

# OMB SUBMISSION

NOAA Coral Reef Conservation Program  
National Coral Reef Monitoring Program (NCRMP)  
Resident Coral Reef Survey  
OMB Control Number 0648-0646

**\*\*Puerto Rico Survey\*\***

*Survey conducted in (circle one):*                      *English*                      *Spanish*

Hello/Hola, My name is \_\_\_\_\_. We are only interested in obtaining your opinions on some important issues related to coral reefs and the environment in Puerto Rico. You were selected because you live in a coastal area near coral reefs. Your participation is voluntary and will be kept strictly confidential.

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This survey is being conducted in accordance with the Privacy Act of 1974 and the Paperwork Reduction Act. Your participation is voluntary, your answers are confidential and you can stop the interview at any time. The interview is expected to take less than 20 minutes. If you have questions or would like to know more about the survey I will provide you with contact information.

Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. The OMB Control number for this survey is 0648-0646

The 20 minute estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Please send comments regarding this burden estimate or any other suggestions for reducing this burden to Peter Edwards, National Oceanic and Atmospheric Agency, National Ocean Service, Coral Reef Conservation Program, (1305 East West Highway, Silver Spring, MD, 20910, USA.

## PARTICIPATION IN REEF ACTIVITIES

1. How often do you usually participate in each of the following activities?

|  | Never | Once a month or less | 2-3 times a month | 4 times a month or more | No Response |
|--|-------|----------------------|-------------------|-------------------------|-------------|
| Swimming/wading  |       |                      |                   |                         |             |
| Snorkeling   |       |                      |                   |                         |             |
| Diving (SCUBA or free diving)  |       |                      |                   |                         |             |
| Waterside/ beach camping   |       |                      |                   |                         |             |
| Beach recreation (beach sports, picnics, sunbathing, general beachgoing) |       |                      |                   |                         |             |
| Boating  |       |                      |                   |                         |             |
| Kayaking   |       |                      |                   |                         |             |
| Spearfishing   |       |                      |                   |                         |             |
| Fishing<br>[interviewer prompt: fishing for finfish]                     |       |                      |                   |                         |             |
| Gathering of marine resources (lobsters, conch, seaweed, examples)       |       |                      |                   |                         |             |

**SKIP PATTERN--** If respondent answers 'never' to BOTH fishing and gathering of marine resources, then skip to #3:

## CORAL REEF RELIANCE / CULTURAL IMPORTANCE OF REEFS

2. How often do you fish or harvest marine resources for each of the following reasons?

|   | Never | Rarely | Sometimes | Frequently | No Response |
|---|-------|--------|-----------|------------|-------------|
| To feed myself and my family/ household           |       |        |           |            |             |
| To sell   |       |        |           |            |             |
| To give to extended family members and/or friends |       |        |           |            |             |
| For fun   |       |        |           |            |             |
| For special occasions and cultural events         |       |        |           |            |             |
| For sport (tournament fishing)                    |       |        |           |            |             |

3. How often do you or your family eat fish/seafood?

- a. Every day
- b. A few times a week
- c. About once a week
- d. 1-3 times a month
- e. Less than once a month
- f. Never

**SKIP PATTERN-- If respondent answers f. Never, skip to question #5**

4. Where do you get the fish or seafood your family eats? Please pick the top 2.

- a. Purchased by myself or someone in my household at a store or restaurant
- b. Purchased by myself or someone in my household at a market or roadside vendor
- c. Caught by myself or someone in my household
- d. Caught by extended family members
- e. Other, please specify \_\_\_\_\_

**PERCEIVED RESOURCE CONDITION**

5. In your opinion, how are Puerto Rico's marine resources currently doing? Please rank from very bad to very good.

|                                   | Very Bad | Bad | Neither Bad nor Good | Good | Very Good | Not sure |
|-----------------------------------|----------|-----|----------------------|------|-----------|----------|
| Ocean Water Quality (clean)       |          |     |                      |      |           |          |
| Amount of Coral                   |          |     |                      |      |           |          |
| Number of Fish                    |          |     |                      |      |           |          |
| Diversity of Fish                 |          |     |                      |      |           |          |
| Amount of sea grass and mangroves |          |     |                      |      |           |          |

