

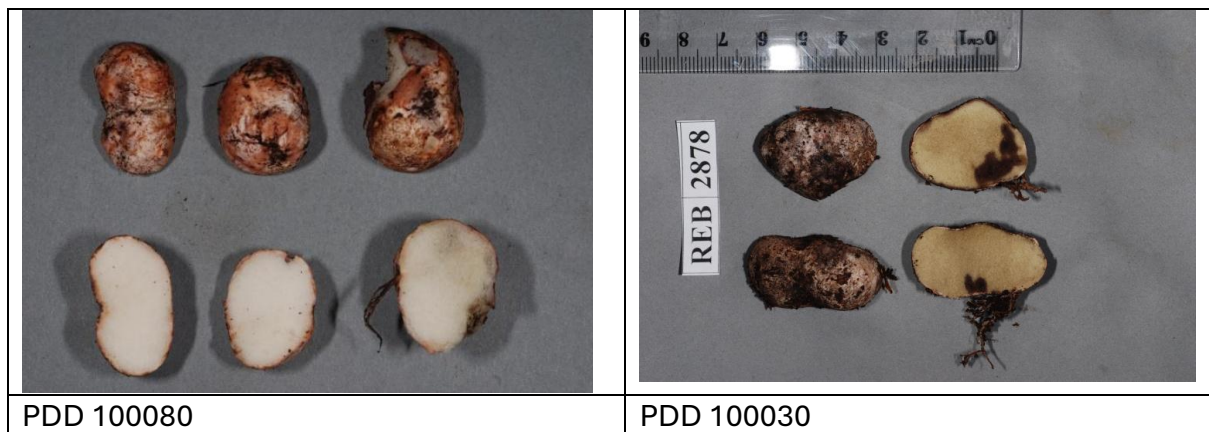
Addendum to Mycological Notes 18 – Revised key

Jerry Cooper, Jan. 2025

Since my original notes in 2012 many more studies of *Rhizopogon* have been published, and many of the USA types (A.H. Smith) have been sequenced. Despite that progress the species concepts in the genus remain fluid, especially around the concepts of *R. roseolus* and *R. rubescens*. However, the identity of at least some NZ collections have been refined and I have constructed the following revised key. I'm not sure if it really works, but it will be more accurate than my first attempt. I have disregarded species for which we don't have sequence confirmed collections. The associated phylogeny can be found in my recent list of phylogenetic trees.

1	Peridium with woven brown, thick-walled hyphae in KOH. Associated with Douglas fir	Sect. Villosulus. 2
1	Without brown-walled hyphae in KOH. Associated with Pines	3
2	Subcutis with a red to pink layer in KOH (use 25x objective)	<i>R. hawkeriae</i>
2	Subcutis without a red to pink layer in KOH (may be orangish-brown), peridial hyphae large and loosely woven	<i>R. villosulus</i>
3	Peridium with yellows, or tan/orange, although red/vinaceous may be dominant. Spores < 9um	4
3	Peridium with extensive red/vinaceous areas and no yellows.	6
4	Peridium with yellows and red/vinaceous. Spores 6.3-8 x 2.7-4.5 um	<i>R. luteorubescens</i>
4	Peridium no dominant reds, just yellow or tan/orange (some smaller vinaceous patches)	5
5	Peridium yellow (pale?), with scarce vinaceous patches, hyphae of peridium heavily covered by yellowish deposits. Spores 6.5-7 x 2.5-3 um	<i>R. granuloflavus</i>
5	Peridium tan/orange-brown with thick brown surface rhizoids, spores 5-8x2-3	<i>R. verii</i>
6	FeSO4 on peridium olive, spores 8-10 x 3.5-4 um	<i>R. pseudoroseolus</i>
6	FeSO4 on peridium no reaction	7
7	Spores 9-10 x 3.5-4 um [?], greenish-yellow to brown, staining vinaceous, pattern weakly reticulate	<i>R. rubescens</i> (Japanese/NZ Shorro)
7	Spores 7-8 x 2.5-3 um. Peridium pale pink to pinkish vinaceous or predominantly white with pink areas, at times with yellow patches at maturity, not reticulate, hyphae of peridium covered by ochraceous deposits	<i>R. roseolus</i> sensu Trappe

