | No further action taken |
| Petition denied | 2014 | Petition submitted to CFGC to change to Upper Newport Bay SMCA boundary line | Development plans require a variance to existing MPA regulations concerning a boundary line to incorporate a minimal water element below the mean tide line | CDFW worked directly with the petitioner regarding this request. |
| Accepted petition, action dropped | 2014 | Petition submitted to evaluate use of special closures in the Central Coast Region | Special closures were not an option during the planning process of the central coast MPAs and should be considered to protect breeding seabird populations. | Petition accepted for consideration if petition was revised and refined through stakeholder and agency workgroup effort. However, no follow-up action from the petitioner, so no action taken by CFGC. |
| Accepted petition, action dropped | 2016 | Petition submitted to create MPA take exemption for Big Lagoon Rancheria at Reading Rock SMCA | Reading Rock SMCA falls within the Big Lagoon Rancheria's historical collecting area. | Petition accepted for consideration following submission of Tribal record of historical and current uses for the MPA. However, no follow- up action from the petitioner, so no action taken by CFGC. |
| Petition rejected in part | 2020 | Petition submitted to enact emergency regulations for increased recreational take of purple urchins in Monterey | Purple urchin throughout California, including the Monterey area, have reached levels of overpopulation and will benefit from recreational regulations to help control abundances. | Petition approved for consideration of a regular rulemaking with regulations adopted December 2020; denied inclusion of recreational culling within MPAs. |



| ACTION TYPE | YEAR | REQUEST | RATIONALE | ADAPTIVE MANAGEMENT ACTION TAKEN |
|-----------------|------|--|---|---|
| Petition denied | 2020 | Petition submitted to amend MPA regulations to allow surfboard fishing at the South La Jolla SMR. | California Constitution, Article 1 Section 25, recreational take from a surfboard, even catch-and- release is not a fishery | No fishing is allowed in SMR per design criteria |
| Petition denied | 2020 | Petition submitted to establish MPA at Padaro Beach, Carpinteria, to protect great white shark nursery grounds. | An MPA with boating and fishing restrictions at Padaro Beach, Carpinteria, will help protect white shark nursery grounds. | MPAs are intended to protect ecosystems, not individual species, especially highly mobile, pelagic species |
| Petition denied | 2020 | Petition submitted to add unlimited recreational take of invasive species Sargasum horneri in Crystal Cove SMCA | CDFW failed to respond and stop the spread of the invasive species Sargassum horneri, plus Sargassum horneri is not a marine resource. | No recreational culling permitted within MPAs. |
| Petition denied | 2021 | Petition submitted to authorize culling of red and purple sea urchin within Monterey SMCAs | Urchin abundances throughout California, including the Monterey area, have reached levels of overpopulation and will benefit from recreational regulations to help control abundances. | No recreational culling permitted within MPAs. |
| Petition denied | 2022 | Petition submitted to change the boundaries of the Ten Mile Estuary SMCA due to overlap with private property | Personal property is encompassed on a map showing the Ten Mile Estuary SMCA and private property should not be part on an MPA | MPAs end at the mean high tide line so area of concern is already excluded. CDFW will work to update maps |
| Petition denied | 2022 | Petition to change Casino Point SMCA name to Dr. Bill Bushing SMCA at Casino Point. | The name change has been proposed to honor a well-known Santa Catalina Island marine biologist and conservationist. | The CFGC denied the request per its policy not to name an MPA after a person until the individual has been deceased a minimum of five years. |



Table G4. Scientific publications compiled by Resources Legacy Fund of MPA research in California, listed by chronological order, 2000 to 2021.

