

## Assignment 2: Active Acoustic Research Approaches

Holliday and Pieper (1995) state: “One of the more serious constraints in fisheries acoustics is that innovation has been suppressed in favor of standardization.”

1. What is the standardization that Holliday and Pieper refer to? Provide evidence using the literature to illustrate your agreement or disagreement with this statement.
2. An alternate way to interpret this quote is that philosophies and approaches used by active acoustic researchers differ. Characterize plankton and fish acoustic research approaches as proposed by Holliday and Pieper. Contrast fundamental differences between the two approaches (tabular form).
3. Is it appropriate to categorize active acoustic researchers into two groups? Do you see the groups within this general category converging or diverging? Explain.

Grading metrics (20 points total)

Question 1 (6 points)

Definition (2 points): I was looking for a clear definition of ‘standardization’ as defined by Holliday and Pieper (1995), showing that you understood the concept. Opinion and evidence (4 points): you needed to provide your opinion on the statement. Your opinion

could be in favor, against, or in the middle, but it needed to be well supported by evidence.

Question 2 (9 points)

The answer to this question was a table comparing the methodology and approaches used in plankton and fish acoustics. Some of the items that could be included were: organisms surveyed, frequency ranges, gear used, validation, calibration methodology, political or management related issues. I was looking for a comparison of at least four items.

Question 3 (5 points)

The objective of this question was to obtain your opinion on the division of acoustics between fish vs. plankton research, following the dichotomy described by Holliday and Pieper (1995). As long as your opinion was well explained those answers were accepted. The opinion itself and the rationale were worth one and four points respectively.