6. How would you say the condition of each of the following has changed over the last 10 years: from 1=it has gotten a lot worse to 5=it has gotten a lot better.

|                                       | A lot Worse | Somewhat Worse | No Change | Somewhat Better | A lot Better | Not Sure |
|---------------------------------------|-------------|----------------|-----------|-----------------|--------------|----------|
| Ocean Water Quality (clean and clear) |             |                |           |                 |              |          |
| Amount of Coral                       |             |                |           |                 |              |          |
| Number of Fish                        |             |                |           |                 |              |          |
| Diversity of Fish                     |             |                |           |                 |              |          |
| Amount of sea grass and mangroves     |             |                |           |                 |              |          |

7. In the next 10 years, do you think the condition of the marine resources in Puerto Rico will get worse, stay the same or improve?

- Get worse
- Stay the same
- Improve
- Not sure

**AWARENESS AND KNOWLEDGE OF CORAL REEFS**

8. Please say whether you disagree or agree with each of the following statements.

|   | Strongly Disagree | Disagree | Neither | Agree | Strongly Agree | Not Sure |
|---|-------------------|----------|---------|-------|----------------|----------|
| Coral reefs protect Puerto Rico from erosion and natural disasters. |                   |          |         |       |                |          |
| Coral reefs are only important to fishermen, divers and snorkelers. |                   |          |         |       |                |          |
| Healthy coral reefs attract tourists to Puerto Rico.                |                   |          |         |       |                |          |
| Coral reefs are important to Puerto Rico cultures.                  |                   |          |         |       |                |          |

9. How familiar are you with each of the following potential threats facing the coral reefs in Puerto Rico?

|  | Very Unfamiliar | Unfamiliar | Neither Familiar nor Unfamiliar | Familiar | Very Familiar | Not sure |
|--|-----------------|------------|---------------------------------|----------|---------------|----------|
| Climate change   |                 |            |                                 |          |               |          |
| Coral bleaching  |                 |            |                                 |          |               |          |
| Hurricanes and other natural disasters   |                 |            |                                 |          |               |          |
| Pollution (stormwater, wastewater, chemical runoff, trash/littering, fuel spills)      |                 |            |                                 |          |               |          |
| Increased coastal/urban development (includes construction)                            |                 |            |                                 |          |               |          |
| Invasive species   |                 |            |                                 |          |               |          |
| Fishing and gathering  |                 |            |                                 |          |               |          |
| Damage from ships and boats  |                 |            |                                 |          |               |          |
| Impacts from recreational activity (damage caused by inexperienced divers and boaters) |                 |            |                                 |          |               |          |
| Coral diseases   |                 |            |                                 |          |               |          |

10. Do you believe that the threats to coral reefs in Puerto Rico are:

- a. Extreme
- b. Large
- c. Moderate
- d. Minimal
- e. None
- f. Not sure

**ATTITUDES TOWARDS CORAL REEF MANAGEMENT STRATEGIES AND ENFORCEMENT**

11. A Marine Protected Area is an area of the ocean where human activity is typically restricted to protect living, non-living, cultural, and/or historic resources. How familiar are you with Marine Protected Areas (MPAs)?

- a. Very Unfamiliar
- b. Unfamiliar
- c. Neither Unfamiliar nor Familiar
- d. Familiar
- e. Very Familiar
- f. Not sure

