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Some Chilean Discomycetes collected by Roland Thaxter.

By Edith K. Cash (National Fungus Collections, U. S. Plant Industry Station, Beltsville, Maryland).

Specimens of the *Discomycetes* collected by the late Dr. Roland Thaxter in South America and the West Indies and preserved with the undetermined fungi in the Farlow Herbarium, Cambridge, Massachusetts, were given to the writer for study several years ago by the late Dr. W. Lawrence White, at that time Curator of the Farlow Herbarium. These included a number of *Discomycetes* collected at various localities in Chile in 1905—1906. Thaxer published a general account of his Chilean trip in 1910 (10) [1]) and additional details were given by Weston (11). Several of the species in this list have not previously been reported from Chile, so far as is known, and two are described as new. In some instances the Thaxter labels bear no date, but all of the specimens were presumably collected during the 1905—1906 trip to South America and these dates have therefore been added in brackets where the date is lacking from the label. The specimens listed are deposited in the National Fungus Collections, Beltsville, Maryland.

1. **Bulgaria nana,** sp. n.

Apothecia atra, gelatinosa, stipitata, 2—3-caespitosa, 1—2 mm. in diam., urceolata usque turbinata dein convexa, stipite atro, 1 ⇌ 0.2—0.5 mm.; asci cylindraceo-clavati, basim versus attenuati, ad apicem angustati, 4—8-spori, 90—100 ⇌ 6—7 μ; ascosporae brunneae, 2—3-seriatae, unicellulares, late ellipsoideae, saepe irregulares et utrinque attenuatae, 9—12 ⇌ 4—5 μ; paraphyses numerosae, ramosae, in epithecium caesio-atrum agglutinatae; hypothecium atrum, stratum medianum crassum, gelatinosum, pallidum; cortex atro-brunneus, densus, rugulosus.

Apothecia fuscous-black [2]), gelatinous, stipitate, emerging singly or in clusters of two to three from cracks in the bark, 1—2 mm. in diameter, urceolate to turbinate, becoming convex, margin thin, stipe black, 1 mm. high, 0.2—0.5 mm. in diam., hymenium fuscous to fuscous-black; asci inoperculate, cylindrical-clavate, gradually

[1]) Numbers in parethesis refer to Literature Cited.

[2]) Color readings are from Ridgway, R., Color standards and color nomenclature, Washington, D. C., 1912.

attenuated toward the base, narrowed at the apex, bluing with iodine, 90—100 ⇌ 6—7 μ; ascospores brown, irregularly 2—3-seriate in the upper part of the ascus, unicellular, smooth, broad-ellipsoid, often inaequilateral or somewhat irregular, narrowed at one or both ends, frequently with one central oil-globule, 9—12 ⇌ 4—5 μ, sometimes only 4 spores maturing; paraphyses numerous, branched, darkened at the apices and agglutinated to form a blue-black epithecium; hypothecial layer black, 40—50 μ thick; median tissue gelatinous, yellowish to pale brown, 400—500 μ thick; cortex dark brown, dense, roughened by clumps of agglutinated hyphae.

On bark of unknown tree ("tree with big compound leaf"), Corral, Chile, Dec. 1905, coll. R. Thaxter.

This fungus is a species of *Bulgaria* as typified by *B. inquinans* Fr. (*Phaeobulgaria inquinans* (Fr.) Nannf.) [3]). It has the appearance of a dwarf or miniature copy of that species, which it closely resembles in color, shape, habit of growth and structure; the mature apothecia, however, are only one-tenth or less the size of those in *B. inquinans*.

All of the small species of *Bulgaria* found described, *B. pusilla* H. & P. Syd. from the Philippine Islands, *B. turbinata* Mass. from Africa, and *B. prunicola* H. & P. Syd. from Japan, differ from *B. nana* in the larger spores.

2. *Calycella citrina* (Hedw. ex. Fr.) Quél., on logs, Punta Arenas, [1905—1906].

This common species has been reported from Chile by several authors, according to Mujica and Vergara (8, p. 112).

3. *Coprobia granulata* (Bull. ex Fr.) Boud., on cow dung, Punta Arenas, Feb. 1906.

The fungus was recorded from Patagonia by Spegazzini (9, p. 57). *Scutellinia theleboloides* (Alb. & Schw. ex Fr.) Kuntze is associated with the *Coprobia* in Thaxter's specimen.

4. *Humarina leucoloma* (Hedw. ex Fr.) Seaver, on moist ground, Punta Arenas, Feb. 1906.

5. *Lamprospora crec'hqueraultii* (Crouan) Boud. var. *marcantha* Boud., on ground in woods, Corral, Dec. 1905.

The spores in this collection are for the most part not spherical, but broadly ellipsoid or subspherical. They measure 20—25 ⇌ 15—20 μ including the spines which are 3—4.5 ⇌ 1.5 μ at the base, longer than those described by Dennis (1) for typical specimens of *L. crec'h-queraultii* but not reaching the maximum length of 6 μ found in the variety.

[3]) Evidence that the generic name *Bulgaria* properly applies to the inoperculate species is given in a paper by Dr. R. P. Korf to be published in the near future.

