

**Supplementary Table S1.** List of studies on pneumatophores and the associated prokaryotic community (1975–2022).

S. No.	Title of the study	Citation	Reference
1	The core mangrove microbiome reveals shared taxa potentially involved in nutrient cycling and promoting host survival	6	[100]
2	Distribution and extracellular enzyme production of cultivable bacteria isolated from pneumatophores of Ayiramthengu mangrove ecosystem of Kerala coast	0	[84]
3	Isolation and metabolic profile identification of four bioremedial endophytic bacterial colonies from the pneumatophore of <i>Avicennia officinalis</i> from Poovar mangrove, north east coast of Kerala, India.	0	[86]
4	Epibiotic communities (microalgae and meiofauna) on the pneumatophores of <i>Avicennia officinalis</i> (L.)	4	[52]
5	LC-MS based identification of secondary metabolites from marine antagonistic endophytic bacteria	4	[85]
6	Occurrence of phosphate-solubilizing bacteria in rhizospheric and pneumatophoric sediment of <i>Avicennia marina</i>	6	[83]
7	Pyrosequencing-based seasonal observation of prokaryotic diversity in pneumatophore-associated soil of <i>Avicennia marina</i>	17	[32]
8	Biodiversity and toxin production of cyanobacteria in mangrove swamps in the Red Sea off the southern coast of Saudi Arabia	15	[73]
9	Mangrove-associated macroalgae and cyanobacteria in Shark Bay, Western Australia	1	[75]
10	Epiphytic cyanobacteria on <i>Avicennia marina</i> pneumatophore in mangrove ecosystem of Cagar Alam Pulau Dua (CAPD) Serang, Banten (conference proceeding)	5	[76]
11	Cyanobacterial biodiversity at mangrove vegetation of Kadalundi, Kerala.	0	[77]
12	Newly isolated Chl d-containing cyanobacteria	4	[79]
13	Cyanobacteria and macroalgae from an arid environment mangrove on the east coast of the Baja California Peninsula	7	[71]
14	A novel epiphytic chlorophyll d-containing cyanobacterium isolated from a mangrove-associated red alga	33	[78]
15	Plant growth promoting of endophytic <i>Sporosarcina aquimarina</i> SjAM16103 isolated from the pneumatophores of <i>Avicennia marina</i> L.	23	[81]

16	Biodiversity and temporal distribution of Chroococcales (Cyanoprokaryota) of an arid mangrove on the east coast of Baja California Sur, Mexico	4	[57]
17	Endophytic bacteria isolated from the pneumatophores of <i>Avicennia marina</i>	21	[80]
18	Epiphytic organisms on the pneumatophores of the mangrove <i>Avicennia marina</i> : occurrence and possible function	6	[82]
19	The distribution of algae epiphytic on pneumatophores of the mangrove, <i>Avicennia marina</i> , at different salinities in the Kosi System	7	[55]
20	Biological N <sub>2</sub> -fixation on mangrove pneumatophores: Preliminary observations and perspectives	26	[47]
21	Cyanobacterial diversity and nitrogen fixation in coastal areas around Zanzibar, Tanzania	18	[36]
22	Monitoring of black mangrove restoration with nursery-reared seedlings on an arid coastal lagoon	83	[91]
23	Biodiversity and distribution of epiphytes community associated with pneumatophores of the mangal <i>Avicennia marina</i> (Forssk.) Vierh, along Egyptian Red Sea coast	3	[72]
24	In vitro transfer of fixed nitrogen from diazotrophic filamentous cyanobacteria to black mangrove seedlings	48	[92]
25	A comparison of nitrogen fixation (acetylene reduction) among three species of mangrove litter, sediments, and pneumatophores in south Florida, USA	57	[48]
26	Vertical zonation of epiphytic algae associated with <i>Avicennia marina</i> (Forssk.) Vierh. pneumatophores at Beachwood Mangroves Nature Reserve, Durban, South Africa	25	[34]
27	Cyanobacteria and black mangroves in Northwestern Mexico: Colonization, and diurnal and seasonal nitrogen fixation on aerial roots	61	[42]
28	In vitro colonization and increase in nitrogen fixation of seedling roots of black mangrove inoculated by a filamentous cyanobacteria	53	[70]
29	Horizontal zonation of epiphytic algae associated with <i>Avicennia marina</i> (Forssk.) Vierh. pneumatophores at Beachwood Mangroves Nature Reserve, Durban, South Africa	19	[69]
30	Intertidal and subtidal blue-green algal mats of open and mangrove areas in the Farasan Archipelago (Saudi Arabia), Red Sea	61	[58]
31	Biological nitrogen fixation (acetylene reduction) associated with blue-green algal (cyanobacterial) communities in the Beachwood Mangrove Nature Reserve II. Seasonal variation in acetylene reduction activity	11	[37]
32	Cyanophyceae associated with mangrove trees at Inhaca Island, Mozambique	16	[74]