| Publication Journal | Author(s) | Title | MPA | Year |
|----------------------------|-----------------------------|---|-----------------------|------|
| Ecological | Michelle J. Paddack; | Kelp Forest Fish Populations in Marine Reserves and | Multiple | 2000 |
| Applications | James A. Estes | Adjacent Exploited Areas of Central California | | |
| California and the | Michael L. Weber | A Revolution in Management? | Statewide | 2002 |
| World Ocean | | | | |
| North American | Chris Wilcox & Caroline | Do commercial fishermen aggregate around marine | Big Creek | 2003 |
| Journal of Fisheries | Pomeroy | reserves? | Marine | |
| Management | | | Ecological Reserve | |
| Journal of | Martin D.Smith, James | Economic impacts of marine reserves: the importance of | Multiple | 2003 |
| Environmental | E.Wilen | spatial behavior | Multiple | 2005 |
| Economics and | | Spatial benavior | | |
| Management | | | | |
| Ecological | Satie Airamé, Jenifer E. | Applying ecological criteria to marine reserve design: A case | Channel Islands | 2003 |
| Applications | Dugan, Kevin D. Lafferty, | study from the California Channel Islands | National Marine | |
| | et al. | | Sanctuary | |
| Marine Ecology | Michael D. Behrens & | Effects of marine reserves and urchin disease on southern | Channel Islands | 2004 |
| Progress Series | Kevin D. Lafferty | Californian rocky reef communities | National Marine | |
| | | | Sanctuary | |
| Marine Policy | Astrid Scholz, Kate | Participatory socioeconomic analysis: drawing on | Statewide | 2004 |
| | Bonzon, Rod Fujita, et al. | fishermen's knowledge for marine protected area planning | | |
| Political Science | C. Weible, P. Sabatier, M. | in California A Comparison of a Collaborative and Top-Down Approach to | Statewide | 2004 |
| Political Science | Lubell | the Use of Science in Policy: Establishing Marine Protected | Statewide | 2004 |
| | Lubell | Areas in California | | |
| Fisheries | K. D. Hyrenbach, C. | Use of marine sanctuaries by far-ranging predators: | Multiple | 2005 |
| Oceanography | Keiper, S. G. Allen, et al. | commuting flights to the California Current System by | | |
| 0 1 7 | | breeding Hawaiian albatrosses | | |
| Marine Ecology | P. Ed Parnell, Cleridy E. | Effectiveness of a small marine reserve in southern | San Diego–La | 2005 |
| Progress Series | Lennert-Cody, Leen | California | Jolla Ecological | |
| | Geelen, et al. | | Reserve | |



| Publication Journal | Author(s) | Title | MPA | Year |
|---|---|--|---|------|
| Marine Biology | Darin Topping, Christopher G. Lowe, & Jennifer E. Caselle | Home range and habitat utilization of adult California sheephead, Semicossyphus pulcher (Labridae), in a temperate no-take marine reserve | Catalina Marine Science Center Marine Life Reserve | 2005 |
| Ocean and Coastal Management | Robert S.Pomeroya, Lani M.Watson, John E.Parks, et al. | How is your MPA doing? A methodology for evaluating the management effectiveness of marine protected areas | Multiple | 2005 |
| Policy Studies Journal | C. Weible, P. Sabatier | Comparing Policy Networks: Marine Protected Areas in California | Statewide | 2005 |
| Science | Amitabh Avasthi | Ecosystem management—California tries to connect its scattered marine reserves | Statewide | 2005 |
| Political Research Quarterly | C. Weible | Beliefs and Perceived Influence in a Natural Resource Conflict: An Advocacy Coalition Approach to Policy Networks | Statewide | 2005 |
| Ecological Applications | Parnell, P Ed, Dayton, P K, Lennert-Cody, et al. | Marine reserve design: optimal size, habitats, species affinities, diversity, and ocean microclimate | La Jolla Ecological Reserve | 2006 |
| Ecological Applications | Julie B. Kellner, Irene Tetreault, Steven D. Gaines, et al. | Fishing the line near marine reserves in single and multispecies fisheries | Multiple | 2007 |
| Journal of Public Administration Research and Theory | Christopher M. Weible | An Advocacy Coalition Framework Approach to Stakeholder Analysis: Understanding the Political Context of California Marine Protected Area Policy | Statewide | 2007 |
| Canadian Journal of Fisheries and Aquatic Sciences | Carl J. Waters, Ray Hilborn, & Richard Parrish | An Equilibrium Model for Predicting the Efficacy of Marine Protected Areas in Coastal Environments | Statewide | 2007 |
| Biological Conservation | Fiorenza Michelia, Andrew O.Shelton, Seth M.Bushinsky, et al. | Persistence of depleted abalones in marine reserves of central California | Multiple | 2008 |
| Conservation Biology | Jonna Engel, Rikk Kvitek | Effects of Otter Trawling on a Benthic Community in Monterey Bay National Marine Sanctuary | Multiple | 2008 |



