

Table S1. Mean coverage percentage \pm standard deviation of sessile taxa on artificial reefs per year.

| Taxonomic Group/Species | 2017 | 2019 | 2020 |
|--|-------------------|-------------------|-------------------|
| Macroalgae | 0.830 \pm 0.425 | 0.868 \pm 0.342 | 0.863 \pm 0.243 |
| <i>Acetabularia</i> sp. | 0.006 \pm 0.007 | 0.000 \pm 0.002 | 0 |
| <i>Anadyomene stellata</i> (Wulfen) C.Agardh | 0.001 \pm 0.002 | 0.001 \pm 0.003 | 0.016 \pm 0.049 |
| <i>Caulerpa prolifera</i> (Forsskål) J.V.Lamouroux | 0 | 0.001 \pm 0.004 | 0.015 \pm 0.035 |
| <i>Codium</i> sp. | 0 | 0.001 \pm 0.004 | 0.002 \pm 0.007 |
| <i>Dictyopteris</i> sp. | 0.001 \pm 0.003 | 0.002 \pm 0.008 | 0 |
| <i>Dictyota implexa</i> (Desfontaines) J.V.Lamouroux | 0.133 \pm 0.249 | 0 | 0 |
| <i>Dictyota</i> sp. | 0 | 0.000 \pm 0.002 | 0.001 \pm 0.005 |
| Encrusting macroalgae | 0.036 \pm 0.060 | 0.055 \pm 0.067 | 0.077 \pm 0.088 |
| Mucilaginous algae | 0.278 \pm 0.282 | 0 | 0 |
| <i>Padina pavonica</i> (Linnaeus) Thivy | 0.001 \pm 0.003 | 0.002 \pm 0.005 | 0.001 \pm 0.003 |
| <i>Stypopodium schimperi</i> (Kützinger) Verlaque & Boudouresque | 0.004 \pm 0.009 | 0.000 \pm 0.002 | 0.013 \pm 0.029 |
| Turf-forming algae | 0.370 \pm 0.269 | 0.806 \pm 0.332 | 0.737 \pm 0.226 |
| Porifera | 0 | 0.016 \pm 0.030 | 0.021 \pm 0.031 |
| <i>Aplysina aerophoba</i> (Nardo, 1833) | 0 | 0.000 \pm 0.002 | 0 |
| <i>Chondrilla nucula</i> Schmidt, 1862 | 0 | 0 | 0.001 \pm 0.004 |
| <i>Cliona</i> sp. | 0 | 0.002 \pm 0.006 | 0 |
| <i>Fasciospongia cavernosa</i> (Schmidt, 1862) | 0 | 0.003 \pm 0.009 | 0.008 \pm 0.015 |
| <i>Ircinia</i> sp. | 0 | 0 | 0.004 \pm 0.018 |
| <i>Phorbas tenacior</i> (Topsent, 1925) | 0 | 0 | 0.000 \pm 0.002 |
| Red Encrusting Porifera | 0 | 0.002 \pm 0.012 | 0.005 \pm 0.021 |
| Other Porifera | 0 | 0.009 \pm 0.027 | 0.002 \pm 0.005 |
| Cnidaria | 0.017 \pm 0.053 | 0.065 \pm 0.059 | 0.067 \pm 0.051 |
| Hydrozoa | 0.017 \pm 0.053 | 0.065 \pm 0.059 | 0.067 \pm 0.051 |
| Polychaeta | 0.077 \pm 0.087 | 0.023 \pm 0.019 | 0.017 \pm 0.008 |
| <i>Protula</i> spp. | 0.009 \pm 0.022 | 0.002 \pm 0.005 | 0.007 \pm 0.006 |
| <i>Sabella</i> spp. | 0.001 \pm 0.003 | 0 | 0 |
| Other Serpulidae | 0.068 \pm 0.074 | 0.022 \pm 0.018 | 0.011 \pm 0.006 |
| Mollusca | 0 | 0.003 \pm 0.008 | 0.006 \pm 0.013 |
| <i>Dendostrea</i> cf. <i>folium</i> (Linnaeus, 1758) | 0 | 0 | 0.001 \pm 0.004 |
| Ostreidae spp. | 0 | 0.001 \pm 0.004 | 0 |
| <i>Pinctada radiata</i> (Leach, 1814) | 0 | 0.000 \pm 0.002 | 0 |
| <i>Rocellaria dubia</i> (Pennant, 1777) | 0 | 0.002 \pm 0.005 | 0.001 \pm 0.002 |
| <i>Chama</i> sp. | 0 | 0 | 0.001 \pm 0.007 |
| <i>Thylacodes arenarius</i> (Linnaeus, 1758) | 0 | 0.000 \pm 0.002 | 0.001 \pm 0.004 |
| Bryozoa | 0.069 \pm 0.199 | 0.019 \pm 0.052 | 0.018 \pm 0.078 |
| <i>Calpensia</i> sp. | 0.060 \pm 0.199 | 0.018 \pm 0.051 | 0.018 \pm 0.078 |
| Encrusting Bryozoa | 0.007 \pm 0.024 | 0.000 \pm 0.002 | 0 |
| <i>Reteporella</i> sp. | 0.001 \pm 0.002 | 0.001 \pm 0.003 | 0.001 \pm 0.002 |
| Tunicata | 0.007 \pm 0.018 | 0.005 \pm 0.016 | 0.007 \pm 0.016 |
| Colonial Tunicata | 0.003 \pm 0.013 | 0.005 \pm 0.016 | 0.006 \pm 0.014 |
| <i>Didemnum</i> sp. | 0.004 \pm 0.013 | 0 | 0.000 \pm 0.002 |
| <i>Halocynthia papillosa</i> (Linnaeus, 1767) | 0 | 0 | 0.001 \pm 0.004 |
| Solitary Tunicata | 0 | 0.001 \pm 0.003 | 0.001 \pm 0.002 |
| UBS | 0.197 \pm 0.215 | 0.476 \pm 0.203 | 0.436 \pm 0.147 |

