

CLADOCERANS CULTURE



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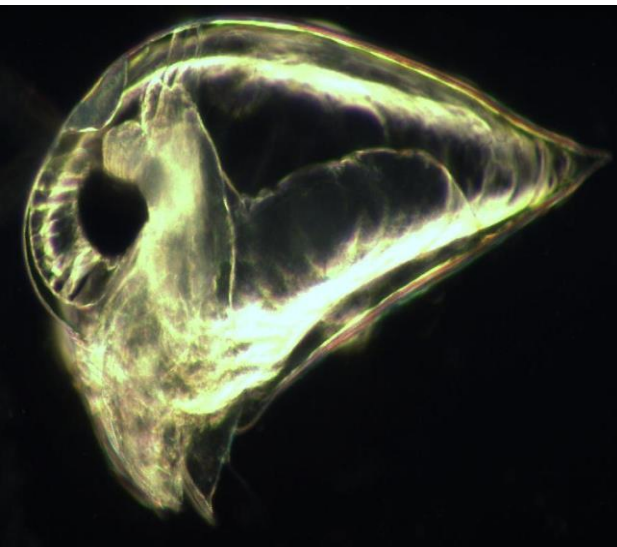
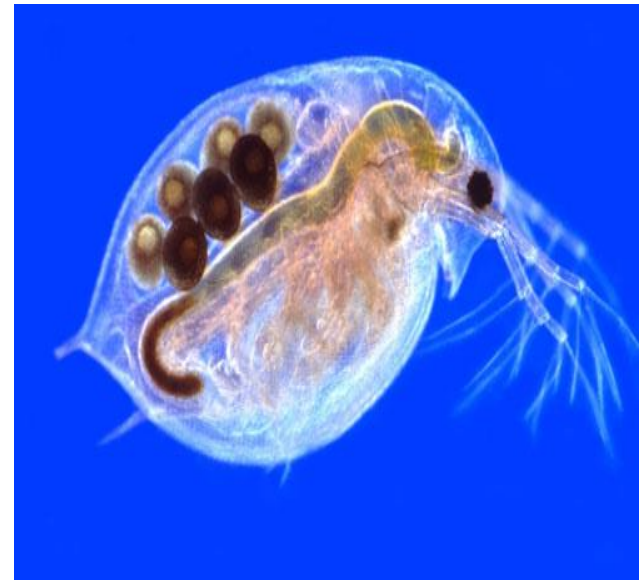
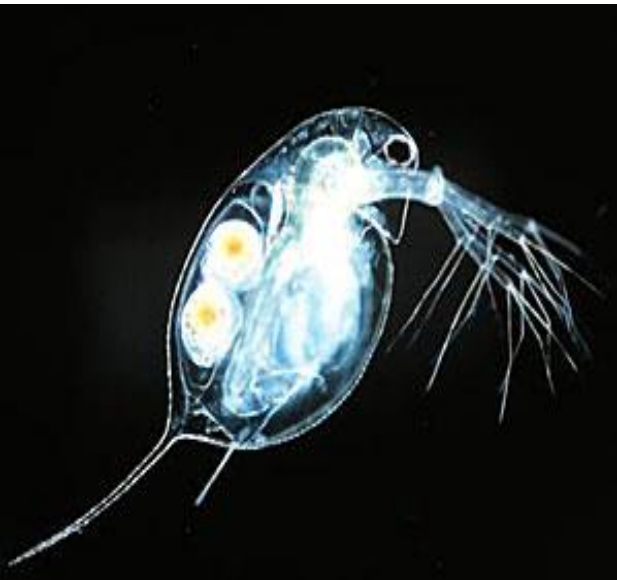
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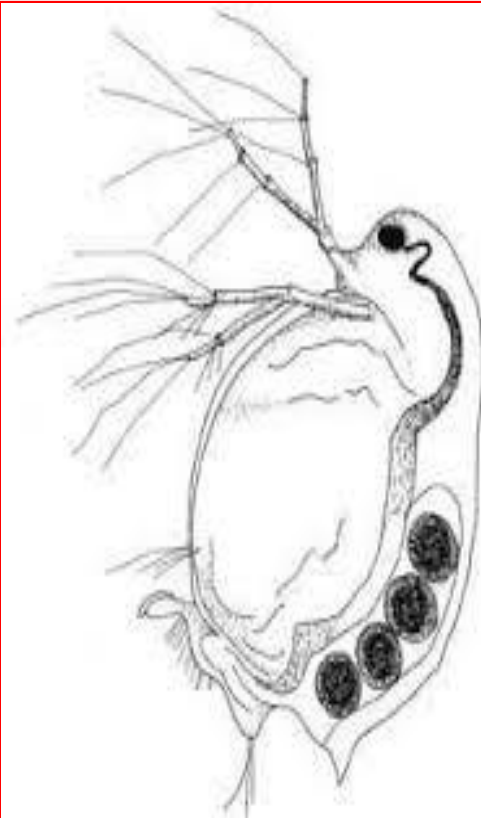
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CLADOCERANS IDENTIFICATION



