

Improved maintenance protocols for corals (*Stylophora pistillata*)

1. Collection of coral fragments from 6 mother colonies of the coral *Stylophora pistillata* at a depth of 3-6 m. The apical sections of branches are removed (20-50 fragments) and brought to the lab as quickly as possible.
2. The fragments are glued to a plastic tip using Super-Glue and a teaspoon of sodium bicarbonate powder to have a rapid gluing process.
3. The glued fragments are labeled (on the plastic tip) according to their mother colony and fragment number.
4. The newly glued nubbins are then allowed to recover in running seawater for a week to allow for tissue recuperation of the cut area. The plastic tips and nubbins are mounted on a holder made of plastic thick mesh so that the tips are stabbed through the mesh, allowing stable positioning of the nubbins, maintaining 5 cm distance between them.
5. The nubbins are maintained under light intensity of 120-250 micromol quanta m^{-2}/sec^{-1} . 400W metal halide 14,000 K lamps in combination with T5 fluorescent light are used as the light source.
6. If a flow-through system is used, the volume of the aquarium should be replaced twice every hour. A power head/ wave generator should be placed in every aquarium to stir the water in each aquarium.
7. The nubbins should be fed 2-3 times a week with *Artemia salina* nauplii.
8. Seawater temperature will be maintained at 23-26° C. Optimal salinity is 33-38‰.
9. pH in the aquaria should be monitored and range between 8.15 and 7.95 for optimal calcification and growth.
10. Subsamples from the mother colony are used for dinoflagellate identification, density and chlorophyll concentration.
11. The new nubbins are to be examined with a pulse amplitude modulated (PAM) once a month to follow changes in chlorophyll fluorescence, an indication of coral health and photoacclimation.
12. Nubbins are to be spaced according to their growth rate.
13. When a nubbin grows into a colony with a few branches, trimming and re-labeling can be performed to duplicate the number of nubbins of a certain genome.
14. *Stylophora pistillata* often reproduces sexually in aquaria and newly settling planulae may be observed on the aquaria side. These small colonies can be collected and later used as source (mother) colonies.

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