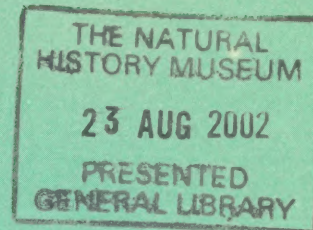


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Taxonomic notes on some African species in the family Calymperaceae (Musci)

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SYNOPSIS. *Syrrhodon usambaricus* Broth. ex S. Orbán is placed in synonymy with *Syrrhodon asper* Mitt., and *Syrrhodon lisowskii* S. Orbán in synonymy with *Syrrhodon gardneri* (Hook.) Schwägr. The distinctive features of *Syrrhodon stuhlmannii* Broth. are discussed, and the only records of *Calymperes moluccense* Schwägr. from Africa are redetermined as *Calymperes palisotii* Schwägr.

The research for this paper was largely undertaken in response to difficulties encountered in identifying the specimens of *Syrrhodon* collected during the British Bryological Society Expedition to Mulanje Mountain, Malawi, 1991. Determination of this material would have been considerably more difficult without the important primary accounts of the African species of *Syrrhodon* by Orbán (1981) and Orbán & Reese (1986).

Syrrhodon asper Mitt. in *J. Linn. Soc. Bot.* 7: 151: 1863. Type: Tanzania, Kilimanjaro, *Hannington* s.n. (NY!-holotype, BM!-isotype).

Fig. 1.

Syrrhodon usambaricus Broth. ex S. Orbán in *Acta Bot. Hung.* 24: 113 (1978), syn. nov. Type: Tanzania, Usambara, Lutindi, 1902, *Liebusch* s.n. (H-BR!-holotype).

DISCUSSION. The leaves in *Syrrhodon asper* Mitt. consist of a linear-lanceolate chlorophyllose limb extending from a subelliptical hyaline base. They possess a prominent marginal rib and are spinulose to various degrees. As in many species of *Calymperes* and *Syrrhodon*, the leaves in different specimens can vary widely in their relative dimensions (Fig. 1a–c), and range from a stubby 4 mm to a slender 7.5 mm long. The marginal ribs, viewed in cross-section, are well differentiated. Commonly, a superficial layer of chlorophyllose cells encloses small dorsal and ventral groups of stereids that are separated by a median row of guide cells (a costa-like arrangement of tissues). This arrangement of cells in the marginal rib is plainly developed in the leaves of some specimens and less well developed in others (Fig. 1e–h). Towards the base in all leaves, the marginal rib becomes a flattened, undifferentiated, often unistratose band of linear cells. The region in the leaf base in which the margin transforms from a differentiated rib to an undifferentiated band also varies between specimens.

The type specimen of *Syrrhodon usambaricus* Broth. ex S. Orbán (*Liebusch* s.n., H-BR) represents a form of *S. asper* Mitt. with tall, slender shoots. The leaves are relatively fine and narrow, and hardly curl when dry. The marginal ribs are well differentiated, and in the leaf base, the transition from polystratose rib to undifferentiated band occurs well below the apex of the hyaline lamina (Fig. 1i). In the isotype material of *S. asper* (*Hannington* s.n., BM) the shoots are small and have shorter, stubbier leaves. These curl when dry, are notably spinulose, and have prominent, well-differentiated marginal ribs. The region along the leaf at which the margin transforms from differentiated polystratose rib to unistratose/bistratose band tends to be adjacent to the apex of the hyaline lamina (Fig. 1k).

Intermediate expressions of these contrasting features of *Hannington* s.n. and *Liebusch* s.n. are apparent in the great range of material now available for examination, and indicate that these superficially distinct type specimens represent extreme forms of the same species. For example, *Wood* 1726 (Tanzania, BM, BM-K) has leaves proportioned like those of the type of *Syrrhodon asper* that become curled when dry, but some cross-sections through the distal hyaline leaf base show a degree of differentiation closer to that in the type of *S. usambaricus* (Fig. 1j).

SPECIMENS EXAMINED. **Malawi.** Mulanje Mountain, June 1991: *Hodgetts* 2041a, 2047c, 2220b, 2532a, 2669a (RNG!); *Kathumba* M5915a (RNG!), M5916 (BM!); *Kungu* M3123a (RNG!); *Longton* M8054a, M8058a, 8425b (RNG!); *Magombo* M4041b, 4042b (RNG!); *Porley* 35a, 278a (RNG!); *Russell* M6055b, M6063a, M6068a (RNG!); *Wigginton* M1034a, M1682a (RNG!), M1201a (BM!). **Uganda.** Kadese, Ruwenzori Mts, above Miniba camp, 2700 m, 22 January 1962, *Loveridge* JPL397 (BM!). **Kenya.** Mutha Hill, August 1938, *Boy Joana* 7519 (BM!, BM-K!). **Tanzania.** Usambara, Lutindi, 1911, *Liebusch* s.n. (H-BR!); Usambara Ouset, crête Matundsi-Mashindei, SE of Ambangudu Tea Estate, 1300 m, 5 February 1985, *Pócs* 8533/R (BM!); Kilimanjaro: above Marangu, 2000 m, 13 July 1948, *Hedberg* 1144e (BM-K!); on path between Marangu and Bismark Hut, 2400 m, 24 February 1953, *Wood* 1726 (BM!, BM-K!). Morogoro District: Nguru Mts, ridge behind Dikurura Valley, 1700–1900 m, 6°02'S 37°32'E, *Pócs* 89119/W (BM!); Nguru ya Ndege Hill NNW of Morogoro town, summit, 1200–1350 m, 6° 42'S 37° 36'E, *Pócs* & *Knox* 88252/H (BM!). **Mozambique.** Namúli, Makua Country, 1887, *Last* s.n. (BM-K!).

