Committee Staff Summary for November 6, 2025 MRC

8. General Public Comment for Items Not on the Agenda

Today's Item **Information** ☒ **Action** ☐

Receive public comment regarding topics that are not included on today's agenda.

Summary of Previous/Future Actions (N/A)

Background

This item is to provide the public an opportunity to address the Marine Resources Committee (MRC) on topics not on the agenda. Staff may include written materials and comments received prior to the meeting as exhibits in the meeting binder (if received by the written comment deadline), or as supplemental comments at the meeting (if received by the supplemental comment deadline). However, the Committee may not discuss or take action on any matter raised during this item, except to consider whether to recommend that the matter be added to the agenda of a future meeting

General public comments are categorized into two types: (1) requests for MRC to consider new topics and (2) informational-only items. Under the Bagley-Keene Open Meeting Act, the MRC cannot discuss or take action on any matter not included on the agenda, other than to recommend that the Commission schedule issues raised by the public for consideration at future meetings. As a general rule, requests for a regulation change must be submitted to the Commission on petition form FGC 1, Petition to the California Fish and Game Commission for Regulation Change. However, MRC may, at its discretion, request that staff follow up on items of potential interest for possible recommendation to the Commission.

Significant Public Comments

- A commenter expresses concern about the implications of California exploring marine carbon dioxide removal (mCDR) as part of its 2045 climate goals and states that legislation such as Senate Bill 643 and Assembly Bill 1086 reflect growing interest in regulating these approaches. They urge the Department and Commission to engage early in mCDR operations to ensure coastal communities and fishermen are involved as partners. They advocate for proactive, collaborative oversight as key to aligning climate solutions with the health of California's ocean economy and ecosystems. (Exhibit 1)

Comments on Referred Marine Protected Area (MPA) Petitions Currently under Review

- Petition 2023-32MPA
    a. A long-term Bolinas resident who identifies with "indigenous peoples of northern California", retracts their signature of a Save Duxbury Access petition-opposition form. They had been confused by the title of "Save Duxbury," and signed assuming the form was in support of petition 2023-32 MPA. The resident later realized the error and writes to re-affirm their support for the petition to classify Duxbury Reef as a state marine reserve, providing previous comment letters with rationale for reference. (Exhibit 2)
    b. A Bolinas resident living above Duxbury Reef supports the petition to reclassify the area as a state marine reserve, emphasizing the reef's ecological value and

believing it currently faces unsustainable pressure from consumptive activities. The resident advocates for stronger protections to ensure the reef's survival for future generations. (Exhibit 3)

c. A grassroots community group from Bolinas strongly opposes the petition, stating that the petition is based on flawed and misleading data. Their analysis challenges the interpretation of MPA Watch data, they criticize the petitioner's approach to community engagement, and they defend the reef's current ecological health. They advocate for education and signage over regulatory changes, emphasizing the importance of preserving community access and traditional uses. (Exhibit 4)

- Petition 2023-24MPA_AM1

  A Dana Point resident opposes the petition and shares email exchanges with the petitioner, discussing the petition and its potential impacts. Citing lifelong experience as a fisherman, freediver and merchant mariner, the commenter states the belief that the area remains ecologically healthy and that additional closures would unfairly affect responsible recreational and small-scale commercial fishermen. They propose alternatives such as rotating MPAs, habitat restoration, and targeted management. The resident also questions a reference to increased property values from a larger MPA, suggesting the petition may prioritize private interests over public access. (Exhibit 5)

- Petition 2023-28MPA

  The Northern Chumash Tribal Council writes to inform the Commission of its intent to formally co-sponsor the petition with the Natural Resources Defense Council. The council is in the final stages of formalizing the co-sponsorship agreement and will submit an amended petition form and narrative that details their Chumash collaborative co-stewardship approach and goals as a tribally co-sponsored petition. (Exhibit 6)

Recommendation (N/A)

Exhibits

1. Letter from Romina Ruiz, received October 23, 2025
2. Email from Isabel Dawson, Policy Associate, Environmental Action Committee of West Marin, transmitting a letter from Colleen Hicks, long-time Bolinas resident, received October 14, 2025
3. Email from Joanna Moore, received October 23, 2025
4. Letter from Save Duxbury Access, received October 23, 2025
5. Email from Cadyn Zeutenhorst, Third Officer, USNS Guam, received October 11, 2025
6. Letter from Violet Sage Walker, Chairwoman, Northern Chumash Tribal Council, received October 13, 2025

Committee Direction/Recommendation (N/A)

Submission to the California Fish and Game Commission

Subject: Considerations for Marine Carbon Dioxide Removal (mCDR) Programs and Implications for California's Commercial Fisheries and Coastal Ecosystems

Submitted by: Romina Ruiz

Date: October 23, 2025

To: California Fish and Game Commission

1416 Ninth Street, Suite 1320
Sacramento, CA 95814

Executive Summary

California is entering a pivotal stage in the exploration of **Marine Carbon Dioxide Removal (mCDR)** as part of its 2045 carbon neutrality strategy. Techniques such as **ocean alkalinity enhancement, macroalgal cultivation for sequestration, and ocean fertilization** are being studied for inclusion in state and federal climate portfolios. While the **potential for localized carbon sequestration and acidification mitigation** is real, the risks to **fisheries access, benthic integrity, and marine food webs** are equally significant.

Two active legislative vehicles **— AB 1086 (temporarily paused)** and **SB 643 —** already establish frameworks for developing and regulating ocean-based carbon removal in California waters. These bills underscore the urgency for the **Department of Fish and Wildlife and the Fish and Game Commission** to engage early and assert jurisdictional clarity before projects advance beyond the pilot stage.

The Commission's leadership is essential to:

- **Protect public trust resources** and prevent ecological damage under the guise of "carbon innovation."

- **Ensure commercial and recreational fishing voices** are represented in spatial planning and pilot evaluation.
- **Develop adaptive policy tools** grounded in existing frameworks like the Marine Life Management Act (MLMA), which already balance conservation with sustainable economic use.

If the Commission does not shape the conversation now, decisions affecting **California's coastal economy, fisheries access, and marine resource sovereignty** will be made without adequate representation from those who depend most on these waters.

I. Context and Policy Landscape

The **California Air Resources Board's (CARB) 2022 Scoping Plan** identifies carbon dioxide removal as an indispensable component of achieving net-zero emissions by 2045. The **Ocean Protection Council (OPC)** and **NOAA** have likewise advanced mCDR as an area for pilot-scale research. Nationally, the **U.S. Department of Energy (DOE)** has begun funding demonstrations to evaluate efficacy and environmental safety.

While promising on paper, the **real-world testing** of these technologies would occur in the same dynamic, productive ecosystems that sustain California's fishing economy. That reality demands direct participation from fisheries managers, enforcement agencies, and the fishing fleet itself.

II. Opportunities and Potential Benefits

1. **Localized Acidification Buffering:** Some controlled OAE pilots may locally raise pH and protect larval shellfish or crustaceans during corrosive upwelling periods.
2. **Economic Diversification:** Early mCDR research could provide off-season work for commercial vessels, marine trades, and port communities through charter and monitoring contracts.
3. **Innovation Capital:** Verified, science-based mCDR could establish a new "blue-economy export" service for California if it delivers measurable climate and habitat benefits.

III. Risks and Trade-Offs

1. **Habitat and Access Conflicts:** Large seaweed arrays or dispersal zones can encroach on traditional fishing grounds, trap lines, and navigational corridors.
2. **Ecosystem Uncertainty:** Sinking biomass or altering alkalinity could trigger oxygen depletion or shift plankton communities, with unknown effects on the food web.
3. **Liability Gaps:** Without defined compensation mechanisms, fishermen could bear the economic cost of gear loss or reduced catchability caused by mCDR footprints.
4. **Governance Risks:** If project approvals or carbon-credit markets outpace science, California risks reputational and ecological damage that undermines both fisheries and climate credibility.

IV. Economic and Governance Considerations

- **High cost per ton removed:** Current mCDR pathways range from $150–$1,000 per tCO_2, sustainable only with rigorous MRV (Monitoring, Reporting, Verification).
- **Permitting and Oversight:** Overlapping jurisdictions among CARB, CDFW, the Coastal Commission, and the State Lands Commission require a **unified permitting structure**.
- **Fisheries Coexistence Fund:** Developers should be required to post performance bonds or contribute to a dedicated fund covering demonstrable economic losses in affected fisheries.

V. Recommended Management Strategies

1. **Pilot → Prove → Permit:** Begin with small, time-bounded pilots with mandatory independent environmental monitoring before any scale-up.
2. **Spatial Protection:** Use marine spatial planning tools to map exclusion zones for spawning areas, MPAs, and high-use fishing grounds.
3. **Hard MRV Standards:** Require real-time data on carbon flux, pH, alkalinity, biodiversity, and CPUE (Catch Per Unit Effort).

4. **Stakeholder Integration:** Formalize advisory seats for commercial and recreational fishing representatives in any mCDR oversight or adaptive management committee.
5. **Economic Safeguards:** Performance bonds and local labor requirements ensure coastal benefits are retained in-state and not exported to offshore developers.

VI. Role of Commercial and Recreational Fishermen

Commercial and recreational fishermen must be treated as **implementation partners**, not obstacles. Their **operational expertise, vessels, and long-term ecological knowledge** make them indispensable for monitoring, deployment, and risk evaluation.
By participating in research charters and advisory roles, fishermen can ensure that mCDR projects complement — rather than compromise — sustainable harvest and public access.

Conclusion

Marine Carbon Dioxide Removal represents a **crossroads for California ocean policy** — balancing innovation and stewardship. If executed responsibly, it may provide environmental co-benefits and new blue-economy opportunities. If mismanaged or politically rushed, it could inflict irreversible harm on fisheries and public trust resources.

It is **crucial** that:

- The **Department of Fish and Wildlife** and **Fish and Game Commission** remain **actively engaged** in reviewing, permitting, and monitoring any mCDR activities in state waters.
- **Commercial and recreational fisheries** stay **fully informed and represented**, ensuring their livelihoods and local ecological knowledge guide decision-making.
- The **Commission places continued discussion of mCDR on future meeting agendas**, given that **SB 643 is advancing and AB 1086, though paused, demonstrates clear legislative intent** to establish a regulatory pathway.

Early involvement is not just good governance — it is the only way to ensure that California's carbon policy does not come at the expense of its working ocean, its fishermen, or the coastal ecosystems that sustain them.

References

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Blue Ribbon Task Force on Ocean Climate Solutions. (2024). *Recommendations for the Responsible Development of Ocean-Based Carbon Solutions.* Monterey, CA: Ocean Science Trust.

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California Department of Fish and Wildlife. (2023). *California Marine Life Management Act (MLMA) Master Plan.* Sacramento, CA.

From: Isabel Dawson <[redacted]>
Sent: Tuesday, October 14, 2025 04:05 PM
To: FGC <FGC@fgc.ca.gov>
Cc: Worden, Sara@Wildlife <[redacted]>; [redacted]
<[redacted]>
Subject: Submission for MPA Petition No. 2023-32

Dear President Zavaleta, Commissioners, and staff,

Please see attached the letter (4 pages) we are submitting for MPA Petition No. 2023-32 on behalf of Colleen Hicks. A hard copy is also being sent through US Mail.

Thank you.

Best,

Isabel Dawson
Policy Associate
Environmental Action Committee of West Marin (EAC)
PO Box 609 | 65 Third Street, Suite 12
Point Reyes Station, CA | 94956
(415) 663-9312
[redacted]

Mission: To protect and sustain the unique lands, waters, and biodiversity of West Marin.
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Colleen Hicks
[redacted]
Bolinas, CA [redacted]
email: [redacted]
telephone: [redacted]

October 14, 2025

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission
P.O. Box 944209
Sacramento, CA 94244-2090

Re: **Petition for modification of Duxbury Reef Marine Protected Area**
Petition # 2023-32MPA

Dear President Zavaleta and Honorable Commissioners,

I am writing to you in support of the above-referenced petition submitted to you by the Environmental Action Committee of West Marin ("EAC") to reclassify the Duxbury Reef Marine Protected Area as a State Marine Reserve and to expand its boundaries.

Approximately 6 weeks ago I was approached on the street in Bolinas by people who sat behind a banner representing themselves as a committee To Save Duxbury. They asked for and I readily signed their "petition", which I did not take the time to understand and which is actually opposed to EAC's Petition. I then later learned more of the facts and I realized that in my haste I had erred.

I hereby retract my agreement to the petition opposing EAC's Petition.

I hereby reaffirm, without qualification, my support for EAC's Petition as stated in my letter to the Commission dated January 27, 2024. (I have enclosed a copy of my January 27, 2024 letter for your convenience.)

I understand that if EAC's Petition is successful, Duxbury Reef will be classified as a State Marine Reserve, all fishing done on the reef itself will be prohibited, fishing from a boat would be prohibited 1000 feet from low low water for the entire extent of the new Marine Protected Area, and the boundaries of the new Marine Protected Area will be extended to the South and North. I support that outcome for the reasons stated in my January 27, 2024 letter.

I apologize for the confusion I may have caused.

Respectfully submitted,

[redacted]

Colleen Hicks

encl.

Colleen Hicks
[redacted]
Bolinas, CA [redacted]
email: [redacted]
telephone: [redacted]

January 27, 2024

via email (fgc@fgc.ca.gov) & U.S. Mail

California Fish and Game Commission
P.O. Box 944209
Sacramento, CA 94244-2090

Re: **Petition for modification of Duxbury Reef Marine Protected Area**

Dear President Sklar and Honorable Commissioners,

I am writing to you in support of the petition submitted to you by the Environmental Action Committee of West Marin ("EAC") regarding the Duxbury Reef Marine Protected Area.

My experience/background relevant to this matter.

I have continuously been a full-time resident of Bolinas for approximately 55 years from 1968 to the present. I am of Cherokee and Lakota lineage. From 2005 to 2017 I was the Executive Director of the Museum Of The American Indian ("MAI") in Novato, California. My duties as Executive Director of the MAI included: creating, planning and curating exhibits, educational programs, educational resources, and live events; writing and editing MAI's newsletter; and, other responsibilities all related to informing the public of the values, culture and history of Indigenous Peoples of Northern California. Those duties all required a knowledge of the past and present practices, culture, values, and interests of Indigenous Peoples of the Americas generally and Indigenous Peoples of Northern California more specifically. The museum had over 4,000 school children visit every year to learn about native life ways, which included respect and care for the Earth. We taught the school children that it is our duty to preserve the land for future generations as we were taught by our ancestors.

During my 55 years in Bolinas I have spent literally 1,000s of hours on Duxbury Reef, including on the northern portion of the current Duxbury Reef Marine Protected Area that comprises the shoreline of the former RCA broadcasting facility (now occupied by Commonweal).

For the reasons stated below, I strongly believe that in order to preserve unimpaired the ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations and to minimize the negative impacts of visitors to Duxbury Reef's intertidal habitat and species all three of the following additions to and modifications of the Duxbury Reef State Marine Conservation Area ("SMCA") which EAC has requested should be approved by the Commission.

I believe that designating the entirety of Duxbury Reef, including both the "Northern and Southern Reef Extensions", as a State Marine Reserve is consistent with and will promote the interests and values of Indigenous Peoples of Northern California, and will not negatively impact that community.

1. Change the designation of the Duxbury Reef State Marine Conservation Area to a "State Marine Reserve".

Designating as a State Marine Reserve the entirety of the both the current Duxbury MPA and the Duxbury MPA expanded to the North and South as requested by EAC, is imperative. I understand that a designation of Duxbury Reef as a "State Marine Reserve" will prohibit all taking (including all fishing from shore), damage, injury or possession of any living, geological or cultural marine resource, except under a scientific collecting permit for authorized research, restoration or monitoring, whereas in Duxbury's current designation as a State Marine Conservation Area fishing from shore is permitted and some species are unprotected. The designation of the entirety of Duxbury Reef as a State Marine Reserve is consistent with and will promote the interests and values of Indigenous Peoples of Northern California, and will not negatively impact that community.