33	Biomass of algae epiphytic on pneumatophores of the mangrove, <i>Avicennia marina</i> , in the St Lucia estuary	25	[50]
34	Algae associated with mangroves in southern African estuaries: Cyanophyceae	23	[68]
35	Biological nitrogen fixation (acetylene reduction) associated with blue-green algal (cyanobacterial) communities in the Beachwood Mangrove Nature Reserve. I. The effect of environmental factors on acetylene reduction activity	22	[33]
36	Nitrogen fixation associated with the New Zealand mangrove ( <i>Avicennia marina</i> (Forsk.) Vierh. var. <i>resinifera</i> (Forst. f.) Bakh.)	78	[46]
37	Blue-green algae (Cyanophyta) in marine coastal environments of the Sinai Peninsula; distribution, zonation, stratification and taxonomic diversity	96	[67]
38	Nitrogen fixation (acetylene reduction) associated with communities of heterocystous and non-heterocystous blue-green algae in mangrove forests of Sinai	93	[51]
39	The blue-green algae of the mangrove forests of Sinai	13	[95]
40	Mangrove-associated nitrogen fixation	30	[45]

**Supplementary Table S2.** List of cyanobacteria reported on pneumatophores of mangroves at different locations.

Cyanobacteria	Methodology	Habitat	Location and Country	Reference
<i>Acaryochloris</i> sp. MPGRS1	Isolation and 16s rDNA identification	Epiphytic on red algae on <i>A. marina</i> (Forsk.) Vierh. pneumatophores	Salt Pan Creek, Georges River, Australia	[75]
<i>Acaryochloris</i> sp. Mangrove1	Isolation and 16s rDNA identification	Epiphytic on red algae on mangrove pneumatophores	Georges river, Sydney, Australia	[80]
<i>Anabaena</i> sp.	Isolation and microscopic identification	Epiphytic on <i>A. germinans</i> (L.) stern pneumatophores	Balandra coastal lagoon, Baja California Sur, Mexico	[44]
<i>Aphanocapsa</i> sp.	Microscopic observation and identification; isolation and microscopic identification	Epiphytic on <i>Sonneratia alba</i> , <i>A. germinans</i> , and <i>A. marina</i> pneumatophores	Gulf of Elat, Sinai Peninsula; Mangrove areas around Zanzibar; East coast of the Baja California Peninsula, Mexico; Cagar Alam Pulau Dua (CAPD) Serang, Banten	[36,67,71,76]
<i>A. conferta</i> (formerly <i>A. elachista</i> var. <i>conferta</i> )	Microscopic observation and identification	Within algal mucilage on <i>A. marina</i> (Forssk.) Vierh. pneumatophores; epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa; Beachwood Mangroves Nature Reserve, South Africa	[34,55,68]
<i>A. litoralis</i>	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[57,71]
<i>A. muscicola</i> (formerly <i>A. montana</i> )	Microscopic observation and identification	Within algal mucilage on <i>A. marina</i> (Forssk.) Vierh. pneumatophores; epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa	[55,68]
<i>Aphanothece</i> sp.	Isolation and microscopic identification	Epiphytic on <i>A. marina</i> pneumatophores	Cagar Alam Pulau Dua (CAPD) Serang, Banten	[76]
<i>A. stagnina</i>	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Inhaca Island, Mozambique,	[74]
<i>Arthrospira platensis</i>	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Inhaca Island, Mozambique,	[74]
<i>Calothrix</i> sp.	Microscopic observation and identification;	Epiphytic on <i>A. marina</i> and <i>A. germinans</i> pneumatophores	Gulf of Elat, Sinai Peninsula; Egyptian Red Sea coast; East coast of the Baja California	[67,71,72,76]

