

# Plentiful Plankton

You need: a ruler, a calculator

ACTIVITY

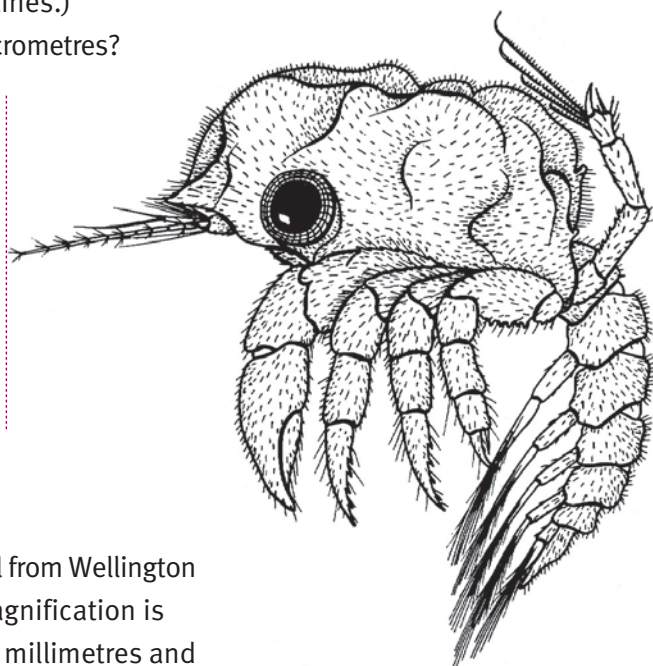
Zooplankton are tiny animals that are very difficult to see with the naked eye. Their lengths are measured in millimetres and micrometres using a microscope.

Here is a planktonic larva seen 15 times its actual size:

1 millimetre = 1 000 micrometres (1 000  $\mu\text{m}$ )

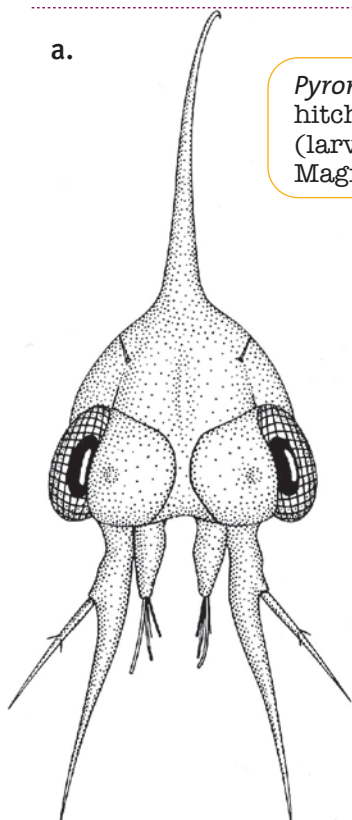
*Petalomera wilsoni*:  
sponge crab  
(larval stage)

1. a. Work out its actual length in millimetres. (Measure between the dotted lines.)
- b. What would this length be in micrometres?



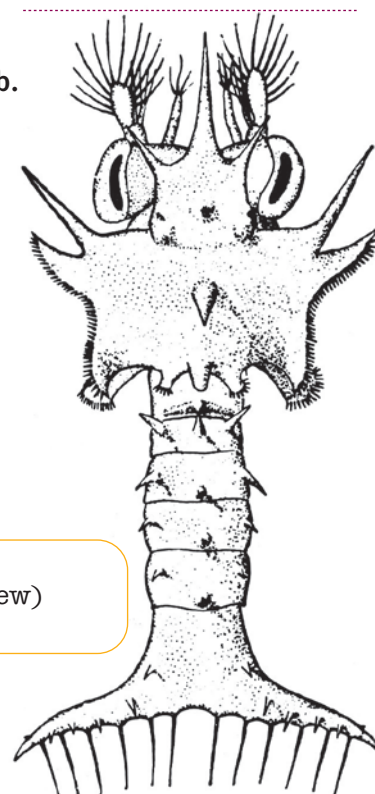
2. Here are some other zooplankton, all from Wellington Harbour. For each creature, the magnification is given. Work out its actual length in millimetres and micrometres.

a.



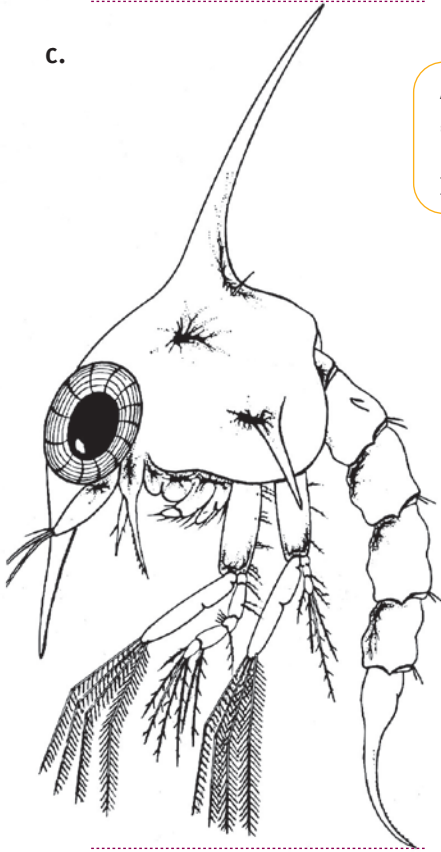
*Pyromaia tuberculata*:  
hitchhiker crab  
(larval stage)  
Magnification: x 60

b.