Syrrhodon stuhlmannii Broth. *Bot. Jahrb. Syst.* 24: 240 (1897).

Type. Tanzania, Uluguru, Bergwald, 1600 m, *Stuhlmann* 8809 (BM!-isotype).

Fig. 2a–d.

DISCUSSION. In Orbán & Reese (1986) *Syrrhodon usambaricus* Broth. ex S. Orbán [= *Syrrhodon asper* Mitt.] is keyed out beside *S. stuhlmannii* Broth. Large specimens of *S. asper* are superficially similar to those of *S. stuhlmannii*. Both species possess leaves with marginal ribs that have a costa-like structure (viewed in cross-section). However, the species are easily distinguished. In leaves of *S. stuhlmannii* the marginal ribs are mostly smooth; the cells of the chlorophyllose lamina are ventrally roundly protuberant, and dorsally flat to barely protuberant (Fig. 2a–d). The rib at the margin of the distal hyaline lamina is very well developed and strongly differentiated, with a median row of guide cells often more than nine cells wide (Fig. 2c, d). In contrast, most superficial cells of the marginal

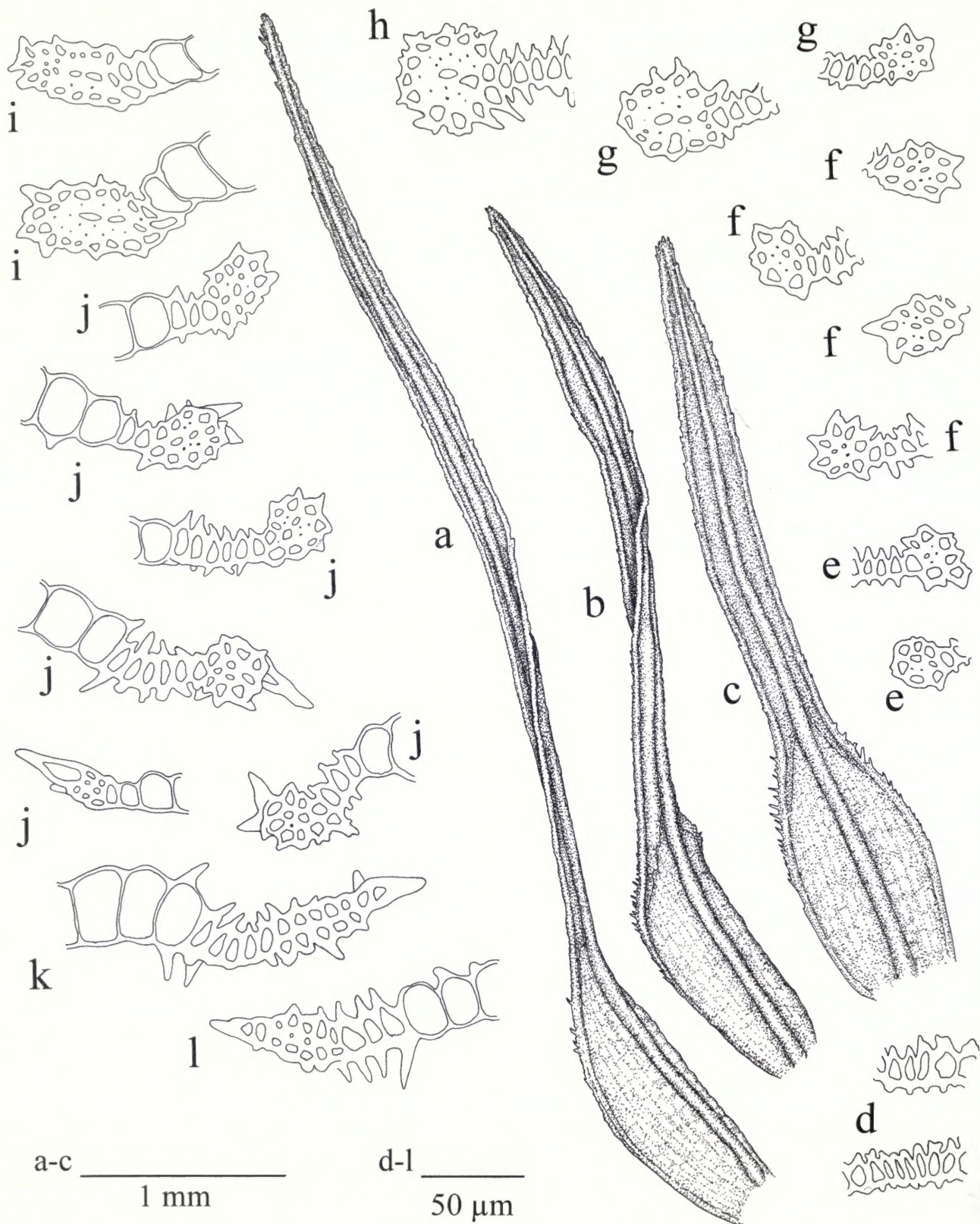


Fig. 1 a–l. *Syrrhopodon asper* Mitt. a–c: leaves; d–l: cross-sections of leaf through (d: chlorophyllose lamina, e–h: margin of chlorophyllose lamina, i–l: margin around distal hyaline lamina. a Drawn from Pócs 8533R (BM). b Drawn from Pócs & Knox 88252/H (BM), c Drawn from Boy Joana 7519 (BM). d, g, i, Drawn from Liebusch s.n. (H-BR, holotype of *Syrrhopodon usambaricus*). e, j Drawn from Wood 1726 (BM). f, k Drawn from Hannington s.n. (BM, isotype of *Syrrhopodon asper*). h, l Drawn from Pócs 89119/W (BM).