I have observed that fishing from the shore has become less frequent over the years. It still occurs but I do not recall seeing any people who made return trips to Duxbury for shore fishing in the past 6 or so years. I believe that such a change would only improve the condition of the reef, in some part by the reduction of that now-allowed taking, but also because of the effect that observing that fishing probably has on the behavior of the recreational, non-fishing visitors.

I have observed that the number of recreational visitors to the Duxbury MPA dramatically increased beginning in 2017. It is my impression that the increase in average visitation to Duxbury Reef in the past 6 years is far larger than the increase in the average visitation during any other 6-year period during the 49 years preceding 2017. The time for increasing the protection of Duxbury Reef is now.

2. Extend the southern boundary of the Duxbury Marine Protected Area to the most southerly tip of Duxbury Reef exposed at mean lower low water (the "Southern Reef Extension") and designate the entire Reef as a State Marine Reserve

I understand that at this time the Southern Reef Extension is outside of and unprotected by the current SMCA. I understand that this unprotected area constitutes about 5/6's of that portion of Duxbury Reef extending off the southern tip of the Bolinas peninsula.

I have wandered out into the intertidal area of the southernmost part of the reef from time to time, simply for the pleasure of being there. It is truly an uncommon biological wonderland. I do not recall that I have ever observed any shore-based fishing occurring on the Southern Reef Extension. This part of the reef should be included in the expanded boundaries of a Duxbury Reef State Marine Reserve.

3. **Extend the northern boundary of the Duxbury MPA to the Double Point/Stormy Stack Special Closure, that is the northern point of the area known as Double Point (the "Northern Reef Extension")and designate the entire Reef as a State Marine Reserve**

I understand that the Northern Reef Extension is outside of and unprotected by the current SMCA. It is my understanding that this unprotected area commences at the North boundary of the current SMCA, roughly at the outfall of Arroyo Hondo Creek, and would extend to the northern point of Double Point.

I am not aware of anyone fishing from shore, either recreationally or commercially, in the area of the Northern Reef Extension.

I have also explored the intertidal area of the Northern Reef Extension from time to time It is pristine and rich with many species. It makes no sense to me that this and the Southern Reef Extension, both fragile ecological areas, have not been included in the Duxbury Reef Marine Protected Area. Both should now be included in an expanded State Marine Reserve.

Summary

In order to preserve without further impairment, and to correct harm that has been previously done to, the intertidal ecosystem of Duxbury Reef for the enjoyment, education and inspiration of current and future generations all three of the above-described additions to and modifications of the Duxbury Reef State Marine Conservation Area proposed by EAC should be approved by the Commission.

Respectfully submitted,

Colleen Hicks

cc. Kent Khtikian

From: Joanna Moore <[redacted]>
Sent: Thursday, October 23, 2025 03:24 PM
To: FGC <FGC@fgc.ca.gov>
Subject: Petition No. 2023-32MPA

Hello Commissioners,

My name is Joanna Moore. I'm writing in support of the petition for Duxbury Reef because I believe it's a precious marine environment that needs protection. I live directly above the reef. The reef is visited by many people. That is clearly because it's special. Unfortunately people take from dwindling marine life in the reef. It's simply not sustainable. Without a full-time guardian (which is likely not in the budget), Duxbury Reef must be fully protected by clear rules and regulations against any gathering and taking from the reef. Duxbury Reef is a special habitat that needs to be protected so that not only can the marine life have a chance to thrive but generations of people are able to visit and observe the wonders of the natural world in this special habitat for years to come. At the current rate of decline there isn't much chance for survival in the reef at all.

Kind regards,

Joanna Moore

Bolinas, CA

California Fish and Game Commission
P.O. Box 944209 Sacramento,
CA 94244-2090
Sent via Email: fgc@fgc.ca.gov

October 23, 2025

Re: Opposition to Petition No. (2023-32MPA) to change Duxbury Reef from a State Marine Conservation Area (SMCA) to a State Marine Reserve (SMR) and to expand its boundaries to encompass the entire 8-10 miles of rocky reef coastline in Bolinas, by Ashley Eagle-Gibbs of the Environmental Action Committee (EAC) of West Marin dated April 6, 2023.

Dear California Fish and Game Commissioners and Marine Resources Committee,

On behalf of the Bolinas Community, we're adding to our previous letters of opposition to Petition No. (2023-32MPA) with further information regarding the EAC's MPA Watch data reporting. We appreciate your time and patience to review our materials as we have until just recently been excluded from this critical conversation that directly impacts our way of life. The EAC's petition has grossly negligent information gaps and blatant falsehoods that have misled elected officials and public agencies. They gained their endorsements by claiming that they had "strong community support" yet they did NO meaningful outreach in Bolinas, a violation of the Fish and Game JEDI Policy. Bolinas staunchly opposes this aggressive and unnecessary proposal to eliminate ALL reef fishing access for our ENTIRE coastal town, which would devastate our historic maritime culture and economy, a direct violation of the Fish and Game Coastal Communities Policy.

Upon thorough review of the only supporting evidence presented by the EAC to justify their petition, we have found substantial flaws including: (1.) omitting key scientific studies, (2.) unreliable and inconsistent data reporting, (3.) misleading data comparisons to dissimilar MPAs, (4.) **extreme** interpretation of regulatory language that identifies school children as "poachers" for the *temporary handling* of marine resources, and (5.) the strategic misrepresentation of poaching to scapegoat fishermen. *(See attached data analysis.)* This petition should be rejected in its entirety because:

A. **The EAC has presented no verified scientific evidence of an ecological problem to solve at Duxbury Reef.** In fact, the ecosystem is doing well. This is well documented by the UC Santa Cruz Long-Term Intertidal Monitoring Site Data which was NOT included in the EAC's petition.

B. **The EAC has presented no verified scientific evidence that hook & line fishing is harmful to the reef.** Instead, the EAC claims without evidence that the visitation from school children on educational field trips at the Agate Beach tidepools is harming the reef.

C. **The EAC misled supporters of this petition** by categorizing the *temporary handling* of any living, geological, or cultural marine resource (such as shells) by tidepool visitors (mainly school children) as regulatory violations of the current SMCA, by extension, "high levels of poaching".

D. **The EAC grossly mischaracterizes the significant economic impacts to the Bolinas Community and West Marin.** These proposed changes would devastate our small sustainable hook and line commercial fishery that feeds West Marin, hurting our restaurants, markets, and tourism, a violation of the Magnuson-Stevens Act of 1976.

E. **The EAC ignores the significant impacts to non-consumptive beach users.** These proposed changes would limit children's educational coastal access at Agate Beach to "no-touch" dry rock tidepool exploration. This pedagogical approach is incompatible with the principles of immersive, experiential education, which relies on direct, practical experience. This proposal would also terminate ALL dog walking on 8-10 miles of our coastline - a treasured recreational pastime for many community members and visitors to Bolinas..

We all love Duxbury Reef and respect the comprehensive SMCA protections that were established over fifteen years ago through a rigorous collaborative process. This successful compromise recognizes that the best environmental stewardship relies on TRUE community support. **We urge the Commission to reject the EAC's misguided petition in its ENTIRETY because there is no science based rationale that necessitates *ANY* changes.** This petition is a waste of the Commission's time and it's a waste of our community's time. Eliminating ALL reef fishermen in Bolinas is nonsensical, counterproductive, and divisive. We should focus instead on working together to improve compliance with common sense tidepool best practices through effective educational initiatives that *include* the surrounding community. Thank you for your consideration.

Respectfully,
Save Duxbury Access, on behalf of the Bolinas Community

"Save Duxbury Access" is a grassroots group of locals who believe in preserving our beloved reef while keeping access open for finfishing (both commercial and recreational), surfer access, tidepooling, and reef educational programs for schools. Protecting access ensures that our children will nurture a connection with the place we all love, and continue our longstanding tradition of responsible stewardship. Contact us at saveduxburyaccess@gmail.com

EAC Data Reporting for Petition (2023-32) MPA Targets School Children but Blames Fishermen

*Data Analysis by Save Duxbury Access**

The EAC submitted MPA petition 2023-32 to reclassify and expand Duxbury Reef to a no-take Reserve without presenting *any* verified scientific evidence to justify their stated need for regulatory change. The comprehensive and widely available UC Santa Cruz Long-Term Intertidal Monitoring Site Data (attached) was omitted from their petition. This 20 year study demonstrates that the ecosystem at Duxbury Reef is doing well and not in decline. The profound, generational insight of local surfers and fishermen further corroborates this data but was also excluded from the petition. In fact, these valuable stakeholders were not engaged in *any* meaningful dialogue whatsoever by the EAC even though they would arguably be the most impacted by the proposed changes, a violation of the Fish and Game Coastal Communities and JEDI policies. Instead, the EAC relies solely on data gathered by their own MPA Watch volunteers. This suppression of evidence erodes the integrity of the EAC's petition whose stated objective is to protect the reef. The EAC cannot credibly make this noble claim while simultaneously concealing critical scientific facts, and alienating the community that has protected the reef for hundreds of years. The EAC of West Marin has lost its way and deviated from their core mission: **"**To protect and sustain the unique lands, waters, and biodiversity of West Marin."

At face value, this petition is an attack on fishing and a struggling community that relies on its catch, but below the surface a much broader motive is revealed. The EAC's MPA Watch data reporting identifies school children and dog walkers as a problem at Duxbury Reef but blames fishermen instead. Ignoring conclusive scientific findings, the EAC maintains that the reef is actually unhealthy and that the trampling and "poaching" by school children "have long-term negative impacts to habitat and species". They bolster this accusation with claims of high and increasing visitation but *their own data shows the opposite* - visitation at Duxbury Reef is low compared to other accessible tidepools and has leveled off since the Pandemic surge. **The EAC amplifies fabricated claims of "high levels of poaching" and "recurring issues with illegal take" that are based almost entirely on school children *temporarily handling biota for observation* NOT what is widely understood as poaching,** i.e. "the illegal hunting or capturing of wild animals". The EAC argues that the legal definition of "take" and "possess" extends to *any handling* of a "living, geological, or cultural resource", categorizing such acts as regulatory violations and, by extension, poaching.

This report is an investigation of the nuanced layers of the EAC's misuse of the MPA Watch methodology to manufacture a problem in order to:

- Limit children's educational coastal access at Agate Beach to "no-touch" dry rock tidepool exploration. This pedagogical approach is incompatible with the principles of immersive, experiential education, which relies on direct, practical experience - particularly for youth suffering from nature-deficit disorder (NDD): decreased attention span and focus, increased stress and anxiety, reduced creativity and imagination, and physical health problems, such as obesity and vitamin D deficiency.

  This is also a discriminatory assault on inclusive marine science programming.

- Eliminate ALL reef fishing in Bolinas which would devastate our small rural community's economic and cultural access to the coast, a violation of the Fish and Game's Coastal Communities Policy.

- Cripple our sustainable historic commercial fishery that feeds West Marin.

- End equitable hook and line finfishing from shore that has been practiced on our coastline for thousands of years beginning with the Coast Miwok people indigenous to these lands. *This would force lower economic anglers to travel further away from home to less pristine waterways to feed their families - a supreme environmental injustice and a violation of the Fish and Game's JEDI Policy.*

- Close ALL future opportunities for abalone harvesting in Bolinas for the entire community and our visitors that has been a cherished tradition for generations.

- Terminate ALL dog walking on 8-10 miles of our coastline - a treasured pastime. (Note: "dogs off leash" make up over half of the potential violations incidents recorded by the EAC's MPA Watch).

The following topics will be addressed: I. legalistic definition of the term "possess", II. unreliable & inconsistent reporting, III. misleading comparisons, IV. problematic framing of fishermen, V. strategic misrepresentation of "poaching", and VI. how education is the most effective and enduring solution to improving compliance with tidepool best practices. There is NO scientific need to reclassify and expand the Duxbury Reef SMCA. **This counterproductive and misguided petition should be rejected outright in its entirety because a more practical and direct solution exists: clarifying tidepool best practices, improving onsite signage, and expanding educational outreach at Agate Beach.**

I. LEGALISTIC DEFINITION of "POSSESS"

The EAC argues that the *temporary handling* of *any* living, geological, or cultural marine resource at Duxbury Reef is a violation of current SMCA rules, as it legally counts as "possession". This extreme interpretation has guided the EAC's MPA Watch volunteers to record hundreds of "potential violations" by tide pool visitors at Agate Beach who are mainly school children on educational field trips. The EAC *publicly* reports these tide pool interactions as "high levels of poaching" and refers to them as "*potential* violations" because they have not yet been prosecuted. The EAC's definition of "no handling" SMCA regulations is not posted anywhere on site nor is it specified by the MPA Watch Manual or CDFW. This has led to significant public confusion as it is contrary to the common sense tide pool etiquette that has been practiced for generations at Agate Beach of "Do No Harm". The Agate Beach trail entrance says:

> *"Taking of all living marine resources is prohibited except the recreational take of finfish from shore and abalone"*
>
> *"Collecting animals, plants, shells, or rocks is illegal; violators can be fined $1,000 and jailed for 6 months"*

A general beach visitor would most likely interpret "taking" and "collecting" as bringing things home. A hunter or a fisherman would understand "take" as the pursuit, capture, or killing of a wild animal, fish, or bird. The MPA Watch manual itself defines collection of biota as *"collecting marine life into a bucket or net and taking it away."* The spirit of the law is to protect Duxbury Reef from the excessive harvest seen prior to the establishment of Area of Special Biological Significance (ASBS) in 1972. Why is the EAC's interpretation of the regulations different from what is posted on the Marin County Parks and Open Space signage? The EAC's severe and troubling interpretation is demonstrably out of touch with the public's understanding of the rule which was meant to be understood plainly, not to be scrutinized like a legal contract, unless the EAC is planning on bringing in school children to be fined and jailed? Rather than addressing their dissonant interpretation, the EAC has leveraged their "poaching" data to promote their petition to reclassify Duxbury Reef to an *even more restrictive* State Marine Reserve (SMR), and to expand these severe restrictions along the entire ocean facing coastline in Bolinas. This explains the EAC's high data count of 1,606 potential violations for the small tidepool area at Duxbury Reef, and why CDFW officers have chosen education over penalties for these incidents.

II. UNRELIABLE & INCONSISTENT DATA REPORTING

While the MPA Watch is a valuable citizen science program that provides data on human activity, it is only one small component of the overall data required for sound adaptive management of MPAs. Regulatory decisions must incorporate a wide range of verified scientific evidence to be effective such as long-term ecological studies, CDFW enforcement citation records, socioeconomic impact assessments, and traditional knowledge from communities to provide critical historical and ecological context. MPA Watch data should never be the *only* data used to make consequential regulatory changes. Although their statewide protocols are standardized, data quality can vary depending on individual volunteer training and program oversight, and can be influenced by the experience level of the citizen scientists who may demonstrate potential observer bias. The EAC's reporting on Duxbury Reef consistently demonstrates these points.