| Publication Journal | Author(s) | Title | MPA | Year |
|---|--|--|---|------|
| Conservation Biology | C. J. KLEIN, A. CHAN, L. KIRCHER, et al. | Striking a Balance between Biodiversity Conservation and Socioeconomic Viability in the Design of Marine Protected Areas | Multiple | 2008 |
| Natural Resource Monitoring | Darwin C. Hall, Jane V. Hall, Steven N. Murray | Contingent valuation of MPAs: Southern California Rocky Intertidal Ecosystems | Multiple | 2008 |
| Coastal Management | Christopher M. Weible | Caught in a Maelstrom: Implementing California Marine Protected Areas | Statewide | 2008 |
| "Colorado Journal of International | Katherine Babcock, Hillary Cohn Aizenman, Annmarie Cording, et al. | A Hybrid Marine Protection System as a Model for the Marine Conservation Efforts of the United States | Statewide | 2008 |
| Oceans | Brian Zelenke; Mark A. Moline; Greg B. Crawford, et al. | Evaluating connectivity between marine protected areas using CODAR high-frequency radar | Statewide | 2009 |
| Stanford Journal of Law, Science & Policy | Mark H. Carr, Emily Saarman, & Margaret R. Caldwell | The Role of "Rules of Thumb" in Science-Based Environmental Policy: California's Marine Life Protection Act as a Case Study | Multiple | 2010 |
| Conservation Biology | ASTRID J. SCHOLZ, CHARLES STEINBACK, SARAH A. KRUSE, et al. | Incorporation of Spatial and Economic Analyses of Human- Use Data in the Design of Marine Protected Areas | Multiple | 2010 |
| Ocean and Coastal Management | Mary Gleason, Scott McCreary, Melissa Miller- Henson, et al. | Science-based and stakeholder-driven marine protected area network planning: A successful case study from north central California | Multiple | 2010 |
| Fisheries Research | Tom J.Mason, Christopher G.Lowe | Home range, habitat use, and site fidelity of barred sand bass within a southern California marine protected area | Multiple | 2010 |
| PNAS | Scott L. Hamilton, Jennifer E. Caselle, Dan P. Malone, et al. | Incorporating biogeography into evaluations of the Channel Islands marine reserve network | Channel Islands National Marine Sanctuary | 2010 |
| Ecological Applications | P. Edparnell, Paul K. Dayton, Rachelle A. Fisher, et al. | Spatial patterns of fishing effort off San Diego: Implications for zonal management and ecosystem function | Multiple | 2010 |
| Ocean and Coastal Management | Michael Osmond, Satie Airame, Margaret Caldwell, et al. | Lessons for marine conservation planning: A comparison of three marine protected area planning processes | Channel Islands National Marine Sanctuary | 2010 |



| Publication Journal | Author(s) | Title | MPA | Year |
|-----------------------------------|--|---|---|------|
| PNAS | Steven D. Gaines, Sarah E. Lester, Kirsten Grorud- Colvert, et al. | Evolving science of marine reserves: New developments and emerging research frontiers | Channel Islands National Marine Sanctuary | 2010 |
| PNAS | R. C. Babcock, N. T. Shears, A. C. Alcala, et al. | Decadal trends in marine reserves reveal differential rates of change in direct and indirect effects | Statewide | 2010 |
| PNAS | S. D. Gaines, C. White, M. H. Carr, et al. | Designing marine reserve networks for both conservation and fisheries management | Statewide | 2010 |
| Marine Pollution Bulletin | Kenneth Schiff, Brenda Luka, Dominic Gregorio, et al. | Assessing water quality in Marine Protected Areas from Southern California, USA | Multiple | 2011 |
| Marine and Coastal Fisheries | Jono R. Wilson, Jeremy D. Prince, & Hunter S. Lenihan | A Management Strategy for Sedentary Nearshore Species that Uses Marine Protected Areas as a Reference | Channel Islands National Marine Sanctuary | 2011 |
| Marine Ecology Progress Series | Matthew C. Kay, Hunter S. Lenihan, Matthew J. Kotchen, et al. | Effects of marine reserves on California spiny lobster are robust and modified by fine-scale habitat features and distance from reserve borders | Multiple | 2012 |
| Marine Policy | Charlotte Stevenson, Sarah Abramson Sikich, Mark Gold | Engaging Los Angeles County subsistence anglers in the California marine protected area planning process | Multiple | 2012 |
| PNAS | Andrew Rassweiler, Christopher Costello, and David A. Siegel | Marine protected areas and the value of spatially optimized fishery management | Multiple | 2012 |
| Ecological Applications | Matthew C. Kay, Hunter S. Lenihan, Carla M. Guenther, et al. | Collaborative assessment of California spiny lobster population and fishery responses to a marine reserve network | Channel Islands National Marine Sanctuary | 2012 |
| Ocean and Coastal Management | Mary Gleason, Evan Fox, Susan Ashcraft, et al. | Designing a network of MPAs in California: Achievements, costs, lessons learned, and challenges ahead | Statewide | 2012 |
| Environmental Conservation | R. Hilborn | The role of science in MPA establishment in California: a personal perspective | Statewide | 2012 |
| PLOS One | J. McGowan, Ellen Hines, Meredith Elliott, et al. | Using Seabird Habitat Modeling to Inform Marine Spatial Planning in Central California's National Marine Sanctuaries | Multiple | 2013 |