	isolation and microscopic identification		Peninsula, Mexico; Cagar Alam Pulau Dua (CAPD) Serang, Banten	
<i>C. aeruginea</i>	Microscopic observation and identification	Epiphytic on <i>A. marina</i> var. <i>marina</i> ; among other algae on pneumatophores	Shark Bay, Western Australia; Gulf of Elat, Sinai Peninsula	[67,75]
<i>C. breviarticulata</i>	Isolation and microscopic identification	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]
<i>C. contarenii</i>	Microscopic observation and identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa	[55,68]
<i>C. scopulorum</i>	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Inhaca Island, Mozambique; Kosi system, South Africa	[55,74]
<i>Chamaecalyx</i> sp.	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[57,71]
<i>Chamaecalyx leibleiniae</i>	Microscopic observation	On <i>A. Marina</i> , associated with <i>Catenella</i> and <i>Murravella</i> sp.	Inhaca Island, Mozambique	[74]
<i>Chroococcus</i> sp.	Microscopic observation and identification; isolation and microscopic identification	Epiphytic on <i>A. marina</i> and <i>A. germinans</i> pneumatophores	Gulf of Elat, Sinai Peninsula; East coast of the Baja California Peninsula, Mexico; Cagar Alam Pulau Dua (CAPD) Serang, Banten	[57,67,71,76]
<i>C. obliteratus</i>	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[57,71]
<i>C. hansgirgii</i>	Microscopic observation and identification	Within algal mucilage on <i>A. marina</i> (Forssk.) Vierh. pneumatophores; Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa	[55,68]
<i>C. minutus</i>	Microscopic observation	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]
<i>C. turgidus</i>	Microscopic observation and identification; isolation and microscopic identification	Within algal mucilage on <i>A. marina</i> (Forssk.) Vierh. pneumatophores; epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa; Southern Red Sea coast of Saudi Arabia	[55,68,73]
<i>C. turgidus</i> var <i>maximus</i>	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Inhaca Island, Mozambique	[74]

<i>Coleofasciculus chthonoplastes</i> (formerly <i>Microcoleus chthonoplastes</i> )	Microscopic observation and identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores; on <i>A. Marina</i> , associated with <i>red algae</i>	Mangroves in southern African estuaries; Inhaca Island, Mozambique; Beachwood Mangroves Nature Reserve, South Africa; Kosi system, South Africa; St Lucia Estuary; Shark Bay, Western Australia	[34,50,55,68,69,74,75]
<i>Cyanocystis olivacea</i> (formerly <i>Dermocarpa olivacea</i> )	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Kosi system, South Africa	[55]
<i>Dermocarpa acervata</i> (formerly <i>Xenococcus acervatus</i> )	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Kosi system, South Africa; St Lucia Estuary; Inhaca Island, Mozambique	[50,55,74]
<i>Dermocarpella stellata</i>	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[57,71]
<i>Dichothrix penicillata</i>	Microscopic identification	Epiphytic on pneumatophores	Farasan Archipelago (Saudi Arabia), Red Sea	[58]
<i>D. utahensis</i>	Microscopic observation	Epiphytic on <i>A. marina</i> var. <i>marina</i>	Shark Bay, Western Australia	[75]
<i>Geitlerinema</i> sp.	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[71]
<i>Gloeocapsa</i> sp.	Microscopic identification	Epiphytic on pneumatophores; in <i>Rivularia</i> colonies	Gulf of Elat, Sinai Peninsula	[67]
<i>Heteroleibleinia</i> sp.	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[71]
<i>Heteroscytonema crispum</i> (formerly <i>Scytonema crispum</i> )	Microscopic observation	Epiphytic on <i>A. marina</i> var. <i>marina</i>	Shark Bay, Western Australia	[75]
<i>Hydrococcus</i> sp.	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[57,71]
<i>Hydrococcus rivularis</i>	Microscopic observation	On <i>A. Marina</i> , associated with red algae; epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Inhaca Island, Mozambique; Kosi system, South Africa	[55,74]