"In 2024, MPA Watch data shows 132 violations at Duxbury Reef. This includes 60 observations of dogs off leash and 65 counts of hand collection of biota." What exactly is "hand collection of biota"? What specifically is being collected? Quantity? Is it taken home? Volunteers note that "most collecting was for observation and not for consumption". What were the other 7 potential violations? (132 total - 60 dogs off leash - 65 hand collection of biota = 7 nonspecified potential violations.) EAC's MPA Watch reports are frequently vague, with an average of over 50 potential violations left nonspecified per annual report, and often provide information that contradicts previous reports. *(See Figure 1 - 2 for an overview of the EAC data inconsistencies.)*

A. The Illusion of Increased Visitation

"This is especially critical in consideration of the combined impacts of dramatically increased visitation, ocean acidification, and sea level rise which will increasingly impact the biodiversity of the reef." The EAC continues to argue that visitation is on the rise at Duxbury Reef but this is not demonstrated in their own data which surged during the Pandemic but has mostly leveled out. *(See Figure 3.)*

"Below is a chart showing the activity data in the first half of 2024. This is the period of the year that gets high visitation because of the daytime timing of low tides and school field trip season (there are only a handful of daytime low tides during the later summer and fall months that enable access to the reef." *(See Figure 4.)* School children on educational field trips to the Agate Beach tidepools are responsible for the bulk of the visitation at Duxbury Reef, which is only accessible at mid-tide or lower tides. This is roughly 40-45 school days a year, plus 50-60 possible weekend days for visits to the exposed reef. Other than that, the reef is mostly under water and protected from *all* visitation. That's a total of only 90-105 days a year for possible tidepool visits, weather permitting, at the *very* narrow Agate Beach that is buffeted by a steep crumbling cliff, facing the Pacific Ocean. These limitations explain the *actual low visitation levels* at this site. Even during the Pandemic peak, the Duxbury Reef visitation rates are lower than other accessible tidepools within municipalities. Has the EAC compared Duxbury Reef's visitation to rates prior to the abalone closure? Has the EAC compared the current visitation rates with historic rates prior to the 1972 ASBS?

Note: The Agate Beach tidepools have the most visitation in the Duxbury Reef SMCA. The vast majority of the remaining area, as well as the area proposed for expansion is highly inaccessible due to terrain and lack of access points. Visitation is NOT increasing in the north despite the EAC's claims to the contrary, but has dramatically *decreased* since the abalone closure in 2018, and since the National Park Service closed the last trail for beach access from the Palomarin parking lot. *(See Figure 3. for more examples of EAC's repeated claims of high increasing visitation)*

B. Hypotheticals Deviate from MPA Watch Methodology

"Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and take) have long-term negative impacts on habitat and species." The EAC provides no verified scientific evidence to support this hypothetical claim, which is contrary to the UC Santa Cruz Long-Term Intertidal Monitoring Site Data. The EAC also fails to present other known factors affecting the California North Coast intertidal communities such as disease in sea stars, disease in abalone, explosion in urchin numbers, loss of sea otters, etc. Additionally, creating hypotheticals is an ethical violation of the MPA Watch program's focus on purely observational, fact-based data collection. *(See Figure 5. for more examples of EAC's ongoing claims of this hypothetical.)*

The EAC's MPA Watch reporting is undermined by these ongoing methodological flaws and a lack of data consistency, an issue inherent to volunteer-based reporting. Regulatory changes cannot be effectively implemented without first developing a precise diagnosis of the underlying problem. If this is the *only* data that the EAC is using to eliminate ALL reef fishing for the ENTIRE Bolinas historic fishing community, details are critical. Ignoring a substantial body of verified scientific evidence in favor of unverified volunteer reports is a reckless approach to regulation.

III. MISLEADING DATA COMPARISON

"MPA Watch data shows that Duxbury Reef State Marine Conservation Area has the highest activity rate compared to other MPAs surveyed by Marin MPA Watch over all past years, accounting for 47% of all activities in Marin MPA Watch locations." The overall conclusions of the EAC's MPA Watch data are unsound, primarily because they rest upon a comparison between Duxbury Reef with other Marin County MPAs that are fundamentally different: *(See Figure 6.)*

The Duxbury Reef SMCA *includes Agate Beach which has the most accessible and extensive tidepools in all of Marin County, where the EAC's MPA Watch has gathered most of their data on human activity. These tidepools constitute just a small portion of the overall MPA area, at the base of a short gravel path from a Marin County Parks and Open Space parking lot, within a residential neighborhood in the town of Bolinas. The rest of the MPA is extremely remote and inaccessible. Agate Beach has been a popular destination for tidepooling for generations of Bay Area residents. This area is also used for fishing, dog walking and abalone harvesting (when in season).*

The Estero de Limantour SMR *is an estuary habitat that does not include tidepools within its boundaries and takes about 2 - 2.5 hours each way to hike the 7.8-mile roundtrip Estero Trail to the beach from the parking lot trailhead which is a 15 minute winding drive from Point Reyes Station. This area is mainly used for hiking, wildlife viewing, and kayaking.*

The Point Reyes SMR *is mostly a sandy beach that is closed to beach access 3-4 months a year for marine mammal protection, with much of the rocky reef intertidal area within the Special Closure boundaries which prohibits all access. The Drakes Beach parking lot is a 25 minute winding drive from Point Reyes Station. This area is mainly for hiking, camping, and wildlife viewing.*

Control PRSOUTH (Limantour Beach) *is mostly a sandy beach that is a 15 minute winding drive from Point Reyes Station. Limantour Beach is mainly used for walking, picnicking, and relaxing.*

Corte Madera Marsh SMP *is a path surrounded by marshland, located just off of Highway 101, mainly used for walking, jogging, running, and wildlife viewing - does not have tidepools.*

Comparing these wildly different locations to the Duxbury Reef SMCA exposes the EAC's flawed use of the MPA Watch methodology because it guarantees predictably contrasting results. This selective bias weakens the foundation of the MPA petition, as they discredit their *only* supporting data. Why didn't the EAC use similar MPAs for comparison? The EAC's misguided petition is fundamentally baseless without any other verified scientific supporting evidence. *(See Figure 7-9 for accurate comparisons.)*

IV. FRAMING FISHERMEN as the PROBLEM

"Docents, visitors and Marin County park rangers have repeatedly mentioned the visitor confusion about the MPA regulations that arises when people see fishing for prickleback in the deeper pools on Duxbury Reef, or passing through the SMCA from areas to the south, currently unprotected, with buckets of fish and other biota." How has this "visitor confusion" been documented? Where did the Marin County park rangers report these observations? Were depositions taken by the CDFW? Are these records publicly available? Has anyone considered the EAC's incongruous interpretation of the regulations as the main source of confusion? This is yet another instance of the EAC's MPA Watch neglecting protocol in favor of formulating speculative arguments. Why is the EAC's MPA Watch straying from the statewide standardized protocols that ensure scientific consistency? This reveals yet another researcher (and publisher) bias. At what point is this considered a spoliation of evidence?

School children constitute the bulk of the visitation and are also responsible for the lionshare of the "potential violations" recorded as "hand collection of biota" by the EAC volunteers. Instead of directly addressing this issue, the EAC has strategically framed fishermen as the problem instead. They have achieved this nonlinear logic by claiming that the school children are confused by the presence of fishermen and that this is leading them to "violate" regulations by *handling living, geological, or cultural marine resources*, such as picking up shells. By this logic the EAC presumably believes that if reef fishermen are eliminated, the same school children will no longer be confused and will stop picking up shells? This strategic maneuver creates cover for what would otherwise be universally rejected, i.e. the criminalizing of children, especially for incredibly minor offensives. The EAC diverts the blame onto an easier target, the shorefishermen, who happen to be mostly non-white lower economic people trying to catch fish to feed their families. As these traditional hook and line fishermen have been historically underrepresented legally and politically, they are much easier to scapegoat. In fact, after priming the public with repeated claims of "unrestrained" poaching at Duxbury, the EAC doesn't even need to point a finger, they just let the public fill in the blank: *the fishermen must be the problem*.

This sideways approach avoids direct accusations against fishermen (and the school children) while still advocating for a policy that would end reef fishing and restrict children's tidepool access. The EAC taps into the implicit bias by intermixing their reporting of potential violations with their reporting of the legal activities of fishermen. Even though finfishing is legally permitted at Duxbury Reef, the EAC's MPA Watch began in 2022 to place these fishing activities under "Potential Violations", just ahead of submitting their petition. To an undiscerning reader, it could be interpreted that fishing is illegal:

"The vast majority of consumptive activities come from Duxbury Reef including on-shore hook and line fishing, and especially, hand collection of biota which would be a violation of SMCA regulations." (See Figure 10. for more examples)

The EAC also uses the technical terms of "consumptive" and "non-consumptive" in public discourse to obfuscate culpability. Members of the public who are unfamiliar with these terms would assume that "consumptive" use at the reef is fishing only, and that "non-consumptive" is everything else. What the public would not broadly understand is that whenever any natural resource is removed from the beach (including shells) that this is also considered "consumptive". So when the EAC refers to the problem as "consumptive" the public will naturally assume that this means that the fishermen are the problem, and not the school children whom the EAC has overwhelmingly targeted in their data collection. What is the rationale behind the EAC's narrow focus on schoolchildren, while simultaneously using the fishing community as a scapegoat?

The graph *(See Figure 11.)* shows the percentage of different beach users at Duxbury Reef. Non-consumptive users (general beach users) make up the vast majority 92%, while consumptive users (mainly fishermen) make up only 8%. For readers who have been primed to link the high level of consumptive potential violations (i.e. *handling* shells, etc.) to only be fishing, this would create the illusion that the fishers have a disproportional negative impact, i.e. a small group of people causing the vast majority of the problems.

Compounding this is the fact that we don't know how precisely these users and their actions are being categorized by the EAC's MPA Watch volunteers. A tidepool visitor is categorized as a non-consumptive user if they are "observing tidepools without physical contact to the wildlife/tidepool itself", but what happens when someone switches activities? What if someone at the tidepool ceases to passively observe and reaches down to touch something? MPA Watch methodology only allows you to count someone once: *"If you see someone switch activities, such as someone who was originally laying on the beach but then goes in the water, count them only under the activity that you first observed them."* Do the EAC's MPA Watch volunteers follow these protocols? What if the EAC's MPA Watch volunteer is simultaneously acting as a docent (an allowable but dubious practice), and they are able to successfully engage with the visitor to have them return the shell to the beach? Is this still consumptive use? Is the corrected behavior still counted as a potential violation? Details matter when public opinion is being leveraged for regulatory change.

V. STRATEGIC MISREPRESENTATION: "POACHING"

"The number of MPA violations observed and recorded during 2024 at Duxbury Reef far exceeds the number of MPA violations observed in other Marin MPAs". Of course the violations are higher. The EAC is comparing Duxbury Reef to MPAs with entirely different ecological makeup, public access, distance from urban areas, and historical uses, using unfamiliar legalistic interpretations of what constitutes a violation, which is not posted anywhere on site. It is a violation of SMCA regulations when a child takes a shell home from Duxbury Reef SMCA, but is it actually "poaching" if a child picks up a shell to look at it and then returns it to the beach? Would a CDFW officer issue a citation to the child? Whether or not this is *technically* poaching, it is absolutely NOT what most people in the public would refer to as "poaching".

*"**Current State:** Duxbury experiences high visitation and poaching of reef organisms."* - (from the EAC's Duxbury Fact Sheet.) Poaching is a very serious charge, one not to take lightly, and certainly not one to weaponize for political leverage. If poaching is observed at Duxbury Reef it should be immediately reported to CDFW for investigation. How many of the EAC's 1,606 recorded incidents of "potential violations" were children "poaching"? How many of these were reported by the EAC to the CDFW? How many cases of children poaching has CDFW investigated at Duxbury Reef? How many citations has CDFW issued for children poaching at Duxbury Reef? *(See Figure 1.)* When pressed, the EAC acknowledges that the bulk of the "potential violations" are minor infractions done by children. However, when the EAC refers to these same "potential violations" as "poaching" and "illegal take" in their public outreach, there is a rhetorical shift - the EAC removes all mention of children as well as the specifics on the type of wildlife poached or the amount involved. The EAC leaves the slate blank to be filled by the public's imagination (and unconscious bias). *(See Figure 12. for published examples of EAC referencing unsubstantiated claims of "poaching" and "illegal take".)*

The allegation of "illegal take" and "poaching" requires substantiation with specific cases and a full documentation of the record. Without precise examples and the complete record, the comparison to poaching is an unfounded manipulation of public opinion. The EAC's repeated assertions of extensive poaching at Duxbury Reef are based on school children *handling* biota during field trips at Agate Beach. Repeating this inflammatory claim creates the illusory truth effect which is the tendency to believe that false information is correct after persistent exposure to it. The repetition makes the information feel more familiar and easier to process, which is then mistaken for truth. In fact, if you ask online if Duxbury Reef has high levels of poaching, Google AI says "Yes" but only cites the EAC as the source of this information without any third party verification. How does this help protect the reef environment? One could argue that disseminating information about the area's nearly pristine state, in conjunction with false claims of persistent poaching and compromised enforcement, carries substantial potential for damage. Has the EAC considered this liability of their misleading campaign?

VI. EDUCATION is the SOLUTION

It is important to note that in 2024, 72 of the 88 potential violations recorded by Duxbury Docents were "redirected (successful engagement)" - this is great! That's nearly 82% of the potential violations were solved through docent education! This data confirms the effectiveness of educational initiatives, strengthening the argument for improved signage and more docent support as the best possible solution for compliance with SMCA regulations and tidepool best practices at Duxbury Reef.

EAC 2024 Duxbury Docent Shift Report Data:
Example details about violations from Docent Shift Reports:

- *“2 young kids w/ few species in ziploc bags, put all back into pools easily when asked and told why.* This shows that education is working!
- *“Huge number of youth groups on reef: “...tide pool charts and science teachers so thought they'd be fine without me, but wasn't that way at all - overwhelmed with amount of touching and throwing. Kids on exchange trip ... with adults, explained by me and Kent to not touch species and then turned around literally trying to kick mossy chiton - had to explain they were alive and could kill animals. Too many violations to count or report, mostly picking up things in reef and moving them around.* This shows that education takes time!
- *“Was able to persuade someone to leash dog, return biota to pools. Nice people and kids visiting reef today.* This shows that education is working!
- *“Stopped someone collecting into a glass jar; Another violation: Couple showed me at bottom of steps a video of red octopus they picked up for a bit and put back. I reported to CDFW...I let the couple know that picking up the octopus wasn't a good idea for many reasons and they understood.* This shows that education is working! *(See Figure 13. for further examples of effective docent engagement.)*

VII. CONCLUSION

When special interest groups mislead and distort the truth by selectively highlighting data that supports their claims while ignoring contradictory findings, it undermines the entire purpose of scientific inquiry which is to provide a complete and objective picture based on all available evidence. When the public or other researchers discover that evidence has been withheld or suppressed, it erodes trust in the individual petitioning group, the regulatory process, and also in the scientific field at large. Cherry-picking stifles scientific progress, perpetuates misinformation, and can serve as a tool for denialism and propaganda - a significant concern in today’s political climate where science is under attack.

Duxbury Reef is NOT in decline, and NOT in need of any designation or boundary changes. Approving *any* adjustments would constitute an unreasoned departure from established policy, setting an adverse precedent for similar petitions in the future. This change would compromise the fair and even-handed application of our democratic rules, paving the way for unequal treatment of vulnerable coastal communities. The EAC’s Duxbury petition should be rejected in its entirety so we can focus our collective energy towards real ecological problems to solve throughout the state.

The central issue at Duxbury Reef is not the regulations. The clear and comprehensive SMCA protections that were established over fifteen years ago through a rigorous collaborative process have been an enduring success, contributing to the reef’s current healthy state. While enforcement could be strengthened with more funding, the central conflict at Duxbury Reef stems from the EAC's severe interpretation of "possess," which is at odds with how the public understands the term. Can visitors pick up biota for temporary observation or not? Can visitors touch biota or not? Can visitors walk on the reef or not? Implementing a single set of posted behavioral guidelines from the CDFW would reduce visitor confusion and alleviate the struggles of the Duxbury Docents who are generously volunteering their time. Education works, and it's the most logical, efficient, and cost effective solution that absolutely does NOT require the discriminatory elimination of an entire group of people and a traditional low-impact way of life.