Table S2. Mean abundance percentage \pm standard deviation of motile invertebrates on artificial reefs per year.

| Taxonomic Group/Species | 2017 | 2019 | 2020 |
|--|-------------------|-------------------|-------------------|
| Polychaeta | 0.105 \pm 0.105 | 0.177 \pm 0.175 | 0.281 \pm 0.429 |
| Aphroditidae | 0 | 0.005 \pm 0.013 | 0 |
| Capitellidae | 0.003 \pm 0.004 | 0.009 \pm 0.008 | 0.005 \pm 0.013 |
| Chrysopetalidae | 0.014 \pm 0.013 | 0.027 \pm 0.025 | 0.043 \pm 0.064 |
| Dorvilleidae | 0 | 0.024 \pm 0.031 | 0.011 \pm 0.017 |
| Eunicidae | 0.004 \pm 0.003 | 0.002 \pm 0.004 | 0.005 \pm 0.013 |
| Glyceridae | 0 | 0 | 0.005 \pm 0.013 |
| Hesionidae | 0.001 \pm 0.002 | 0.007 \pm 0.012 | 0 |
| Lumbrineridae | 0.001 \pm 0.002 | 0 | 0.005 \pm 0.013 |
| Nereididae | 0.014 \pm 0.016 | 0.002 \pm 0.004 | 0.049 \pm 0.081 |
| Opheliidae | 0 | 0 | 0.011 \pm 0.017 |
| Paraonidae | 0.018 \pm 0.018 | 0 | 0 |
| Pholoinae | 0.001 \pm 0.002 | 0 | 0.005 \pm 0.013 |
| Phyllodocidae | 0.002 \pm 0.003 | 0 | 0 |
| Spionidae | 0.008 \pm 0.009 | 0.003 \pm 0.005 | 0.005 \pm 0.013 |
| Syllidae | 0.041 \pm 0.064 | 0.098 \pm 0.133 | 0.135 \pm 0.315 |
| Sipuncula | 0 | 0 | 0.005 \pm 0.012 |
| Sipunculidae | 0 | 0 | 0.005 \pm 0.012 |
| Mollusca | 0.753 \pm 0.419 | 0.787 \pm 0.762 | 0.670 \pm 0.486 |
| -Cardiidae | 0.002 \pm 0.004 | 0.005 \pm 0.009 | 0 |
| <i>Parvicardium pinnulatum</i> (Conrad, 1831) | 0.002 \pm 0.004 | 0 | 0 |
| <i>Parvicardium</i> sp. | 0 | 0.005 \pm 0.009 | 0 |
| -Cerithiidae | 0.665 \pm 0.405 | 0.720 \pm 0.738 | 0.649 \pm 0.490 |
| <i>Bittium latreillii</i> (Payraudeau, 1826) | 0.641 \pm 0.403 | 0.691 \pm 0.695 | 0.632 \pm 0.504 |
| <i>Bittium reticulatum</i> (da Costa, 1778) | 0 | 0 | 0.016 \pm 0.025 |
| <i>Bittium</i> sp. | 0.019 \pm 0.036 | 0.029 \pm 0.046 | 0 |
| <i>Cerithium</i> sp. | 0.006 \pm 0.006 | 0 | 0 |
| -Cerithiopsidae | 0.001 \pm 0.002 | 0 | 0 |
| <i>Cerithiopsis</i> sp. | 0.001 \pm 0.002 | 0 | 0 |
| -Conidae | 0.005 \pm 0.013 | 0.005 \pm 0.009 | 0 |
| <i>Conidae</i> sp. | 0 | 0.002 \pm 0.004 | 0 |
| <i>Conus ventricosus</i> Gmelin, 1791 | 0.002 \pm 0.004 | 0 | 0 |
| -Haminoeidae | 0 | 0.002 \pm 0.004 | 0 |
| <i>Haminoea</i> sp. | 0 | 0.002 \pm 0.004 | 0 |
| -Mangeliidae | 0.002 \pm 0.004 | 0 | 0 |
| <i>Mangelia</i> sp. | 0.002 \pm 0.004 | 0 | 0 |
| -Mitridae | 0 | 0.002 \pm 0.004 | 0 |
| <i>Episcomitra cornicula</i> (Linnaeus, 1758) | 0 | 0.002 \pm 0.004 | 0 |
| -Mitromorphidae | 0 | 0.002 \pm 0.004 | 0.005 \pm 0.012 |
| <i>Mitromorpha columbellaria</i> (Scacchi, 1836) | 0 | 0 | 0.005 \pm 0.012 |
| <i>Mitromorpha</i> sp. | 0 | 0.002 \pm 0.004 | 0 |
| -Muricidae | 0.006 \pm 0.010 | 0.003 \pm 0.005 | 0.011 \pm 0.015 |
| <i>Hexaplex trunculus</i> (Linnaeus, 1758) | 0.003 \pm 0.003 | 0 | 0 |
| <i>Murexsul aradasii</i> (Monterosato, 1883) | 0 | 0 | 0.005 \pm 0.012 |
| <i>Muricidae</i> sp. | 0 | 0 | 0.005 \pm 0.012 |
| <i>Muricopsis cristata</i> (Brocchi, 1814) | 0.004 \pm 0.009 | 0.003 \pm 0.005 | 0 |
| -Mytilidae | 0.002 \pm 0.003 | 0.012 \pm 0.029 | 0 |
| <i>Musculus costulatus</i> (Risso, 1826) | 0.002 \pm 0.003 | 0.012 \pm 0.029 | 0 |
| -Noetiidae | 0.001 \pm 0.002 | 0 | 0 |

