



Name:

Deep Sea Transect Data Questions

- 1. Compare and contrast the various habitats you observed on each transect.
- 2. What species were most abundant in each habitat? Why do you think this is the case?
- 3. Which transects had the most species diversity, or number of species? Why do you think this is the case?
- 4. *For Channel Islands transects only*: Use the table to answer the following questions:

Transect Name	Depth (meters)	Temperature (^O C)
Shallow 1 Carrington	65	12.1
Shallow 2 Carrington	68	10.9
Shallow 3 San Miguel	77	10.4
Deep 1 The Footprint	174	9.4
Deep 2 The Footprint	153	9.5
Deep 3 PiggyBank	309	8.7
Footprint Alternative	176	8.7
PiggyBank Alternative	288.6	8.7

a. How did species abundance/diversity change with depth? Why do you think this is the case?

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Name:

b. Did temperature change with depth? Why do you think this is the case? Do you think that temperature has an impact on deep sea coral communities? Why or why not?

- 5. *For Greater Farallones transects only*: How did species abundance/diversity change with each habitat type? Which habitat has the highest diversity or are they all similar?
- 6. Throughout each transect, how did the abundance for each species vary? Did the habitat vary minute to minute? Describe what you saw in a few sentences.

7. Based on the video transects and the graphs you created, what species are most abundant in the deep sea habitat of each of the sanctuaries/transects you viewed?

8. What variables exist in doing a study like this?

Name: ___

- 9. What challenges did you encounter while viewing the transects and taking data? Do you think that scientists face similar challenges?
- 10. What human activities might impact these habitats? How would deep sea ecosystems be harmed by these activities?
- 11. Why is it important that we help protect these habitats?

12. What are actions that individuals and communities can take to ensure these habitats are protected?

Name: _ Ecosystem Monitoring Questions

1. Why do you think it is important to monitor a marine ecosystem?

2. If designing a study around a habitat you know nothing about, what pieces of information would help you to best set up a study?

3. Based on what you observed on your transect, what further questions would you want to address in a ecosystem monitoring program?