6. *Lamprospora spinulosa* Seaver, on ground, Punta Arenas, Feb. 1906.

7. *Peziza abietina* Pers. ex Fr., in woods, Punta Arenas, [1905—1906].

8. *Peziza badio-confusa* Korf (P. badia Auct.), on ground in woods, Punta Arenas, Mar. 1906; also another collection from the same locality, [1905—1906].

The Thaxter specimens agree with descriptions of the widely distributed discomycete which was previously referred by many authors to *Peziza badia* Pers. ex Fr. but which differs from Persoon's species in the character of the spore ornamentation, as pointed out by Le Gal (3, p. 205—207, f. 18, and 6, p. 114, f. 11) and Korf (2, p. 838).

9. **Peziza thaxteri** sp. n.

Apothecia sessilia, carnosa usque fragilia, alte cupularia usque infundibuliformia, saepe asymmetricalia, interdum scindentia, 1—3 cm. in diam., 1—2 cm. alta, glabra veh minute puberula, vinaceo-brunnea, margine subcrenato, demum revoluto, hymenio castaneo-brunneo usque paene atro; asci cylindrici, ad apicem obtusi, octo-spori, 200—250 ⇌ 15—24 μ; ascosporae uniseriatae, unicellulares, hyalinae vel pallide brunneolae, late ellipsoideae apicibus obtusis, episporio verrucis crassis rotundatis vel applanatis ornato, 22—26 ⇌ 13—17 μ; paraphyses numerosae, ascos superantes, hyalinae vel brunneolae, usque 2.5 μ inflatae; hypothecium flavidulum; stratum medianum 300—400 μ crassum, hyphis laxe intertextis, subhyalinis compositum, in corticem pseudoparenchymaticum rugulosum interdum hyphis hyalinis praeditum transeuns.

Apothecia sessile, fleshy to brittle when dry, deep cupshaped to infundibuliform, often asymmetrical and sometimes splitting nearly to the base, 1—3 cm. in diameter, 1—2 cm. deep, exterior smooth to slightly tomentose, pecan brown or Mikado brown to walnut brown, margin slightly crenate, later splitting and revolute, hymenium liver brown to Vandyke brown, nearly black when dry; asci cylindrical, flattened at the apex, not bluing with iodine, 8-spored, 200—250 ⇌ 15—24 μ; ascospores uniseriate, one-celled, hyaline to pale brownish, broad-ellipsoid with obtuse ends and one large central guttule, verrucose, verrucae evenly distributed, low, rounded or flattened, 22—26 ⇌ 13—17 μ; paraphyses numerous, outranking the asci, hyaline to pale brown, slightly swollen at the apices to 2.5 μ; hypothecium yellowish; median layer 300—400 μ thick, composed of loosely interwoven, subhyaline hyphae, changing to cortical pseudoparenchyma of thick-walled cells 15—30 μ in diameter, forming loose clumps on the surface; long hyaline hyphae, narrowed at

the apex but not acute, often swollen near the base, sometimes present, but often lacking.

On moist banks in woods, Concepcion, Chile, Nov. 1905, coll. R. Thaxter (type); on ground in shady woods, Concepcion [1905—1906].

This fungus evidently belongs in the group of brown species of *Peziza* with rough spores, which are all rather similar in appearance but may be distinguished by the character of spore ornamentation. The low, rounded or flattened verrucae on the spores of Thaxter's specimens closely resemble those of *Galactinia subumbrina* Boud. illustrated by Le Gal (3, p. 211, f. 21-B) and of *G. limosa* (Grelet) Le Gal & Romagnesi (4, p. 176—183, f. 5; 5, f. 4). The Chilean fungus differs from both of these species in the deeper apothecia, which do not expand or become convex, and in the lack of any greenish or olivaceous tinge in either the hymenium or the exterior. A comparison with a specimen of Lundell & Nannfeldt's Fungi Exs. Suec. *373* (issued as *Peziza badia* Pers. ex Fr. but later emended as *P. limosa* (Grelet) Nannf.) shows that *P. thaxteri* is distinct from *P. limosa* also in the more slender paraphyses and the larger spores.

10. *Phaedropezia genuina* Le Gal on wood, Punta Arenas, Feb. 1906.

11. *Pseudopeziza repanda* (Fr.) Karst. on leaves of *Galium* sp., Concepcion, Nov. 1905.

12. *Pulvinula globifera* (Berk. & Curt.) Le Gal on wet banks in woods, Concepcion, [1905—1906].

The species is widely distributed, having been reported from the United States, Cuba, Ceylon, Australia, and Madagascar. (7, p. 91).

13. *Scutellinia kerguelensis* (Berk.) Le Gal on chips and logs in wood, Punta Arenas, Jan. 27 and Feb. 1906.

The Thaxter specimens agree with Le Gal's description and illustrations of the species (7, p. 142—144) which was originally described from Kerguelen Island.

14. *S. texensis* (Berk. & Curt.) Le Gal, on ground, Punta Arenas, Mar. 1906.

15. *S. theleboloides* (Alb. & Schw. ex Fr.) Kuntze on cow dung, Punta Arenas, associated with *Coprobia granulata* (Bull. ex Fr.) Boud.

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