<i>Kamptonema chlorinum</i> (formerly <i>Oscillatoria chlorina</i> )	Microscopic identification; microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa	[55,68]
<i>Kamptonema okenii</i> (formerly <i>Oscillatoria okenii</i> )	Microscopic observation and identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Beachwood Mangroves Nature Reserve, South Africa	[34,69]
<i>Leptolynghya sp.</i>	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[71]
<i>L. tenuis</i>	Isolation and microscopic identification	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]
<i>Limnoraphis birgei</i> (formerly <i>Lyngbya birgei</i> )	Microscopic observation	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]
<i>Lyngbya sp.</i>	Microscopic observation; isolation and microscopic identification	Epiphytic on <i>A. marina</i> and <i>A. germinans</i> pneumatophores	Egyptian Red Sea coast; East coast of the Baja California Peninsula, Mexico; Shark Bay, Western Australia	[71,72,75]
<i>L. cinerascens</i>	Microscopic identification	Wrapped loosely around larger algae epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries	[68]
<i>L. confervoides</i>	Microscopic observation and identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Inhaca Island, Mozambique; Beachwood Mangroves Nature Reserve, South Africa; St Lucia Estuary;	[34,50,68,69,74]
<i>L. lutea</i>	Microscopic identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries	[68]
<i>L. majuscula</i>	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Inhaca Island, Mozambique,	[74]
<i>L. majuscula</i>	Isolation and microscopic identification	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]
<i>L. martensiana</i>	Microscopic identification	Epiphytic on pneumatophores	Gulf of Elat, Sinai Peninsula	[67]

<i>L. nigra</i>	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Inhaca Island, Mozambique	[74]
<i>L. semiplena</i>	Microscopic observation	Epiphytic on <i>A. marina</i> var. <i>marina</i>	Shark Bay, Western Australia	[75]
<i>Microcoleus</i> sp.	Microscopic observation; isolation and microscopic identification	Epiphytic on <i>A. germinans</i> and <i>A. marina</i> pneumatophores	Balandra coastal lagoon, Baja California Sur, Mexico; Cagar Alam Pulau Dua (CAPD) Serang, Banten	[42,71,76]
<i>Myxohyella papuana</i>	Microscopic observation	Epiphytic on <i>A. marina</i> var. <i>marina</i>	Shark Bay, Western Australia	[75]
<i>Myxosarcina</i> sp.	Isolation and microscopic identification	Epiphytic on <i>A. marina</i> pneumatophores	Cagar Alam Pulau Dua (CAPD) Serang, Banten	[76]
<i>Nodularia</i> sp.	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Inhaca Island, Mozambique	[74]
<i>Oxynema acuminatum</i> (formerly <i>Oscillatoria acuminata</i> )	Isolation and microscopic identification	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]
<i>Oscillatoria</i> sp.	Microscopic observation; isolation and microscopic identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Egyptian Red Sea coast; Cagar Alam Pulau Dua (CAPD) Serang, Banten	[72,76]
<i>O. corallinae</i>	Microscopic identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries	[68]
<i>O. limosa</i>	Microscopic identification; microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa	[55,68]
<i>O. crassa</i> (formerly <i>O. ornata</i> var. <i>crassa</i> )	Isolation and microscopic identification	Epiphytic on <i>A. officinalis</i>	Kadalundi, Kerala, India	[77]
<i>O. proboscidea</i>	Microscopic observation and identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. Pneumatophores and intertwined with larger algae on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Beachwood Mangroves Nature Reserve, South Africa; Mangroves in southern African estuaries	[34,68,69]
<i>O. sancta</i>	Microscopic observation	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]