We urge the EAC of West Marin to refocus on their core mission: **“**To protect and sustain the unique lands, waters, and biodiversity of West Marin.” They could better serve Duxbury Reef by prioritizing support for our Bolinas community's longstanding effective environmental stewardship that we have passionately maintained for multiple generations. We invite the EAC to overcome their implicit bias against school children, dog walkers, and harmless hook and line fishing, to better understand and leverage our sustainable practices. Involving marginalized communities ensures that valuable perspectives and traditional knowledge are preserved rather than lost. **Environmental justice requires that rural coastal communities have a decisive voice in the protections that affect their environment as outlined in the Fish and Game Commission's Coastal Communities and JEDI policies.**

** "Save Duxbury Access" is a grassroots group of locals who believe in preserving our beloved reef while keeping access open for finfishing (both commercial and recreational), surfer access, tidepooling, and reef educational programs for schools. Protecting access ensures that our children will nurture a connection with the place we all love, and continue our longstanding tradition of responsible stewardship. Contact us at saveduxburyaccess@gmail.com*

Figure 1. **EAC MPA Watch (2019-2025):**

Unreliable and Inconsistent Data Reporting

*Conflicting Records

Year	Total Use Count per mile	# of surveys	Total Potential Violations	Hand Collection of Biota	Dogs off leash	Fishing Potential Violations	Potential Violations Not Specified	Reports to CDFW/ Marin County	CDFW citation issued
2019	29.4	63	?	?	35-13?*	?	?	?	?
2020 Pandemic	27.5- ↑ 52.8?*	98 ↑	305	1 ↑	76 ↑	6 offshore	222	0	0
2021	49.7 ↓	69 ↓	?	64 ↑	59 ↓	0	?	5 CDFW or MC?	0
2022	23.4 ↓	138 ↑	151 ↓	16 ↓	127 ↑	0	8	2 Marin County	0
2023	22.0 ↓	129 ↓	259 ↑	160 ↑	92 ↓	0	7	2?	0
2024	26.0 ↑	61 ↓	130-68?* ↓	65-60?* ↓	60 ↓	0	5-10?	1 CDFW	0
2025 mid	34.5 ↑	47 ↓	119 ↓	54 ↓	40 ↓	0	25	0	0
Total average	30.3-33.9	86.4	192.8 - 180.4	60 - 59.2	69.8 - 66.7	1	53.4 - 54.4	1.6	0

↑ Numbers going up ↓ Numbers going down

Note: The elevated reporting of Potential Violations and Hand Collected Biota at Duxbury Reef could be influenced by the Environmental Action Committee's (EAC) legalistic definition of the term "possess" within the State Marine Conservation Area regulations. Their definition includes the *temporary handling* of biota, which may contribute to a higher incidence count than a broader reading would produce. The EAC's interpretation conflicts with the MPA Watch Manual, has not been verified by the FGC or CDFW, and is not posted on site at the Agate Beach trailhead.

Figure 2. **EAC MPA Watch (2019-2025):**

Unreliable and Inconsistent Data Reporting

2019

Total Use Count per mile	# of surveys	Total Potential Violations	Hand Collection of Biota	Dogs off leash	Fishing Potential Violations	Potential Violations Not Specified	Reports to CDFW/ Marin County	CDFW citation issued
29.4	63	?	0?	35-13?*	?	?	?	?

*Conflicting Data

2020
Pandemic

Total Use Count per mile	# of surveys	Total Potential Violations	Hand Collection of Biota	Dogs off leash	Fishing Potential Violations	Potential Violations Not Specified	Reports to CDFW/ Marin County	CDFW citation issued
27.5-52.8?*	98	305	1	76	6 offshore	222	0	0

*Conflicting Data

2021

Total Use Count per mile	# of surveys	Total Potential Violations	Hand Collection of Biota	Dogs off leash	Fishing Potential Violations	Potential Violations Not Specified	Reports to CDFW/ Marin County	CDFW citation issued
49.7	69	?	64	59	0	?	5 CDFW and/or Marin County?	0

2022

Total Use Count per mile	# of surveys	Total Potential Violations	Hand Collection of Biota	Dogs off leash	Fishing Potential Violations	Potential Violations Not Specified	Reports to CDFW/ Marin County	CDFW citation issued
23.4	138	151	16	127	0	8	2 Marin County	0

2023

Total Use Count per mile	# of surveys	Total Potential Violations	Hand Collection of Biota	Dogs off leash	Fishing Potential Violations	Potential Violations Not Specified	Reports to CDFW/ Marin County	CDFW citation issued
22.0	129	259	160	92	0	7	2?	0

[2024]()

Total Use Count per mile	# of surveys	Total Potential Violations	Hand Collection of Biota	Dogs off leash	Fishing Potential Violations	Potential Violations Not Specified	Reports to CDFW/ Marin County	CDFW citation issued
26.0	61	130-68?*	65-60?*	60	0	5-10?	1 CDFW	0

*Conflicting Data

[2025 mid]()

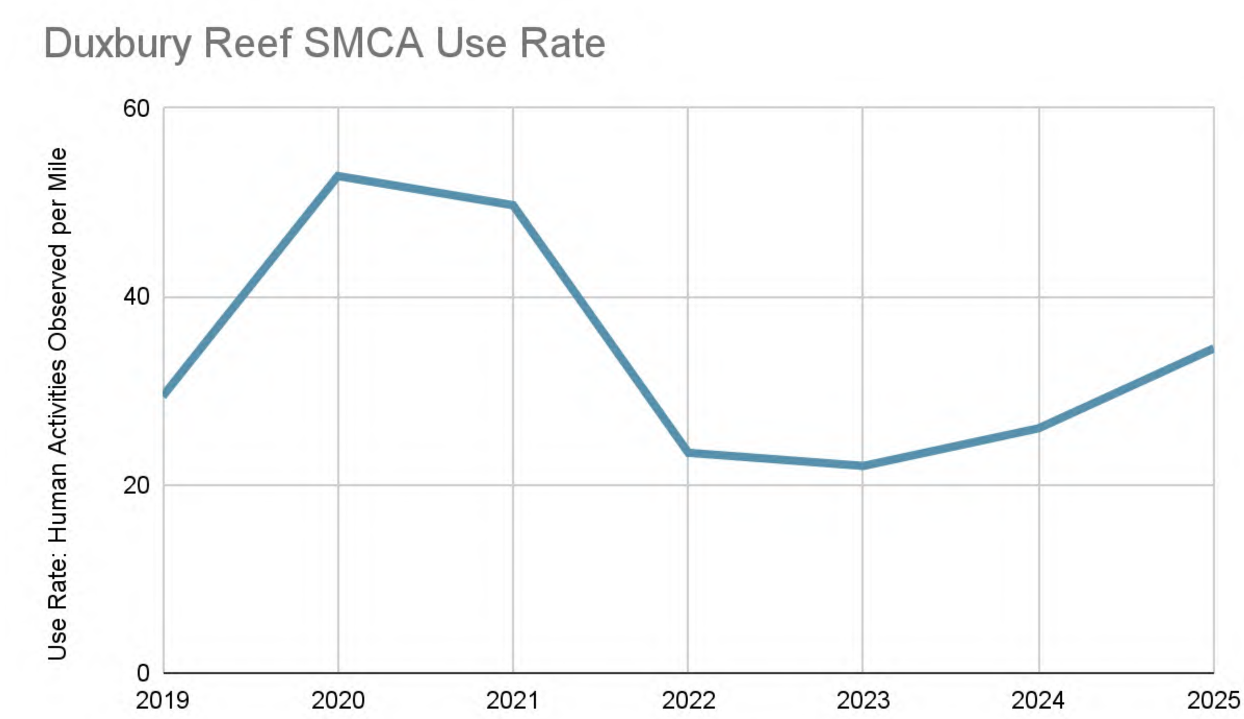
Total Use Count per mile	# of surveys	Total Potential Violations	Hand Collection of Biota	Dogs off leash	Fishing Potential Violations	Potential Violations Not Specified	Reports to CDFW/ Marin County	CDFW citation issued
34.5	47	119	54	40	0	25	0	0

Note: The elevated reporting of Potential Violations and Hand Collected Biota at Duxbury Reef could be influenced by the Environmental Action Committee's (EAC) legalistic definition of the term "possess" within the State Marine Conservation Area regulations. Their definition includes the *temporary handling* of biota, which may contribute to a higher incidence count than a broader reading would produce. The EAC’s interpretation conflicts with the MPA Watch Manual, has not been verified by the FGC or CDFW, and is not posted on site at the Agate Beach trailhead.

Figure 3. **EAC MPA Watch Data Reporting:**

The Illusion of Increased Visitation

Here is the use rate of Agate Beach in the Duxbury Reef SMCA leveling off post Pandemic.



*Pandemic in 2020
https://mpawatch.org/reports/

EAC MPA Full Petition (2023-32)
"Increased visitation and violations: Marin MPA Watch data shows significantly greater visitation and potential violations relative to other monitored MPA sites in Marin County, including take and potential poaching incidents."

"This is especially critical in consideration of the combined impacts of dramatically increased visitation,ocean acidification, and sea level rise which will increasingly impact the biodiversity of the reef."

"Request a science-based analysis to review a northern extension of the Duxbury Reef SMCA to Double Point Special Closure based on increased visitation by the public to the Area of Special Biological Significance." **FALSE.**

“At Duxbury Reef SMCA, our experience on the ground is that the permitted allowance of recreational finfish and abalone from shore is confusing to the public, and with increased visitation since 2017 this tends to lead to non-compliance that may be hindering the goals of the MLPA at this site.”

“Since 2014, the MPA Watch program has collected human-use data including potential violation data that is not reflected in the public enforcement violation data. Specifically, the MPA Watch and Duxbury Docent programs have collected data on increased visitation prior to the noted influx of visitation due to the pandemic in 2020:”

July 16-17, 2025 Marine Resources Committee Staff Summary
“Duxbury Reef sustains a high rate of activity and visitation in general, accounting for 51% of all activities in Marin County MPA Watch locations in the first half of 2024, vastly greater than all other survey locations combined.”

“EAC’s Duxbury Docent program establishment in 2022 was informed by MPA Watch data which showed increased visitation and non-compliance at Duxbury Reef in recent years prior to 2022.”

“This is the period of the year that gets high visitation because of the daytime timing of low tides and school field trip season (there are only a handful of daytime low tides during the later summer and fall months that enable access to the reef.”

Point Reyes Light August 6, 2025
“Visitation at Duxbury Reef in Bolinas has exploded in recent years, bringing with it disruptions to delicate intertidal life.”

EAC’s Duxbury Reef Petition Fact Sheet
“Duxbury experiences high visitation and poaching of reef organisms.”

“Unfortunately, many have noticed that the abundance and diversity of species have decreased in recent years, while visitation and poaching have increased”

EAC Website
“Additionally, Duxbury Reef experiences high visitation levels and poaching of reef organisms.”

Figure 4. **EAC MPA Watch Data Reporting:**
The Illusion of Increased Visitation

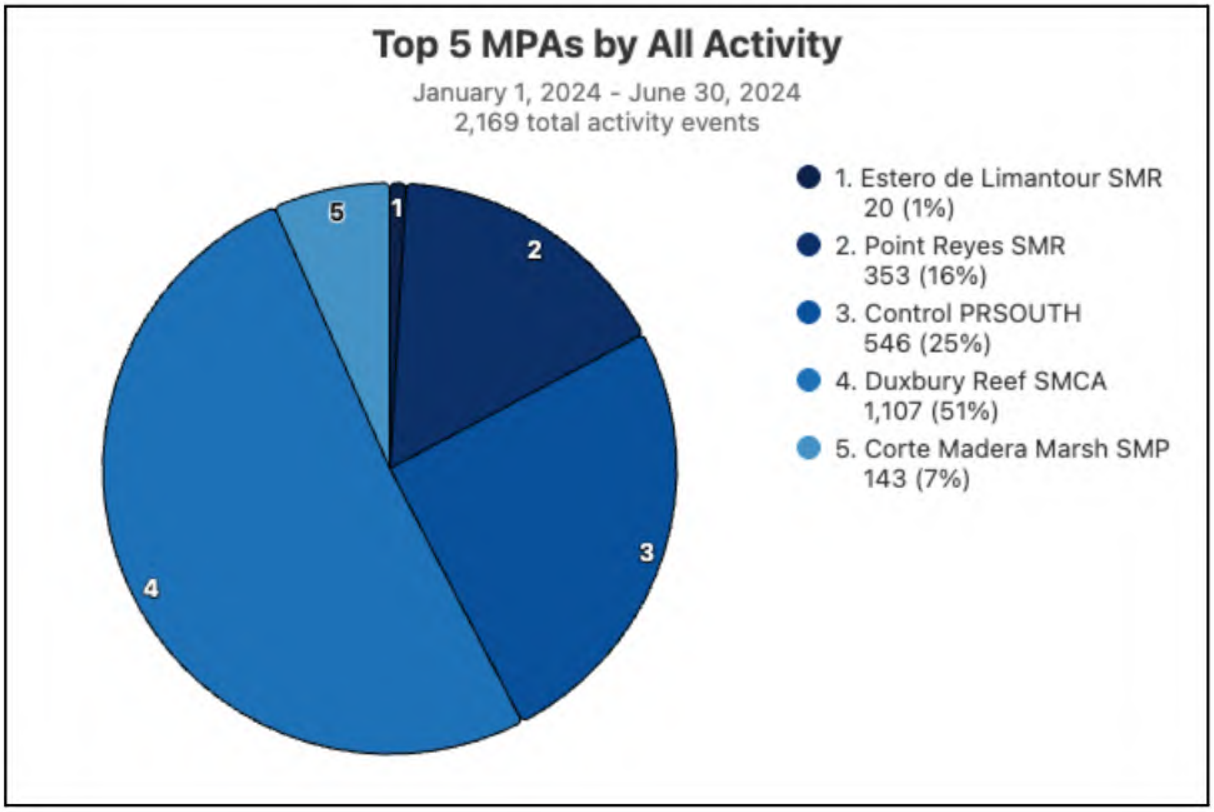


Figure 5. **EAC MPA Watch Data Reporting:**
Hypotheticals Deviate from MPA Watch Methodology

Marin-County-MPA-Watch-2020-Annual-Report
"Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species."

"Duxbury Reef SMR has the highest use count per activity mile surveyed (66%) in one of the smallest survey areas. Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species."

2021-Midyear-MPA-Watch-Report-Marin
"Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species."

“Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species.”

EAC Marin MPA Watch Year-end 2021 Report
“Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species.”

Marin-JAN-JUN-MPA-Watch-Report-2022
“Note: Duxbury Reef SMR has a high activity count (65%) in one of the smallest survey areas, much smaller than Control PRSouth, which has (15%). Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species.”

“Duxbury Reef SMCA continues to have a high use compared to other MPAs surveyed by Marin MPA Watch, accounting for 65% of all Marin MPA Watch activities in one of the smallest survey areas. Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species.”

