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## **Equity in California Ocean Access & Management**

Timothy Frawley and Jennifer Selgrath, who are affiliated with UC Santa Cruz and the California Marine Sanctuary Foundation, are conducting a research study to learn more about ocean access and benefits.

If you agree to be in this study, you will complete a survey. The survey will ask you a series of questions about how you use and/or value the ocean, and how these uses and values are (or could be) impacted by environmental change, socioeconomic change, and/or shifting management and regulations.

Your participation will take about 15-25 minutes. To be compensated for your participation, you will be paid \$25.

Research records will be kept confidential to the extent allowed by law.

Participation in this research is entirely voluntary and you can withdraw at any time by simply closing/not submitting the survey. You are free to skip any questions you do not want to answer. Choosing not to participate or withdrawing will in no way result in loss of benefits or services to which you are otherwise entitled.

If you want additional information or have questions or research-related problems, you may reach Timothy Frawley at [tfrawley@ucsc.edu](mailto:tfrawley@ucsc.edu)

By completing and submitting the study survey you are indicating that you are at least 18 years old, have read this consent form, agree to participate in this research study, and have not taken the survey before. Once the survey is submitted, answers are anonymous and cannot be withdrawn.

UCSC Study #: HS-FY2023-193  
UCSB Study #: 24-0294

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## Equity in California Ocean Access & Management

***We're interested in your experiences with any beach, bay, pier, jetty, coastal area, island, or other place near the ocean or bays in California, which will be referred to in the survey as "ocean & coastal areas."***

***First, we are interested in how much time you spend at the ocean and coast IN CALIFORNIA.***

1. Please complete the following sentence, "In comparison with the amount of time I currently spend at ocean and coastal areas in California, I would prefer to spend..."  
 A lot more time  
 More time  
 The same amount of time  
 Less time  
 A lot less time  
 Choose not to answer
2. How often do you spend time in ocean & coastal areas in California?  
 Several times per week  
 Several times per month  
 Once every couple months  
 Once a year  
 Less than once a year (i.e., rarely or never)  **SKIP to Q10**  
 Choose not to answer  **SKIP to Q10**
3. What is the name of the ocean or coastal area in California where you **spend the most time?** Location: \_\_\_\_\_

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***We will now ask you about activities that you participate in when you spend time at the ocean and coast IN CALIFORNIA.***

4. When you spend time in ocean & coastal areas in California, what activities are **important** to you that you participate in at least once a year? (*check all that apply*)

**Activity**

- Beach games or sports (e.g., frisbee, volleyball, yoga)
- Bicycling, roller skating, skateboarding, etc
- Cultural or religious practices or ceremonies
- Driving or sitting in your car to enjoy the views/sunsets
- Festivals with music and food (e.g., earth day)
- Fishing or collecting food
- Group or family gatherings or activities (e.g., family outing, bbq)
- Meditation, reading, and/or relaxing
- Observing or photographing nature or wildlife, outdoor education
- Sailing/Boating (engine powered)
- Snorkeling/Scuba Diving
- Surfing
- Stand up paddleboarding/kite or sailboarding/kayaking
- Swimming or bodysurfing
- Walking or running
- Volunteering (e.g., beach clean-ups)
- Paid work
- Other
- None of the above

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5. From the list in Q4, please **select one of the activities that is most important to you:**

- Beach games or sports (e.g., frisbee, volleyball, yoga)
- Bicycling, roller skating, skateboarding, etc
- Cultural or religious practices or ceremonies
- Driving or sitting in your car to enjoy the views/sunsets
- Festivals with music and food
- Fishing or collecting food
- Group or family gatherings or activities (e.g., family outing, bbq)
- Meditation, reading, and/or relaxing
- Observing or photographing nature or wildlife, outdoor education
- Sailing/Boating (engine powered)
- Snorkeling/Scuba Diving
- Surfing
- Stand up paddleboarding/kite or sailboarding/kayaking
- Swimming or bodysurfing
- Walking or running
- Volunteering (e.g., beach clean-ups)
- Paid work
- Other
- None of the above

