

Appendix 4: Ocean Enhancement Validation Holder Survey

Introduction

Consent for Survey

Please read this consent page carefully before you decide to participate in this survey.

Purpose of this survey: The purpose of this survey is to understand your fishing experiences and perspectives on fisheries management and the Ocean Resources Enhancement and Hatchery Program (OREHP) in California.

Time required: 15-20 minutes

Risks and benefits: There is no risk to you from participating in this study. There is no direct benefit to you in participating in this survey, other than the opportunity to make your experiences and views known to researchers and management agencies who will be informing the future of California marine resources management efforts.

Compensation: There is no compensation for participating in this study.

Confidentiality: Your identity will be kept confidential to the extent provided by law. Your information will be assigned a code number. Your name will not be used in any report.

Voluntary participation: Your participation in this study is completely voluntary. There is no penalty for not participating.

Whom to contact if you have questions about this survey:

Susana Hervas, Ph.D., Postdoctoral Research Associate, Fisheries and Aquatic Sciences Program, School of Forest, Fisheries and Geomatics Sciences, University of Florida, Gainesville, FL 32653, Phone: (352) 273-3631.

E-mail: shervas@ufl.edu

Whom to contact about your rights as a research participant in this study: IRB2 Office, P.O. Box 100173 Gainesville, FL 32610, Phone: (352) 392-0433.

I have read the information on the survey description above. I voluntarily agree to participate in the survey and I am at least 18 years of age.

YES: Please select the "next" arrow and continue with the survey NO: Thank you for your time

ID fisher

What is your primary way of fishing?

- Recreational fisher
- Commercial fisher
- Fishing guide or charter vessel owner or staff
- None of the above

Perceptions and awareness of the current OREHP

The Ocean Resources Enhancement and Hatchery Program (OREHP) is an experimental hatchery program investigating the feasibility of using cultured marine finfish to enhance wild fish populations. The focal species is White Seabass. You can find out more about the OREHP [HERE](#). The link will open in a new window.

Did you buy an Ocean Enhancement Validation or Stamp when you purchased your fishing license/permit?

- Yes
- No
- I don't remember

How familiar do you feel you are with The Ocean Resources Enhancement and Hatchery Program (OREHP)?

- Not at all familiar
- Slightly familiar
- Somewhat familiar
- Moderately familiar
- Extremely familiar

Have you participated in OREHP activities as a volunteer or employee?

- Yes
- No
- Not sure

Perceptions of program success now

If you are to judge the success of the OREHP, how important is each of the following criteria to you?

Criteria	Very unimportant	Unimportant	Neither important nor unimportant	Important	Very important	Not sure
decision making.						
Conservation-minded NGOs and community groups are incorporated into the decision-making process.	Select	Select	Select	Select	Select	Select
OREHP engages diverse communities in its activities.	Select	Select	Select	Select	Select	Select
Other criterion (if applicable, please specify).	Select	Select	Select	Select	Select	Select

Overall, how successful do you think the OREHP program is?

- Very unsuccessful
- Somewhat unsuccessful
- Neither unsuccessful nor successful
- Somewhat successful
- Very successful
- No opinion

OREHP contribution and changes

What percentage of the current White Seabass population in the ocean off Southern California do you think was stocked from the OREHP hatchery?

- Less than 1%
- 1-10%
- 11-20%
- 21-50%
- More than 50%

Criteria	Very unimportant	Unimportant	Neither important nor unimportant	Important	Very important	Not sure
Climate change resilience and adaptation programs.	Select	Select	Select	Select	Select	Select
Habitat conservation and restoration plans and implementation.	Select	Select	Select	Select	Select	Select

Please select the two programs that you feel are most important.

