Planet Earth – Deep Oceans

Pacific Spotted Dolphin/Corey Shearwater Feeding Strategy:

• Dolphins work as a team
• Force baitfish close to the surface
• Mackerel form a highly dense “ball of fish”
• Shearwaters can dive down to 60 feet
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- **Oceanic White-Tipped Shark** – predator
- **Pilot fish**: clean shark of parasites and eat scraps from shark prey -- **mutualism**
- **Rainbow runners** - prey
Bioluminescent bacteria and the vampire squid

Bio means life and “lumin” refers to light

Symbiosis: a close relationship between two species

long-term condition
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- 12” isopods
- Iso - same or equal
- Pod - foot (pede = feet)
- 3’ crab spiders
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- **Deep Sea Vents**: thermal heat from volcanic vents is the source of energy.
- **Deep Sea Vents**: sulfides and other compounds are the gases used by the producers. They use these gases to carry out the process of chemosynthesis. In this process, bacteria "assemble" inorganic compounds into organic compounds.
- **Producer**: bacteria – this process is equivalent to herbivores on land.
- **1st level consumers**: shrimp and lobsters – crustaceans

used by: form of sulfur

"to assemble"

"infers hard"
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- Giant Tube Worms:
  - Up to 10 feet tall
  - Fastest growing marine invertebrates

**Scientific classification**

- **Kingdom:** Animalia
- **Phylum:** Annelida
- **Genus:** Riftia
- **Species:** *R. pachyptila*
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- Sea spider eats **detritus**
- **Detritivores** are similar to **scavengers**
- Nautilus – same **class** as octopus (predator), moves by jet propulsion and swims backwards
- **Cephalopods**

[Image of Nautilus]

```
Kingdom: Animalia
Phylum: Mollusca
Class: Cephalopoda
```

```
Domain: Eukaryote
Type of Invertebrate
```

```
"head"
```

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- **Mola Mola**: symbiotic relationship – (mutualism) with reef fish and butterfly fish
- Dives 20 miles into the depths to prey upon jellyfish
Frigates and other *oceanic birds*: nest on isolated islands – many volcanic
Can glide for weeks with little effort
Very lightweight for their size
Planet Earth:

- **Green Sea Turtle:** migrate 1000’s of miles of open ocean
- Most young turtles do not survive to adulthood
- **Type of survivorship:** 3
Oceanic frigate birds must read the “signs” on the ocean surface to find food.

Sailfish: raise dorsal fins to herd the shoal of baitfish toward the surface.

Change of colors: blue – striped – black, warning to companions of their intentions to strike.

Frigate birds grab fish forced to surface.
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- **Blue whales**: up to 100 feet long
- **Species of baleen whale**
- **Feed on krill**: type of crustacean