R. hawkeriae



R. villosulus



R. luteorubescens



R. granuloflavus



PDD 112946



PDD 112946

R. verii



PDD 106881



PDD 107147

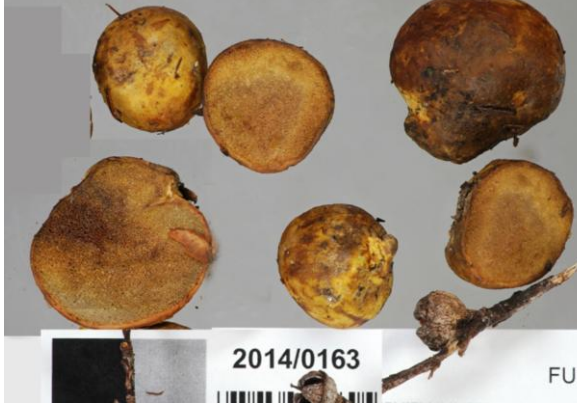







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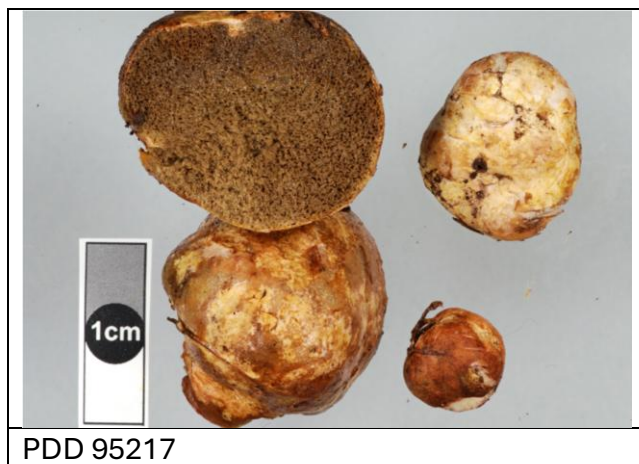


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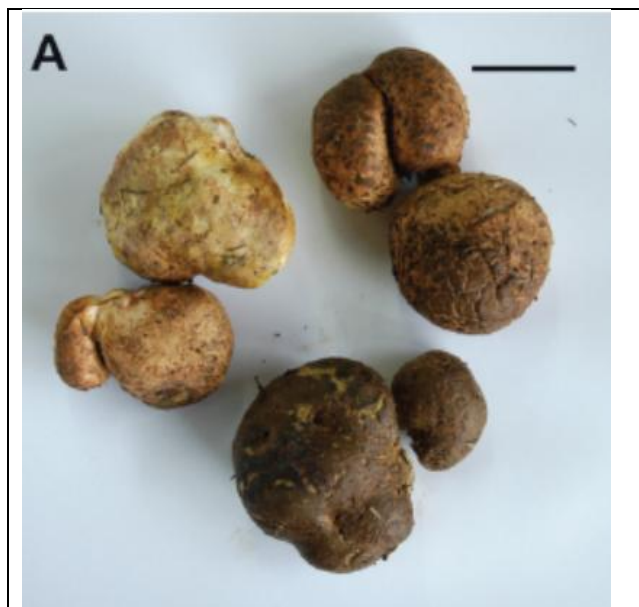
R. pseudoroseolus

	
<p>PDD 105706</p>	<p>PDD 105705</p>
	
	<p>PDD 106214</p>
	
<p>PDD 107148</p>	<p>PDD 113018</p>

R. roseolus sensu Trappe



R. rubescens (Japanese/NZ Shorro)



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