- Fishery Stock Assessments to support science based management.
- White Seabass Hatchery enhancement program (OREHP)
- Other (if applicable, please specify)
- Marine Protected Area network monitoring, regulation and research.
- Climate change resilience and adaptation programs.
- Increasing access tribal and disadvantaged communities to coastal and ocean resources. Regional fisheries management plan development (including coordination with Mexico) and implementation.
- Strengthening enforcement of regulations.
- Public fishing education and youth programs.
- Habitat conservation and restoration plans and implementation.
- Ecosystem based management plan development and implementation.
- Other stock enhancement programs (e.g., Chinook Salmon, Abalone)

Demographics

Are you a member of any fisheries related organization? Check all that apply.

- Coastal Conservation Association (CCA)
- Sportfishing Association of California (SAC)
- Local angling club
- Local spearfishing club
- Commercial fishing association or group

- Other (please specify)
- None

What is the zip code of your home address? _____

What is your household's annual income?

- Less than \$50,000
- \$50,000-\$100,000
- \$101,000-\$150,000
- \$151,000-\$200,000
- \$201,000-\$250,000
- Over \$250,000

What year were you born? _____

What is your gender?

- Male
- Female
- Non-binary/ third gender
- Prefer not to say

What is your ethnicity?

- American Indian or Alaskan Native
- Asian
- Black or African American
- Hispanic or Latino or Spanish Origin of any race
- Native Hawaiian or Other Pacific Islander
- White
- Two or more races

Are you interested in remaining involved with this study through continued participation or receipt of information?

- Continued participation
- Receiving information
- Both
- Neither

Thank you for taking the time to complete this survey. Your feedback is very much appreciated. If there is anything you would like to share with us, please do so in the space provided below.

Should you have any further questions or comments, you can contact Susana Hervas at shervas@ufl.edu

ID questions

What type of charter boat do you operate?

- Six passengers or less (six pack)
- More than six passengers (party boat)

How many boats do you operate as part of your business? _____

What is the length in feet of your largest charter boat? _____

What is the length in feet of your largest commercial boat? _____

Approximately what percentage of your annual income do you obtain from commercial fishing?

- 0
- 10
- 20
- 30
- 40
- 50
- 60
- 70
- 80
- 90
- 100

Approximately what percentage of your annual income do you obtain from your charter boat operation?

- 0
- 10
- 20
- 30
- 40

- 50
- 60
- 70
- 80
- 90
- 100

In the past year, approximately how many saltwater fishing trips did you undertake for recreation...

- Fishing with hook and line from shore or kayak/canoe_____
- Fishing with hook and line from a private boat_____
- Fishing with hook and line from a charter fishing boat_____
- Spearfishing from shore or kayak/canoe_____
- Spearfishing from a private boat_____
- Spearfishing from a charter fishing boat_____
- Other harvest (e.g. hoop net, other trap, hand collection, etc.) _____

MAP



Over the past year, which county/counties have you fished from?

- San Diego
- Orange
- Los Angeles
- Ventura
- Santa Barbara
- North of Santa Barbara

In what habitat do you most commonly fish or harvest?

- Bays, lagoons or estuaries
- Nearshore (sandy bottom, rocky reefs, kelp forests)
- Shelf habitats
- Offshore (islands or blue water)

How many years have you fished commercially? _____

How many years have you fished recreationally? _____

How many years have you worked in charter vessels? _____

How many years have you been fishing in Southern California? _____

Which of the following best describes your most common method of fishing commercially?

- Spearfishing
- Rod and line
- Longline
- Troll
- Nets: gillnet, trammel net, purse seine
- Traps: pots, traps
- Other (please specify)

Please select the three marine species you most often target for **recreation** off Southern California (select one box per column)

Species	First Choice	Second Choice	Third Choice
Bluefin Tuna	Select	Select	Select
Bonito	Select	Select	Select
Cabazon	Select	Select	Select
Calico/Kelp Bass	Select	Select	Select
California Halibut	Select	Select	Select
California Sheephead	Select	Select	Select
California Spiny Lobster	Select	Select	Select
Corbina	Select	Select	Select