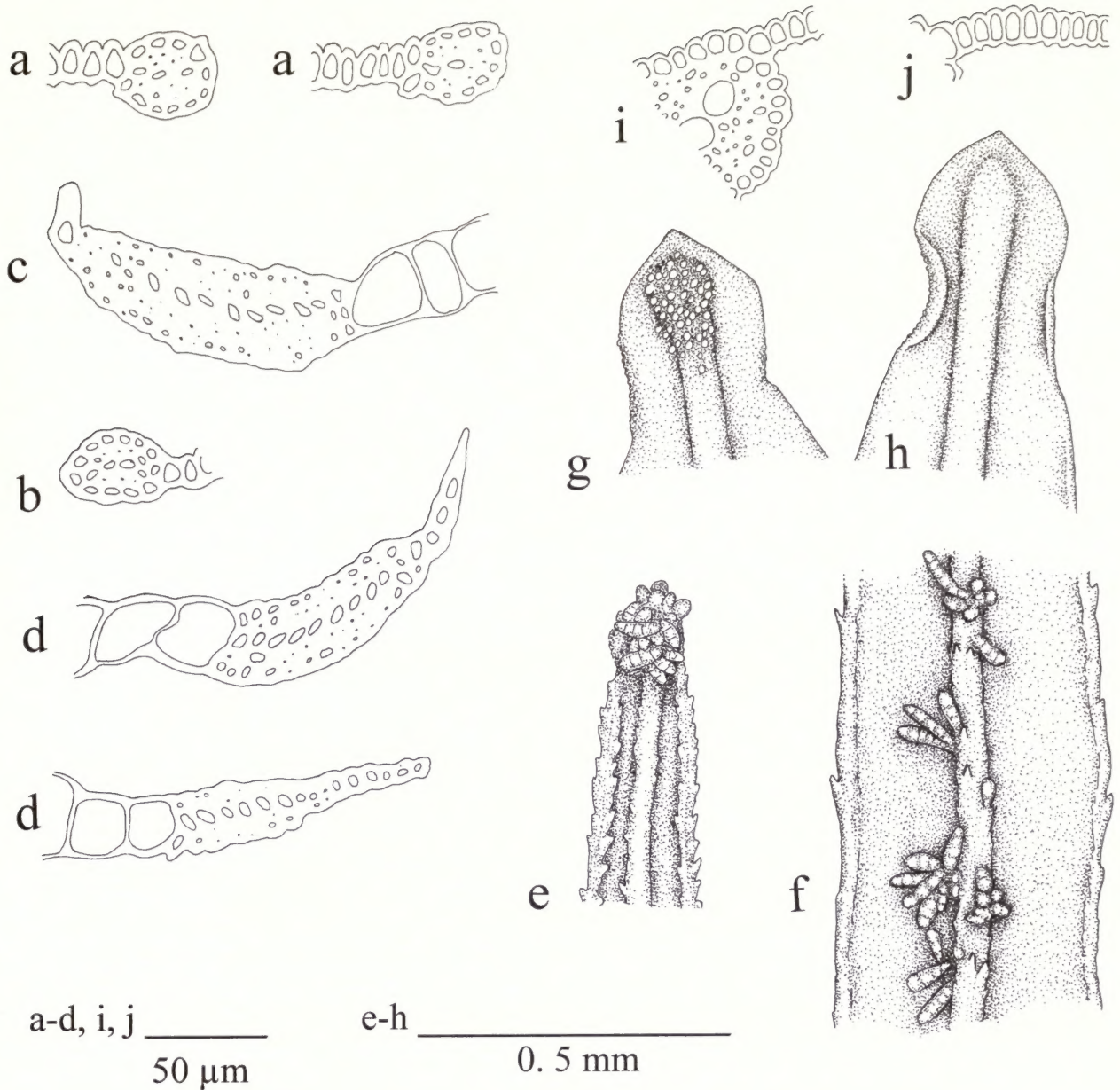


Fig. 2 a–d. *Syrrhopodon stuhlmannii* Broth. a–d: cross-sections through leaf margins (a, b: in chlorophyllose limb, c, d: in distal hyaline base). e, f: *Syrrhopodon gardneri* (Hook.) Schwägr. e, f: gemmae on leaves (e: in cluster at apex (ventral surface), f: in groups in mid-leaf). g–j. *Calymperes palisotii* Schwägr. g, h: apices of gemmiferous leaves (g: in ventral view showing gemmae-producing region (gemmae lost), h: in dorsal view); i, j: cross-sections of chlorophyllose limb (i: showing half of costa, and j: lamina). a, c Drawn from *Pócs & Knox* 89053/AK (BM). b, d Drawn from *Stuhlmann* 8809 (BM, isotype of *Syrrhopodon stuhlmannii*). e Drawn from *Kathumba* M5073b (RNG). f Drawn from *Longton* M8375a (RNG). g, h, i, j Drawn from *Lisowski* 50255 (EGR).

ribs and the cells of the chlorophyllose lamina in *S. asper* are replete with acute projections (Fig 1d–l). If apparent at all, the median row of guide cells in the rib at the margin of the distal hyaline lamina is usually less than six cells wide (Fig. 1i–l).

Syrrhopodon stuhlmannii Broth. remains a distinct species, apparently endemic to Tanzania.

SPECIMENS EXAMINED. **Tanzania.** Uluguru, Bergwald, 1600 m, *Stuhlmann* 8809 (BM!-isotype of *S. stuhlmannii*). Uluguru Mountains, 30 July 1941, *Eccles* AH8648 (BM!), AH8652 (BM!). Morogoro District. Nguru Mts, ridge above ‘Spirit Lake’ at the north source of

Chazi River above Chazi Falls, 2000–2100 m, 6°00’ S 37°30’ E, 4 February 1989, *Pócs & Knox* 89053/AK (BM!); Lushoto District, West Usambara Mts, 5 km east of Mgwashi village on west slope of Gonja Hill, 1600–1700 m, 4° 47’ S 38° 33’ E, *Pócs & Krog* 88205/R (BM!).