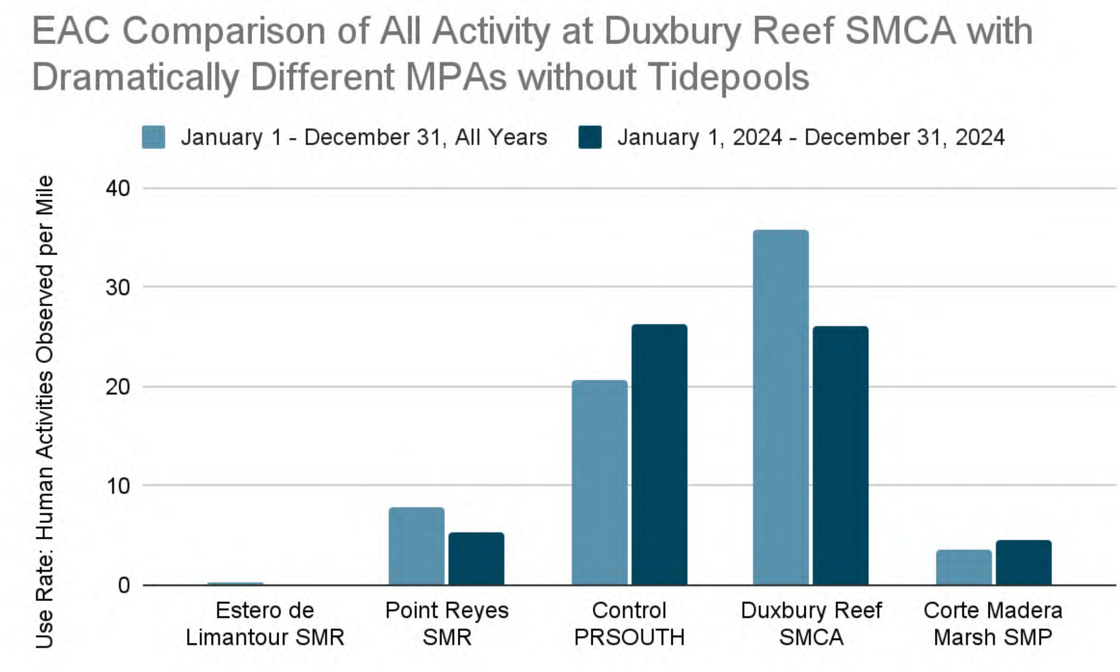
EAC Marin MPA Watch year-end 2022 Report
“Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts to habitat and species.”

EAC MPA Watch Annual Report 2023
“Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) have long-term negative impacts to habitat and species. “

Marin County Mid Year MPA Watch Report 2024
“Duxbury Reef SMCA continues to have a high use compared to other MPAs surveyed by Marin MPA Watch, accounting for 60% of all activities (throughout all years) in Marin MPA Watch locations in one of the smallest survey areas. Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts on habitat and species.”

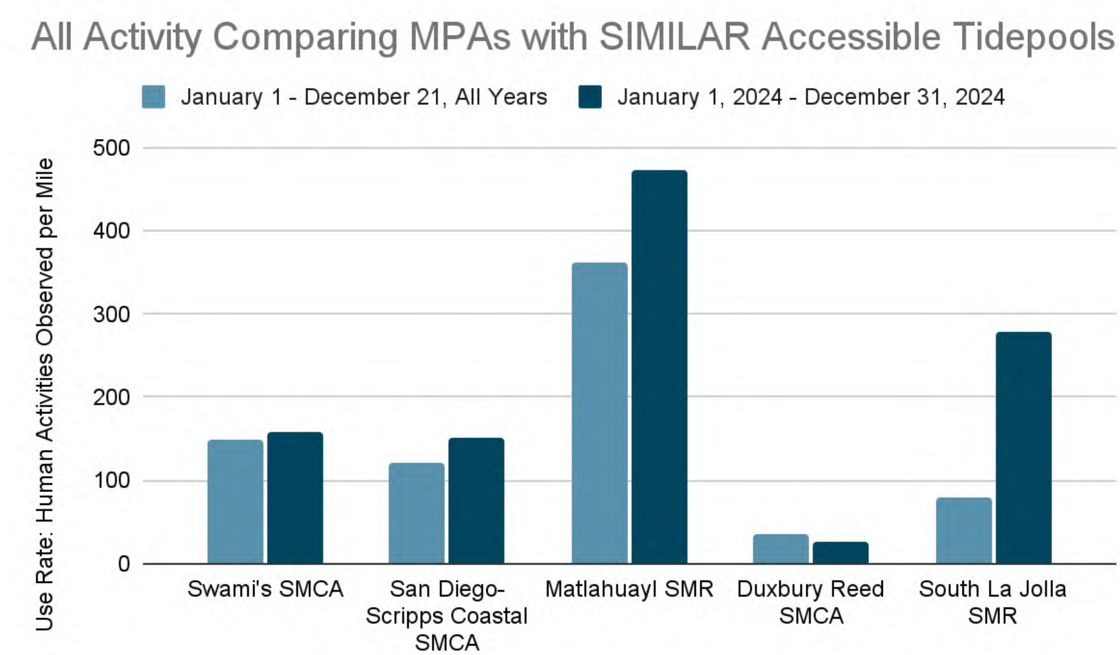
Marin County Mid Year MPA Watch Report 2024
“Duxbury Reef is a sensitive intertidal habitat where human impacts (trampling and collecting) may have long-term negative impacts on habitat and species.”

Figure 6. **EAC MPA Watch Data Reporting:**
Misleading Data Comparisons



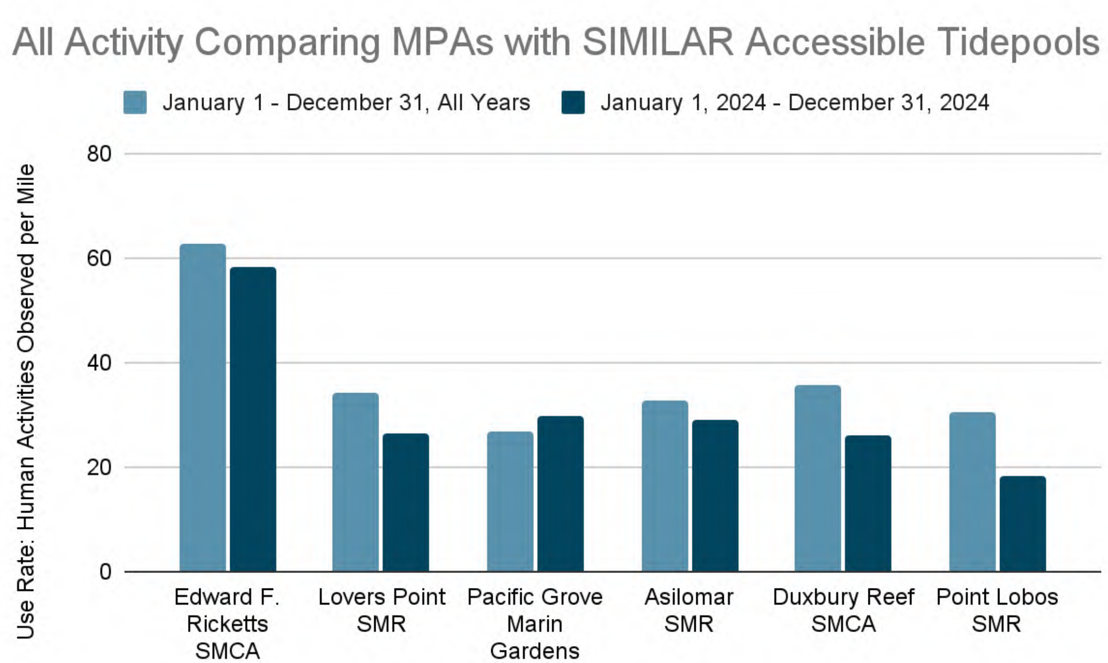
[EAC MPA Watch Year-end Report 2024]

Figure 7. **Accurate Comparisons = Different Results**



[San Diego County Year End MPA Watch Report 2024] and [EAC MPA Watch Year-end Report 2024]

Figure 8. **Accurate Comparisons = Different Results**



[Monterey County MPA Watch Report 2024] and [EAC MPA Watch Year-end Report 2024]

Figure 9. **Additional Perspectives:** **EAC MPA Watch Data Differs from other MPA Watch Data Collection**

[Greater Farallones MPA Watch Annual Report - 2023](#)

POTENTIAL VIOLATIONS

MPA	January 1 December 31 All Years	January 1, 2023 through December 31, 2023
Del Mar Landing SMR	183	14
Stewarts Point SMR	71	0
Russian River SMCA	154	15
Russian River SMRMA	32	1
Bodega Head SMR	1,303	363
Estero de Limantour SMR	97	13
Point Reyes SMR	28	0
Montara SMR	379	0
Año Nuevo SMCA	149	13
Natural Bridges SMR	1	1
All MPAs Combined	2,397	420

Note: Greater Farallones MPA Watch recorded 97 potential violations for All Years at Estero de Limantour while the EAC MPA Watch collected only 5 potential violations. Greater Farallones collected a higher average of potential violations at SMR areas than at SMCA areas.

[July 16-17, 2025 Marine Resources Committee Staff Summary](#)

MPA	January 1 December 31 All Years	January 1, 2024 through December 31, 2024
Estero de Limantour SMR	5	0
Point Reyes SMR	51	10
Control PRSOUTH	0	0
Duxbury Reef SMCA	1,606	132
Corte Madera Marsh SMP	29	0
All MPAs Combined	1,691	142

Note: The elevated reporting of Potential Violations at Duxbury Reef could be influenced by the Environmental Action Committee's (EAC) legalistic definition of the term "possess" within the SMCA regulations. Their definition includes the *temporary handling* of biota, which may contribute to a higher incidence count than a broader reading would produce. The EAC's interpretation conflicts with the MPA Watch Manual, has not been verified by the FGC or CDFW, and is not posted on site at the Agate Beach trailhead.

[Pacific Grove Museum MPA Watch Annual Report - 2023]

POTENTIAL VIOLATIONS

- The data from this year, taken at its face value, indicates that MPA violations (hand-collection of biota) have increased in 2023 – 25 violations this year compared to 86 of all years combined. 14 of these violations were observed at Lovers Point SMR, the PG Museum's most popularly surveyed site.
- However, I believe this is not due to a spike in violations, but reflects heightened volunteer awareness. Both the general public and new volunteers are amazed that even collection of rocks or driftwood is prohibited in a Monterey County SMR.
- I believe that future reports of potential violations will match 2023, rather than past years. We'll see if my hypothesis is correct!

Pacific Grove Museum MPA Watch notes that data collection can vary due "volunteer awareness"

[Marine Protected Area (MPA) Watch Regional Report Monterey County January 1, 2024 – December 31, 2024]

Pacific Grove Marine Gardens SMCA

Breakdown: Pacific Grove Marine Gardens is mostly rocky shore and is a popular place for tidepooling. Hook-and-line fishing is permitted here and is regularly observed, but not with the same frequency at the Del Monte control site. Rocky shore recreation, sandy shore recreation, and tidepooling are the most frequent activities at this site.

Potential violations: No violations have been reported at this site, both in 2024 and since the integration of this site into the MPA Watch program. Because this site is mostly rocky shore, there is less potential for hand collection of biota here than at other sites.

Note: No violations were reported at Pacific Grove Marine Gardens SMCA where hook and line fishing is allowed.

Figure 10. **EAC MPA Watch Data Reporting:**
Framing Fishermen as the Problem

In 2022, the EAC MPA Watch began to group shorefishing under the heading of “Potential Violations” in their MPA Watch data reporting:

Marin-JAN-JUN-MPA-Watch-Report-2022

> **7. Potential Violations**
>
> The rate of consumptive activities observed in all MPAs remains relatively low. Consumptive activities in January-June of 2022 comprised slightly over 1% (36 observations) of all activities (2,359) in all MPAs. Last year during this same time period, the rate of consumptive activities was also 1%. All previous years of the same period (Jan-June) were slightly over 3% on average. The vast majority of consumptive observations come from Duxbury Reef (hook and line fishing and hand collection of biota on-shore).

EAC Marin MPA Watch year-end 2022 Report

> **7. POTENTIAL VIOLATIONS**
>
> The rate of consumptive activities observed in all Marin MPA Watch sites remains relatively low (84 observations, less than 2% of total). In 2021, the rate of consumptive activities was 6%; in 2020 it was 7%; 2019 it was 2%; and 2018 it was 4%. The vast majority of consumptive observations come from Duxbury Reef (on-shore hook and line fishing, and especially, hand collection of biota).

EAC MPA Watch Annual Report 2023

> **POTENTIAL VIOLATIONS**
>
> The rate of consumptive activities observed in all Marin MPA Watch sites remains relatively low (221 observations, less than 4% of total). In 2022, the rate was 2% of all activities; 2021, the rate of consumptive activities was 6%; in 2020 it was 7%; 2019 it was 2%; and 2018 it was 4%. The vast majority of consumptive activities come from Duxbury Reef (on-shore hook and line fishing, and especially, hand collection of biota).

[Marin County Mid Year MPA Watch Report 2024](#)

POTENTIAL VIOLATIONS

The rate of consumptive activities observed in all Marin MPA Watch sites was relatively high in the first half of 2024 (96 observations, 6% of the total). In January-June 2023, the rate of consumptive activities was 2%, or 64 observations. In both 2022 and 2021, the rate was 1%, and in all previous years of the same period (Jan-June) consumptive activities were slightly over 3% on average. Almost all consumptive observations come from Duxbury Reef, mostly consisting of on-shore hook and line fishing (32 observed instances), and hand collection of biota (38 instances).

[EAC MPA Watch Year-end Report 2024](#)

POTENTIAL VIOLATIONS

The rate of consumptive activities observed in all Marin MPA Watch sites remains relatively low at 185 observations (3.7% of 4,959 total activities). In 2023, the rate was under 4% of total; in 2022 – 2%; in 2021 and 2020 - 6% & 7%; and in 2019 and prior it was 2-4%.

The vast majority of consumptive activities come from Duxbury Reef including on-shore hook and line fishing, and especially, hand collection of biota which would be a violation of SMCA

Figure 11.

[EAC MPA Watch Year-end Report 2024](#) - page 3

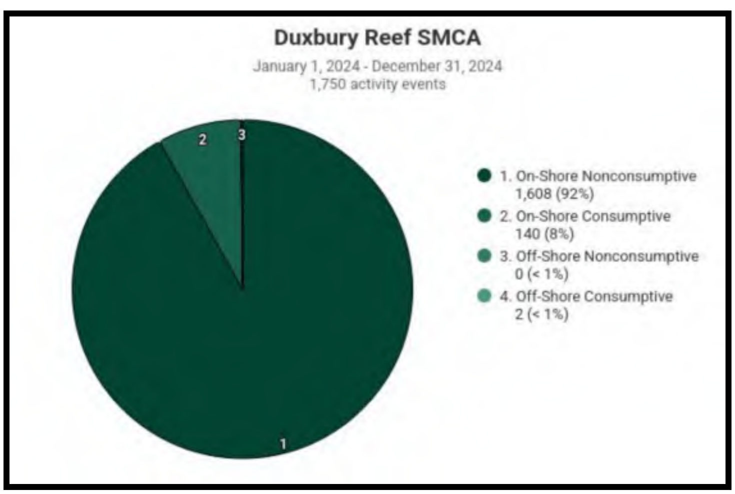


Figure 12. **EAC MPA Watch Data Reporting:** Strategic Misrepresentation of Poaching

EAC MPA Full Petition (2023-32)
"The rate of visitation and potential poaching increased significantly since 2017."

