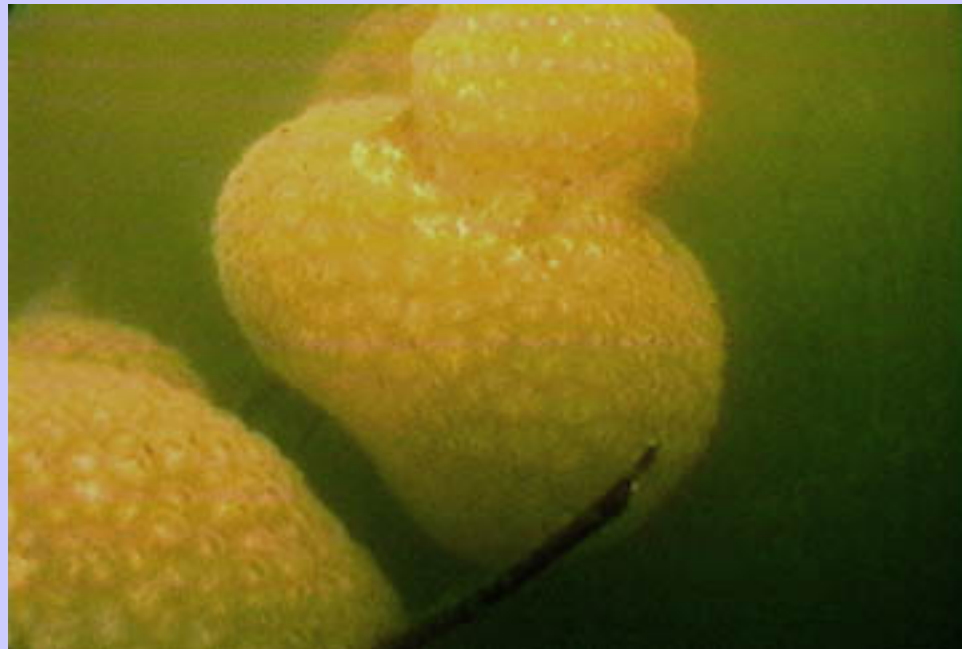


ALIEN LIFE FORMS? NO, JUST BRYOZOANS

Probably the strangest creature in the Connecticut River is

Pectinatella magnifica

"The Blob."



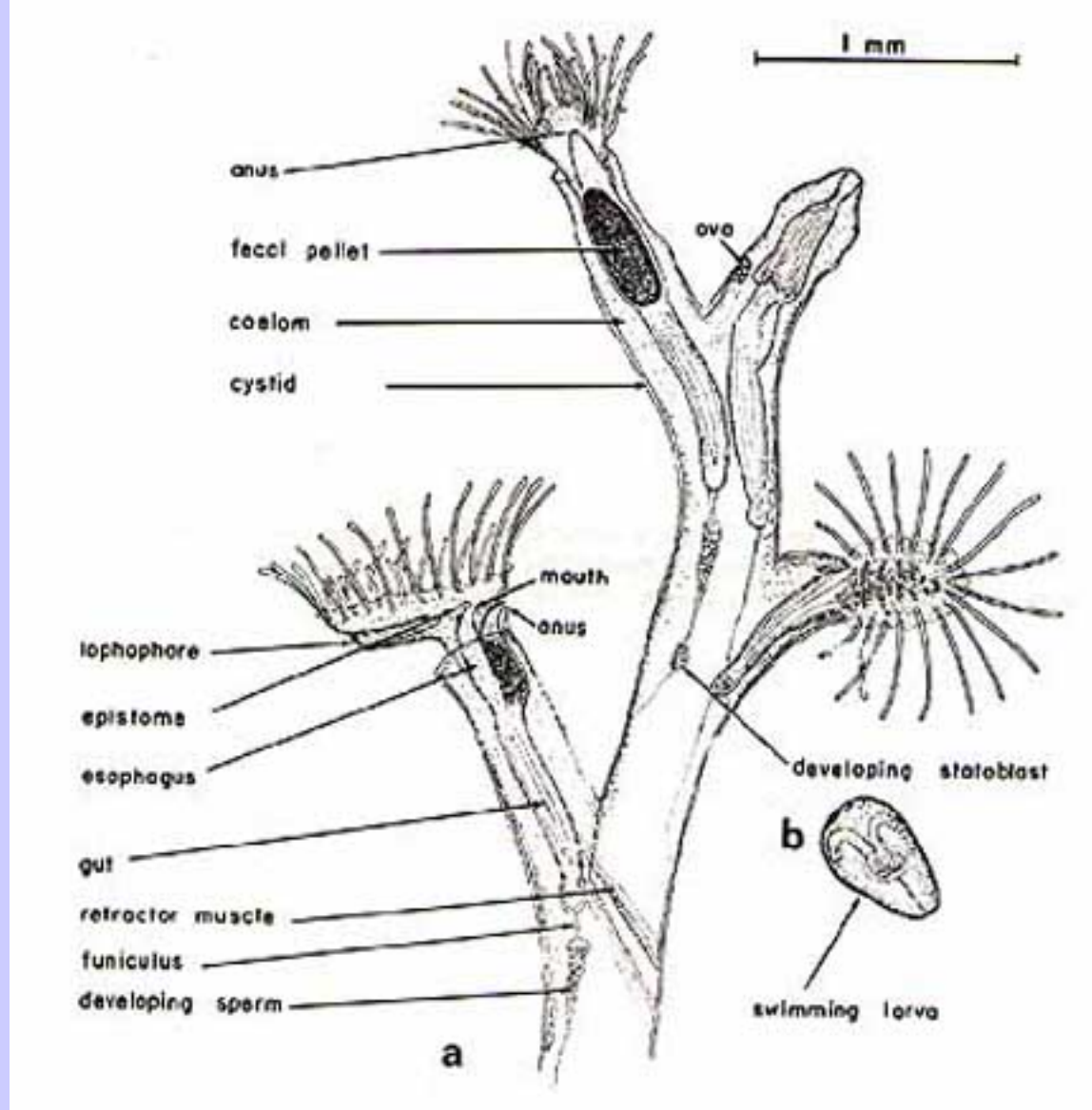
For inquiries contact [Doug Smith](#)