**SKIP PATTERN-- If respondent answers a 'Very unfamiliar' or b 'Unfamiliar', then skip to #13:**

12. Please indicate how much you disagree or agree with each of the following statements.

|  | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree | Not Sure |
|--|-------------------|----------|----------------------------|-------|----------------|----------|
| MPAs protect coral reefs   |                   |          |                            |       |                |          |
| MPAs increase the number of fish   |                   |          |                            |       |                |          |
| There should be fewer MPAs in American Samoa   |                   |          |                            |       |                |          |
| There should be more MPAs in American Samoa  |                   |          |                            |       |                |          |
| There has been economic benefit to American Samoa from the establishment of MPAs   |                   |          |                            |       |                |          |
| Fishermen's livelihoods have been negatively impacted from the establishment of MPAs in American Samoa                                       |                   |          |                            |       |                |          |
| MPAs help increase tourism in American Samoa   |                   |          |                            |       |                |          |
| The establishment of MPAs increases the likelihood that people will vacation in American Samoa   |                   |          |                            |       |                |          |
| I would support adding new MPAs in American Samoa if there is evidence that the ones we have are improving American Samoa's marine resources |                   |          |                            |       |                |          |
| I generally support the establishment of MPAs  |                   |          |                            |       |                |          |

13. The following are common strategies used to manage the marine environment. We are interested in your opinion about the use of these strategies to improve the protection of coral reefs. Please indicate how much you disagree or agree with each of the following:

| Example Management Strategies                                      | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree | Not Sure |
|--|-------------------|----------|----------------------------|-------|----------------|----------|
| Community participation in management                              |                   |          |                            |       |                |          |
| Stricter control of sources of pollution to preserve water quality |                   |          |                            |       |                |          |
| Limited use (fishing, diving, snorkeling, boating)                 |                   |          |                            |       |                |          |

| Example Management Strategies                                | Strongly Disagree | Disagree | Neither Agree nor Disagree | Agree | Strongly Agree | Not Sure |
|--|-------------------|----------|----------------------------|-------|----------------|----------|
| Limits per person for certain fish species (size and amount) |                   |          |                            |       |                |          |
| Increased surveillance and law enforcement                   |                   |          |                            |       |                |          |

**AWARENESS OF CORAL RULES AND REGULATIONS / MANAGEMENT**

14. Please rate your confidence level that each of the following is accurately and fairly enforcing coral reef rules and regulations.

|                           | Not at all Confident | Slightly Confident | Moderately Confident | Confident | Very Confident | Not Sure |
|---------------------------|----------------------|--------------------|----------------------|-----------|----------------|----------|
| Enforcement officers      |                      |                    |                      |           |                |          |
| Administrative hearings   |                      |                    |                      |           |                |          |
| Legal and trial processes |                      |                    |                      |           |                |          |

**PARTICIPATION IN BEHAVIORS THAT MAY IMPROVE CORAL HEALTH**

15. How often do you participate in any activity to protect the environment (for example, beach clean ups, volunteering with an environmental group, recycling)?

- a. Not At All
- b. Once a year or Less
- c. Several times a year
- d. At least once a month
- e. Several Times a Month or more
- f. Not Sure

16. Which of the following would you consider to be your top 3 sources of information about coral reefs and the environment in Puerto Rico?

***Interviewer checks the top 3 sources of information in box below.***

17. To what degree do you trust each of your top rated sources of information to provide you the most accurate information on coral reefs and coral reef related topics in Puerto Rico?

***Respondent rates only the top 3 sources of information in box below.***

| Top 3 | Sources                                 | Very untrustworthy | Untrustworthy | Neither Trustworthy nor Untrustworthy | Trustworthy | Very Trustworthy | Not sure |
|-------|---|--------------------|---------------|---------------------------------------|-------------|------------------|----------|
|       | Newspapers, other print publications    |                    |               |                                       |             |                  |          |
|       | Radio                                   |                    |               |                                       |             |                  |          |
|       | TV                                      |                    |               |                                       |             |                  |          |
|       | Internet                                |                    |               |                                       |             |                  |          |
|       | Social Media                            |                    |               |                                       |             |                  |          |
|       | Friends and family                      |                    |               |                                       |             |                  |          |
|       | Community leaders                       |                    |               |                                       |             |                  |          |
|       | Dive and bait shop owners/employees     |                    |               |                                       |             |                  |          |
|       | State and/or County governments         |                    |               |                                       |             |                  |          |
|       | Federal government agencies (NOAA, EPA) |                    |               |                                       |             |                  |          |
|       | Non-profit organizations                |                    |               |                                       |             |                  |          |
|       | Other                                   |                    |               |                                       |             |                  |          |

18. How involved is the local community in protecting and managing coral reefs?

- a. Not at all involved
- b. Somewhat involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure

19. How often do you feel you are given the opportunity to be involved in making decisions related to the management of coral reefs in Puerto Rico?