6. What is your usual mode of transportation to [ACTIVITY identified in Q5]? (check one)

- Bicycle or walking
- Getting a ride from friends or family
- Personal vehicle
- Public transportation (i.e., bus/train/metro/subway)
- Taxi services (including rideshare options, such as Uber, Lyft)
- Other, please specify: \_\_\_\_\_

7. How many minutes are you willing to travel each way to [ACTIVITY identified in Q5]

- Less than 15 minutes
- Less than 30 minutes
- Less than 1 hour
- Less than 2 hours
- More than 2 hours

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8. Who first taught you about or introduced you to [ACTIVITY identified in Q5]?

- I taught myself or I started by myself
- Family member taught me (i.e., parent, sibling, cousin, etc.)
- Friends or colleagues
- School, class, group, religious community, club, etc
- Cultural practitioner (i.e., Indigenous or traditional knowledge holder)
- Other, please specify: \_\_\_\_\_

9. Who do you usually do [ACTIVITY identified in Q5] with? (*check all that apply*)

- Alone
- With family
- With friends or colleagues
- With school, class, group, religious community, club, etc.
- With a cultural practitioner (Indigenous or traditional knowledge holder)
- Other, please specify: \_\_\_\_\_

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5a. If you checked 'fishing or collecting food' as one of your MOST IMPORTANT activities in Q5 [otherwise SKIP this and the two questions below], which of these fishing activities do you participate in regularly (i.e., once every two or three months)? (check all that apply)

- Collecting/gathering marine life like mussels, snails, or algae from shallow/intertidal areas
- Fishing from piers and jetties using fishing rod, trap, or other gear
- Fishing from beaches and banks using fishing rod, trap, or other gear
- Fishing from a boat using fishing rod, trap, or other gear
- Spearfishing using snorkel and/or skin diving gear
- I do not fish or gather marine life

5b.1 Please list up to **three marine species** (i.e., animals or plants) that you most commonly target when fishing or harvesting:

Targeted Species	
1.	
2.	
3.	

5c. What usually happens to the marine species you listed above? (check all that apply)

- Given away
- Caught and released (i.e., throw back)
- Sold
- Eaten
- Used as bait
- Used for cultural/ artistic/ traditional purposes

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5b.2 If you checked ‘cultural or religious practice or ceremonies’ as one of your MOST IMPORTANT activities in **Q5 [otherwise SKIP]**, please list up to **three marine species** (i.e., animals or plants) that you most frequently incorporate into **cultural or religious** practices or ceremonies:

	<b>Species</b>
1.	
2.	
3.	

5b.3 If you checked ‘observing or photographing nature or wildlife, outdoor education’ as one of your MOST IMPORTANT activities in **Q5 [otherwise SKIP]**, please list up to **three marine species** (i.e., animals or plants) that you most enjoy **observing, photographing, or learning about**:

	<b>Species</b>
1.	
2.	
3.	

5b.4 If you checked ‘snorkeling/scuba diving’ as one of your MOST IMPORTANT activities in **Q5 [otherwise SKIP]**, please list up to **three marine species** (i.e., animals or plants) that you most enjoy observing or interacting with when **snorkeling and/or scuba diving**:

	<b>Species</b>
1.	
2.	
3.	

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***CONTINUE, OR IF SKIPPED AFTER Q2 START HERE***

10. Within the past month, how frequently have you engaged with ocean-related digital or print media (e.g., sport or nature documentaries, YouTube videos, social media posts, magazine articles, news stories)?

	<b>Engagement</b>	<b>Never</b>	<b>Once or twice</b>	<b>About once a week</b>	<b>A few times a week</b>	<b>Every day</b>
a	I've read or watched it	1	2	3	4	5
b	I've produced it (i.e., filmed, photographed, and/or posted)	1	2	3	4	5

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**Next we will ask you about how you value and benefit from the ocean and coasts IN CALIFORNIA.**

11. Please indicate the degree to which ocean and coastal areas in California currently benefit you, your health and/or well-being.