| Publication Journal | Author(s) | Title | MPA | Year |
|-----------------------------------|---|---|-----------|------|
| Ocean and Coastal Management | Kelly Sayce, C. Shuman, Darci Connor, et al. | Beyond traditional stakeholder engagement: Public participation roles in California's statewide marine protected area planning process | Statewide | 2013 |
| Ocean and Coastal Management | E. Saarman, M. Gleason, J. Ugoretz, et al. | The role of science in supporting marine protected area network planning and design in California | Statewide | 2013 |
| Ocean and Coastal Management | Evan Fox, Eric Poncelet, Darci Connor, et al. | Adapting stakeholder processes to region-specific challenges in marine protected area network planning | Statewide | 2013 |
| Marine Policy | Emily T. Saarman & Mark H. Carr | The California Marine Life Protection Act: A balance of top down and bottom-up governance in MPA planning | Statewide | 2013 |
| Environmental Law Journal | Darcie L. Houck | California's Marine Life Protection Act Initiative: A Public Marine Protected Area Planning Process | Statewide | 2013 |
| Ocean and Coastal Management | Matthew S. Merrifield, Will McClintock, Chad Burt, et al. | MarineMap: a web-based platform for collaborative marine protected area planning. | Statewide | 2013 |
| Ocean and Coastal Management | John Kirlin, Meg Caldwell, Mary Gleason, et al. | California's Marine Life Protection Act Initiative: Supporting implementation of legislation establishing a statewide network of marine protected areas | Statewide | 2013 |
| Ocean and Coastal Management | Evan Fox, Melissa Miller- Hensona, John Ugoretz, et al. | Enabling conditions to support marine protected area network planning: California's Marine Life Protection Act Initiative as a case study | Statewide | 2013 |
| Ocean and Coastal Management | J. Wilson White, Astrid J. Scholz, Andrew Rassweiler, et al. | A comparison of approaches used for economic analysis in marine protected area network planning in California | Statewide | 2013 |
| Ocean and Coastal Management | E. Fox, S. Hastings, M. Miller-Henson, et al. | Addressing policy issues in a stakeholder-based and science- driven marine protected area network planning process | Statewide | 2013 |
| Applied Geography | C. Guenther, D. López- Carr, & Hunter S. Lenihan | Differences in lobster fishing effort before and after MPA establishment | Multiple | 2014 |
| Marine Biology | L.W. Botsford, J.W. White, M.H. Carr, et al. | Marine Protected Area Networks in California, USA | Statewide | 2014 |
| Marine Ecology Progress Series | Aimee A. Keller, W. Waldo Wakefield, Curt E. Whitmire, et al. | Distribution of demersal fishes along the US west coast (Canada to Mexico) in relation to spatial fishing closures (2003-2011) | Statewide | 2014 |
| PLOS One | Mary Young & Mark Carr | Habitat representation across an MPA Network | Multiple | 2015 |



