

## Supplementary material

**Table S1.** Chemical attributes of sediment from aquatic-terrestrial Alcaçuz Lagoon gradient in the coastal zone of Rio Grande do Norte, Brazil.

	cmolc.dm <sup>-3</sup>					mg.dm <sup>-3</sup>						
	pH	Ca	Mg	Al	H+Al	P	K	Na	Fe	Zn	Cu	Mg
<b>Aquatic</b>	5.12	0.15	0.11	0.05	0.63	1	68	40	8.22	0.67	0.10	1.07
<b>Terrestrial</b>	5.48	0.10	0.08	0.05	0.56	1	76	42	3.51	0.89	0.17	0.95

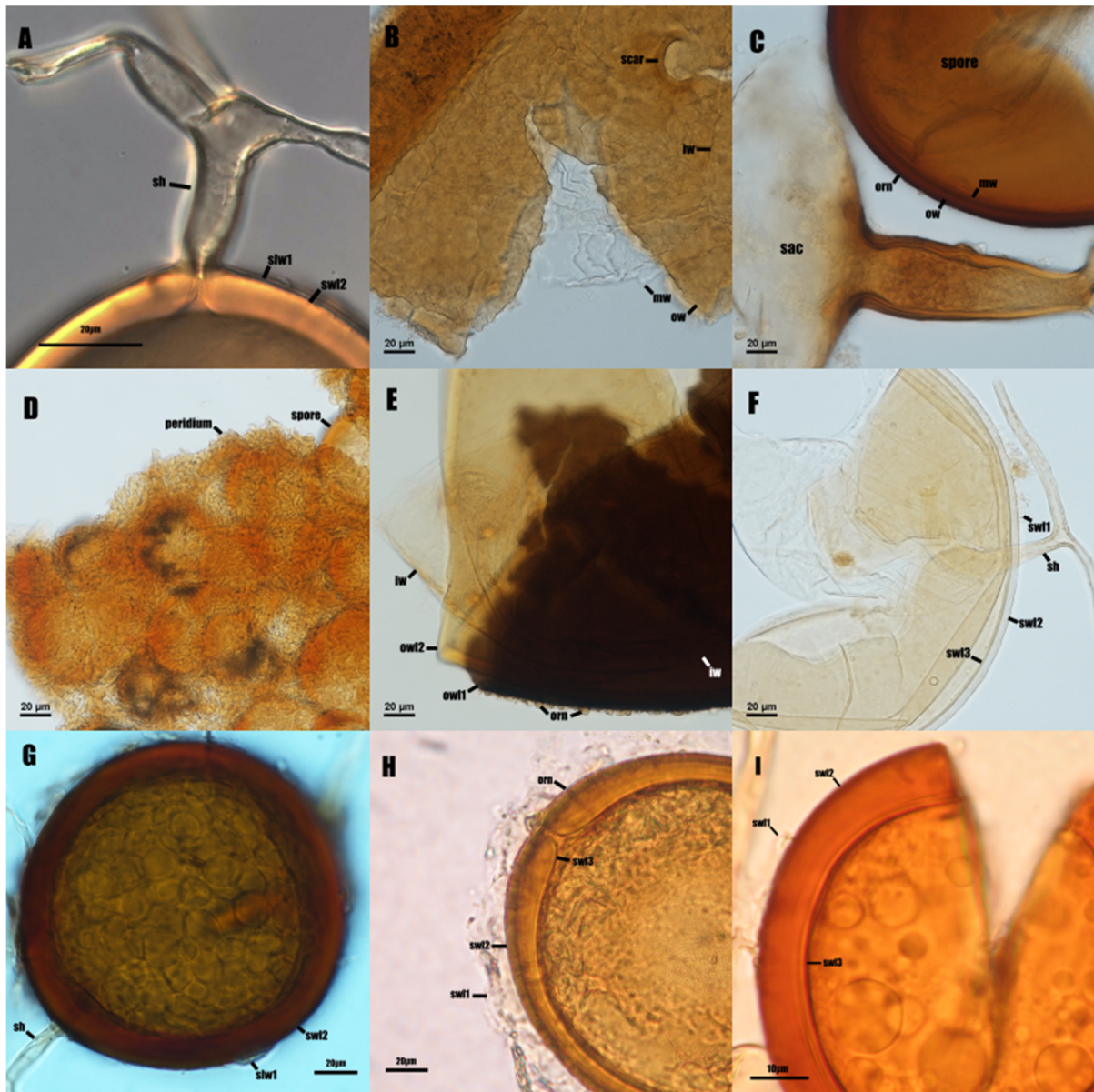
cmolc.dm<sup>-3</sup>= centimolc per cubic densimeter and mg.dm<sup>-3</sup> = milligram per cubic densimeter.

**Table S2.** Percent variance explained by each of the five principal components.

Importance of components:	PC1	PC2	PC3	PC4	PC5
Standard deviation	0.4524	0.3349	0.2570	0.2407	0.2096
Proportion of Variance	0.3148	0.1725	0.1016	0.0891	0.0676
Cumulative Proportion	0.31	0.48	0.58	0.67	0.74

**Table S3.** Multiple posteriori comparisons of species richness and glomerospore number in interactions between conditions/periods applying Tukey's correction.

Species richness							
Condition	Season	emmean	SE	df	asympt.LCL	asympt.UCL	group
Terrestrial	Rainy	1.329.136	0.1438536	Inf	1.047.188	1.611.084	1
Terrestrial	Dry	1.566.420	0.1290807	Inf	1.313.427	1.819.414	12
Aquatic	Rainy	1.859.582	0.1177690	Inf	1.628.759	2.090.405	2
Aquatic	Dry	1.474.402	0.1331203	Inf	1.213.491	1.735.313	12
Glomerospore number							
Terrestrial	Rainy	3.154.870	0.1460293	Inf	2.868.658	3.441.083	1
Terrestrial	Dry	3.784.947	0.1448873	Inf	3.500.973	4.068.921	2
Aquatic	Rainy	4.130.355	0.1445053	Inf	3.847.130	4.413.580	2
Aquatic	Dry	3.917.272	0.1484850	Inf	3.626.247	4.208.298	2



**Figure S1.** Arbuscular mycorrhizal fungi obtained from a tropical shallow lake in Rio Grande do Norte, Brazil. **A.** Detail of hyaline subtending hypha (sh) of *Glomus* cf. *brohultii*. **B.** Detail of scar and outer spore wall (ow) showing typical cracking appearance; middle (mw) and inner (iw) walls hyaline in the *Ambispora gerdemannii*. **C.** Detail of sporiferous saccule (sac) near to spore ornamented (orn) in the outer wall surface (ow) with spines, middle (mw) and inner (iw) hyaline walls also detected in *Acaulospora tuberculata*. **D.** Detail of peridium in the glomerocarp of *Sclerocystis sinuosa*. **E.** Detail of ornamentation (orn) in the black outer spore wall layer (owl1) followed by laminated yellow layer (owl2) in the *Racocetra gregaria*. **F.** Spore wall with three layers (swl1-3) and subtending hypha attached (sh) of *Rhizoglomus clarum*. **G.** Spore wall with two layers (swl1-2) and subtending hypha (sh) of *Glomus* cf. *glomerulatum*. **H.** Detail of ornamentation (orn) in the laminated spore wall layer (swl2) of *Glomus spinuliferum*. **I.** Spores of *Glomus* cf. *trufemii* 2 with three layers (swl1-3).