Supplement 1

Figure S1: Naming scheme for tracking colony change. The unique alpha-numeric naming scheme developed to track coral colony demographic unit change, including histories of fission and fusion.

**Colony naming Guide**

**Basic colony name scheme:** spp#code.col#.plot.quad.firsttimeobsv

**When a colony subdivides:** spp#code.col#.plot.quad.firsttimeobsv.subcol#

**When colonies fuse:** spp#code.col#.col#.plot.quad.firsttimeobsv
**Special Case When fused colonies subdivide:** spp#code.col#.col#.plot.quad.firsttimeobsv.subcol#

**Special Case When subdivided colonies fuse:** spp#code.col#.plot.quad.firsttimeobsv.subcol#.subcol#

**Special Case When multiple colonies with multiple sub-colonies fuse:** spp#code.col#.plot.quad.firsttimeobsv.subcol#.subcol#_subcol#_subcol#

Make sure to correlate the colonies and sub-colonies that are divided by the underscore in their respective order. This case is rare, but may occur with any number of colonies and sub-colonies.

**Special Case When the same colony sub-divides and fuses multiple times:** spp#code.col#.plot.quad.firsttimeobsv.subcol#.subcol#_subcol#_subcol#

**Basic Hole Name Scheme:** entirecolonyname.h#

What if the hole pertains to a partial colony? Place hole tag after colony name. For matching purposes, hole names should always match the name of the colony they are inside of, except for the 'h' tag.

E.g. 45.01.1.11200904_02h1

What should I do if holes merge? Combine both hole names at the end of the name in the same way as in the sub-colony special case above.

E.g. 45.01.1.11200904_02h1h2