That is why

What happens when a whale sinks to the seafloor?

A whale fall feeds the deep sea in stages: scavengers, then tiny opportunists, then bacteria living off the bones.

A Three stages on the seafloor



Hagfish and sleeper sharks strip the soft tissue: 40 to 60 kg a day.

Worms and small crustaceans crowd the oily mud: up to 45,000 animals per square meter.

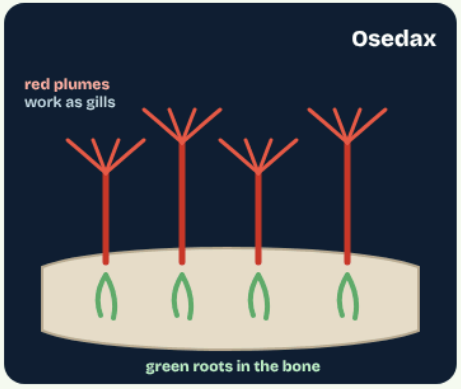
Bacteria slowly break down the fat locked inside the bones.

A 40-ton whale carries as much carbon as rains down on a hectare of deep seafloor (100 by 100 m) in about 200 years, delivered all at once. It may hold 2,000 to 3,000 kg of fat.

More than 400 species have been found living on whale falls, at least 30 of them nowhere else. A single skeleton can host over 30,000 animals of 180 or more species.

Stages overlap, and timing depends on the size of the whale.

B The bone-eating worm



1 No mouth, no gut

Bacteria in the roots break down fat locked in the bone and feed the worm.

2 Found in 2002

On a whale in Monterey Canyon, about 2,890 m down.

One whale, three crowds of diners, and a menu that can last for decades.

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