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Water filtration with Zymo Bashing Bead tubes and DNA/RNA Shield reagent for subsequent DNA and RNA extraction from microbial communities

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Filtration of water samples with Zymo Bashing Bead tubes and DNA/RNA Shield reagent for subsequent DNA and RNA extraction from microbial communities.

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Filtration, Zymo Bashing Bead tubes, DNA/RNA Shield reagent, DNA extraction, RNA extraction, Microbial community

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Zymo Bashing Bead tubes (ZR BashingBead Lysis Tubes (0.1 & 0.5 mm))
DNA/RNA Shield reagent
0.2 µm Nalgene Analytical Test Filter Funnels
Forceps, scissors, burner
Bleach + EtOH

Label bashing tubes (1 per sample + 1 filtration control) and load them with 1 mL of DNA/RNA Shield

Procedure

- 1 Sterilize forceps and scissors with burner, then bleach, then EtOH before each filtration
- 2 Filter water sample, make sure to keep the filtration unit closed when opening the wrapping, to hold nothing but the sample over the unit, and to stand as far as possible away from the unit while it is open
- 3 Cut filter into small pieces (forceps and scissors) while filter lays on the filtration unit, make sure to stand as far as possible away from the unit
- 4 Transfer pieces into bashing tubes until all pieces are covered with DNA/RNA Shield
- 5 Clean filtration unit adapter with bleach after each filtration
- 6 Bashing tubes can be stored at -20°C