

Care of coral larvae in the lab

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Abstract

This protocols describes materials needed and steps for maintaining coral larvae in the lab.

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Guidelines

1. In the morning, check lights, temperature, and salinity. Record on spreadsheet along with date and time.
2. Check traps in field in the early morning (<7-8am).
3. ALL GLASSWARE MUST BE rinsed with HCl solution, DI water, and finally filtered seawater BEFORE USE! RINSE, RINSE, RINSE!!
4. Change water for all larvae daily - suck out individual larvae with pipet and place in filter (in beaker filled with filtered seawater – keep larvae underwater at all times until ready to rinse). Rinse with filtered seawater squirt bottle in filter then add to **clean** flask or beaker (rinsed with 10% HCl solution, DI water, and finally filtered seawater) filled with filtered seawater. Check around the edge of the filter for any trapped larvae. If larvae are not moving, very round and don't respond after squirting or poking, they are likely dead and should be removed BEFORE adding to the new flask. Note dead larvae removed on spreadsheet.
5. Change water for all settling larvae – carefully remove half of water (be careful not to expose any slides or tiles to the air and not if any larvae have settled on the side of the beaker) and VERY carefully fill the beaker with fresh filtered seawater. Remove any dead larvae and note on spreadsheet.
6. For new larvae from field upon return, note trap on spreadsheet, empty trap contents into a large bowl and suck out individual larvae with a transfer pipet and place in filter (in beaker with filtered seawater). Rinse with filtered seawater squirt bottle in filter then add to clean flask or beaker filled with filtered seawater. Note total count in spreadsheet along with the name of person counting.
7. When finished with larvae, filter fresh seawater and clean/rinse all glassware and filters.
8. At end of day, note temperature and salinity. Record on spreadsheet along with date and time.
9. Enter sample info into excel spreadsheet.

Before start

Materials needed:

Glass beakers

Glass bowls

Large glass bowl

Magnifying light

Counter for making larval counts

LED full spectrum lights

Light meter

HCl

Deionized water

Filtered seawater

Transfer pipets

Larval filters

Squirt bottles

Thermometer

Refractometer

Glass slides

Seasoned tiles (settlement substrate seasoned in field 3 months +)

Data spreadsheet

50 ml syringe

Protocol

Step 1.

Counting larvae in the lab.

