

## ADDITIONS TO THE LICHEN FLORA OF INDIA—III

Taxonomic investigations on the lichen flora of Palni hills, Tamil Nadu, India, have resulted in the additions of several taxa as new reports for the country. Some of these have already been enumerated earlier (AWASTHI & SINGH, 1971; SINGH, 1973), and additional 28 taxa are being enumerated below in an alphabetical arrangement. The number within parenthesis indicates the field number of the specimen collected by Awasthi and Singh or by Singh alone. The specimens are preserved in Lucknow University Herbarium (LWU).

1. *Anthracothecium emergens* (Leight.) Zahlbr. Thallus corticolous, hypophloedal, yellowish; pseudothecia minute; asci 4—8-spored; spores brown, muriform, 57—114 (142) × 28—38 μm. Tiger Shola, Kodaikanal (70.123); Berijam (4192 in Herb. Awasthi, leg. Foreau and Awasthi).

2. *Bacidia alutacea* (Kremp.) Zahlbr. Thallus ramulicolous, whitish grey; apothecia brown; epithecium K+violet; spores colourless, transversely 7—15-septate, acicular 35—57 × 2.5—3.8 μm. Panniyarpore (70.306).

3. *Bacidia fusconigrescens* (Kremp.) Zahlbr. Thallus corticolous, sordid white, farinose to minutely granulose, K+yellow; apothecia black; epithecium K+blue black; spores colourless, transversely 8—20-septate, acicular, 57—85 × 2—3.5 μm. Shembaganur (70.39); Pillar Rocks area (70.680, 70.724); Palni Road-side (70.985); Brayant Park (70.1056).

4. *Bacidia millegrana* (Tayl.) Zahlbr. Thallus corticolous, white, granulose to verrucose; apothecia carneous black; margin persistent; hypothecium yellowish; spores colourless, transversely 8—13-septate, acicular, 65—76 × 2—4.5 μm. Palni Road-side (70.952).

5. *Buellia aethaleoides* (Nyl.) Olive. Thallus saxicolous, areolate, ashy grey, K—or,+yellowish; medulla I+blue; apothecia black, immersed; spores brown, 2-celled, ellipsoid 13—21 × 7.6—9.5 μm. Hill View (70.442).

6. *Buellia badia* (Fr.) Mass. Thallus saxicolous, squamulose, pale brown; apothecia black, constricted at base; spores brown, 2-celled, ellipsoid, 14—21 × 7.6—11.4 μm. Oothu area (70.388); Perumalmalai (70.1099).

7. *Buellia sororia* Th. Fr. Thallus saxicolous, areolate, whitish grey to grey, K+red; medulla I+blue; apothecia minute, black, immersed; spores brown, 2-celled, ellipsoid, 11—18 × 6—8 μm. Perumal Peak (70.1090).

8. *Buellia sororioides* Erichs. Thallus saxicolous, areolate, whitish grey, K+red; medulla I—; apothecia black, immersed; spores brown, 2-celled, ellipsoid, 12—19 × 5.7—7.6 μm. Hill View (70.1208).

9. *Caloplaca* cfr *sipeana* H. Magn. Thallus saxicolous (noncalcareous rocks), squamulose; squamules scattered, yellowish brown, K+violet purple; apothecia minute; exciple cellular; spores colourless, polaribilocular, 9—14 × 7—10 μm. Oothu area (70.361); Hill View (70.441); Perumal Peak (70.1105).

10. *Caloplaca vitellinula* (Nyl.) Oliv. Thallus saxicolous (siliceous rocks), poorly developed to evanescent, K+purple violet; apothecia brown, dense; spores colourless, polaribilocular, 10—15 × 6—9 μm. Croaker's Walk, Kodaikanal (69.11, 69.24).

11. *Chiodecton hypochnooides* Nyl. Thallus corticolous, whitish to glaucous grey; hypothallus byssomoid, blackish; ascostromoid verrucae white with algal cells within; pseudothecia