***Syrrhopodon gardneri* (Hook.) Schwägr., *Sp. musc. frond. suppl.* 2 (1): 110 (1824).**

Fig. 2e, f, 3.

Calymperes gardneri Hook. *Musci Exot.* 2: 146 (1819). Type: Nepal, *Gardner* [1205] (BM!-holotype, BM!-isotype).

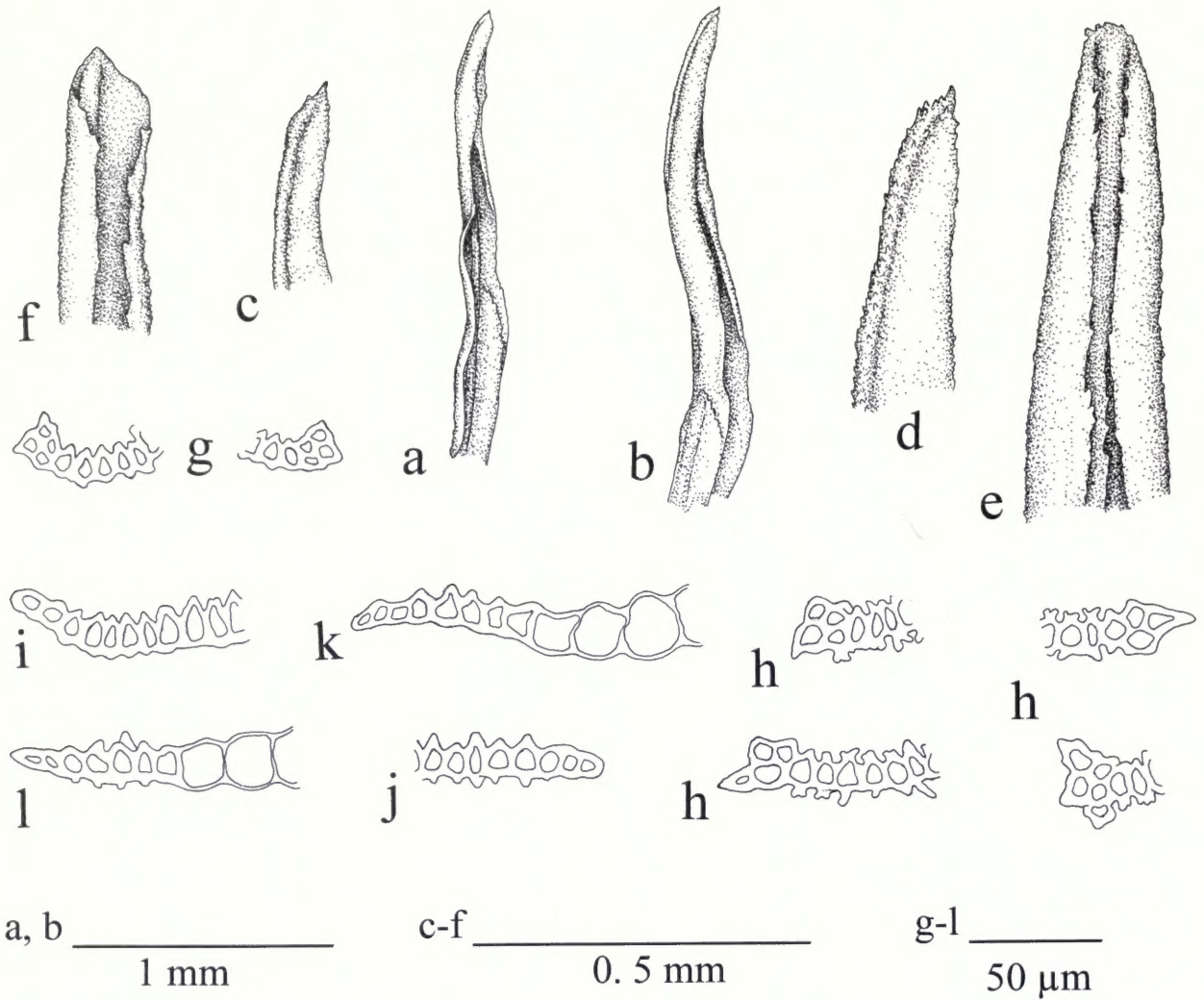


Fig. 3 a–l. *Syrrhopodon gardneri* (Hook.) Schwägr. a–b: leaves; c–f: details of leaf apex, (c, d: in lateral view, e, f: in ventral view); g–l: cross-sections through leaf margin (g, h: in chlorophyllose limb, i, j: around apex of hyaline base, k, l: in distal hyaline base). a, c, f, g, i, k Drawn from Gardner H1205 (BM, isotype of *Syrrhopodon gardneri*). b, d, e, h, j, l Drawn from Lisowski s.n. (EGR, holotype of *Syrrhopodon lisowskii*).

Syrrhopodon lisowskii S. Orbán in *Egri Ho Si Minh Tanárképző Főis. Füzetek* 18: 81 (1987), syn. nov. Type: Zaire, Haut Shaba, Env. de Kasumbalesa, Colline Kibwe I., 1400 m, 20 March 1971, Lisowski s.n. (EGR!-holotype).

DISCUSSION. The holotype of *Syrrhopodon lisowskii* S. Orbán possesses narrow, gemma-bearing leaves that have strongly incurved margins. Orbán & Reese (1986) use these features to distinguish *S. lisowskii* from *S. gardneri* (Hook.) Schwägr. However, cross-sections of the leaves from the types of *S. gardneri* and *S. lisowskii* are indistinguishable (Fig. 3–l), and an examination of a large number of specimens has shown that leaves with incurved margins and/or bearing gemmae fit comfortably within the range of features characteristic of *S. gardneri*.

