Motivation

Core Question: Does the principal value of scientific research lie in its ability to improve the quality of human life?

1. The principal value of scientific research stems from the potential application of the knowledge gained.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

2. Knowledge generated by scientific research is valuable even if it has no application.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

3. My research primarily addresses basic questions.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

4. Bridging science and policy should be a top priority of scientific research.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

5. Scientists have a moral obligation to improve society through research.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

6. Scientists have a responsibility to clearly communicate their research and its limits to policy makers.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

7. _____
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

Methodology

Core Question**:** What methods do you employ in your disciplinary research (e.g. experimental, observational, modeling)?

1. Scientific research must be hypothesis driven.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

2. Qualitative science is as credible as quantitative science.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

3. Scientific observations of the ocean should be valued more highly than computational modeling results.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

4. Scientific results are more credible if they derive from controlled experiments.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

5. Experimental work in marine microbial ecology is too dependent on context to yield general principles.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

6. _____
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

Confirmation

Core Question**:** What types of evidentiary support are required for knowledge?

1. There are strict requirements for the validity of measurements.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

2. Experimental model systems must be used to validate hypotheses about marine microbial communities in the field.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

3. Validation of scientific results requires replication.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

4. Unreplicated results can be validated if confirmed by a combination of several different methods.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

5. Certainty about scientific matters is unattainable.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

6. Ocean science hypotheses must be validated with experimental approaches applied in the lab and field.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

7. _____
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

Reality

Core Question**:** Do the products of scientific research more closely reflect the nature of the world or the researchers' perspective?

1. Scientific research aims to identify facts about a world independent of the investigators.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

2. Scientific claims need not represent objective reality to be useful.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

3. Models invariably produce a distorted view of objective reality.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

4. Statistical approaches to data analysis always yield objective interpretations of the phenomena under investigation.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

5. Scientific research that threatens harm to the environment or human health should not be pursued.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

6. _____
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

Values

Core Question: Do values negatively influence scientific research?

1. Objectivity implies an absence of values by the researcher.

Disagree *Agree*
1 2 3 4 5 I don't know N/A

2. Incorporating one's personal perspective in framing a research question is never valid.

Disagree *Agree*
1 2 3 4 5 I don't know N/A

3. Value-neutral scientific research is possible.

Disagree *Agree*
1 2 3 4 5 I don't know N/A

4. Determining what constitutes acceptable validation of research data is a value issue.

Disagree *Agree*
1 2 3 4 5 I don't know N/A

5. Scientists should never engage in advocacy.

Disagree *Agree*
1 2 3 4 5 I don't know N/A

6. _____

Disagree *Agree*
1 2 3 4 5 I don't know N/A

Reductionism

Core Question**:** Can the world under investigation be reduced to independent elements for study?

1. Differences in spatiotemporal scales impede useful synthesis in cross-disciplinary research.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

2. The world under investigation is fully explicable in terms of its constituent parts.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

3. The world under investigation must be explained in terms of the emergent properties arising from the interactions of its individual components.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

4. My research typically isolates the behavior of individual components of a system.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

5. Scientific research must include explicit consideration of the environment in which it is conducted.
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

6. _____
   Disagree *Agree*
   1 2 3 4 5 I don't know N/A

	Demographic Profile
1	Male _____ Female _____
2	Career phase: Early _____ (1-7 yrs) Mid _____ (8-20 yrs) Late _____ (20+ yrs)
3	# of years you have been participating in inter- or cross-disciplinary activities _____ yrs
4	What discipline(s) or profession(s) would you describe as your primary identity? 1. _____ 3. _____ 2. _____ 4. _____
5	Ethnicity: _____

Is there anything else that you would like to share with us?