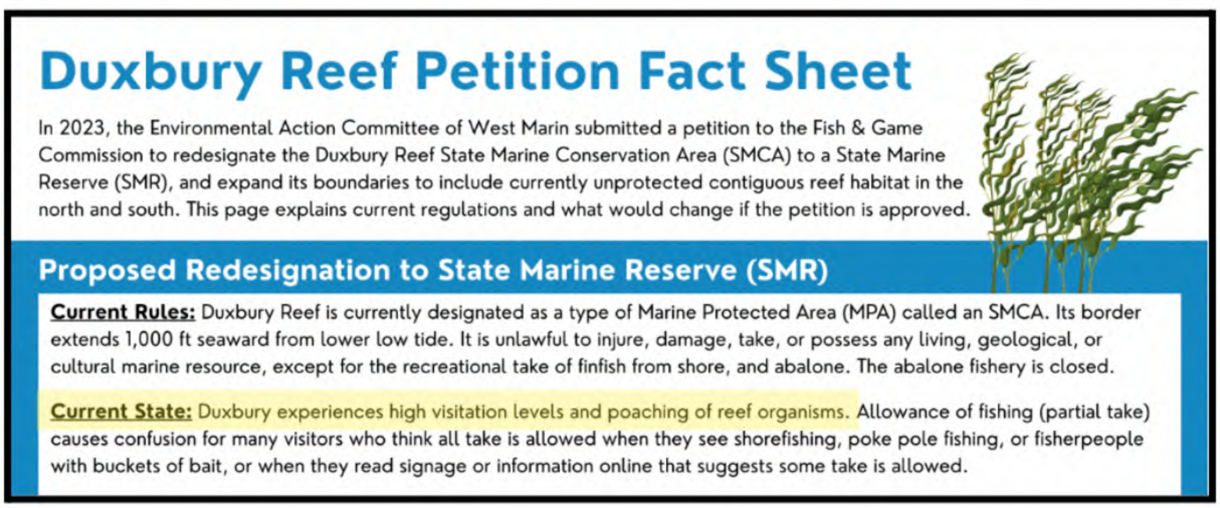
"Visitation declined somewhat after the COVID pandemic emergency but remains elevated and potential poaching incidents remain high."

"Duxbury Reef deserves the additional attention of the Commission and increased protection against ongoing take and poaching activity."

Point Reyes Light August 6, 2025
"Duxbury Reef deserves the additional attention of the Commission and increased protection against ongoing take and poaching activity."

Marin IJ September 13, 2025
"Duxbury Reef deserves the additional attention of the Commission and increased protection against ongoing take and poaching activity."

EAC's Duxbury Reef Petition Fact Sheet
*"**Current State:** Duxbury experiences high visitation and poaching of reef organisms."*



Duxbury Reef Petition Fact Sheet

In 2023, the Environmental Action Committee of West Marin submitted a petition to the Fish & Game Commission to redesignate the Duxbury Reef State Marine Conservation Area (SMCA) to a State Marine Reserve (SMR), and expand its boundaries to include currently unprotected contiguous reef habitat in the north and south. This page explains current regulations and what would change if the petition is approved.

Proposed Redesignation to State Marine Reserve (SMR)

Current Rules: Duxbury Reef is currently designated as a type of Marine Protected Area (MPA) called an SMCA. Its border extends 1,000 ft seaward from lower low tide. It is unlawful to injure, damage, take, or possess any living, geological, or cultural marine resource, except for the recreational take of finfish from shore, and abalone. The abalone fishery is closed.

Current State: Duxbury experiences high visitation levels and poaching of reef organisms. Allowance of fishing (partial take) causes confusion for many visitors who think all take is allowed when they see shorefishing, poke pole fishing, or fisherpeople with buckets of bait, or when they read signage or information online that suggests some take is allowed.

"Unfortunately, many have noticed that the abundance and diversity of species have decreased in recent years, while visitation and poaching have increased"

EAC Website
"Additionally, Duxbury Reef experiences high visitation levels and poaching of reef organisms."

Marin IJ October 4, 2024

“Reported incidents of poaching are directly translatable to overfishing or a depletion of species. Is the reef’s ecology and population imperiled”

EAC Marin MPA Watch 2019 Report

“According to volunteers, recurring issues with the illegal take and disturbance of tide pool organisms in Duxbury Reef State Marine Conservation Area is an ongoing problem during low tides.”

“Even if the noncompliance rate is low, it is important to note that any illegal take from MPAs jeopardizes the success of the MPA and health of the ecosystems which they protect.”

EAC Marin MPA Watch 2020 Report

“According to volunteers, recurring issues with the illegal take and disturbance of tide pool organisms in Duxbury Reef State Marine Conservation Area is an ongoing problem during low tides. Even if the noncompliance rate is low, it is important to note that any illegal take from MPAs jeopardizes the success of the MPA and health of the ecosystems which they protect.”

Marin-County-MPA-Watch-2020-Annual-Report

“Recurring issues with the illegal take and disturbance of tidepool organisms in Duxbury Reef SMCA is an ongoing problem during low tides and was exacerbated in the summer months due to outdoor recreational increases as a consequence of stay-athome orders due to the pandemic. Marin MPA Watch worked in the summer months to alert Marin County Parks, Point Reyes National Seashore, California Department of Fish and Wildlife, and the California Fish and Game Commission about poaching activities and for patrol increases.

2021-Midyear-MPA-Watch-Report-Marin

“Recurring issues with the illegal take and disturbance of tidepool organisms in Duxbury Reef SMCA is an ongoing problem during low tides, with elevated rates as a consequence of previous stay-at-home orders due to the pandemic and social media posts encouraging foraging without providing adequate information about MPA species protections. Marin MPA Watch is working Marin County Parks, Point Reyes National Seashore, California Department of Fish and Wildlife, and the California Fish and Game Commission to inform these agencies about poaching activities and the need for increased patrol.”

EAC Marin MPA Watch Year-end 2021 Report

“Recurring issues with the illegal take and disturbance of tidepool organisms in Duxbury Reef SMCA is an ongoing problem during low tides. However, this year has shown a lower rate of hand collection, perhaps as a consequence of people returning to work during the course of the year, and growing outreach to educate the community through social media posts and other online platforms and direct engagement (tabling, informal docenting). Marin MPA Watch is working Marin County Parks and Open Space, Point Reyes National Seashore, California Department of Fish and Wildlife, and the California Fish and Game Commission to inform these agencies about poaching activities and the need for increased patrol.”

Marin-JAN-JUN-MPA-Watch-Report-2022

“Recurring issues with the illegal take and disturbance of tidepool organisms in Duxbury Reef SMCA is an ongoing problem during low tides.”
“We continue to communicate with Marin County Parks and Open Space, Point Reyes National Seashore, California Department of Fish and Wildlife, and the California Fish and Game Commission to inform these agencies about poaching activities and the need for increased enforcement presence.”

EAC Marin MPA Watch year-end 2022 Report
“Recurring issues with the illegal take and disturbance of tidepool organisms in Duxbury Reef SMCA is an ongoing problem during low tides.”

“The reduced number of biota hand collection observed this year may be in part a result of the outreach and docent program work, but whether it is a trend will be determined over the coming years. We continue to communicate with Marin County Parks and Open Space, Point Reyes National Seashore, California Department of Fish and Wildlife, and the California Fish and Game Commission to inform these agencies about poaching activities and the need for increased enforcement presence.”

EAC MPA Watch Annual Report 2023
“Recurring issues with the illegal take and disturbance of tidepool organisms in Duxbury Reef SMCA is an ongoing problem during low tides; in 2023 there were 160 observations of hand collection. Evidence suggests consumptive activity rates are higher than reflected in the MPA Watch data (a snapshot estimate).”

“We continue to communicate with Marin County Parks and Open Space, Point Reyes National Seashore, California Department of Fish and Wildlife, and the California Fish and Game Commission to inform these agencies about poaching activities and the need for increased enforcement presence.”

EAC MPA Watch Year-end Report 2024
“Recurring issues with the illegal take and disturbance of tidepool organisms in Duxbury Reef SMCA is an ongoing problem during low tides.”

“We continue to communicate with Marin County Parks and Open Space, Point Reyes National Seashore, California Department of Fish and Wildlife, and the California Fish and Game Commission to inform these agencies about poaching activities and the need for increased protection and enforcement presence.”

Figure 13. **EAC MPA Watch Data Reporting:**
Education is the Solution

EAC 2024 Duxbury Docent Shift Report Data: page 41-42

# Cars	Number Visitors Engaged	Violations reported to CDFW, MC Parks	Total Violations Observed (includes MPA Watch data, dogs offleash, boat fishing w/in 1,000ft	Hand collection or handling of biota	Violations redirected (successful engagement)
	971	2	88	53	72

Here is a revised incidence count to demonstrate how the the 82% success rate of Duxbury Docent successful interactions would work:

EAC 2024 Duxbury Docent Shift Potential Violation Report Data:
w/ Adjustment for 82% Duxbury Docents Violations Redirected Rate

MPA	January 1 - December 31, All Years	Duxbury Docents Violations Redirected (Successful Engagement) 82% Rate	January 1, 2024 - December 31, 2024	Duxbury Docents Violations Redirected
Estero de Limantour SMR	5	5	0	0
Point Reyes SMR	51	51	10	10
Control PRSOUTH	0	0	0	0
Duxbury Reef SMCA	1,606*	289*	132*	24*
Corte Madera Marsh SMP	29	29	0	0
All MPAs Combined	1,691	374	142	34

*The elevated reporting of Potential Violations could be influenced by the Environmental Action Committee's (EAC) legalistic definition of the term "possess" within the State Marine Conservation Area regulations. Their definition includes the *temporary handling* of biota, which may contribute to a higher incidence count than a broader reading would produce. The EAC's interpretation conflicts with the MPA Watch Manual, has not been verified by the FGC or CDFW, and is not posted on site at the Agate Beach trailhead. A revised count may decrease the numbers adjusted for the 82% Duxbury Docent Violations Redirected rate.

Examples of successful docent engagement is apparent throughout the EAC MPA Watch reporting as follows:

EAC 2024 Duxbury Docent Shift Report Data

"Example details about violations from Docent Shift Reports:

- *"2 young kids w/ few species in ziploc bags, put all back into pools easily when asked and told why.*
- *"Huge number of youth groups on reef: "...tide pool charts and science teachers so thought they'd be fine without me, but wasn't that way at all - overwhelmed with amount of touching and throwing. Kids on exchange trip ... with adults, explained by me and Kent to not touch species and then turned around literally trying to kick mossy chiton - had to explain they were alive and could kill animals. Too many violations to count or report, mostly picking up things in reef and moving them around.*
- *"Was able to persuade someone to leash dog, return biota to pools. Nice people and kids visiting reef today.*
- *"Stopped someone collecting into a glass jar; Another violation: Couple showed me at bottom of steps a video of red octopus they picked up for a bit and put back. I reported to CDFW...I let the couple know that picking up the octopus wasn't a good idea for many reasons and they understood."*

Marin-County-MPA-Watch-2020-Annual-Report

"Volunteers noted that they interacted with individuals who were collecting and observed that most collecting was not for consumption and most replaced species after removing."

2021-Midyear-MPA-Watch-Report-Marin

"Volunteers noted that they interacted with individuals who were collecting and observed that most collecting was not for consumption and most replaced species after removing. One incident of collecting for consumption was observed. After volunteer interaction, the visitors returned them as best as they could but had damaged urchin sheltering holes, and a violation was reported."

EAC Marin MPA Watch Year-end 2021 Report

"Generally, volunteers noted that when they interacted with individuals who were collecting biota, they observed that most collecting was not for consumption and most people replaced the organisms."

Marin-JAN-JUN-MPA-Watch-Report-2022

"Their engagement with those visitors for the most part is successful, in that with knowledge of the regulations and sensitivity of marine life, visitors cease collecting and return the marine life to the tidepool."

"With growing outreach to educate the community through social media posts and other online platforms and direct engagement including tabling at the trailhead, we hope that more people become informed about and practice tidepool stewardship practices."

EAC Marin MPA Watch year-end 2022 Report

“**Volunteer docents note that when they engaged with individuals who were collecting biota, they observed that most collecting was not for consumption and most people appreciated learning about the impact and replaced the organisms.”**

“Our docents on the reef report numerous consumptive activities (though mostly not for harvest) at other times outside of MPA Watch surveys. Their engagement with those visitors for the most part is successful; with knowledge of the regulations and sensitivity of marine life, visitors cease collecting and return the marine life to the tidepool.”

“The reduced number of biota hand collection observed this year may be in part a result of the outreach and docent program work, but whether it is a trend will be determined over the coming years.”

EAC MPA Watch Annual Report 2023

“Volunteer docents note that when they engaged with individuals who were collecting biota, they observed that most collecting was for observation and not for consumption, and most people appreciated learning about the impact and replacing the organisms.”

“The numerous consumptive activities reported are mostly of collection for observation yet that has a significant detrimental impact on biota, even if the visitor returns the organisms to the reef. Docents’ engagement with visitors who collect or pick up organisms for the most part is successful; with knowledge of the regulations and sensitivity of marine life, visitors cease handling and return the marine life to the tidepool.”

“The ongoing high incidence of hand collection at Duxbure Reef indicates the need for additional educational approaches, including improved signage.”

Marin County Mid Year MPA Watch Report 2024

“Volunteer docents have noted that when engaging with individuals who are collecting biota, they observed that most collection was not for consumption and that most people appreciated learning about the impacts of such collection and replaced the organisms.”

“Most observations consist of picking up organisms and collecting for observation (e.g. by curious visitors including children) and not for harvest. Their engagement with visitors exhibiting such behavior is for the most part successful; with knowledge of the MPA regulations and sensitivity of marine life, visitors tend to cease collection, and return the marine life to the tidepool.”

EAC MPA Watch Year-end Report 2024

“**Volunteer docents note that when they engaged with individuals who were collecting biota, they observed that most collecting was for observation and not for consumption, and most people appreciated learning about the impact and replaced the organisms.”**

“The numerous consumptive activities reported are mostly of collection for observation yet that has a significant detrimental impact on biota, even if the visitor returns the organisms to the reef. Docents’ engagement with visitors who collect or pick up organisms for the most part is successful; with knowledge of the regulations and sensitivity of marine life, visitors cease handling and return the marine life to the tidepool. Additionally, a number of education organizations practice and model holding and touching of organisms for observation in their educational programming on Duxbury Reef to help people learn about and connect more deeply with marine life on the reef, yet cumulative impacts on sensitive species and regulation compliance associated with this practice are considerations.”

2025 JAN to JUNE_EAC Marin MPA Watch Report
“**Volunteer docents have noted that when engaging with individuals who are collecting biota, they observed that most collection was by people who do not know of or understand MPA regulations at Duxbury Reef. Most people who engage with docents appreciate learning about the impacts of handling and collecting, and replaced the organisms.”**

“Most observations consist of picking up organisms and collecting for observation (e.g. by curious visitors including children) and not for eating. The docents’ engagement with visitors is usually successful; by learning about the MPA regulations and sensitivity of marine life, visitors tend to cease collection, and return the marine life to the tidepool.”

Search

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MARINe

Multi-Agency Rocky Intertidal Network *pacificrockyintertidal.org*

Home / Site Info / Bolinas Point / **Bolinas Point Long-Term trends**

Bolinas Point Long-Term trends

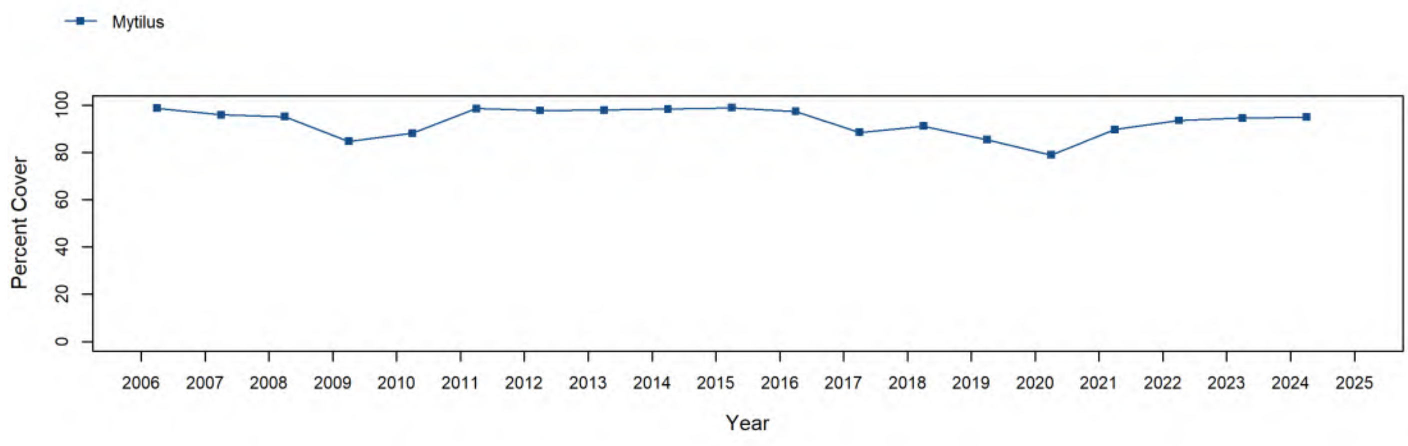
In order to standardize species resolution across all MARINe groups and over time, some species (typically rare) were lumped for graphical presentation of Long-Term monitoring data. See lumped categories for definitions (some variation occurs between methods and over time).

