Collecting Duckweed Samples For Microbial Community Profiling 🔗

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1 *Works for me*   dx.doi.org/10.17504/protocols.io.98zh9x6

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EXTERNAL LINK

https://doi.org/10.1371/journal.pone.0228560

ATTACHMENTS

S1_Protocol.pdf

MATERIALS

NAME	CATALOG #	VENDOR
Miracloth	475855	Merck Millipore
Nalgene™ Rapid-Flow™ Sterile Disposable Filter Units with CN Membrane, 1000mL, 0.2µm pore	127-0020	Thermo Fisher
Sklar Sterile Disposable Scalpels	06-3111	

Processing Water Samples

1 Get 150 mL 0.2 micron filter unit. Lay sterilized miracloth on top of filter unit.

2 Collect 150-300 mL of water sample and pour through sterilized Miracloth into filter unit.

3 Filter water sample through 0.2 micron filter unit by turning vaccum on.

4 Cut 0.2 micron filter from unit using sterile scalpel.

5 Place into 5 mL centrifuge tube.

6 Flash freeze and store at -80C until processing.

Processing Rinse Solution And Duckweed Tissue Samples

7 Collect 1-3 grams of fresh weight Duckweed from environment sample. (See "Separating Duckweed From Other Solids" to obtain pure Duckweed tissue from environment.)

8 Place into 50 mL falcon tube.

9   Wash tissue 2x's with sterile water.

10   Rinse tissue 3-5x's with 30-40 mL rinse solution. Filter rinse solution through 0.2 micron filter each time.

11   Filter a total of 100-150 mL of rinse solution through 0.2 micron filter.

12   Cut filter using sterile scalpel, transfer to 5 mL centrifuge tube, flash freeze, and store for 16S rRNA amplicon sequencing.

13   Wash rinsed Duckweed tissue 2x's with sterile water.

14   Transfer tissue to 5 mL centrifuge tube.

15   Flash freeze and store for 16S rRNA amplicon sequencing.