| Publication Journal | Author(s) | Title | MPA | Year |
|-----------------------------------|---|--|---|------|
| PLOS One | Richard M. Starr, Dean E. Wendt, Cheryl L. Barnes, et al. | Variation in Responses of Fishes across Multiple Reserves within a Network of Marine Protected Areas in Temperate Waters | Multiple | 2015 |
| Marine Ecology Progress Series | Erin K. Loury, Shannon M. Bros, Richard M. Starr, et al. | Trophic ecology of the gopher rockfish <i>Sebastes carnatus</i> inside and outside of central California marine protected areas | Multiple | 2015 |
| PLOS One | Alice E. Harada, Elise A. Lindgren, Maiko C. Hermsmeier, et al. | Monitoring Spawning Activity in a Southern California Marine Protected Area Using Molecular Identification of Fish Eggs | Multiple | 2015 |
| Scientific Reports | Jennifer E. Caselle, Andrew Rassweiler, Scott L. Hamilton, et al. | Recovery trajectories of kelp forest animals are rapid yet spatially variable across a network of temperate marine protected areas | Multiple | 2015 |
| Marine Ecology Progress Series | J. S. Berriman, M. C. Kay, D. C. Reed, et al. | Shifts in attack behavior of an important kelp forest predator within marine reserves | Multiple | 2015 |
| PLOS One | Richard M. Starr, Dean E. Wendt, Cheryl L. Barnes, et al. | Variation in Responses of Fishes across Multiple Reserves within a Network of Marine Protected Areas in Temperate Waters | Statewide | 2015 |
| Ecological Applications | Reniel B. Cabral, Steven D. Gaines, Brett A. Johnson, et al. | Drivers of redistribution of fishing and non-fishing effort after the implementation of a marine protected area network | Channel Islands National Marine Sanctuary | 2016 |
| Ecology and Society | Cravens, A. E., & N. M. Ardoin | Negotiating credibility and legitimacy in the shadow of an authoritative data source | Statewide | 2016 |
| Environmental Management | Amanda E. Cravens | Negotiation and decision making with collaborative software: how MarineMap 'changed the game' in California's Marine Life Protected Act Initiative | Statewide | 2016 |
| Royal Society Open Science | Andrew R. Thompson, Dustin C. Chen, Lian W. Guo, et al. | Larval abundances of rockfishes that were historically targeted by fishing increased over 16 years in association with a large marine protected area | Multiple | 2017 |
| Ocean and Coastal Management | Lucia Ordoñez-Gauger, Laurie Richmond, Steven Hackett, et al. | It's a Trust Thing: Assessing Fishermen's Perceptions of the California North Coast Marine Protected Area Network | Multiple | 2018 |



| Publication Journal | Author(s) | Title | MPA | Year |
|--|--|---|-----------|------|
| Ecology Letters | Jennifer E. Caselle, Kathryn Davis, & Lindsay M. Marks | Marine management affects the invasion success of a non- native species in a temperate reef system in California, USA. | Multiple | 2018 |
| Molecular Ecology | Diana S. Baetscher, Eric C. Anderson, Elizabeth A. Gilbert-Horvath, et al. | Dispersal of a nearshore marine fish connects marine reserves and adjacent fished areas along an open coast | Multiple | 2019 |
| Journal of Applied Ecology | Kerry J. Nickols, J. Wilson White, Dan Malone, et al. | Setting ecological expectations for adaptive management of marine protected areas | Multiple | 2019 |
| ZooKeys | Erica J. Burton & Robert N. Lea | Annotated checklist of fishes from Monterey Bay National Marine Sanctuary with notes on extralimital species | Multiple | 2019 |
| Ocean and Coastal Management | Parth K. Jhaveri & Jayson R. Smith | Evaluation of two outreach tools, an educator program and a mobile tidepool exhibit, in reducing deleterious visitor activities and raising marine protected area awareness in rocky intertidal ecosystems of southern California, USA | Multiple | 2019 |
| Ocean and Coastal Management | Kelsey I. Jacobsen, Tegan Churcher Hoffmann, & Charlotte Dohrn | In-kind contributions to Orange County marine protected area management | Multiple | 2019 |
| Bulletin Southern California Academy of Sciences | Richelle Tanner, Adam K. Oboza, & David W. Ginsburg | Secondary Production of Kelp Bass <i>Paralabrax clathratus</i> in Relation to Coastal Eelgrass Zostera marina Habitat in a Southern California Marine Protected Area | Multiple | 2019 |
| Ecological Indicators | Jean P. Davis, Charles F. Valle, Miranda B. Haggerty, et al. | Testing trophic indicators of fishery health in California's marine protected areas for a generalist carnivore | Multiple | 2019 |
| Ocean and Coastal Management | Samantha Murray & Tyler T. Heeb | A rising tide: California's ongoing commitment to monitoring, managing and enforcing its marine protected areas | Statewide | 2019 |
| Oceanography | Kristy J. Kroeker, Mark H. Carr, Peter T. Raimondi, et al. | Planning for Change | Statewide | 2019 |
| American Indian Law Review | Curtis G. Berkey & Scott W. Williams | California Indian Tribes and the Marine Life Protection Act: The Seeds of a Partnership to Preserve Natural Resources | Statewide | 2019 |