If you experience any barriers accessing the trend graphs below, please contact (pacificr@ucsc.edu) for help.

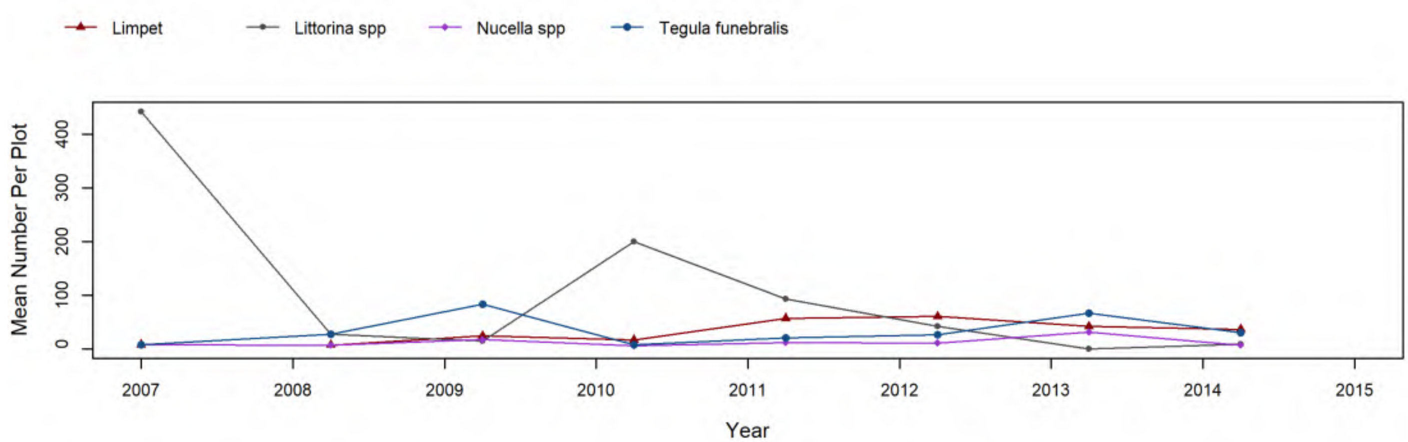
Photo Plots

Below are the trends observed for each Photo Plot target species at this site. Long-Term percent cover trend graphs also include any species that reached a minimum of 25% cover during any single point in time within a given target species assemblage. Breaks in trend lines represent missed sampling events. For additional species observed that did not meet this 25% threshold, please use the Graphing Tool.

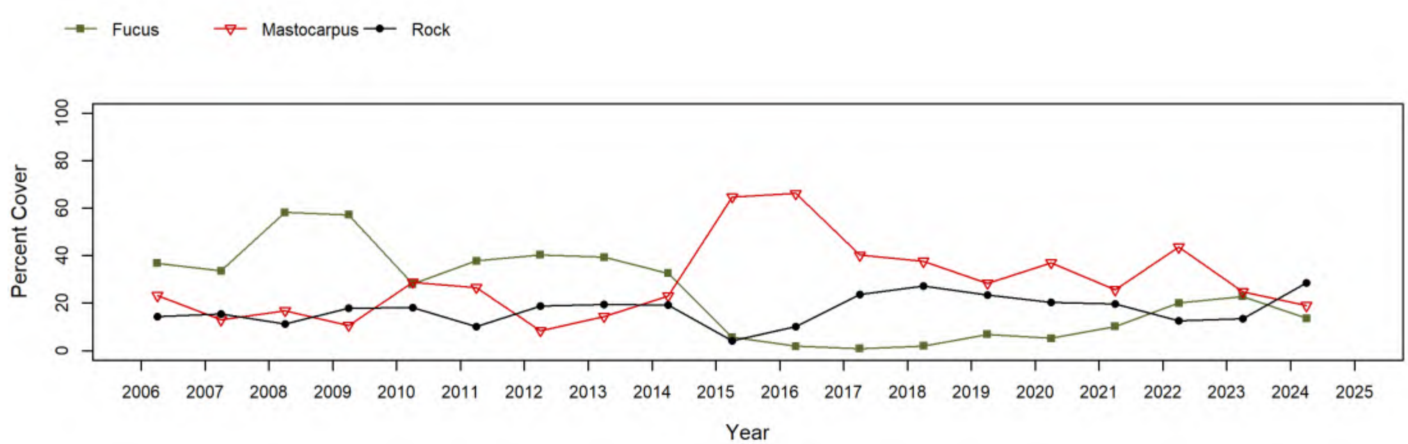
Mytilus (California Mussel) – percent cover



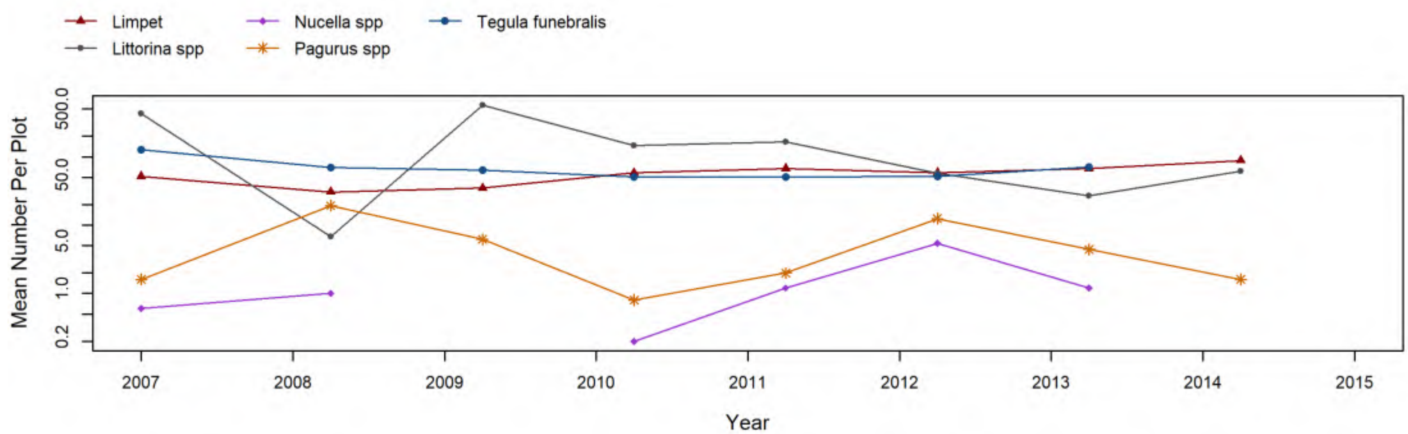
Mytilus (California Mussel) – motile invertebrate counts



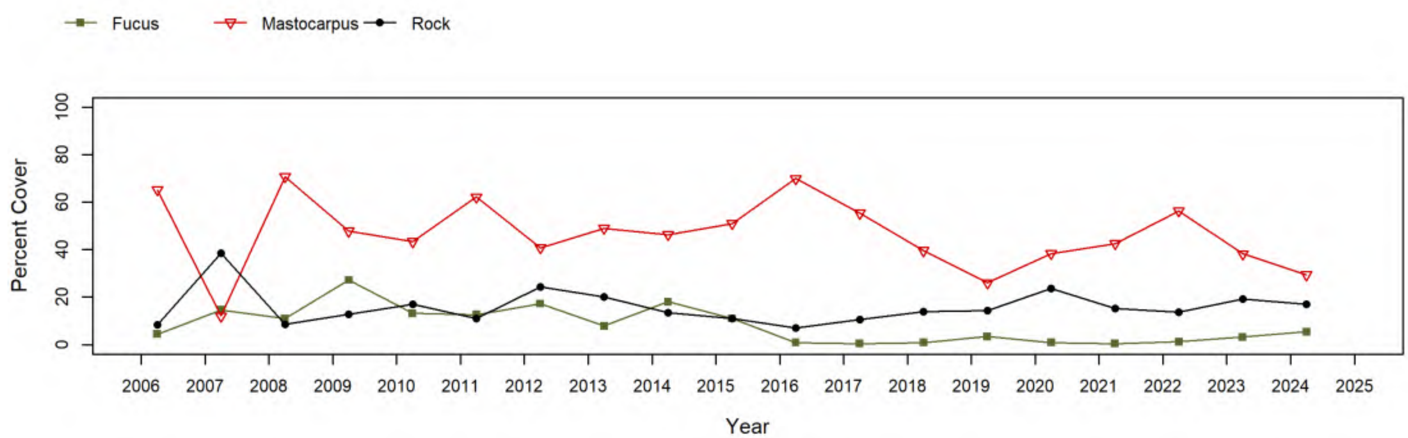
Fucus (Northern Rockweed) – percent cover



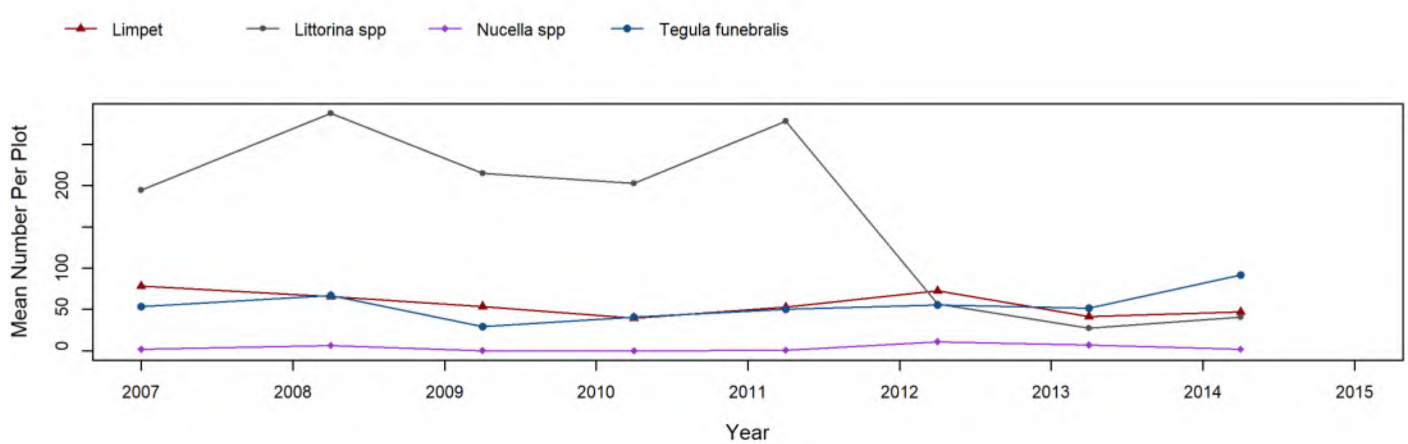
Fucus (Northern Rockweed) – motile invertebrate counts



Mastocarpus (Turkish Washcloth) – percent cover



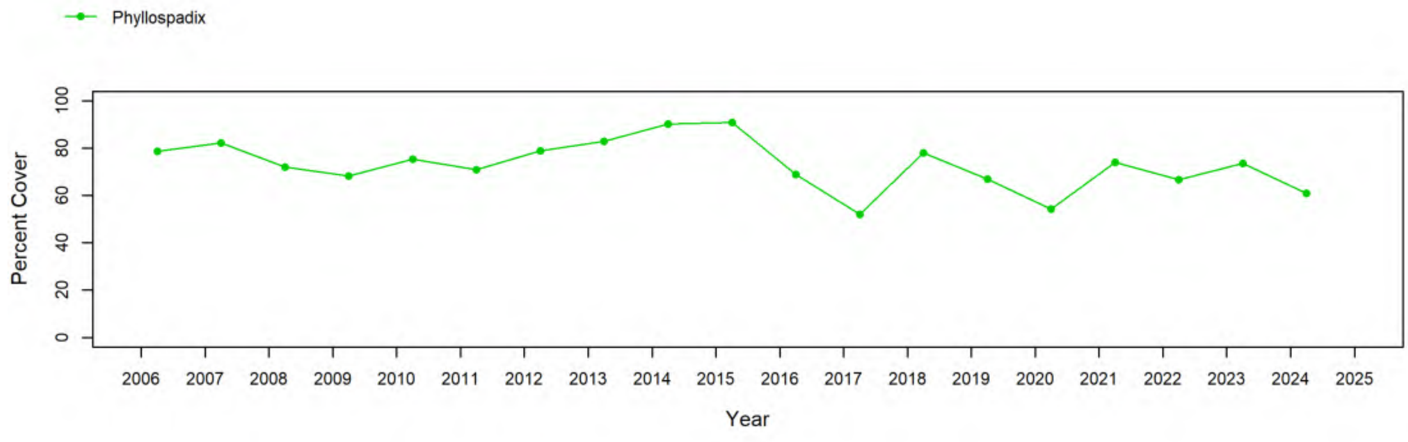
Mastocarpus (Turkish Washcloth) – motile invertebrate counts



Transects

Below are the trends observed for each Transect target species at this site. Long-Term trend graphs also include any species that reached a minimum of 25% cover during any single point in time within a given target species assemblage. Breaks in trend lines represent missed sampling events.

