

## Demographics and personal research background

1. Which of the following best describes your race?
  - White
  - Black
  - Asian
  - Hispanic
  - Other: \_\_\_\_\_
  - Prefer not to respond
  
2. With which sex do you identify?
  - Male
  - Female
  - Prefer not to respond
  
3. Please list up to three fields/scientific disciplines (e.g., fisheries biology, historical ecology) with which you identify.
  
4. Which of the following best describes your employer?
  - Government
  - Nongovernmental organization
  - Academia
  - Other: \_\_\_\_\_
  
5. Which of the following best describes your highest level of education?
  - a. Doctorate
  - b. Master's
  - c. Bachelor's
  - d. Other:
  
6. How many years of experience do you have in marine conservation?
  - < 5
  - 5-10
  - 10-15
  - 15-20
  - 20-25
  - > 25
  
7. Please describe your work as it relates to marine conservation in one sentence or less:

8. At what level of biological organization does your work focus?

- Population
- Single species
- Community
- Ecosystem
- Regional biomes
- Other: \_\_\_\_\_

### Goals section

9. Please list up to three primary goals in the field of marine conservation (e.g., preservation of biodiversity)?

10. What are the cutting-edge approaches currently being practiced in marine conservation to achieve the goals you mentioned in question 9? List no more than three.

### Long Term Data 1

11. In your opinion, to what timescale does the phrase “long-term data” typically refer in the marine conservation community?

- Days
- Weeks
- Months
- Years
- Decades
- Centuries
- Thousands of years
- Tens of thousands of years
- Hundreds of thousands of years
- Millions of years
- Unsure

12. In your opinion, what is the importance of long-term temporal data for achieving the goals of marine conservation?

13. If you use long-term temporal data, how and why? Or, if long-term temporal data are not considered in your work, why not?

**Long Term Data 2 (sources and stressors)**

14. Please list five sources of long-term data and indicate whether you have used each one in your own research.

- A. \_\_\_\_\_ I have used these data: y/n

15. Considering the sources listed in Question 15, at what time scale are data from these sources most useful?

	days	weeks	months	years	decades	centuries	millenia	10 <sup>4</sup> years	10 <sup>5</sup> years	10 <sup>6</sup> + years	Unsu
Source A	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Source B	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Source C	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Source D	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Source E	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

16. The Millennium Ecosystem Assessment (2005) identified the following five most-important stressors in ecosystems. Please rank the stressor’s importance in marine conservation biology (1-5 with one being of the most importance).

	Importance					
	1	2	3	4	5	Unsure
Pollution	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Habitat change	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Climate change	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Overexploitation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Invasive species	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

17. Given that these stressors interact in complex ways, please identify and describe the interaction that is most pressing to understand in marine conservation, in your opinion (e.g., the additive interaction between invasive species and climate change)? (1 paragraph max.)

18. Which of the long term data sources you identified in Question 15 do you believe can be used to address the five stressors or their interactions?

	A	B	C	D	E
Pollution	[ ]	[ ]	[ ]	[ ]	[ ]
Habitat change	[ ]	[ ]	[ ]	[ ]	[ ]
Climate change	[ ]	[ ]	[ ]	[ ]	[ ]
Overexploitation	[ ]	[ ]	[ ]	[ ]	[ ]
Invasive species	[ ]	[ ]	[ ]	[ ]	[ ]
Unsure	[ ]	[ ]	[ ]	[ ]	[ ]

19. In your opinion, what timescales of data are needed to best address each stressor?

	days	weeks	months	years	decades	centuries	millennia	10 <sup>4</sup> years	10 <sup>5</sup> years	10 <sup>6</sup> year
Pollution	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Habitat change	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Climate change	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Overexploitation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Invasive species	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

### Baselines/ref conditions

Intro: we are curious about differences between temporal and spatial reference conditions/baselines b/c of shifting baseline problems etc. etc.

20. If you use reference conditions or baselines in your research/conservation work, please list three types of data sources that you use to produce them (e.g., reference sites, monitoring records, etc.)?

21. In your opinion, are spatial and temporal data of equal value in establishing reference conditions and baselines? Please explain briefly.

### Problems and challenges

22. Are there types of long term data that would be useful, but that aren't currently available or you would want more of? If so, please give an example.

23. What barriers (e.g., communication, funding, data availability, etc.) have you experienced (or do you perceive to exist) in applying long term data to marine conservation?