**California's oceans and coasts:**

	Contributions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a	are an important source of food for myself and/or my family	1	2	3	4	5
b	provide me with income or a job	1	2	3	4	5
c	help me to feel a part of a community	1	2	3	4	5
d	help me to build or maintain relationships with my friends or family	1	2	3	4	5
e	support plants, animals and/or activities that are important to my culture and heritage	1	2	3	4	5
g	allow me to participate in adventurous and exciting activities	1	2	3	4	5
h	improve and/or maintain my physical health and/or mental well-being	1	2	3	4	5
i	help me to feel more spiritual and/or connected to a higher power	1	2	3	4	5
j	expose me to beauty and/or sensory experiences (e.g., wind, light, smell, sound) that are important to me.	1	2	3	4	5

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12. Please indicate the degree to which you agree or disagree with the following statements.

**Ocean and coastal areas are important to me, my family, and/or my community because they:**

	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a	support a diversity of marine life	1	2	3	4	5
b	inspire artistic and creative expression	1	2	3	4	5
c	help produce and renew clean air and water	1	2	3	4	5
d	are important for future generations	1	2	3	4	5
e	provide fisheries, recreation or tourism opportunities that provide economic benefit	1	2	3	4	5
g	provide opportunities for education, learning and science	1	2	3	4	5
h	help define our heritage, culture and identity	1	2	3	4	5
j	are a place for our favorite outdoor recreation activities	1	2	3	4	5
k	help us to feel connected to the natural world	1	2	3	4	5
l	care for us when we care for them	1	2	3	4	5

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**We will now ask you about factors that influence your experience at the ocean and coasts IN CALIFORNIA.**

13. Please rate how strongly you agree with the following statements characterizing your use of and/or experiences within ocean and coastal areas in California:

	Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
a	I am interested in ocean experiences or activities	1	2	3	4	5
b	I feel welcome at beaches and coastal areas	1	2	3	4	5
c	I have access to and can afford transportation to the beach or coasts (e.g., bus, car)	1	2	3	4	5
d	The amenities/infrastructure I need or want are available, clean, and in good condition (i.e., restrooms, wheelchair ramps, picnic tables, piers, etc.)	1	2	3	4	5
e	I possess the required skills or knowledge to participate in recreational activities in or by the ocean (i.e., swimming, fishing, surfing)	1	2	3	4	5
f	I can afford or have access to necessary tools, gear, or equipment (e.g., fishing pole, surf board)	1	2	3	4	5
h	I feel safe from environmental factors (i.e. sharks, waves, wind, pollution, etc.)	1	2	3	4	5
j	I understand the associated rules and regulations (e.g., fishing rules, parking rules)	1	2	3	4	5
k	I feel protected by law or rule enforcers (e.g. police, rangers, security guards)	1	2	3	4	5

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14. Please rate how **frequently** you experience the following in ocean and coastal areas in CA.

**In ocean and coastal areas:**

	Experience	Never	Rarely	Sometimes (less than half the time)	Often (more than half the time)	Almost always
a	I feel like I am treated with the same amount of respect as people of other genders, races or ethnic identities	1	2	3	4	5
b	I feel like other people trust me and feel safe around me	1	2	3	4	5
c	Other people treat me as if I am smart and capable	1	2	3	4	5
d	I feel safe from physical or verbal violence (e.g. mugging, harassment)	1	2	3	4	5

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***The next questions will ask about trends that could influence how you use and benefit from the ocean, now and in the future.***

***There are no right or wrong answers. We are interested in learning about your individual experiences, expectations and/or concerns.***

15. Please tell us about any changes you may (or may not) have observed **over the past 5 years** in the ocean and/or coastal spaces that you use most frequently.

