

Towing the plankton net

A horizontal plankton net is pulled just below the surface of the water to a pre-determined depth and pulled a measured distance. Both of these measurements are known.



Washing the captured sampling into the cod end chamber The net is lifted out of the water and the sides are washed to capture the plankton sample into the cod end chamber.

The sample is emptied into a sample Jar and a preservative added.



In this example, the sample volume of 500 ml collected by the plankton net. Five samples 1 ml in volume will be drawn out of this sample with a Stemple pipet for counting.



Taking a sample to be counted
This Stemple pipet collects a 1 ml sample to be counted

Counting the number of calanoid copepods in the sample



Drain the Stemple pipette sample into a counting chamber



Visual count and record the results



Procedure for counting zooplankton

You did a 10 meter (M) horizontal plankton tow with a 20 cm diameter plankton net. The purpose of the tow was to determine the number of Calanoid copepods per cubic meter.

The total volume of water in the sample was 500 ml or 500 cms³
You counted the number of Calanoid copepods in 5 samples of 1 ml each.

The five samples added up to 52 copepods

How many Calanoid copepods are there per cubic meter?

Answer:

Number of cubic centimeters were filter through the net

The area of the net opening is $\pi R^2 = 3.12 \times 0.1^2 = 3.12 \times .01 = .0312$ meters in diameter

$10 \text{ M} \times .031 \text{ M}^2 = .31 \text{ M}^3$ of water filtered through the net

Total number of Calanoid copepods captured

The laboratory count of copepods is 52 in 5 mls

In 500 mls, the total copepods captured by the net is $500 \times 52 = 6,000$

The amount of copepods per M³ is 6,000 divided by $.31 \text{ M}^3 =$