- a. Never
- b. Rarely
- c. Sometimes
- d. Frequently
- e. Not Sure

**SKIP PATTERN -- If respondent answers a, then skip to #21.**

20. How involved are you in making decisions related to the management of coral reefs in Puerto Rico?



- a. Not at all involved
- b. Slightly involved
- c. Moderately involved
- d. Involved
- e. Very involved
- f. Not sure

**DEMOGRAPHICS**

**I just have a few more questions that will help us to interpret our results. As a reminder, the information you provide is completely confidential.**

21. Are you male or female?

- a. Male
- b. Female

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

23. How long have you lived in Puerto Rico?

- a. 1 year or less
- b. 2-5 years
- c. 6-10 years
- d. more than 10 years
- e. all my life

24. Including your primary language, please name each language you speak. [*interviewer should not read options below, but should allow respondent to answer*]

- |               |                           |
|---------------|---------------------------|
| 1. English    | 13. Hawaiian              |
| 2. Spanish    | 14. Hawaii Pidgin English |
| 3. French     | 15. Sāmoan                |
| 4. German     | 16. Chamorro              |
| 5. Italian    | 17. Carolinian            |
| 6. Portuguese | 18. Creole                |
| 7. Arabic     | 19. Crucian               |
| 8. Chinese    | 20. Tongan                |
| 9. Japanese   | 21. Other: Please list    |
| 10. Korean    | _____                     |
| 11. Tagalog   | 22. No Response           |
| 12. Hindi     |                           |

25. What race/ethnicity do you consider yourself? [*interviewer should not read options below, but should allow respondent to answer and check all that apply*]

- |                                      |          |
|--------------------------------------|----------|
| 1. American Indian or Alaskan Native | 2. Asian |
|--------------------------------------|----------|

- |                              |   |
|------------------------------|---|
| 3. Black or African American | 14. Native Hawaiian or other Pacific Islander |
| 4. Puerto Rican              | 15. Samoan                                    |
| 5. Carolinian                | 16. Taino                                     |
| 6. Chamorro                  | 17. Thai                                      |
| 7. Chinese                   | 18. Tongan                                    |
| 8. Cuban                     | 19. Vietnamese                                |
| 9. Filipino                  | 21. Other/Mixed                               |
| 10. Japanese                 | 22. No response                               |
| 11. White                    | 23. Hispanic or Latino                        |
| 12. Korean                   |   |
| 13. Mexican                  |   |

26. What is the highest level of education you have completed?

- a. 8th Grade or Less
- b. Some high school
- c. High School Graduate, GED
- d. Some college, community college or AA
- e. College Graduate
- f. Graduate School, Law School, Medical School
- g. No Response

27. What is your current employment status?

- a. Unemployed
- b. Student
- c. Employed full-time
- d. Homemaker
- e. Employed part-time
- f. Retired
- g. None of the above: Please specify \_\_\_\_\_
- h. No Response

28. What is your occupation? [*open ended*] \_\_\_\_\_

29. May I ask, what is your annual household income?

- a. Under \$10,000
- b. \$10,000-19,999
- c. \$20,000-29,999
- d. \$30,000-39,999
- e. \$40,000-49,999
- f. \$50,000-59,999
- g. \$60,000-74,999
- h. \$75,000-99,999
- i. \$100,000-149,999
- j. \$150,000 or More
- k. No Response

THANK YOU FOR YOUR TIME

*If you would like a copy of the results, please provide us with your mailing address or email address (write on separate contact sheet that is not linked to survey answers).*