

Scientists find 'man's remotest relative' in lake sludge

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The elusive, single-cell creature evolved about a billion years ago and did not fit in any of the known categories of [living organisms](#) -- it was not an animal, plant, parasite, fungus or alga, they said.

"We have found an unknown branch of the [tree of life](#) that lives in this lake. It is unique!" University of Oslo researcher Kamran Shalchian-Tabrizi said.

"So far we know of no other group of organisms that descends from closer to the roots of the tree of life than this species", which has been declared a new category of organism called [Collodictyon](#).

Scientists believe the discovery may provide insight into what life looked like on earth hundreds of millions of years ago.

Collodictyon lives in the sludge of a small lake called As, 30 kilometres (18 miles) south of Oslo.

It has four [flagella](#) -- tail-like [propellers](#) it uses to move around, and can only be seen with a microscope. It is 30 to 50 micrometers (millionths of a metre) long.

Like plants, fungi, algae and animals, including humans, Collodictyon are members of the eukaryote family that possess [cell nuclei](#) enclosed by membranes, unlike bacteria.

Using the characteristics of Collodictyon, scientists can now infer what prehistoric eukaryotes looked like, said Tabrizi -- probably a single-cell organism with fingerlike structures that it used to catch microscopic prey.

"They are not sociable creatures," added co-researcher Dag Klaveness, who bred millions of the tiny organisms for the study.

"They flourish best alone. Once they have eaten the food, [cannibalism](#) is the order of the day."

They have not been found anywhere but in Lake As.

"It is quite fascinating that we can still find these kinds of organisms after so many years," Tabrizi told AFP.

"It has been outside our living rooms for millions of years and we haven't seen it."

Collodictyon was first found in the lake about 20 years ago by University of Oslo scientists who recognised it was unusual but "didn't know how important it was", he added.

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