Table S2: Posterior probabilities for each species according to the bGMYC analyses on the different loci and the bPTP analysis on the tree resulted from the concatenated dataset, for the Scabrosoid and the Dolichorhizoid clades. Species names refer to the lineages defined in Figure2.

	ITS		EFT2.1		LSU		IGS3		IGS16		bPTP all loci	
species	No. taxa	support value	No. taxa	support value	No. taxa	support value	No. taxa	support value	No. taxa	support value	No. taxa	support value
P. neopolydactyla 4	10	0.49	9	0.45	9	(0.11)	5	0.51	5	0.41	10	0.5
P. neopolydactyla 5	3	0.86	2	0.87	3	0.67	1	0.88	1	0.91	/	/
P. neopolydactyla 6	2	0.95	0	/	2	0.84	2	0.92	2	0.9	2	0.52
P. neopolydactyla 7	1	0.97	1	0.93	1	0.87	1	0.95	1	0.92	1	1
P. scabrosa 1	5	0.89	4	0.31	5	0.6	4	0.48	4	0.7	5	0.98
P. scabrosa 2	6	0.5	5	0.42	5	0.3	4	0.34	4	0.46	6	0.87
P. scabrosa 3a	3	0.88	2	0.68	2	0.58	2	0.65	2	0.48	/	/
P. scabrosa 3b			1	0.8	1	0.59‘	1	0.67	1	0.5	1	1
P. scabrosa 4	3	0.87	2	0.59	3	0.51	2	0.88	0	/	3	0.81
P. melanorrhiza	2	0.93	2	0.86	2	0.92	1	0.99	1	0.99	2	0.89

	ITS		ß-tubulin		IGS1		IGS3		IGS16		bPTP all loci		
species	No. taxa	support value	No. taxa	support value	No. taxa	support value	No. taxa	support value	No. taxa	support value	No. taxa	support value ML tree	support value 50% bayes
P. neopolydactyla 3	1	0.86	1	0.34	1	0.47	1	0.19	1	0.58	1	1	1
P. sp. 12	1	0.83	1	0.75	1	0.53	1	0.84	1	0.68	1	1	1
P. sp. 6	3	0.76	3	0.63	3	0.74	3	0.62	2	0.56	3	0.81	0.51
P. sp. 7a	7	0.6	3	0.42	7	0.8	6	0.52	7	0.8			0.53
P. sp. 7b			2	0.49							3	0.76	0.52
P. scabrosella			2	0.42							2	0.7	0.84
P. neopolydactyla 1b	1	0.57			1	0.43					1	0.99	0.98
P. occidentalis	7	0.51	5	0.45	4	0.33	4	0.32	4	0.3			
P. pulverulenta 3	2	0.5	2	0.47	2	0.54	2	0.35			2	0.65	0.62
P. pulverulenta 1	6	0.48	6	0.28	/		3	0.34	3	0.56	6	0.75	/
P. pulverulenta 2	2	0.46	2	0.25	2	0.45	2	0.36	2	0.55	2	0.64	0.63
P. hawaiensis	1	0.39			0	/							0.98
P. sp. 2a	3	0.38	2	0.29 (without P907)	2	0.42 (without P907)	2	0.28 (without P907)	2 (without P907)	0.59			0.88 (without P907)
P. neopolydactyla 1	9	0.37			9+1	0.32 with P325					6 (without 640 645-1252)	0.52	0.39
P. sp. 3	4	0.33	4	(0.23)	0	/			3	0.8	4	0.36 with *hawaiensis*	0.64
P. truculenta	8	0.33			5	(0.15)							
P. sp. 5	1	0.29			0						1	0.75	1
P. sp. 4	1	0.27			0						1	0.94	1
P. pacifica	2	0.27	2	0.33	1	0.47			2	0.35	2	0.88	0.82
P. neopolydactyla 2a	6	0.24			4	0.69							0.38
P. neopolydactyla 2c					0	/			2	0.54	3	0.43	
P. dolichorhiza b	2	0.22			/								
P. neopolydactyla 2b	4	0.2			2	0.38							
P. dolichorhiza	8	0.18	8	0.46	6	0.19	7	0.41			8	0.62	0.62
P. sp. 2b	2	0.14			2	0.57	2	0.38	2	0.66	2	0.51	0.89
P. hymenina	/	/			4	0.27			3	0.72	7 (but without P1229)	0.47	0.29
P. sp. 1	/	/			/				2	0.45	1	0.54	0.56
P. dolichorhiza 2	/	/	2	0.4	/		2	0.22	2	0.46	2	0.84	0.73
P1202 alone							1	0.5				0.99	0.98
P1596 alone							1	0.44				0.99	0.98