Taxonomy of *Daphnia magna*

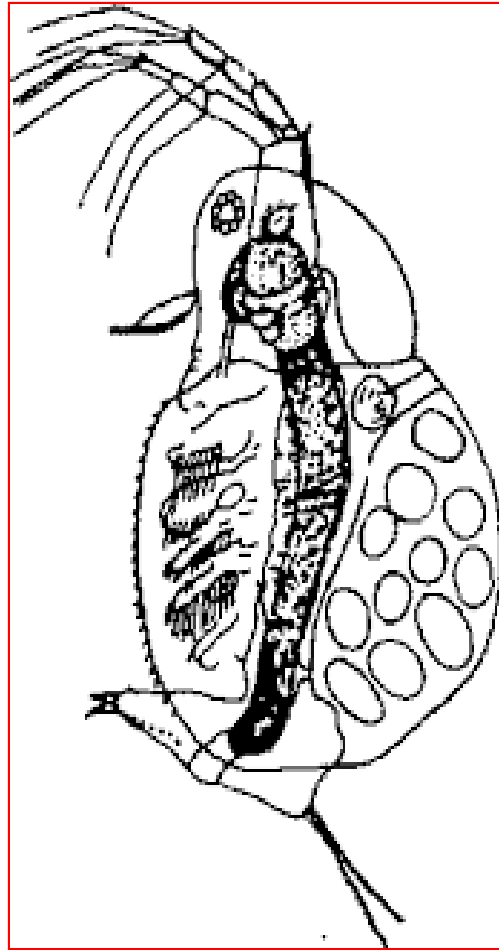
Kingdom : Animalia
Phylum : Arthropoda
Subphylum : Cruatacea
Class : Branchiopoda
Order : Clodocera
Family : Daphniidae
Genus : *Daphnia*
Species : ***D. magna***



Usually 2-5 mm long, with shape similar to a kidney bean. The body is enclosed by a transparent shell, called a carapace, made of chitin. They have two sets of long, doubly branched antennae and six thoracic appendages. They have one compound eye and one simple eye (ocellus). Males are smaller than females (typically 2 mm long while females are 3-5 mm long). Males have longer antennules and modified, hook-like first appendages used for clasping females during mating.

Taxonomy of *Moina brachiata*

Kingdom : Animalia
Phylum : Arthropoda
Subphylum : Cruatacea
Class : Branchiopoda
Order : Diplostraca
Family : Moinidae
Genus : Moina
Species : ***M. brachiata***



The body length of adult females ranges between 0.5 and 1.8 mm. Males are always smaller than females. Large compound eyes, absence of ocellus. Antennules short and thick. Post abdomen with 7-8 feathered spines. Presence of short hairs on the body.

DAPHNIA CULTURE

Daphnia is attracted to light. So lantern out over the water. Within about 10 minutes, 1000s of Daphnia swarming up to the light. Just collect some lake water in a jar, net them, and put them in culture tank

Dump the starter culture of Daphnia into one of the buckets. Maintain the light source over all the buckets to keep the algae growing

As the Daphnia grow and multiply, they will eventually consume all of the algae in the water and it will become clear

Harvest the Daphnia from the bucket and take another starter culture from this and add it to another bucket full of green water



DAPHNIA CULTURE

Future cultures will be initiated with known number (<24 h old) neonates per vessel originating from a pool of offspring collectively produced by the parental

Daphnids will be fed once daily with a distilled suspension of microalgae



The algae ration will be increased as the daphnids mature, and is kept constant once they reach adulthood

Spirulina, *Chlorella*, baker's yeast, powdered split pea soup mix, whole wheat flour, soy flour, dry split peas will also used as feed for *Daphnia* culture



MOINA CULTURE

Moina will be collected from brackishwater channels, pools and freshwater ponds

A stock culture will be built up from a single parthenogenetic female

The adult will be releasing the young ones and the young ones become adult in 18-24 hours and begin to reproduce

The filtered freshwater will be pumped into a tank. The tank will be fertilized with groundnut-oil cake, urea and super phosphate

Microalgae will be inoculated on the same day

Mild to vigorous aeration will be provided to the culture

When the water becomes slightly greenish, the Moina will be inoculated from the stock culture

The water quality parameters viz. temperature, dissolved oxygen, pH and nutrients will be maintained properly