Species	First Choice	Second Choice	Third Choice
Croakers (Spotfin, Yellowfin, Black, White)	Select	Select	Select
Crabs (Rock, other)	Select	Select	Select
Dorado/Mahi-Mahi	Select	Select	Select
Leopard Shark	Select	Select	Select
Lingcod	Select	Select	Select
Mackerel (Pacific, Jack)	Select	Select	Select
Sand Bass (Barred, Spotted)	Select	Select	Select
Sanddab	Select	Select	Select
Scorpionfish/Sculpin	Select	Select	Select
Sea Snails	Select	Select	Select
Sea Urchin, Sea Cucumber	Select	Select	Select
Spot Prawn	Select	Select	Select
Surf Perch	Select	Select	Select
West Coast Clams, Scallops, Mussels and/or Oysters	Select	Select	Select
White Seabass	Select	Select	Select
Whitefish	Select	Select	Select
Yellowfin Tuna	Select	Select	Select
Yellowtail	Select	Select	Select
Other (please specify)	Select	Select	Select

Please select the three marine species you most often target **commercially** off Southern California (select one box per column)

Species	First Choice	Second Choice	Third Choice
Albacore Tuna	Select	Select	Select
Bigeye Tuna	Select	Select	Select
Bluefin Tuna	Select	Select	Select
California Halibut	Select	Select	Select
California Sheephead	Select	Select	Select
California Spiny Lobster	Select	Select	Select
Dorado/Mahi-Mahi	Select	Select	Select
Dungeness Crab	Select	Select	Select
Hagfishes	Select	Select	Select
Mackerel (Pacific, Jack)	Select	Select	Select
Market Squid	Select	Select	Select
Northern Anchovy	Select	Select	Select
Opah	Select	Select	Select
Pacific Bonito	Select	Select	Select
Prawn (Ridgeback, Spot)	Select	Select	Select
Red Sea Urchin	Select	Select	Select
Rock Crab	Select	Select	Select
Rockfish	Select	Select	Select
Sablefish	Select	Select	Select
Shortspine Thornyhead	Select	Select	Select
Skipjack Tuna	Select	Select	Select
Soles (Dover, Petrale, Sanddab)	Select	Select	Select

Species	First Choice	Second Choice	Third Choice
Swordfish	Select	Select	Select
Urchin, Sea Cucumber	Select	Select	Select
White Seabass	Select	Select	Select
Yellowfin Tuna	Select	Select	Select
Other (please specify)	Select	Select	Select

How would you compare your participation in recreational fishing to other outdoor recreation?

- Your most important outdoor activity
- Your second most important outdoor activity
- Your third most important outdoor activity
- One of many outdoor activities

How do you compare your fishing ability to that of other anglers?

- More skilled
- Equally skilled
- Less skilled

Do you own a motorized boat to fish for recreation?

- No
- Yes

How much would it cost in dollars to replace all your saltwater fishing equipment with similar equipment?

- Rods and reels _____
- Tackle (hooks, lures, lines, etc) _____
- Electronic equipment (GPS, fish finder, etc) _____
- Boat, motor and trailer _____

Perceptions and values surrounding fishing

As a recreational angler, please indicate the extent to which you agree or disagree with the following statements

Criteria	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
The more fish I catch, the happier I am	Select	Select	Select	Select	Select
A fishing trip can be successful even if no fish are caught	Select	Select	Select	Select	Select
I usually eat the fish I catch or give them to family and friends	Select	Select	Select	Select	Select
A successful trip is one in which many fish are caught	Select	Select	Select	Select	Select
I would rather catch 1 or 2 big fish than 10 smaller fish	Select	Select	Select	Select	Select
When I go fishing, I am just as happy if I don't catch any fish	Select	Select	Select	Select	Select
It doesn't matter to me what type of fish I catch.	Select	Select	Select	Select	Select
The bigger the fish I catch, the better the fishing trip	Select	Select	Select	Select	Select
I'm just as happy if I don't keep the fish I catch	Select	Select	Select	Select	Select

