

# Conodonts

500–200 MYA – EXTINCT

For well over 100 years, small, tooth-like fossils composed of calcium phosphate had been found in rocks deposited in marine environments, but it was not understood what they were.

When a few complete specimens of a chordate-like marine animal were found in Scotland, it was then thought that these small, tooth-like fossils were not in fact teeth, but likely acted as filters in the collection of food.

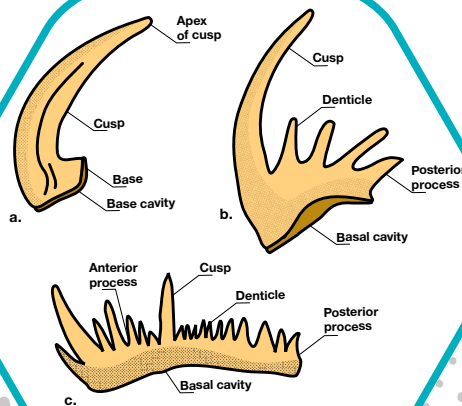
Domain	Eukaryota
Kingdom	Animalia
Phylum	Chordata
Subphylum	Vertebrata
Class	Conodonta

## Fossil Record

The first conodonts appeared in the middle Cambrian, diversified dramatically in the Ordovician and were widespread throughout the Paleozoic. Many groups of conodonts went extinct during the Permian-Triassic extinction event 252 million years ago. A few survived and diversified, only to completely go extinct at the end of the Triassic, 201 million years ago.

## Habitat and Lifestyle

Conodonts were exclusively marine animals. Their fossils are rare or completely absent from rocks deposited in very cold water near the poles, indicating they preferred warmer water. They swam around, filtering food out of the water, but their depth range is unknown.



The three element types of a conodont. Adapted from a "Explaining the Crude and Simple Mechanics of Parasitic Feeding by Conodonts" by Michael Iannicelli, Brooklyn College, The City University of New York, USA



Conodont, *Erraticodon patu*, Ordovician (about 470 million years old), Northern Territory. Image from Robert Nicoll.

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## DID YOU KNOW

Conodonts are one of the most important tools for telling the relative age of rocks through most of the Paleozoic and all the Triassic. They are a type of index fossil; they evolved very quickly, were widespread and were very common. This allows scientists to put relative dates on rocks containing conodont fossils.