This organism is not from outer space, nor is it the result of mutations caused by radioactivity from nuclear power plants; *Pectinatella magnifica* is a member of the animal phylum Ectoprocta (common names: bryozoans, moss animals), a group with a fossil record extending back to the upper Cambrian (500,000,000 years ago!).

The majority of bryozoans are marine (several thousand species), but one class, the Phylactolaemata, is found exclusively in fresh water. Three species of this class have been found by divers in the Connecticut River.

The basic ground plan of a bryozoan superficially appears to have more in common with a coral; they are, in fact, ecological analogs. [Bryozoans and corals](#) are in different phyla and are unrelated. What seems to be an individual is actually a colony of zooids (not polyps as in corals). Each zooid has whorls of delicate feeding tentacles swaying slowly in the water catching food.

The following anatomical description is from Wood (1989):



Lophophore: a food-gathering structure bearing many ciliated tentacles which may be either extended flower-like during feeding, or collapsed and completely withdrawn into the interior of the colony.

Mouth: situated centrally at the base of the tentacles; phylactolaemates have a special lobe (epistome) which hangs over the mouth and which is believed to have an important sensory function.

Gut: the most prominent feature is a long caecum in which ingested particles are mixed thoroughly with vigorous peristaltic contractions.

Funiculus: a thin cord of tissue loosely joining the end of the gut to the colony wall. The funiculus is the site of statoblast production and spermatogenesis.

Central Nerve Ganglion: inconspicuously located between the mouth and the anus, with a major nerve tract extending into each arm of the lophophore.

Cystid: this is the laminated living and nonliving structure that separates the coelom from the external environment. Its outermost layer (ectocyst) consists of secreted material, which in some species is a slimy mucus, while in others it is a chitinous, somewhat leathery cuticle.

Connecticut River Bryozoans:

Pectinatella magnifica



The colony is gelatinous, firm and slimy to the touch. The inner gelatinous mass is 99% water. The surface appears divided into rosettes, each with 12-18 zooids. Massive colonies may exceed 2 feet (60 cm) in diameter, although more typical sizes are 1 foot or less. The colonies form on submerged logs, twigs, even wooden docks.

Cristatella mucedo



Colonies are clear, gelatinous and without lobes or branches. Underwater they are white and typically 2-3 inches long and 1 inch wide. They sometimes resemble giant fuzzy caterpillars. *C. mucedo* colonies occur on aquatic vegetation as well as the undersides of rocks in deeper waters.

Lophopodella carteri



This species is state-listed as a rare species, although a new population has been discovered growing in a deep [abyss](#) in the river. The colony size of *L. carteri* is small and unbranched, with a soft, transparent body wall that allows a clear view of the internal structures. Colonies typically have fewer than 20 zooids and are less than 6 mm (1/4 inch) in diameter. The colonies are toxic to fish, a poisonous substance apparently is released when colonies are damaged.

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