In the latter species, young leaves often tend to possess strongly incurved margins and can have blunt, almost cucullate apices. The isotype material of *Syrrhopodon gardneri* (BM) has many leaves with a lamina approaching the degree of incurvature apparent in *S. lisowskii* (Fig. 3e, f). Gemmae occur in many specimens of *S. gardneri* and their presence is not correlated with the relative breadth of the leaf or incurvature of the leaf margins. They may be

produced on the ventral and sometimes dorsal surfaces of the costa, often in a bunch at the leaf apex (Fig. 2e). In a collection from Malawi (*Longton* M8375a) gemmae occur in small groups at intervals along the costa, associated with the loosely transverse rows of prominent costal teeth. The leaves of this specimen are not especially narrow nor are the margins of the chlorophyllose lamina particularly incurved (Fig. 2f). In all respects it is identifiable as *S. gardneri*.

SPECIMENS EXAMINED. **Malawi.** Mulanje Mountain, June 1991: *N. Hodgetts* M2008e, M2026d, M2048b, M2066a, M2067b, 2383a, 2555a, M2638a, 2661a, 2662c (RNG!); *Kathumba* M5058 (BM!), M5073b (RNG!); *Kungu* M3241 (BM!), M3267c, M3268a, M3033 (RNG!); *Longton* M8231a, M8232a, M8375a, M8648a (RNG!); *Magombo* M4238a (RNG!); *O'Shea* 7107b, 7108d, 7110a, 7111b, 7138a, 240a, 7240b pro parte, 7241b, M7404c, M7406b, M7508a, M7509b (RNG!), 7318a, 7389a (BM!); *Porley* 98a, 232a, 317a, 329a (RNG!); *Wigginton* M1009b pro parte, M1024b pro parte, M1217a, M1219a, M1225a, M1243a, M1247a, M1417a, M1576a (RNG!). Zomba Plateau, forestry campsite opposite Chawe School, 1470 m, 8 August 1993, *Stevenson* s.n. (BM!). **Uganda.** Ishasha

Gorge, Kanunga, 7500 ft, 6 June 1952, *Lind* 14 (BM!); Bwindi National Park, forest 1 km east of the Zaire border near Rukubira, 1680 m, 0°59'53"S 29°35'50"E, 3 February 1996, *Matcham* U1118a (BM!). **Democratic Republic of Congo.** Lushiji, October 1923, *Overlaet* 347 (BM!). **Angola.** Huilla District, near Humpata, 3800–5500 ft, May 1860, *Welwitsch* 6 (BM!- isotype of *Calymperes welwitschii* Dub.). **Madagascar.** Ankafana, 1880, *Deans Cowan* s.n. (BM!).

Calymperes palisotii Schwägr. *Sp. musc. frond. suppl.* **1** (2): 334 (1816). Type: Nigeria, 'Oware' [Warri], *Palisot de Beauvois* s.n. (BM!- lectotype).

Fig. 2g–j.

DISCUSSION. Orbán (1995) identified three specimens from continental Africa as *Calymperes palisotii* ssp. *moluccense* (Schwägr.) M. Menzel in M. Menzel & Schultze-Motel [= *Calymperes moluccense* Schwägr.]. These specimens, collected by Lisowski from Zaire and Guinea, would have been the first African records for *C. moluccense*. Unfortunately, all three collections are *Calymperes palisotii* Schwägr. (non *C. moluccense*). The cells of the chlorophyllose lamina are ventrally roundly protuberant (Fig. 2i, j) and the lamina at the apex of gemmiferous leaves forms a broad point (Fig. 2g, h). These features are typical of *C. palisotii*, and are especially well represented in collections from Africa. As explained by Ellis (1987) and Ellis & Tan (1999), *C. moluccense* (syn. *C. palisotii* ssp. *moluccense*) is distinguishable from *C. palisotii* by its

possession of laminal chlorocysts that are ventrally drawn out as acute, often coronate-papillose projections, and gemmiferous leaves with a rounded rather than broadly pointed apex.

Calymperes moluccense Schwägr. has yet to be found in continental Africa or the adjacent islands of the Indian Ocean, and must still be regarded as an Indo-Pacific species.

SPECIMENS EXAMINED. **Guinea.** Conakry, Campagnie Minière, 23 December 1961, *Lisowski* 918 (EGR!). **Democratic Republic of Congo.** Haut-Zaire, Kisangani: près de la Porte, 11 December 1977, *Lisowski* 50255 (EGR!); centre de la ville, 22 December 1977, *Lisowski* 50379 (EGR!).

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Typification of *Ranunculus bullatus* L. (Ranunculaceae)

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SYNOPSIS. The typification of *Ranunculus bullatus* L. is discussed and a lectotype and epitype chosen which maintain usage of the name in the sense of subsp. *bullatus*. *Ranunculus bullatus* subsp. *cytheraeus* (Halácsy) Vierh. is recognized at species rank, and the combination *R. cytheraeus* (Halácsy) Baldini is made to accommodate it. Both taxa are described and illustrated. The names *R. bullatus* L. var. *cuneifolius* Coustur. & Gand., *R. bullatus* L. var. *cyrenaicus* Pamp., *R. bullatus* L. var. *ovatus* Freyn, *R. bullatus* L. var. *prolifer* Gennari, *R. semicalvus* Jord. & Fourr. and *Ionosmanthus plantagineus* Jord. & Fourr. are also typified.

