Whale Fall

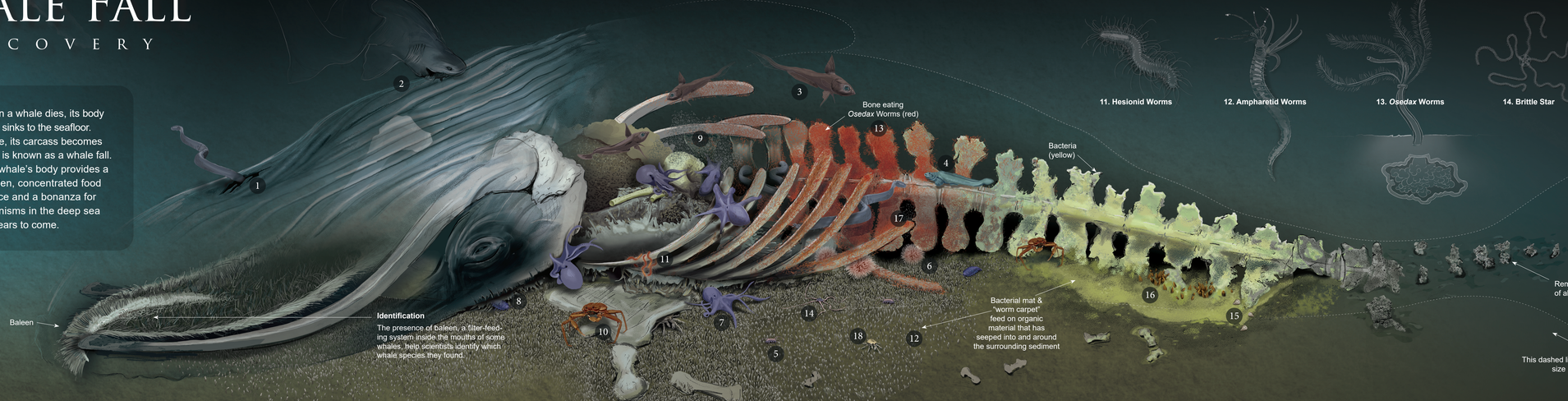
Discovery

When a whale dies, its body often sinks to the seafloor. There, its carcass becomes what is known as a whale fall. The whale's body provides a sudden, concentrated food source and a bonanza for organisms in the deep sea for years to come.

Timeline

Common Organisms Found on a Whale Fall

1. Hagfish
2. Sixgill Shark
3. Rattail Fish
4. Eelpout Fish
5. Sea Pig
6. Pom-Pom Anemone
7. *Muusoctopus*
8. Giant Isopod
9. Amphipods
10. Grooved Tanner Crab
11. Hesionid Worms
12. Ampharetid Worms
13. *Osedax* Worms
14. Brittle Star
15. *Rubyspira* Snails
16. Mussels
17. Hooded Shrimp
18. Squat Lobster



Stages of a Whale Fall

Scientists have identified four stages of a whale fall. The stages – which often overlap or blend together – are shown above, starting with the head (Stage 1) and ending at the tail (Stage 4). The duration of these stages is estimated, and varies depending on the size and species of the whale.

STAGE 1: MOBILE-SCAVENGER STAGE, MONTHS-5 YEARS

Free-moving scavengers, like rattails, hagfishes, sharks, and octopuses, remove and consume the whale's soft tissues.

STAGE 2: ENRICHMENT-OPPORTUNIST STAGE, MONTHS - 2 YEARS

A great number of polychaete worms, crustaceans, and other organisms colonize the bones and enriched sediments surrounding the whale fall.

STAGE 3: SULPHOPHILIC STAGE, UP TO 50 YEARS

Once the soft tissue is removed from the bones, bacteria, *Osedax* worms, clams, and other organisms break down lipids within the fatty bones and produce sulphides, which other organisms can then consume.

STAGE 4: REEF STAGE, UNKNOWN

Whale falls have only been studied for a few decades, but scientists believe the hard, mineral skeleton left behind after nutrients have been consumed eventually provides structure for deep-sea suspension feeders.

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For a full list of references, visit sanctuaries.noaa.gov/magazine/5/whale-fall