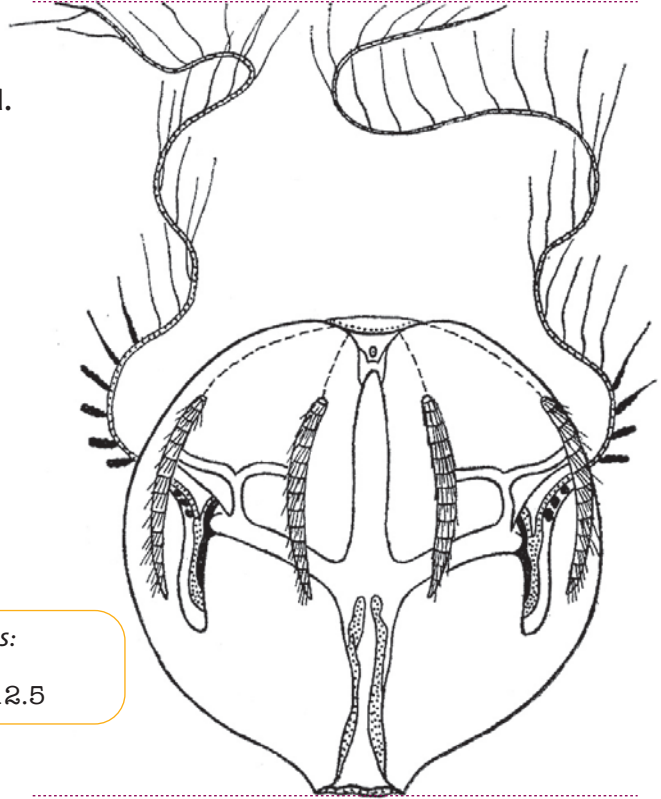
*Homola*: homolid  
crab (larval stage, top view)  
Magnification: x 40

c.



*Macrophthalmus hirtipes*:  
stalk-eyed burrowing mud crab  
(larval stage)  
Magnification: x 80

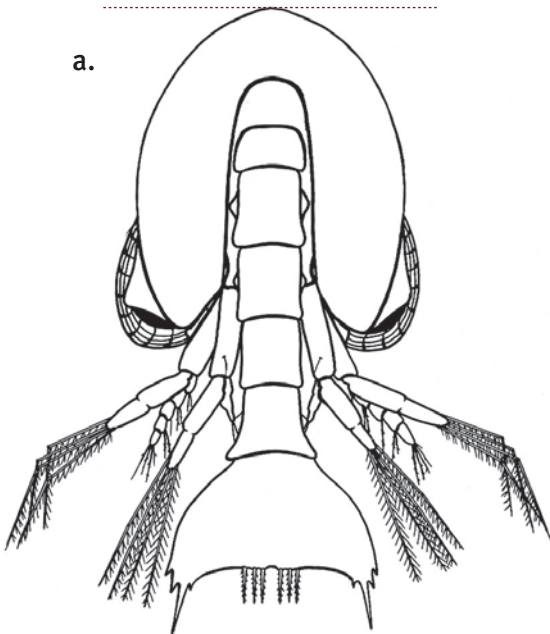
d.



*Pleurobrachia pileus*:  
sea gooseberry  
Magnification: x 12.5

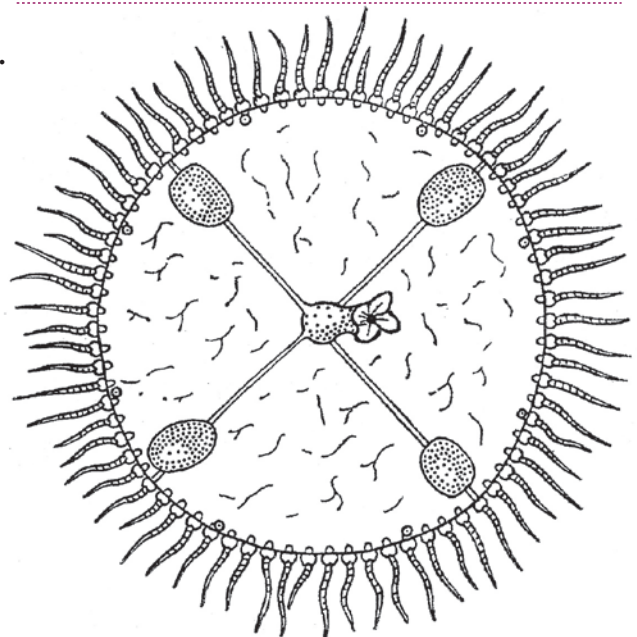
3. Work out the magnification for these two zooplankton:

a.



*Ebalia laevis*:  
nut crab (larval stage, rear view)  
Actual length: 1.1 mm

b.



*Obelia geniculata*:  
knotted thread hydroid  
Actual length: 2 800 micrometres