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# Ocean Health Activity Worksheet

*Instructions: Use the following activity worksheet to explore more about how an organism's environment can affect its physical adaptations. You will complete part one as practice and record in your notes. You will **only submit part two** for grading.*

*(20 points possible)*

## Part Two

Review the lesson and think about the different factors that can affect organisms. Environmental factors and genetic factors often interact. The population structure and dynamics affect the amount of competition within a population, which would also influence natural selection. In this part, you will design a new marine species and explain what type of adaptations it has.

Write a summary describing your invented marine organism. This information may be presented in either report or presentation format and must include the following:

- The name and type of organism (plant, animal, bacterium, protozoan, or fungus) (2 points)

### **Crabiathan (Animal)**

- What other species the organism is most closely related to (Your species is fictional, but what real species is it most like?) (2 points)

### **This species most resembles a crab.**

- What ocean zone the organism lives in, including a description of the ecosystem (include temperature, pressure, and light) (2 points)

### **Crabiathan reside in the Abyssopelagic Zone.**

- The population the organism lives in (How many organisms typically live together?) (2 points)

### **Species of this kind live together in groups of 3 to 5. They tend to stay close together all the time and help each other survive.**

- Two adaptations the organism has, and how they help it survive in its environment (3 points)
  1. **They have really big eyes, due to the lack of light, which helps them to see much better.**
  2. **This species can produce its own light, also known as bioluminescence. This helps them to see, and also lure in their prey.**

- An example of an environmental or pathogenic factor that poses a risk to the organism, and why it is a risk (3 points)

**The most basic thing can have bad effects on the ocean, trash. It may take some time, but trash can slowly sink down zone by zone, eventually reaching the abyssopelagic zone. Trash can have a severely negative effect, as it can be mistaken for actual prey. Plastic is not healthy to consume, which will end up harming the organisms there (even the Crabiathan species).**

- The most challenging part of surviving for the organism, and a prediction as to how it might adapt in the future in response (3 points)

**Since this species lives pretty far down in the ocean, they are used to the high pressure. Pressure changes would cause some problems, especially if it went up even higher. If the pressure were to significantly increase, organisms could be crushed or face other severe problems. In that case, they would have to relocate higher in the ocean to a place that closely resembles the pressure they are used to.**

- An original drawing of the organism (You may draw it by hand and take a picture, or use computer software to create one, but it must be your own work.) (3 points)



I did the best I could to make something, I'm not the greatest at doing this kind of thing. I used Canva to make this, with graphics they provided.