| Publication Journal | Author(s) | Title | MPA | Year |
|-----------------------------------|--|--|---|------|
| Oceanography | Mark H. Carr, J. Wilson White, Emily Saarman, et al. | Marine Protected Areas Exemplify the Evolution of Science and Policy | Statewide | 2019 |
| Journal of Applied Ecology | Erin M. Jaco & Mark A. Steele | Pre-closure fishing pressure predicts effects of marine protected areas | Statewide | 2019 |
| Ecological Applications | KATHERINE A. KAPLAN, LAUREN YAMANE, LOUIS W. BOTSFORD, et al. | Setting expected timelines of fished population recovery for the adaptive management of a MPA network | Statewide | 2019 |
| Marine Ecology Progress Series | Devona C. Yates, Steve I. Lonhart, Scott L. Hamilton, et al. | Effects of marine reserves on predator-prey interactions in central California kelp forests | Multiple | 2020 |
| PeerJ | Erica T. Mason, Allison N. Kellum, Jennifer A. Chiu, et al. | Long-term participation in collaborative fisheries research improves angler opinions on marine protected areas | Multiple | 2020 |
| Marine Ecology Progress Series | Erin Jaco & Mark Steele | Early indicators of MPA effects are detected by stereo-video | Multiple | 2020 |
| PLOS One | Michael W. Esgro, James Lindholm, Kerry J. Nickols, et al. | Early conservation benefits of a de facto marine protected area at San Clemente Island, California | Channel Islands National Marine Sanctuary | 2020 |
| Conservation Letters | J. Wilson White, Mark T. Yamane, Kerry J. Nickols, et al. | Analysis of fish population size distributions confirms cessation of fishing in marine protected areas | Multiple | 2020 |
| Ecology | Jacob H. Eisaguirre, Joseph M. Eisaguirre, Kathryn Davis, et al. | Trophic redundancy and predator size class structure drive differences in kelp forest ecosystem dynamics | Channel Islands National Marine Sanctuary | 2020 |
| American Fisheries Society | Wendt, Dean E., and Starr, Richard M. | Collaborative Research: An Effective Way to Collect Data for Stock Assessments and Evaluate Marine Protected Areas in California | Statewide | 2020 |
| Ecological Applications | E.E. Easter, M.S. Adreani, S.L. Hamilton, et al. | The advantage of changing sex in fish population recovery: Harvesting of male fish near Marine Protected Areas affects sex-changing species differently from fixed-sex species | Statewide | 2020 |
| Conservation Biology | Katrina D. Malakhoff and Robert J. Miller | After 15 years, no evidence for trophic cascades in marine protected areas' | Multiple | 2021 |



| Publication Journal | Author(s) | Title | MPA | Year |
|---|--|--|---|------|
| Scientific Reports | Hunter S. Lenihan, Jordan P. Gallagher, Joseph R. Peters, et al. | Evidence that spillover from Marine Protected Areas benefits the spiny lobster (Panulirus interruptus) fishery in southern California | Multiple | 2021 |
| Frontiers in Marine Science | Jack Butler, Camille M. L. S. Pagniello, Jules S. Jaffe | Diel and Seasonal Variability in Kelp Forest Soundscapes Off the Southern California Coast | Multiple | 2021 |
| Oceanography | Camille M.L.S. Pagniello, Jack Butler, Annie Rosen, et al. | DIY OCEANOGRAPHY - An Optical Imaging System for Capturing Images in Low-Light Aquatic Habitats Using Only Ambient Light | Multiple | 2021 |
| Science Daily | Harrison Tasoff | Marine reserves can increase fishery landings despite closing fishing grounds | Multiple | 2021 |
| Ecological Applications | J.K. Hopf, J.E. Caselle, J.W. White | Recruitment variability and sampling design interact to influence the detectability of protected area effects | Channel Islands National Marine Sanctuary | 2021 |
| Marine Ecology Progress Series | Emma S. Choi, Laura E. Furtado, Ronald S. Burton | Spatial and temporal variation in the species diversity of coastal California fish eggs | Statewide | 2021 |
| Journal of Creative Works and Research | John W. Corbett & Ruthie A. Maloney | A Clash of Cultures: The Struggle of Native Americans to Participate in Traditional Ecological Knowledge and Western Science Under California's Marine Life Protection Act | Statewide | 2021 |
| Journal of Ocean Science Foundation | Rachel M. Aitchison, Gammon N. Koval, David A. Ebert | First record of the Banded Guitarfish, <i>Zapteryx exasperata</i> (Rhinopristiformes: Trygonorrhinidae), in central California, USA | Point Lobos State Marine Reserve | 2021 |