INTRODUCTION

Ranunculus bullatus L., s. l., is a polymorphic taxon distributed in the Mediterranean area (Greuter et al., 1989; Jalas & Suominen, 1989) by scattered populations from Portugal to Greece and Northern Africa (Maire, 1964). It is well-known that there are many difficulties in distinguishing the several infraspecific taxa described within this species (Gandoger, 1889; Vierhapper & Reichinger fil., 1935; Davis, 1965) because many diagnostic characters overlap. As a part of a wider study of this group of taxa in Europe (Baldini, in prep.), it is necessary to establish the correct application of the Linnaean name.

LECTOTYPIFICATION OF *RANUNCULUS BULLATUS* L.

Linnaeus (1753: 550) used a diagnosis '*Ranunculus foliis ovatis serratis, scapo nudo unifloro*' cited from his earlier *Hortus Cliffortianus* (Linnaeus, 1738) along with three synonyms from, respectively, Bauhin (1623), Dodoens (1583) and Clusius (1601). He also recognized one unnamed variety (var. β) based on a series of polynomials of Morison (1680) ' β . *Ranunculus latifolius bullatus autumnalis, flore pleno & prolifero*. *Moris. hist. 2. p. 447. s. 4. t. 31. f. 49. 50. 51.*' Finally, Linnaeus added '*Habitat in Lusitania, Creta*', and a symbol to indicate a perennial life form (Fig. 1).

Although there are two sheets referred to this taxon in Linnaeus' Herbarium at LINN (numbering follows Savage, 1945), 715.10 lacks the relevant *Species Plantarum* number (i.e. '8') and is therefore a post-1753 addition to the herbarium (see Turland & Jarvis, 1997: 458–459), and 715.11 is entirely unannotated. We therefore do not accept either sheet as original material for this name, although both are identified (e.g. by Davis, 1965: 179) as belonging to the typical subspecies. There is no relevant material in any of the other 'general' Linnaean collections (e.g. H, MW, S, SBT, UPS), nor is there any in the Burser Herbarium (UPS) which can be associated with the Bauhin polynomial cited by Linnaeus. However, there is a specimen in the Clifford Herbarium (Herb. Clifford: 229, *Ranunculus* 7, BM! (viewable at <http://www.nhm.ac.uk/botany/databases/clifford>)) which can be associated with both var. β of *Hortus Cliffortianus* (Linnaeus, 1738) and var. β of *Species Plantarum*

(Linnaeus, 1753) and is a double-flowered form ('*flore pleno & prolifero*') of *R. bullatus*. It is similar to the plant portrayed by Cornut (1635: t. 95; cited by Linnaeus as a synonym in 1738 but omitted in 1753) and Morison (1680: s. 4, t. 31, f. 50). The Clifford specimen is original material for the name.

The other original elements for the name are drawn from the cited and uncited illustrations. The woodcut of Dodoens' (1583: 426) '*Ranunculus Lusitanicus*' was copied by Morison (1680: s. 4, t. 31, f. 51, as '*Ranunculus latifolius autumnalis caule hirsuto flore minimo, nobis*') via the uncited Clusius (1601: 238, as '*Ranuncul. grumosa rad. I. species II*') and represents a plant from Crete (notwithstanding Dodoens' belief that the plant came from Portugal) identifiable as *R. bullatus* subsp. *cytheraeus* (Hal.) Vierh. (see Greuter et al., 1989: 428).

Clusius' (1601: 238) '*Ranunculus grumosa radice I.*', also copied by Morison (1680: s. 4, t. 31, f. 49, as '*Ranunculus latifolius autumnalis fl. simplici, nobis*'), represents a plant from the Iberian Peninsula, identifiable as *R. bullatus* L. subsp. *bullatus*.

Lastly, for his unnamed variety β , Linnaeus cited Morison's (1680: s. 4, t. 31, f. 49, 50 and 51) along with a single, composite polynomial that Linnaeus derived from those used by Morison for his three illustrations (for the identities of these, see above).

There are therefore six possible elements from which a lectotype could be chosen: the Clifford material, the element represented by Dodoens' illustration, that represented by Clusius' figure, and the three Morison figures associated with variety β . Clifford's material and Morison's f. 50 have petaloid staminodia ('. . . *flore pleno & prolifero*'), are almost certainly of cultivated origin and would not effectively restrict the application of subsp. *bullatus*. Dodoens' illustration and Morison's f. 51 belong to subsp. *cytheraeus* so either would make an unfortunate and disruptive type choice. However, Clusius' illustration (copied by Morison as his f. 49) belongs to subsp. *bullatus* and '*Ranunculus grumosa radice I.*' in Clusius, *Rariorum plantarum historia*: 238 (1601) is therefore designated here as the lectotype of *Ranunculus bullatus* L. (Fig. 2). Given its somewhat schematic nature, it seems wise to designate an epitype to establish its application beyond any possible doubt, which we do here (see Taxonomic Summary).

Study of the variation in *Ranunculus bullatus* L. s.l. by the senior author (Baldini, in prep.), leads to the conclusion that *R. bullatus* L. subsp. *cytheraeus* (Halácsy) Vierh. is best recognized at species rank. This is based on several distinct features, including flower size

- bullatus*, 8. **RANUNCULUS** foliis ovatis ferratis, scapo nudo unifloro. *Hort. cliff.* 329.
Ranunculus latifolius bullatus, asphodeli radice. *Banb. pin.* 181.
Ranunculus lusitanicus. *Dod. pempt.* 429.
Ranunculus grumosa radice 1. *Clus. hist.* 1, p. 238.
 β. *Ranunculus latifolius bullatus autumnalis*, flore pleno & prolifero. *Morif. hist.* 2, p. 447, f. 4. t. 31. f. 49. 50. 51.
Habitat in Lusitania, Cręta. 2

Fig. 1 The protologue of *Ranunculus bullatus* Linnaeus, *Species Plantarum*: 550 (1753).

Ranuncul. grumosa radice 1.