Criteria	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I want to keep all the fish I catch	Select	Select	Select	Select	Select
I'm happiest with the fishing trip if I catch a challenging game fish	Select	Select	Select	Select	Select
I'm just as happy if I release the fish I catch	Select	Select	Select	Select	Select
If I thought I wouldn't catch any fish, I wouldn't go fishing	Select	Select	Select	Select	Select
I like to fish where I know I have a chance to catch a "trophy" fish	Select	Select	Select	Select	Select
When I go fishing, I'm not satisfied unless I catch at least something	Select	Select	Select	Select	Select

Overall, how satisfied are you with the following:

Criteria	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
The saltwater fishing experience in Southern California in the past year?	Select	Select	Select	Select	Select
Saltwater fisheries management in Southern California.	Select	Select	Select	Select	Select

Please indicate the extent to which you favor or oppose the following fisheries management strategies.

Criteria	Strongly oppose	Oppose	Neither oppose nor favor	Favor	Strongly favor
Stocking hatchery reared fish	Select	Select	Select	Select	Select
Providing artificial habitat (e.g. artificial reefs)	Select	Select	Select	Select	Select
Limiting the number of fish you can keep	Select	Select	Select	Select	Select
Protecting and restoring degraded habitat	Select	Select	Select	Select	Select
Designating some areas as marine reserves with catch-and-release only	Select	Select	Select	Select	Select
Managing some species for recreational catch- and-release fishing only.	Select	Select	Select	Select	Select
Limiting the season when you can keep fish	Select	Select	Select	Select	Select
Designating some areas as no fishing areas	Select	Select	Select	Select	Select
Limiting the fish you can keep by a minimum size	Select	Select	Select	Select	Select

Perceptions and values of marine stocking and enhancement programs

Please indicate the extent to which you agree or disagree with these statements about ocean enhancement through stocking of hatchery-reared fish (hereafter "stocking").

Criteria	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
The state of California should have an active marine stocking program	Select	Select	Select	Select	Select
I am willing to pay more for a fishing license to support a stocking program	Select	Select	Select	Select	Select
Stocking cannot improve saltwater fishing	Select	Select	Select	Select	Select
Stocking will damage the ecosystem	Select	Select	Select	Select	Select
Stocking will increase the abundance of fish	Select	Select	Select	Select	Select
Stocking will increase my catch rates	Select	Select	Select	Select	Select
Stocking will increase the average size of the fish I catch	Select	Select	Select	Select	Select
I prefer to catch a wild fish rather than a stocked fish	Select	Select	Select	Select	Select
Stocking is a way of giving back to the ecosystem we	Select	Select	Select	Select	Select

Criteria	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
harvest fish from					
I would change my fishing location to a place where fish were stocked	Select	Select	Select	Select	Select
I would fish more if fish were stocked where I usually fish	Select	Select	Select	Select	Select
Stocked fish usually have low survival	Select	Select	Select	Select	Select
Stocking has potential to improve most fish populations	Select	Select	Select	Select	Select
Stocking is important for sustaining heavily fished populations	Select	Select	Select	Select	Select
Stocking is important for sustaining fish populations when habitat is poor	Select	Select	Select	Select	Select
Stocking is important for restoring populations after fish kills or population declines	Select	Select	Select	Select	Select
Stocking can help improve trophy fisheries	Select	Select	Select	Select	Select
Habitat restoration is better than stocking when	Select	Select	Select	Select	Select

Criteria	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
fish habitat is poor					
Stocking has little benefit when fish populations are well- managed	Select	Select	Select	Select	Select

Please select the three marine species you would most like to see stocked in California (select one box per column)\

Species	First Choice	Second Choice	Third Choice
Abalone (Red, Pink, Green or White)	Select	Select	Select
Barred Sand Bass	Select	Select	Select
Cabazon	Select	Select	Select
California Halibut	Select	Select	Select
California Sheephead	Select	Select	Select
Corbina	Select	Select	Select
Giant (Black) Sea Bass	Select	Select	Select
Kelp (Calico) Bass	Select	Select	Select
Rockfish (Brown, Gopher or Grass)	Select	Select	Select
Rockfish (other)	Select	Select	Select
Scorpionfish (Sculpin)	Select	Select	Select
Spotfin Croaker	Select	Select	Select
Spotted Sand Bass	Select	Select	Select
West Coast Clams or Scallops	Select	Select	Select
White Seabass	Select	Select	Select
Other (please specify)	Select	Select	Select

WSB stock and target

How important is White Seabass to you as a target species?