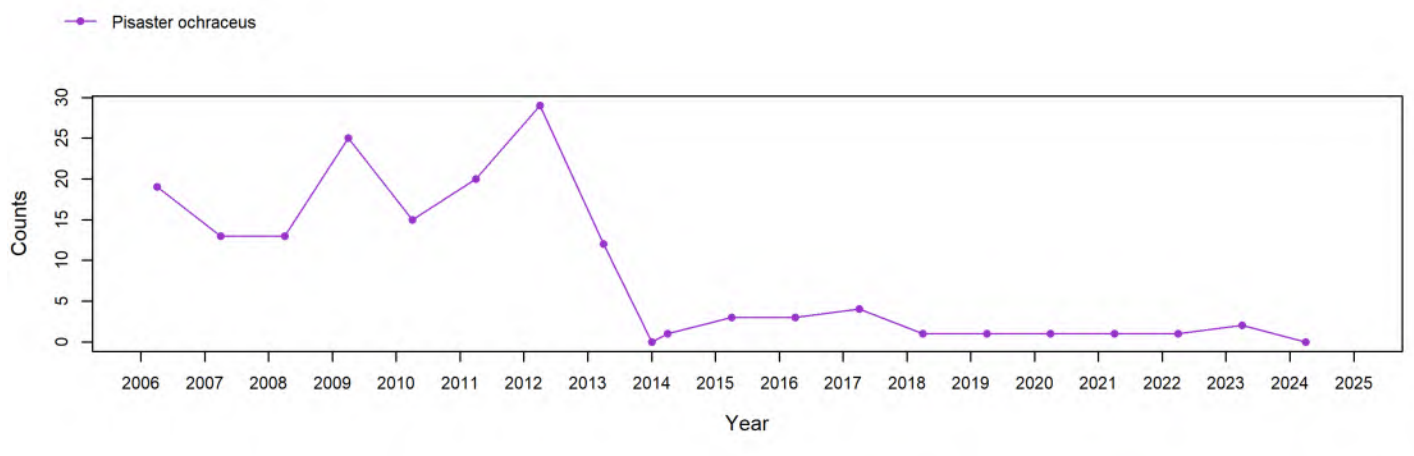
Phyllospadix (Surfgrass)



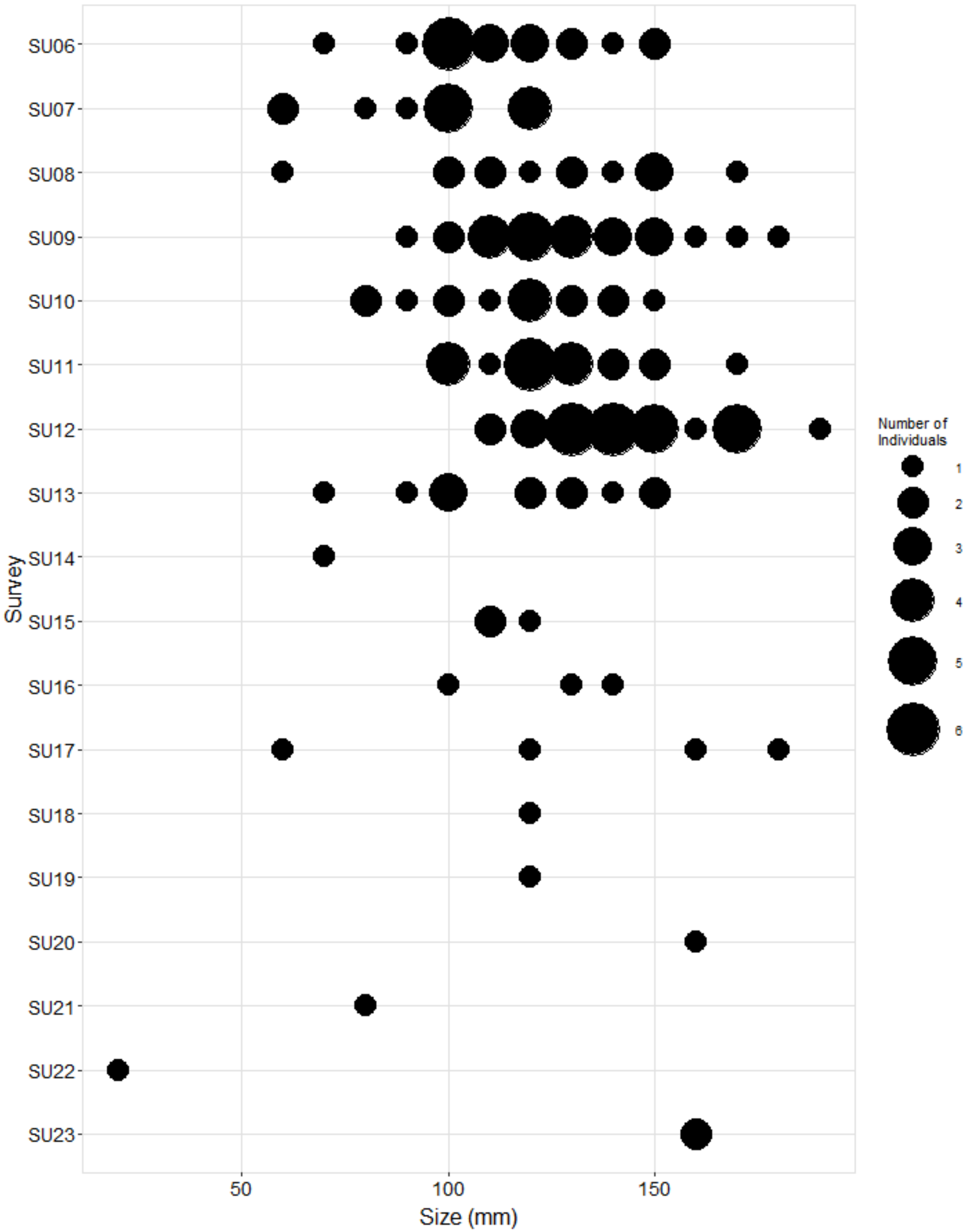
Species Counts and Sizes

Species Counts and Sizes (where recorded) for *Pisaster* are shown below for this site. At some sites, other sea star species and *Katharina* are counted in addition to *Pisaster*. The sum of all individuals across all plots is displayed. Note that data gaps are represented by breaks in long-term count trend lines, but are not shown in size plots.

Pisaster ochraceus (Ochre Star) – counts



Pisaster ochraceus (Ochre Star) – sizes


SU06
SU07
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SU15
SU16
SU17
SU18
SU19
SU20
SU21
SU22
SU23
Survey
50
100
150
Size (mm)
Number of Individuals
1
2
3
4
5
6

Multi-Agency Rocky Intertidal Network

Contact Us

Data Requests

Last modified: Jul 21, 2025

From: Cadyn Zeutenhorst <[redacted]>
Sent: Saturday, October 11, 2025 05:23 AM
To: MPAManagement@wildlife.ca.gov <MPAManagement@wildlife.ca.gov>; FGC <FGC@fgc.ca.gov>
Cc: MPA_Collaboration@wildlife.ca.gov <MPA_Collaboration@wildlife.ca.gov>
Subject: Laguna MPA - Public Comment/Concerns

To Whom it May Concern,

Attached is a PDF containing public comments and correspondence regarding the proposed Laguna Beach MPA expansion (2023-24MPA-R). I respectfully request that these comments are added to the official record.

Thank you for your time and consideration.

Respectfully,

Cadyn Zeutenhorst

Third Officer - USNS Guam

[redacted]

To: California Department of Fish and Wildlife
Re: Public Comment on Proposed Laguna Beach MPA Expansion (2023-24MPA-R)

Dear Commissioners,

My name is Cadyn Zeutenhorst, and I grew up in Dana Point. As a lifelong fisherman, free-diver, and merchant mariner, I have seen first hand that this specific stretch of coast remains productive and is one of the healthier areas that is still publicly accessible.

I have attached discussions between myself and the petitioner, Mike Beanan, where I expressed my concern and dissatisfaction with the proposed MPA expansion. I truly believe their reasoning and approach is invalid, and that this proposed change will negatively impact thousands of responsible anglers. I strongly encourage rotating MPA's, targeted management, and habitat restoration as a first step before total closure.

If there is anything I can do to be more involved, please let me know. I also know many others who are passionately against this petition, so any information is greatly appreciated. Thank you for your time, please see the correspondence below.

Respectfully,

Cadyn Zeutenhorst
Third Officer - USNS Guam

<u>From Cadyn Zeutenhorst, October 9, 2025:</u>

Hi there,

My name is Cadyn and I live in Dana Point. I would like to voice some serious concerns regarding your pending petition to expand the Laguna Beach MPA. As someone who has grown up fishing, diving, and working on boats in these areas, the idea that even more of our coastline could be closed is pretty frustrating to say the least. Don't get me wrong I am all for sustainability, but let me tell you why shutting down our coastline is unnecessary, unfair, and dismissive of the local community.

First and foremost, I seriously think you guys are approaching this in the wrong way. Continuously expanding protected areas simply puts more pressure on other regions. I read in your petition that fishing boats including Dana Wharf have plenty of other fishing grounds including Catalina and San Clemente island. Do you realize that miles of the Catalina coastline are also closed? Or that your average recreational fisherman can't just drive on out 60+ miles offshore to SCI when they want to fish? That island is always closed anyways because of Navy exercises! Closing miles and miles of coastline simply adds way more boat traffic and pressure to areas that need a break. Seriously, it's rare to show up to a spot at Catalina or even off the coast of Dana Point and not see a dozen other boats there. Why not rotate MPA's? If they work as well as you all say they do, then open Laguna after ten years and close San Clemente.

Many of the arguments in the petition were vague or just irrelevant. It was mentioned that lobster traps would *likely* interfere with whale migration along the coast. Has it happened? Were there any local, documented entanglements? I would love to see evidence. I rarely see anyone fish for lobster in deeper than 100 feet of water, so is this really a major problem? The petition mainly mentions Dana Wharf and sportfishing boats in general, and how they have plenty of areas to operate. What about the free-divers? Beach fishermen? Private boaters? 6-pack charters? Kids who want to ride bikes down to the beach and make a few casts? These people will lose access to valuable coastline which provide local caught seafood and exciting recreational activities.The majority of fishermen I know spend most of their time fishing from shore, so why is one company the primary subject? Not everyone can afford to go on those trips all the time...

Additionally, please don't say that the purpose behind this is strictly for conservation. I noticed how you conveniently had included that "estimated resident property values gain an increase of 20% from proximity to a fully protected MPA." This is completely irrelevant to public access or conservation and just is super unnecessary. People that *actually* care about sustainability shouldn't even be thinking about financial gain.

I grew up fishing and diving in many of these places that you people want to shut down. It is still very productive and an area I love to go to regularly. Closing more of our coast to responsible recreational and commercial use is deeply frustrating and unfair to the people who depend on it for both livelihood and enjoyment. I urge the commission to give more transparency and also include people who get outside and use these areas responsibly.

Myself along with many of my friends, family, and members of the fishing community will be continuing to stay updated on this petition and will also reach out to Fish and Wildlife regularly. Please take these concerns seriously.

Respectfully,

Cadyn Zeutenhorst

From Mike Beanan, October 10th, 2025:

Hi Cadyn,

Thank you for reaching out to us to share your perspective. I'm a native Californian who grew up diving for abalone off of Gualala and grabbing lobster off of Imperial Beach while stationed in Coronado as a young Navy SEAL. I realize change is hard, but our sea life in California and around the world has suffered from decades of over-fishing.

We are a local community dedicated to restoring Laguna's sea life and iconic kelp forests. This is not really possible without protecting kelp forests from sea urchins grazing on the holdfast. The Science Advisory Team recommends a larger preferred size for success which is why we are adding the last part of Laguna.

Rotating MPAs as you suggest will not achieve sustainability since many fish, like Giant Sea Bass, which can live 80 years, require 30 years to be the most productive. What happen to San Clemente's kelp forests on offshore reefs? In terms of fishing grounds, why are there so few fish in Dana Point? Was it over-fished? Wasn't Wheeler Reef created to add fishing areas?

The petition area only has public access at 1000 Steps since Three Arch Bay is a closed residential development with no public shore access. Over-fishing has wiped out fish at 1000 Steps and the once large kelp forest is gone likely due to the loss of Sheepshead heavily fished by day boats. However, kelp protected in Laguna's MPA continues to thrive.

Since I come from a fishing family, I take your comments seriously and appreciate your point of view. But I also urge you to consider why scientists and the Fish & Game Commission decided to establish 124 MPAs in California among hundreds of MPAs around the world.

We all want more fish so let's follow the science and keep up the conversation on how best to restore and protect California's sea life.
Mike

<u>From Cadyn Zeutenhorst, October 11, 2025:</u>

Hi Mike,

Thank you for taking the time to write back, I appreciate the information and desire for conservation, I am on the same page.

That being said, I still see major flaws in your points and reason for the MPA expansion. First and foremost, as I'm sure you know, Black Sea Bass are federally protected regardless of any protected areas put in place. Even if they do require 30+ years to be most productive, regulations on them are insanely strict and expanding an MPA would have zero impact on their protection. They're already off limits, so that notion is irrelevant.

As for the areas you mentioned, Three Arch and 1000 Steps, those are the places I love to dive and fish regularly, and honestly have great success. Sure it's not as productive as it probably was decades ago, but it is still teeming with life including sheepshead, bass, and lobster. Implying that these areas are "wiped-out" and that the kelp is "gone" just shows you probably don't get in the water too often. Or maybe your mask fogged up.

If you come from a fishing family, you should be aware that day boats cannot be entirely blamed for overfishing. Pressure from large scale commercial operations greatly damages our local opportunities, and should be the main focus here. Many don't realize it, but even other countries are beginning to move-in closer and encroach on our waters. There are also poachers out there that give anglers a bad rap, and don't represent the majority of people who actually are responsible. When I worked on sportfishing boats, I can assure you that all fishing was conducted well within the established rules and regulations. As a matter of fact, Calico Bass yearly catch totals for just Dana Wharf have been steadily rising with 58,562 captured in 2022, 67,800 in 2023, and 79,821 in 2024 (976 Tuna). These numbers don't necessarily reflect overfishing.

You also mentioned that kelp forests, specifically on San Clemente's reefs, are lacking/gone. I'm no scientist, but I've been on the water long enough to know that seasonal variations play a large role in the condition of these kelp forests. It tends to fluctuate throughout the year, with warm water cycles like El Nino thinning them out, and cold winters promoting growth. The assumption that they're gone is once again inaccurate.

Wheeler Reef, as you kindly mentioned, was created to add fishing areas, and is *thriving* as a matter of fact. I'm glad you brought this up because if anything, this shows that habitat restoration and enhancement can work great without shutting people out! Here's a link: https://www.cbs8.com/article/news/local/outreach/earth8/san-onofres-wheeler-reef-is-thriving-earth-8/509-0c77fd64-7b55-498b-9cd4-baa101b629d7. I've heard countless times that it's been proven that MPA's do indeed work. You mentioned the Black Sea Bass as an excuse, but please, tell me, why would rotating MPA's and implementing habitat restoration not be successful?

Finally, I noticed you didn't acknowledge the financial aspect that was originally included in the petition. It's really important that this closure doesn't become a way for wealthy homeowners to essentially privatize public waters for financial benefit. Policy that benefits homeowners and restricts access for all fishermen is a bad look.

Again, I'm not against conservation. All I can say is that this petition is punishing the people that actually follow the rules and enjoy these areas responsibly. Permanent closures shut people out and diminish opportunity. Consider rotations. What about seasonal protections? Or Urchin control? Maybe habitat restoration? I just think it's bizarre to go straight to full on closure without even *trying* these alternatives.

Thanks for discussing, you will be hearing from me again.

-Cadyn

Northern Chumash Tribal Council

northernchumash.org chumashsanctuary.org

CHUMASH HERITAGE
National Marine Sanctuary

October 13, 2025

Dear Fish and Game Commission and CDFW staff,

I am writing to notify you that the Northern Chumash Tribal Council (NCTC) is in the process of finalizing formal co-sponsorship of Petition 2023-28MPA with the Natural Resources Defense Council (NRDC). Petition 2023-28 MPA would create a new State Marine Conservation Area off of Point Sal in state waters within the Chumash Heritage National Marine Sanctuary (CHNMS). NRDC initially contacted us in the fall of 2023 before the petition was written, however we did not have the capacity to be involved at that time due to the designation process of CHNMS. Now that the CHNMS has been designated, I am eager to continue garnering strong protections to the sacred and culturally important waters of Point Sal, as part of NCTC's ongoing leadership in Chumash stewardship of California's marine resources.

We are in the final stages of formalizing the co-sponsorship agreement and will submit an amended petition form and narrative that details our Chumash collaborative co-stewardship approach and goals as a Tribally co-sponsored petition within the next couple of weeks. We would like Petition 2023-28MPA to be reclassified as a Tribal petition. We recognize that this is a significant change during the review process and appreciate your understanding that we had limited capacity to engage earlier. Please let us know if you have any questions or would like to schedule a meeting to discuss this addition in sponsorship.

Sincerely,

Violet Sage Walker
Nominator, Chumash Heritage National Marine Sanctuary
Chairwoman, Northern Chumash Tribal Council

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