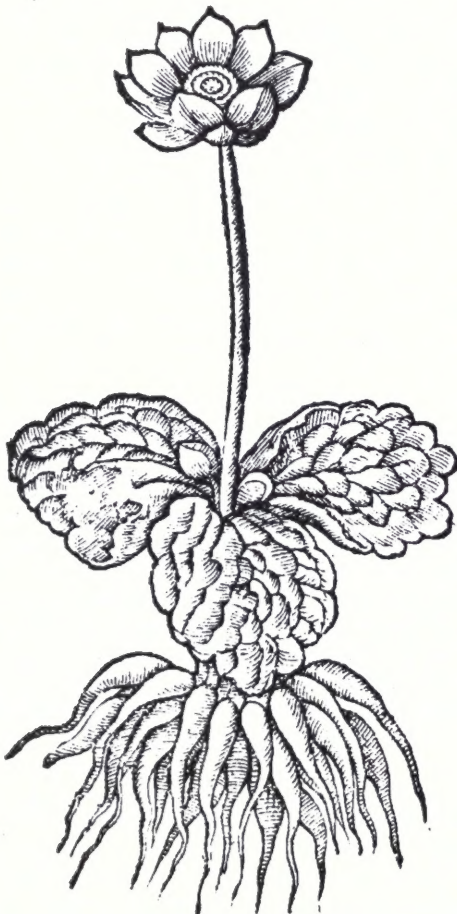


Fig. 2 '*Ranunculus grumosa radice* I.' in Clusius, *Rariorum plantarum historia*: 238 (1601), the lectotype of *Ranunculus bullatus* L.

and arrangement, leaf morphology and habit, and their correlation with geographical distribution. A new combination, relevant synonymy, key and species descriptions and illustrations are given below.

TAXONOMIC SUMMARY

Key to *Ranunculus bullatus* and *R. cytheraeus*

- 1 Leaf lamina ovate, crenate, never mucronate, more or less bullate and pubescent, sometimes glabrous or hispid above or beneath; scape to 20–25 cm long, never branched, more or less pubescent, 1-flowered; achenes with a short, curved beak 1. **R. bullatus**
- Leaf lamina obovate to elliptical, crenate-denticulate, mucronate, upper surface villose especially at the margin; scape to 8 cm long, branched with small bracteole at the base of each branch, with spreading hairs, 1–2-flowered; achenes with a short, uncinat beak 2. **R. cytheraeus**

1. **Ranunculus bullatus** L., *Sp. pl.* 1: 550 (1753). Type: '*Ranunculus grumosa radice* I.' in Clusius, *Rar. pl. hist.*: 238 (1601), lectotype, designated here. Epitype: 'Flora Lusitanica. Prov. Estremadura, ad pagum, 1848, leg. Dr. Welwitsch 198' (BM!), designated here.

Fig. 3.

- Ranunculus supranudus* Jord. & Fourr., *Brev. Pl. Nov.* 1: 1 (1866). Type: 'Algeria: Daroussa prope Bône, ex dom. A. Joannon'. Not located.
- R. semicalvus* Jord. & Fourr., *Brev. Pl. Nov.* 1: 2 (1866). Type: 'Ajaccio, 15 octobre 1866, col. De Marsilly 101 bis' (P!), lectotype, designated here; BM!, K!-isotypes).
- R. bullatus* L. var. *prolifer* Gennari, *Spec. e var. Fl. Sard.*: 29 (1866), non Cavara & Grande in *Boll. Soc. Bot. Ital.*: 101 (1925). Type: '*Ranunculus bullatus* scapo diviso seu prolifero, Cagliari ai Cappuccini, 9bre. 1863, Gennari s. n.' (TO!) lectotype, designated here).
- Ionosmanthus semicalvus* (Jord. & Fourr.) Jord. & Fourr., *Icon. Fl. Eur.* 2: 14 (1869).
- I. plantagineus* Jord. & Fourr., *Icon. Fl. Eur.* 2: 14 (1869). Type: 'Algeria, Costantine, tab. CCXLIV. – 326' in Jordan & Fourreau, *Icon. Fl. Eur.* 2. (1869), lectotype, designated here.
- R. bullatus* L. var. *α ovatus* Freyn in Willk. & Lange, *Fl. Hisp. Prodr.* 3: 919 (1880). Type: 'Malaga, *Willkomm exsicc.* 1844, n. 418', (BM!) lectotype, designated here; G!-isotype).
- R. bullatus* L. var. *β bellidifolius* Freyn in Willk. & Lange, *Fl. Hisp. Prodr.* 3: 919 (1880). Type: 'Malaga, Kalisch'. Not located.
- R. bullatus* L. subsp. *supranudus* (Jord. & Fourr.) Vierh. in *Österr. Bot. Z.* 84: 129 (1935).
- R. bullatus* L. subsp. *bullatus* var. *plantagineus* (Jord. & Fourr.) Maire in Jahand. & Maire, *Cat. Pl. Maroc*: 994 (1940).
- R. bullatus* L. subsp. *bullatus* var. *supranudus* (Jord. & Fourr.) Maire in Jahand. & Maire, *Cat. Pl. Maroc*: 994 (1941).
- R. bullatus* L. subsp. *eu-bullatus* Maire, *Fl. Afrique N.* 11: 139 (1964).

Perennial herb with fibrous roots and fusiform tubers; leaves (2–)3–5(–7) in basal rosette; petiole 2–5(–7) cm long, with silky hairs; lamina ovate, crenate, sometimes crenate-denticulate, never mucronate, more or less bullate and pubescent, sometimes glabrous or hispid above or beneath, (1–)2–8 × 1–5(–6) cm; scapes erect, never branched, up to 20–25 cm long, more or less pubescent, sometimes glabrous, 1-flowered; flowers 1–2(–3) cm in diameter, with 5 green sepals 0.3–0.6 cm long and 5–10(–12) yellow and obovate petals 0.5–1.5 cm long; receptacle glabrous, not elongated; achenes glabrous, ovate-inflated with a short and curved beak.

