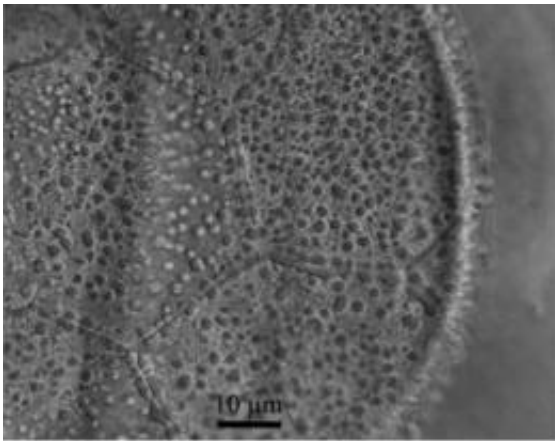


A 'regular hexagonal pattern' was found in a plant-parasitic nematode worm

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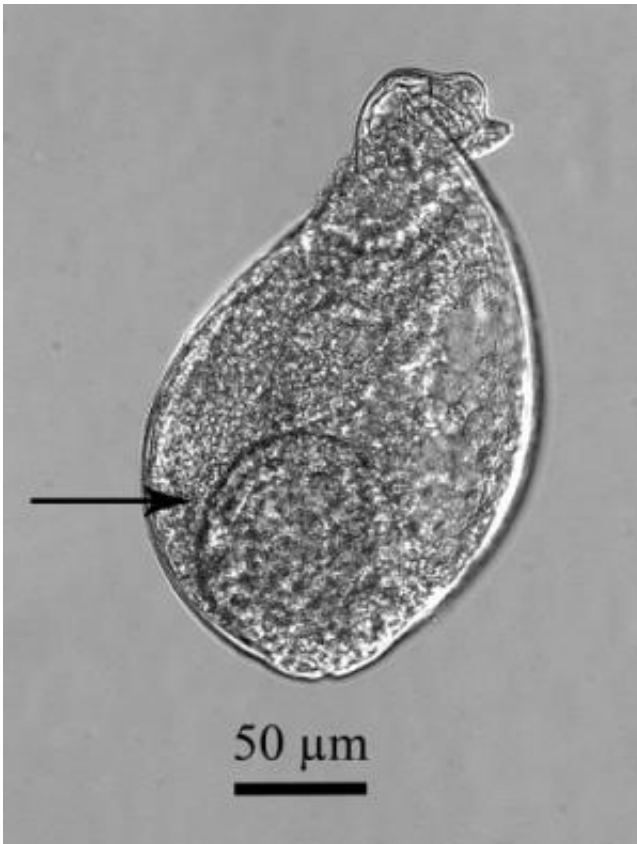


This image shows the hexagonal beaded pattern, observed on the surface of cystoids of *Meloidoderita salina*. Credit: Samad Ashrafi

A new plant-parasitic nematode worm (*Meloidoderita salina*) was found in a tidal salt marsh at Mont Saint Michel Bay (MSMB) in France, where its abbey is a world-famous historical heritage. The species name 'salina' refers to salty soil and is derived from the Latin word 'sal' or 'salis' meaning 'salt'. The study was published in the peer-reviewed, open source scientific journal *ZooKeys*.

The female nematode worm of *Meloidoderita salina* deposits its eggs in two different structures. One of them is called egg mass which is an external gelatinous matrix, the other one is a cystoid, which is a swollen uterus containing some eggs. Cystoid are harder and stronger than

gelatinous matrix. On the surface of the cystoids of *Meloidoderita salina*, nematologists observed a specific and unique hexagonal beaded pattern.



This image shows a young *Meloidoderita salina* female with a developing uterus (arrow). Credit: Samad Ashrafi

"This discovery is probably the first observation of a real [hexagonal pattern](#) in the group of nematode worms so far, and further research is needed to find out its unknown origin", said Prof. Dr. Gerrit Karssen, one of the senior members of the team.

A tidal salt marsh, a [transition zone](#) between land and water, is a highly diverse ecosystem. In MSMB, where this new [nematode species](#) was

found, a large part of its area are tidal salt marshes in which a high number of ecological studies were done, although nematode worms have been mostly neglected.



This image is of a *Meloidoderita salina* female with surrounding gelatinous matrix, both filled with eggs. Credit: Samad Ashrafi

"*Meloidoderita salina* is the first plant-parasitic nematode worm described from Mont Saint Michel Bay", said leading author Samad Ashrafi. This new [roundworm](#) parasitizes Sea purslane which is a halophytic plant (is found in salt waters). As a vegetable, the leaves of the plant have a salty, spinach-like taste and are edible raw or cooked and are also served in restaurants.

Based on the distribution map of Sea purslane in Europe, the team expects to find this new plant-parasitic nematode worm in "other western European countries such as Belgium, The Netherlands, Germany and the UK".

The nematologists who described this [nematode worm](#) predict it is likely to find *Meloidoderita salina* on other halophytic plants, grown in similar [salt marsh](#) areas.

More information: *ZooKeys* 249: 1–26. [doi: 10.3897/zookeys.249.4138](#)

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