*If you are unsure, please mark no change observed.*

	Changes	Strong decrease	Decrease	No change observed	Increase	Strong increase
a	Costs to visit ocean and/or participate in ocean activities	1	2	3	4	5
b	Existence of working coastal infrastructure (e.g., piers, seawalls)	1	2	3	4	5
c	Rules about how I use the ocean (e.g., fishing restrictions, swimming closures)	1	2	3	4	5
d	Local people being displaced (i.e., moving away) from ocean and coastal neighborhoods	1	2	3	4	5
e	Wildfires	1	2	3	4	5
f	Storms, storm surge, and/or floods	1	2	3	4	5
g	Air temperature	1	2	3	4	5
i	Abundance and/or diversity of marine plants and animals	1	2	3	4	5
j	Ocean temperature	1	2	3	4	5
k	Ocean water quality	1	2	3	4	5
l	Sea level rise	1	2	3	4	5

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16. Below is a list of issues that may affect your use of and benefit from ocean and coastal areas **in the future**.

For the following questions, **please indicate your level of concern:**

		Not at all concerned	Somewhat concerned	Very concerned
a	Increasing costs to visit coastal and ocean areas and/or participate in ocean activities negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Worsening condition of coastal infrastructure (e.g., piers, seawalls) negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	More rules about how I can use the ocean (e.g., fishing restrictions, beach closures) negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Displacement of local people from ocean and coastal neighborhoods (i.e., moving away) negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Growing number of wildfires and declining air quality negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f	Increases in storms, storm surge, and/or floods negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g	Increases in air temperature (i.e., more hot days) negatively impacting my use or enjoyment of ocean areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i	Declining abundance or diversity of marine plants and/or animals negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j	Increase in ocean temperatures negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k	Decreases in ocean water quality negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l	Rising sea levels negatively impacting my use of the ocean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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**We'd now like to ask you questions about marine protected areas (MPAs), which are parks in the ocean that are protected for biodiversity and cultural benefits.**

17. How familiar are you with California's state marine protected areas (MPAs)?

- Not familiar at all (never heard of them)
- Slightly familiar
- Moderately familiar
- Very familiar
- Extremely familiar

18. How familiar are you with National Marine Sanctuaries?

- Not familiar at all (never heard of them)
- Slightly familiar
- Moderately familiar
- Very familiar
- Extremely familiar



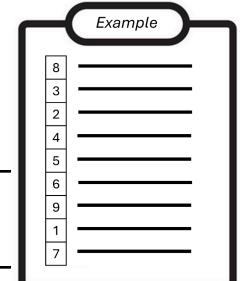
***There are 124 state MPAs and 4 National Marine Sanctuaries in California that are managed for the long-term conservation of marine resources, ecosystem services and/or cultural heritage.***

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19. If a local ocean and/or coastal zone were to be managed for the benefit of your community, how important would the following characteristics be?

*Please order the items in the list below from 1 (most important) to 10 (least important)*

Your Rank	Attribute
	Preventing large-scale industrial and/or commercial activity (i.e., oil drilling, commercial fishing, etc.)
	Providing educational opportunities to improve ocean knowledge
	Providing jobs and/or the opportunity to make money
	Allowing locals to participate in rule-making and/or environmental monitoring
	Increasing the availability of local seafood products
	Enabling practices or activities that support local culture and/or traditions
	Promoting connections between individuals and groups in my community
	Providing protection for threatened plants or animals
	Reducing risks of flooding, coastal erosion, and/or sea level rise
	Providing or improving access to coastal areas



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***Next we will ask you questions about environmental change and the future of the ocean.***

20. Do you believe that climate change is happening?

- Yes, it is caused by human activities  CONTINUE to Q20a
- Yes, it is caused by natural forces  CONTINUE to Q20a
- Yes, it is caused by both human activities and natural forces  CONTINUE to Q20a
- Yes, but I don't know what is causing it  CONTINUE to Q20a
- I'm not sure  SKIP to Q21
- No  SKIP to Q21

20a. [IF Q20 = YES] Please rank the degree to which you agree or disagree with the following statements.