| | | | |
|--|---------------|---------------|---------------|
| <i>Striarca lactea</i> (Linnaeus, 1758) | 0.001 ± 0.002 | 0 | 0 |
| -Omalogyridae | 0 | 0.014 ± 0.021 | 0 |
| <i>Omalogyra atomus</i> (Philippi, 1841) | 0 | 0.014 ± 0.021 | 0 |
| -Pectinidae | 0.001 ± 0.002 | 0 | 0 |
| Pectinidae sp. | 0.001 ± 0.002 | 0 | 0 |
| -Phasianellidae | 0.006 ± 0.011 | 0.002 ± 0.004 | 0 |
| <i>Odostomia</i> sp. | 0 | 0.002 ± 0.004 | 0 |
| <i>Tricolia pullus</i> (Linnaeus, 1758) | 0.004 ± 0.011 | 0 | 0 |
| -Raphitomidae | 0.001 ± 0.002 | 0 | 0 |
| <i>Raphitoma</i> sp. | 0.001 ± 0.002 | 0 | 0 |
| -Rissoidae | 0.050 ± 0.062 | 0.024 ± 0.025 | 0 |
| <i>Alvania schwartziana</i> Brusina, 1866 | 0.007 ± 0.017 | 0.003 ± 0.005 | 0 |
| <i>Alvania</i> sp. | 0.001 ± 0.002 | 0 | 0 |
| <i>Pusillina marginata</i> (Michaud, 1830) | 0.042 ± 0.066 | 0.021 ± 0.022 | 0 |
| -Semelidae | 0.001 ± 0.002 | 0 | 0 |
| <i>Abra nitida</i> (O. F. Müller, 1776) | 0.001 ± 0.002 | 0 | 0 |
| -Trochidae | 0.015 ± 0.018 | 0 | 0.005 ± 0.012 |
| <i>Gibbula</i> sp. | 0.004 ± 0.009 | 0 | 0 |
| <i>Jujubinus exasperatus</i> (Pennant, 1777) | 0.009 ± 0.010 | 0 | 0 |
| <i>Jujubinus</i> sp. | 0.003 ± 0.007 | 0 | 0.005 ± 0.012 |
| -Veneridae | 0.001 ± 0.002 | 0 | 0 |
| Veneridae sp. | 0.001 ± 0.002 | 0 | 0 |
| Crustacea | 0.142 ± 0.117 | 0.036 ± 0.027 | 0.043 ± 0.045 |
| -Amphipoda | 0.116 ± 0.109 | 0.015 ± 0.013 | 0.011 ± 0.015 |
| Ampithoidae | 0 | 0.002 ± 0.004 | 0.005 ± 0.012 |
| Aoridae | 0.019 ± 0.018 | 0.007 ± 0.005 | 0 |
| Caprellidae | 0.040 ± 0.043 | 0.002 ± 0.004 | 0 |
| Corophiidae | 0.001 ± 0.002 | 0 | 0 |
| Dexaminidae | 0.031 ± 0.027 | 0.003 ± 0.005 | 0 |
| Lysianassidae | 0.021 ± 0.026 | 0 | 0 |
| Maeridae | 0 | 0 | 0.005 ± 0.012 |
| Nuuanuidae | 0.003 ± 0.007 | 0 | 0 |
| Oedicerotidae | 0.001 ± 0.002 | 0 | 0 |
| Stenothoidae | 0 | 0.002 ± 0.004 | 0 |
| -Cumacea | 0.019 ± 0.026 | 0 | 0 |
| Bodotriidae | 0.019 ± 0.026 | 0 | 0 |
| -Decapoda | 0 | 0.005 ± 0.009 | 0.011 ± 0.024 |
| Paguridae | 0 | 0 | 0.011 ± 0.024 |
| Portunidae | 0 | 0.005 ± 0.009 | 0 |
| -Isopoda | 0.004 ± 0.006 | 0 | 0 |
| Anthuridae | 0.003 ± 0.007 | 0 | 0 |
| Janiridae | 0.001 ± 0.002 | 0 | 0 |
| -Tanaidacea | 0.003 ± 0.003 | 0.017 ± 0.024 | 0.022 ± 0.024 |
| Leptocheliidae | 0.003 ± 0.003 | 0.017 ± 0.024 | 0.022 ± 0.024 |



