

This Is Why Researchers Get Travel Grants Assignment

Instructions: Just as certain species make better study subjects for certain research questions than others, different areas or zones are more appropriate for answering some questions about species or ecosystems than others. For each of the situations or research interests described below, name which marine zone you would like to study this phenomenon in and explain your choice: what is it about this habitat that would best allow you to answer these questions?

1. Suppose you want to study niche partitioning and look at species that live in different but close-by microhabitats, or engage in different behaviors, in order to avoid being in direct competition with one another.
2. You want to compare and contrast the survival rates of several larval and juvenile organisms in different locations; you also want to study the changes in microhabitat of juveniles at different ages (for example, do younger juveniles stay closer to the bottom, while older juveniles travel throughout the water column?).
3. You want to examine the effects of changes in salinity on marine plants (not algae but true plants).
4. You are interested in what can prompt changes in the composition of biodiverse communities.
5. You are interested in the triggers that allow for temporal reproductive isolation among species with external fertilization (that is, what affects the timing of their release of gametes, especially when many closely-related species are living near one another?).
6. You want to know whether different kinds of marine detritus attract different species of detritivores.
7. You want to look at differences in the types of adaptations and rates of adaptations among species that have evolved in extreme environments vs. species that have evolved in habitats that include different extreme conditions or changing conditions.



8. You want to find out whether different degrees of bioluminescence (percent luminescent, the placement of luminescent organs or patches, etc.) are a good indicator of the purpose of the bioluminescence (i.e., if animals glow a lot, it is usually for counter-illumination, whereas if they glow only near their eyes, it is a predation tactic).
9. You are interested in relationships between symbiotic organisms and whether the specific species involved in symbioses are static or change over time.