	<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither agree nor disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a	I am very knowledgeable about climate impacts to ocean and coastal areas in California	1	2	3	4	5
b	Climate change will negatively impact the benefits that me, my family, and/or community receive from ocean and coastal areas in California	1	2	3	4	5
c	Climate change has negatively impacted my physical and/or mental health	1	2	3	4	5
d	In the future, I believe that climate change will negatively impact my physical and/or mental health	1	2	3	4	5
e	Marine Protected Areas and National Marine Sanctuaries can help me, my family, and/or community adapt to climate impacts	1	2	3	4	5

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21. Please indicate the degree to which you agree or disagree with the following statements

	<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither agree nor disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
a	Our children will benefit from ocean and coasts as much or more than me	1	2	3	4	5
b	Oceans and coasts can help my community adapt to future environmental and/or socioeconomic changes	1	2	3	4	5
c	I have confidence in the ability of the people in charge (i.e., state and federal government officials) to manage ocean and coastal resources for my communities' benefit	1	2	3	4	5
	I have a voice in the management of local ocean and coastal spaces	1	2	3	4	5

***To conclude, we are going to ask you some demographic questions that are important for helping us understand your responses to the rest of the survey.***

22. What is the zip code of your primary residence (or, if you do not live in the US, your country of primary residence)? \_\_\_\_\_

23. IF THAT ZIP CODE IS IN CALIFORNIA, how many years have you lived in California?

\_\_\_\_\_ years

- I do not live in California
- Choose not to answer

24. What is your race or ethnicity? (check ALL that apply)

- American Indian or Alaska Native
- Asian  CONTINUE to Q25b
- Black or African American
- Hispanic or Latino
- Middle Eastern or North African
- Native Hawaiian or Other Pacific Islander
- White
- Other

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Choose not to answer

24a. If you are Asian, how would you best characterize your Asian origins?

East Asian

South Asian

Southeast Asian

Other

Choose not to answer

25. Are you: (*Mark all that apply*)

Female

Male

Transgender, non-binary, or another gender

Choose not to answer

26. What is your year of birth? \_\_\_\_\_

27. What was your annual household income (i.e., the total income of all people that live in the same house or residence as you) before taxes in 2023?

Less than \$59,999

\$60,000 to \$119,000

\$120,000 to \$179,999

\$180,000 to \$239,999

\$240,000 or more

Choose not to answer

28. What is the highest level of education you have completed? (*check one*)

Some high school or high school graduate (includes GED)

Some college (less than or equal to 2 year associate's degree)

College graduate (bachelors degree)

Graduate degree (professional, masters, PhD, etc)

Vocational degree

Other (fill in the blank) \_\_\_\_\_

Choose not to answer

29. How many people, including yourself, live in your household? \_\_\_\_\_

30. How many of these people are under 18 years old? \_\_\_\_\_

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31. How would you characterize your swimming ability:

- I do not know how to swim
- Beginner
- Intermediate
- Advanced
- Choose not to answer

32. Is there anything else you would like to tell us about yourself, your experience with oceans and coasts in California, and/or your thoughts on local marine resource management? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

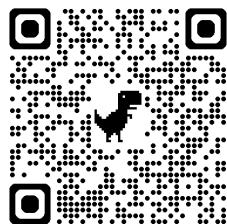
\_\_\_\_\_

\_\_\_\_\_

33. If you would like to receive an email update after the survey data for this project has been collected and the results and analysis are ready to share with the public, please enter your email address:

*Your email will not be linked with your answers, or shared outside of this project.*

**In the meantime, if you are interested, please check out our website to learn more about the research team and other related initiatives:**



<https://www.californiaoceanaccessandmpas.com/>

**THANK YOU FOR YOUR RESPONSES!**