- punctiform, immersed; spores colourless, acicular, 4-celled,  $19-38 \times 2-3 \mu\text{m}$ . Tiger Shola (70.96, 70.139, 70.968); Periakulum (70.900); Perumalmai (40.968); Oothu (70.1162).
12. *Diploschistes rampoddensis* (Nyl.) Zahlbr. Thallus saxicolous, whitish grey, subverruculose rimulose, C+red, KC+red; apothecia pruinose; margin distinct; spores brown, submuriform, ellipsoid fusiform,  $19-26 \times 9-11 \mu\text{m}$ . Along Croaker's Walk, Kodaikanal (69.17); Silver Cascade (70.171); Pambarai (70.1129).
13. *Graphina fissofurcata* (Leight.) Müll. Arg. Thallus corticolous, whitish grey to yellowish; apothecia lirellaeform, branched, 2—10 mm long, black, margin fissured; exciple black, open; asci 2-spored; spores colourless, muriform, (45)  $76-95(114) \times 12-28 \mu\text{m}$ . Tiger Shola (70.125)—specimen identical to the Type at BM-K.
14. *Graphis nigroglauca* Leight. Thallus corticolous, glaucous grey, K+red, P+red; apothecia lirellaeform, simple to furcate, up to 6 mm long; exciple black, open to  $\pm$  closed; spores colourless, transversely 8—10-celled, ellipsoid, (28)  $38-45 \times 7-9 \mu\text{m}$ . Bear Shola 70.8 Pillar Rocks (70.189); Golf Club area (70.639); Observatory (70.1150)—all specimens identical to the Type at BM.
15. *Lecanora carpinea* (L.) Vain. Thallus corticolous, granulate, whitish grey; apothecia pale greenish brown; disc pruinose, C+orange; spores colourless, simple, ellipsoid,  $9-13 \times 7-9 \mu\text{m}$ . Pillar Rocks area (70.706); Brayant Park (70.1044).
16. *Lecanora crenulata* (Dicks.) Vain. Thallus saxicolous, whitish grey; granular to subverruculose; apothecial margin crenate and persistent; spores colourless, simple, ellipsoid,  $9-15 \times 4-7 \mu\text{m}$ . Oothu area (70.394).
17. *Lecanora dissipans* Nyl. Thallus saxicolous, whitish grey, rugulose to subverruculose; apothecia brown; margin crenate; spores simple, colourless, ellipsoid,  $8-11 \times 4-5.7 \mu\text{m}$ . Oothu area (70.389, 70.412).
18. *Leptogium milligranum* Sierk. Thallus corticolous, lead grey, isidiate, margin irregularly dissected; surface longitudinally wrinkled; sterile. Tiger Shola (70.88)
19. *Leptotrema compunctum* (Sm.) Müll. Arg. Thallus corticolous, ashey grey, K+reddish, P+orange-red; apothecia minute, immersed; proper exciple surrounded by thalline exciple; spores colourless to brown, muriform, ellipsoid (24)  $28-38 \times 13-20 \mu\text{m}$ . Periakulum (70.884).
20. *Maronea constans* (Nyl.) Hepp. Thallus corticolous, glaucous grey to brown; apothecia brownish to black; asci multispored; spores colourless, 2-celled,  $4-6(8) \times 3 \mu\text{m}$ . Shembaganur (70.867).
21. *Opegrapha leptoterodes* Nyl. Thallus corticolous, whitish grey; pseudothecia black; exciple closed; spores colourless, transversely (2)---3-septate, fusiform,  $13-15 \times 3-5 \mu\text{m}$ . Shembaganur (70.102).
22. *Pannaria leucosticta* Tuck. Thallus corticolous, squamulose to minutely foliose, closely adnate; lobules pinnate with white margin; spores colourless, simple, ellipsoid, with pointed ends,  $15-20 \times 7-11 \mu\text{m}$ . Pillar Rocks area (70.747).
23. *Pertusaria matlogrossensis* Malme. Thallus corticolous, whitish grey, fertile verrucae semi-globose, depressed at apex; ostiole pale olive; asci 8-spored; spores colourless, simple, thick double walled, ellipsoid,  $38-65 \times 19-30 \mu\text{m}$ . Pambampuram (70.523).
24. *Pertusaria pustulata* (Ach.) Duby. Thallus corticolous, greenish grey to yellowish, KC+yellow-orange; fertile verrucae with punctiform black ostiole; asci 2-spored; spores colourless, simple, thick double walled, ellipsoid,  $76-110 \times 28-38 \mu\text{m}$ . Shembaganur (70.875); Perumal Peak (70.1065).
25. *Pertusaria subdepressa* Müll. Arg. Thallus corticolous, ashey grey, K —, G—, P—;

fertile verrucae with concave apex; asci 8-pored; spores colourless, simple, double walled,  $57-80 \times 28-30 \mu\text{m}$ . Golf Club area (70.607).

26. *Physcia tribacoides* Nyl. Thallus terricolous and saxicolous, foliose, whitish grey, sorediate; soralia submarginal to laminal, white, capitate; lower side pale brown. Croaker's Walk, Kodaikanal (70.502).

27. *Sphinctrina microcephala* (Sm.) Nyl. Thallus parasitic on *Pertusaria* sp., externally indistinguishable; apothecia shortly stalked; globose; spores brown, ovoid to ellipsoid,  $10-15 \times 7-9.5 \mu\text{m}$ . Kodaikanal lake area (70.755).

28. *Thelotrema lepadinum* Ach. Thallus corticolous, pale yellow to ashy grey; apothecia elevated, hemispherical; disc pruinose; exciple proper surrounded by thalloid exciple; asci 4-spored; spores colourless, muriform, (76)  $95-152 \times 15-28 \mu\text{m}$ . Pillar Rocks area (70.721).

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