Figure S1. Photographed quadrat of 25 × 25 cm placed on the surface of an AR.

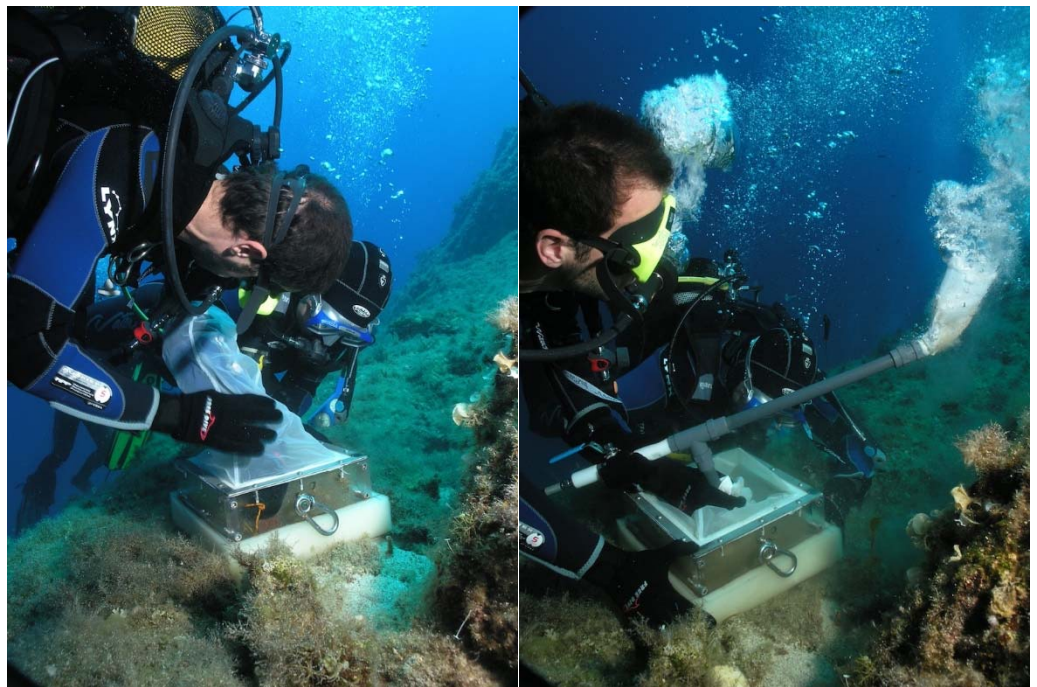


Figure S2. Sampling of the motile component of benthic assemblages. Artificial reef surfaces of 25 × 25 cm were exhaustively scraped using a padded quadrat (**left**), and the samples were collected using a MANOSS suction sampler (**right**).