**Table S1**. Occurrence records and references for *Archaias angulatus*, *Amphistegina* spp. and *Calcarina* spp. used in this study.

(A.: *Amphistegina* spp.; C.: *Calcarina* spp.; Aa.: *Archaias angulatus*)

| **Sites** | **Taxa** | **References** |
| --- | --- | --- |
| ***Australia*** |  |  |
| West Australia | A. | [1] |
| Bateman Bay | A. | [2] |
| Norwegian Bay | A. | [2] |
| Exmouth | A. | [3] |
| Shark Bay | A. | [3] |
| Heron Island | A., C. | [3] |
| Lord Howe Island | A. | [3] |
| Green Island | C. | [4] |
| Lizard Island | A., C. | [3] |
| Sahul Shelf | A., C. | [3] |
| ***Pacific and Southeast Asia*** |  |  |
| Hawaii | A. | [3] |
| Easter Islands | A. | [3] |
| Pitcairn Island | A. | [3] |
| Rarotonga | A. | [3] |
| New Caledonia | A., C. | [3] |
| Tahiti | A. | [3] |
| Scilly | A. | [3] |
| Samoa | A., C. | [3] |
| Funafuti | A., C. | [3, 5]  |
| Honiara Bay | A., C. | [3] |
| Solomon Islands | A., C. | [3] |
| Phoenix Island | A. | [3] |
| Onotoa Atoll | A., C. | [3] |
| Kapinagamaringi Atoll | A. | [3] |
| Majuro Atoll | A., C. | [6, 7] |
| Palau | A., C. | [3] |
| Kayangel Atoll | A., C. | [8] |
| Enewetak Atoll | A., C. | [8] |
| Marshall Islands | A., C. | [3] |
| Mariana Islands | A., C. | [3] |
| Johnston Atoll | A. | [3] |
| Midway Islands | A. | [3] |
| China Sea | A., C. | [3] |
| Bali | A., C. | [3, 9] |
| Indonesia | A., C. | [3] |
| Java | A., C. | [3] |
| Jakarta | A., C. | [3] |
| Madang | A., C. | [10] |
| Sulawesi | A., C. | [11] |
| Kabaena | A. | [3] |
| Thailand | A., C. | [3] |
| Philippines | A., C. | [3] |
| Ishigaki | A., C. | [12] |
| Okinawa | A., C. | [3, 13] |
| Ogasawara | A. | [3] |
| Tokara Island | A. | [3] |
| Kagoshima | A., C. | [3] |
| Tanabe Bay | A. | [14] |
| Sendai | A. | [3] |
| ***Indian Ocean*** |  |  |
| Shelley Beach | A. | [15] |
| Inhaca | A. | [16, 17] |
| Inhambane | A. | [18] |
| Bazaruto | A. | [19] |
| Mafamete | A. | [15] |
| Pemba | A. | [15] |
| Quirimbas | A. | [20] |
| Mafia Island | A. | [15] |
| Zanzibar Island | A. | [15] |
| Pemba Island | A. | [15] |
| Kenya | A. | [3] |
| Somalia | A. | [21] |
| Réunion | A. | [22] |
| Mascareigne Island | A. | [3] |
| Mayotte | A. | [3] |
| Glorioso | A. | [23] |
| Chagos Island | A. | [3] |
| Seychelles | A. | [3] |
| Maldives | A., C. | [24] |
| India | C. | [4] |
| Coshin | A. | [3] |
| Andamanen Islands | A. | [3] |
| ***Atlantic*** |  |  |
| Rio de Janeiro | A. | [25] |
| Abrolhos | A., Aa. | [26, 27, 28] |
| Recife de Fora | A., Aa. | [29] |
| St. Helena | A. | [3] |
| Salvador | A., Aa. | [3] |
| Atoll das Rocas | A., Aa. | [27, 28] |
| Fernando de Noronha | A., Aa. | [3, 28] |
| ***Caribbean*** |  |  |
| Panama | A., Aa. | [30] |
| Catargena | A., Aa. | [3] |
| Venezuela | A., Aa. | [3] |
| Curacao | A., Aa. | [27, 31, 32] |
| Aruba | A. | [3] |
| Barbados | A., Aa. | [3] |
| St. Lucia | A., Aa. | [27, 33] |
| Guadeloupe | A., Aa. | [34] |
| Belize | A., Aa. | [35] |
| British Honduras | A., Aa. | [34] |
| Antigua | A., Aa. | [27, 31] |
| St. Kitts | A., Aa. | [34] |
| S Puerto Rico | A., Aa. | [34] |
| Jamaica | A., Aa. | [34] |
| Ponce | A. | [34] |
| SW Puerto Rico | A., Aa. | [34] |
| St. Martin | A., Aa. | [34] |
| Puerto Rico | Aa | [3] |
| Jamaica | A., Aa. | [34] |
| San Juan | A., Aa. | [34] |
| Yucatan | A., Aa. | [36] |
| Cuba | Aa | [3] |
| Batabano | A., Aa. | [34] |
| Campeche Bank | A., Aa. | [37] |
| W Cuba | A. | [34] |
| Havanna | A., Aa. | [34] |
| Bahamas | A., Aa. | [3] |
| Tortugas | A., Aa. | [37] |
| Cape Romano | A., Aa. | [37] |
| Florida | A., Aa. | [3] |
| NE Gulf of Mexico | A., Aa. | [37] |
| Stetson Bank | A. | [37] |
| Claypile Bank | A. | [37] |
| Mississippi Delta | A. | [37] |
| NE Gulf of Mexico | A., Aa. | [37] |
| Gulf of Mexico | A., Aa. | [3] |
| Bermuda | A., Aa. | [3] |
| North Carolina | A. | [3] |
| ***Red Sea and Mediterranean*** |  |  |
| Red Sea | A. | [3] |
| Safaga | A. | [3] |
| Eilat | A. | [3] |
| Haifa | A. | [3] |
| Libya | A. | [3] |
| Cyprus | A. | [38] |
| Malta | A. | [38, 39] |
| Antalya Bay | A. | [38] |
| Korthi | A. | [38, 40] |
| Corfu | A. | [38] |
| Kallikratia | A. | [38, 40] |

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