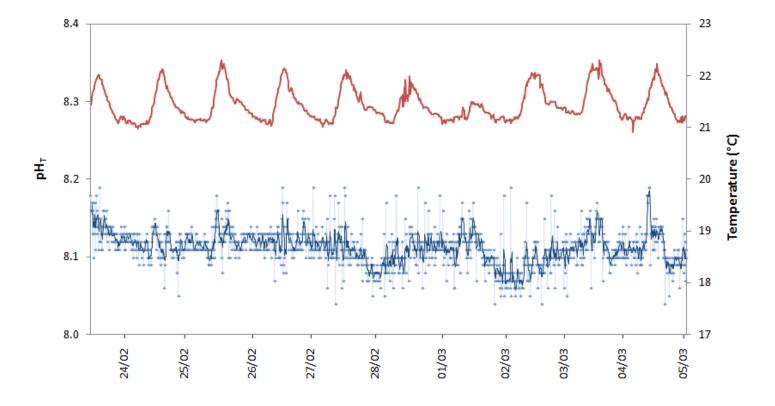


**Fig. S1.** a: Parental colonies in the Red Sea Simulator Experimental system in Eilat, Israel. To retain planulae within aquaria whilst maintaining water flow, a mesh cover was placed over the overflow drain, b: *Stylophora pistillata* planula two hours post release, c: newly settled primary polyp on ceramic tile ca. 24 hours post release, d: planulae were placed with ceramic tiles into 6-well plates in order to assess settlement and mortality over 36 hours. White bars in b and c are 1 cm scale.



**Fig. S2.** Recorded temperature (red, right axis) and pH<sub>T</sub> (blue, left axis) during the acclimation period after parent colony collection and before manipulation of experimental conditions. Temperature data was recorded at 15 minute intervals at 5 meters depth on the nursery where parent colonies were collected. pH data are of seawater entering the Red Sea Simulator system prior to entering mixing tanks. pH data is logged at 10 minute intervals (data points and thin blue line) and has been smoothed with a moving average function with a period of 4 (solid line).