

*Involuderm bacterimast*  
Coffee Fish

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### Problem

Given a specific habitat, determine the traits that would allow a fish the best chance of survival in the habitat, come up with Latin words to describe those traits, and use them to create a scientific name for the fictional fish. A common name must also be created.

### Data

A list of Latin prefixes and suffixes is available to use as well as the following information on the habitat:

- Environment = Cup of Coffee
- Temperature = Room temperature up to just below boiling point of water
- Viscosity = Water-like
- Light = Almost none penetrates
- Chemicals = Caffeine
- Currents = Not fast moving, but circulating
- Bottom = Flat, round, plastic container
- Atmosphere = Normal, but with high humidity
- Other Present = Sugar, cream, cinnamon, bacteria from backwash
- Hazards = Tilting of habitat, occasional bombardment by microwave radiation, temperature swings

A scientific name must consist of two words, with the first word being capitalized and the second word in lowercase. It must be in italic font and use Latin words. A common name is a name that an organism is referred to as, and can be anything, like a “cheetah” or a “rose”.

### Hypothesis

There are adaptations a fish could have that would help it survive in the conditions provided for the habitat. Each one would help the fish deal with the items listed in the data for the habitat. The five adaptations that would most help the fish would be:

- 1) Ability to coil and uncoil so it can conserve heat when cool and radiate heat when hot
- 2) Ability to eat bacteria as food
- 3) Skin that can change to light brown or dark brown to blend in with surroundings
- 4) Reproduce at night on the surface so they are not drunk or seen
- 5) Very good swimmer to swim away when habitat shifts, gets drunk, or is bombarded with radiation

### Experiment

Using the prefixes and suffixes from the list, the following Latin based names are assigned for the adaptations:

- 1) *Thermospire* meaning “heat-coiler” which comes from *spiro* (coil) and *thermo* (heat)
- 2) *Bacterimast* meaning “bacteria-chewer” which comes from *bacterio* (bacteria) and *masti* (chewing)
- 3) *Involuderm* meaning “intricately-skinned” which comes from *derm* (skin) and *involute* (intricate)
- 4) *Epinoct* meaning “above at night” which comes from *epi* (above) and *noct* (night)
- 5) *Supernect* meaning “excellent-swimming” which comes from *necto* (swimming) and *super* (excessive)

### Analysis

The selected names for the fish in this experiment are:

Scientific = *Involuderm bacterimast*

Common = Coffee Fish

There are a few questions that are needed to be answered for the experiment as well. They are:

- 1) Canines have very sharp and pointy teeth. What do you think this adaptation allows them to do?
  - a. Sharp pointy teeth are good for ripping flesh from bones. Canines are carnivores so their teeth help them eat their food more efficiently
- 2) A lobster does not have a tail with the ability to swim. What part of the ocean is a lobster adapted to?
  - a. Since they cannot swim, they have to live on the bottom of the ocean and eat things there
- 3) A lion has light yellow and dark yellow fur. What type of environment can lions hide in the best?
  - a. Places with tall, yellow, grasses and plants
- 4) Turtles lay their eggs on the beach. How does this adaptation help the turtles survive?
  - a. None of the organisms that live in the water and eat eggs can get to the turtle eggs. That means more turtles are born, increasing their ability to survive as a species
- 5) What parts of the fish created in this experiment does its scientific name represent?
  - a. The skin it has and the type of food it eats

### Conclusion