- Very unimportant
- Unimportant
- Neither unimportant nor important
- Important
- Very important

How would you rate the current condition of the White Seabass stock in Southern California?

- Very poor
- Poor
- Acceptable
- Good
- Very good
- I don't know

WTP rec 10

Ocean Enhancement Validation Stamps contribute to funding for the OREHP White Seabass hatchery program. Validation stamps are \$6.25 per year and are required for all saltwater anglers fishing south of Point Arguello, California.

Would you be willing to pay \$10 for the stamp to support improvements in the hatchery program even if that did not lead to noticeable changes in the White Seabass population or fishery?

- Yes
- No

WTP rec 10 +noticeable

Ocean Enhancement Validation Stamps contribute to funding for the OREHP White Seabass hatchery program. Validation stamps are \$6.25 per year and are required for all saltwater anglers fishing south of Point Arguello, California.

Would you be willing to pay \$10 for the stamp to support improvements in the hatchery program if that led to noticeable improvements in the White Seabass population?

- Yes
- No

WTP rec 10+bag

Ocean Enhancement Validation Stamps contribute to funding for the OREHP White Seabass hatchery program. Validation stamps are \$6.25 per year and are required for all saltwater anglers fishing south of Point Arguello, California.

Would you be willing to pay \$10 for the stamp to support improvements in the hatchery program if that led to a one-fish increase in the White Seabass bag limit?

- Yes
- No

WTP rec 12

Ocean Enhancement Validation Stamps contribute to funding for the OREHP White Seabass hatchery program. Validation stamps are \$6.25 per year and are required for all saltwater anglers fishing south of Point Arguello, California.

Would you be willing to pay \$12 for the stamp to support improvements in the hatchery program even if that did not lead to noticeable changes in the White Seabass population or fishery?

- Yes
- No

WTP rec 12 +noticeable

Ocean Enhancement Validation Stamps contribute to funding for the OREHP White Seabass hatchery program. Validation stamps are \$6.25 per year and are required for all saltwater anglers fishing south of Point Arguello, California.

Would you be willing to pay \$12 for the stamp to support improvements in the hatchery program if that led to noticeable improvements in the White Seabass population?

- Yes
- No

WTP rec 12 +bag

Ocean Enhancement Validation Stamps contribute to funding for the OREHP White Seabass hatchery program. Validation stamps are \$6.25 per year and are required for all saltwater anglers fishing south of Point Arguello, California.

Would you be willing to pay \$12 for the stamp to support improvements in the hatchery program if that led to a one-fish increase in the White Seabass bag limit?

- Yes

- No

WTP rec 15

Ocean Enhancement Validation Stamps contribute to funding for the OREHP White Seabass hatchery program. Validation stamps are \$6.25 per year and are required for all saltwater anglers fishing south of Point Arguello, California.

Would you be willing to pay \$15 for the stamp to support improvements in the hatchery program even if that did not lead to noticeable changes in the White Seabass population or fishery?

- Yes
- No

WTP rec 15 +noticeable

Ocean Enhancement Validation Stamps contribute to funding for the OREHP White Seabass hatchery program. Validation stamps are \$6.25 per year and are required for all saltwater anglers fishing south of Point Arguello, California.

Would you be willing to pay \$15 for the stamp to support improvements in the hatchery program if that led to noticeable improvements in the White Seabass population?

- Yes
- No

WTP rec 15 +bag

Ocean Enhancement Validation Stamps contribute to funding for the OREHP White Seabass hatchery program. Validation stamps are \$6.25 per year and are required for all saltwater anglers fishing south of Point Arguello, California.