<i>O. subbrevis</i>	Microscopic observation and identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	St Lucia Estuary; Beachwood Mangroves Nature Reserve, South Africa; Mangroves in southern African estuaries	
<i>O. tenuis</i>	Isolation and microscopic identification	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]
<i>O. williei</i>	Microscopic observation	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]
<i>Phormidium</i> sp.	Microscopic observation; isolation and microscopic identification	Epiphytic on <i>A. germinans</i> and <i>A. marina</i> pneumatophores	East coast of the Baja California Peninsula, Mexico; Cagar Alam Pulau Dua (CAPD) Serang, Banten	[71,76]
<i>P. ambiguum</i>	Microscopic observation and identification	In dense interwoven mats on <i>A. marina</i> (Forssk.) Vierh. Pneumatophores; epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa	[55,68]
<i>P. holdenii</i> (formerly <i>Leibleinia subtilis</i> )	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[71]
<i>P. allorgei</i> (formerly <i>Lyngbya allorgei</i> )	Microscopic observation and identification	Epiphytic on pneumatophores	Gulf of Elat, Sinai Peninsula	[67]
<i>P. baculum</i> (formerly <i>Lyngbya baculum</i> )	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	St Lucia Estuary	[50]
<i>P. nigroviride</i> (formerly <i>Oscillatoria nigroviridis</i> )	Microscopic observation and identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Beachwood Mangroves Nature Reserve, South Africa; mangroves in southern African estuaries; St Lucia Estuary	[34,50,68,69]
<i>P. schultzei</i> (formerly <i>Oscillatoria schultzei</i> )	Microscopic observation and identification	Mixed with epipelagic algae and epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Beachwood Mangroves Nature Reserve, South Africa; mangroves in southern African estuaries	[34,68,69]
<i>Pleurocapsa</i> sp.	Microscopic identification	Epiphytic on pneumatophores	Gulf of Elat, Sinai Peninsula	[67]
<i>Pseudanabaena</i> sp.	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[71]
<i>Pseudanabaena catenata</i>	Isolation and microscopic identification	Epiphytic on <i>A. marina</i> Vierth pneumatophores	Southern Red Sea coast of Saudi Arabia	[73]

<i>Rivularia</i> sp.	Microscopic observation and identification	Epiphytic on <i>Sonneratia alba</i> pneumatophores and pneumatophores	Gulf of Elat, Sinai Peninsula; mangrove areas around Zanzibar	[36,67]
<i>R. atra</i>	Microscopic observation	Epiphytic on <i>A. marina</i> var. <i>marina</i>	Shark Bay, Western Australia	[75]
<i>R. bullata</i>	Microscopic observation and identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa	[55,68]
<i>R. polyotis</i>	Microscopic observation and identification	Epiphytic on pneumatophores; epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Farasan Archipelago (Saudi Arabia), Red Sea; Egyptian Red Sea coast	[58,72]
<i>Schizothrix arenaria</i>	Microscopic identification	Intertwined with larger algae epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Mangroves in southern African estuaries	[68]
<i>Scytonematopsis crustacea</i> (formerly <i>C. crustacean</i> )	Microscopic identification	Epiphytic on pneumatophores	Gulf of Elat, Sinai Peninsula	[67]
<i>Scytonema</i> sp.	Microscopic observation and identification	Collars on pneumatophores; epiphytic on <i>Sonneratia alba</i> pneumatophores	Gulf of Elat, Sinai Peninsula; mangrove areas around Zanzibar	[36,67]
<i>Scytonema hoffmannii</i>	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	Kosi system, South Africa	[55]
<i>Spirulina subsalsa</i>	Microscopic observation and identification; isolation and microscopic identification	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. and <i>A. marina</i> Vierth pneumatophores	Mangroves in southern African estuaries; Kosi system, South Africa; Beachwood Mangroves Nature Reserve, South Africa; Southern Red Sea coast of Saudi Arabia	[34,55,68,69,73]
<i>Stichosiphon</i> sp.	Microscopic observation	On <i>A. Marina</i> , associated with red algae	Inhaca Island, Mozambique,	[74]
<i>Xenococcus</i> sp.	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[57,71]
<i>Xenococcus chaetomorphae</i>	Microscopic observation	Epiphytic on <i>A. germinans</i> pneumatophores	East coast of the Baja California Peninsula, Mexico	[57,71]
<i>Xenotholos kernerii</i> (formerly <i>Xenococcus kernerii</i> )	Microscopic observation	Epiphytic on <i>A. marina</i> (Forssk.) Vierh. pneumatophores	St Lucia Estuary; Kosi system, South Africa	[50,55]