Table 2 A summary of the frequency of *Rhizoctonia*-like fungi acquired from roots of orchids inhabiting the Itremo Massif of the Central Highlands of Madagascar during April–May 2013 (dry season)

Growth habit	Orchid	Site	Sample	Fungus (# strains)
Lithophytic	*Angraecum coutrixii*	1, 3	Seedling	None
	Angraecum longicalcar	2	Mature	None
	Angraecum magdalenae	3	Seedling	None
	Angraecum protensum	1	Seedling Mature	None None
	Angraecum rutenbergianum	1	Seedling	None
	Angraecum sororium	3	Seedling	None
	Oeceoclades sp.	2	Mature	None
Epiphytic	*Aerangis* sp.	7	Seedling	*Ceratobasidium* (3)
	Aerangus citrata	5	Seedling	None
	Angraecum sp.	5	Seedling	None
	Angraecum protensum	1	Seedling	None
	Angraecum rutenbergianum	3	Seedling	None
	Bulbophyllum sp.	3	Seedling	None
	Jumellea denisfolliata	5	Seedling	None
	Polystachya concreta	1	Seedling 1 Seedling 2	None *Tulasnella* (7), *Sebacina* (6)
	Polystachya culturiformis	7	Seedling	None
Terrestrial	*Benthamia* sp.	1	Mature	None
	Benthamia glaberrima	3	Mature	None
	Benthamia rostratum	4	Juvenile	*Tulasnella* (1)
	Calanthe sp.	7	Mature	None
	Cynorkis gibbosa	7	Mature	None
	Cynorkis purpurea	7	Seedling	*Ceratobasidium* (7) *Tulasnella* (3), *Sebacina* (1)
	Disa incarnata	3	Mature	None
	Eulophia macra	2	Mature	*Tulasnella callospora* (1)
	Graphorkis concolor	7	Mature	*Ceratobasidium* (1)
	Habenaria sp.	1	Mature	None
	Habenaria ambositrana	1	Juvenile	None
		3	Seedling	*Tulasnella* (4), *sebacina* (1)
	Satyrium trinerve	4	Mature	None
	Tylostigma sp.	4	Mature	None
	Tylostigma nigrescens	4	Seedling	*Tulasnella* (5)

Fungal genera listed represent provisional identifications carried out at the time of isolation, based on cultural characteristics described by Currah et al. (1997). Growth habit reflects the substrate where the individual orchid was actually rooted at the time of collection. Collection sites: *1* exposed rocks, occasional tapia trees, *2* exposed marble outcrop, *3* exposed rocks, sandy stream bed, gnarled small trees, *4* open grassland, moist soil, occasional rocks, *5* reduced forest (canopy ca. 20 m), *6* exposed ridges, montane vegetation, *7* dense shaded forest, downhill stream. With one exception (2), all sites were within 5 km of one another

Terrestrial seedlings = 3/3, epiphytic seedlings = 2/10, lithophytic seedlings = 0/5

Terrestrial juveniles = 1/2, epiphytic juveniles = NA, lithophytic juveniles = NA

Terrestrial mature = 2/10, epiphytic mature = NA, lithophytic mature = 0/3

Total terrestrial = 6/15 (40%), total epiphytic = 2/10 (20%), total lithophytic = 0/8 (0%)

apparently avoided by the addition of a moist (sterile) cotton ball placed inside the vial with the sample, as several of *Rhizoctonia*-like isolates were later recovered. Some of these isolates were later tested for their ability to germinate seeds in vitro, with positive results. For example, one of the six strains of *Sebacina*, isolated from a *P. concreta* seedling, was most effective among 14 endophytes tested at inducing rapid in vitro seedling development of *C. purpurea* in symbiotic germination studies that ensued (Rafter et al. 2016). In another experiment, seeds of *H. ambositrana* and *T. nigrescens*, yielded leaf-bearing seedlings in vitro, 49 days after inoculation with *Sebacina* and *Tulasnella* endophytes acquired from seedlings of the same species, respectively (A. Wood, unpub. data).