Would you be willing to pay \$15 for the stamp to support improvements in the hatchery program if that led to a one-fish increase in the White Seabass bag limit?

- Yes
- No

WTP com 80

The Ocean Enhancement Validation contributes funding for the OREHP White Seabass hatchery program. Commercial validations are \$63.60 per year and are required for anyone who takes, possesses, or lands White Seabass commercially in waters south of Point Arguello, California.

Would you be willing to pay \$80 for the validation to support improvements in the hatchery

program even if that did not lead to noticeable changes in the White Seabass population or fishery?

- Yes
- No

WTP com 80 +noticeable

The Ocean Enhancement Validation contributes funding for the OREHP White Seabass hatchery program. Commercial validations are \$63.60 per year and are required for anyone who takes, possesses, or lands White Seabass commercially in waters south of Point Arguello, California.

Would you be willing to pay \$80 for the validation to support improvements in the hatchery program if that led to noticeable improvements in the White Seabass population?

- Yes
- No

WTP com 80 +bag

The Ocean Enhancement Validation contributes funding for the OREHP White Seabass hatchery program. Commercial validations are \$63.60 per year and are required for anyone who takes, possesses, or lands White Seabass commercially in waters south of Point Arguello, California.

Would you be willing to pay \$80 for the validation to support improvements in the hatchery program if that led to an increase in opportunities to harvest White Seabass?

- Yes
- No

WTP com 100

The Ocean Enhancement Validation contributes funding for the OREHP White Seabass hatchery program. Commercial validations are \$63.60 per year and are required for anyone who takes, possesses, or lands White Seabass commercially in waters south of Point Arguello, California.

Would you be willing to pay \$100 for the validation to support improvements in the hatchery program even if that did not lead to noticeable changes in the White Seabass population or fishery?

- Yes
- No

WTP com 100 +noticeable

The Ocean Enhancement Validation contributes funding for the OREHP White Seabass hatchery program. Commercial validations are \$63.60 per year and are required for anyone who takes, possesses, or lands White Seabass commercially in waters south of Point Arguello, California.

Would you be willing to pay \$100 for the validation to support improvements in the hatchery program if that led to noticeable improvements in the White Seabass population?

- Yes
- No

WTP com 100 +bag

The Ocean Enhancement Validation contributes funding for the OREHP White Seabass hatchery program. Commercial validations are \$63.60 per year and are required for anyone who takes, possesses, or lands White Seabass commercially in waters south of Point Arguello, California.

Would you be willing to pay \$100 for the validation to support improvements in the hatchery program if that led to an increase in opportunities to harvest White Seabass?

- Yes
- No

WTP com 120

The Ocean Enhancement Validation contributes funding for the OREHP White Seabass hatchery program. Commercial validations are \$63.60 per year and are required for anyone who takes, possesses, or lands White Seabass commercially in waters south of Point Arguello, California.

Would you be willing to pay \$120 for the validation to support improvements in the hatchery program even if that did not lead to noticeable changes in the White Seabass population or fishery?

- Yes
- No

WTP com 120 +noticeable

The Ocean Enhancement Validation contributes funding for the OREHP White Seabass hatchery program. Commercial validations are \$63.60 per year and are required for anyone who takes, possesses, or lands White Seabass commercially in waters south of Point Arguello, California.

Would you be willing to pay \$120 for the validation to support improvements in the hatchery program if that led to noticeable improvements in the White Seabass population?

- Yes
- No

WTP com 120 +bag

The Ocean Enhancement Validation contributes funding for the OREHP White Seabass hatchery program. Commercial validations are \$63.60 per year and are required for anyone who takes, possesses, or lands White Seabass commercially in waters south of Point Arguello, California.

Would you be willing to pay \$120 for the validation to support improvements in the hatchery program if that led to an increase in opportunities to harvest White Seabass?

- Yes
- No

©University of Florida
Gainesville, FL 32611
Terms of Use