DISTRIBUTION

EUROPE. Tutin (1964: 234); Greuter et al. (1989: 428); Jalas & Suominen (1989: map no. 1839); Tutin & Akeroyd (1993: 281). **Portugal:** Pereira

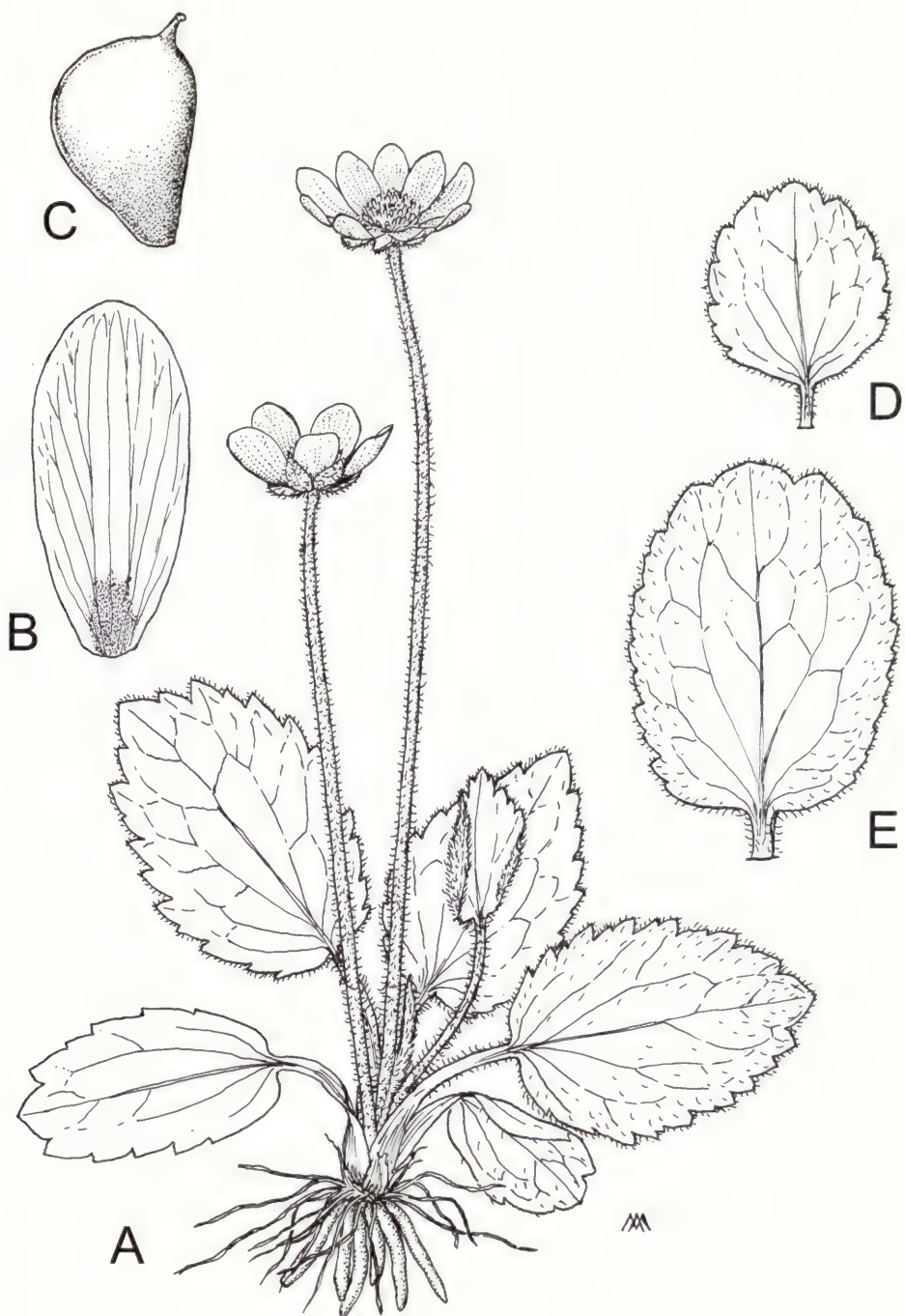


Fig. 3 *Ranunculus bullatus* L. From the epitype specimen, *Welwitsch 198* (BM), A. Maury *delineavit*. A. whole plant $\times 1$; B. petal $\times 4$; C. achene $\times 20$; the additional leaves ($\times 1$) show two of the more frequent foliar morphotypes found in this variable species. The upper leaf (D) is from a collection from the Balearic Islands (*Bianor 2518*, BM!); the lower leaf (E) is from a collection from Sicily (*Ross 103*, G!).



Fig. 4 *Ranunculus cytheraeus* (Halácsy) Baldini. From material from Cyprus (Agia Napa distr., Famagusta, 15 Dec. 1940), Davis 2052 (BM), A. Maury delineavit. A. whole plant $\times 2$; B. petal $\times 5$; C. achene $\times 20$.

Coutinho (1974: 279). **Spain:** López González (1986). **Balearic Islands:** Smythies (1984: 448). **Corsica:** Paradis et al. (2000). **Italy** (incl. Sardinia and Sicily): Fiori (1898: 506; 1924: 666); Zangheri (1976: 161); Pignatti (1982: 318). **Crete:** Turland et al. (1993: 132 sub *R. bullatus* L. p.p.). **Turkey:** Davis (1965: 179). **Cyprus:** Meikle (1977: 48). **NORTH AFRICA.** Maire (1964: 137 excl. Libya where only *R. cytheraeus* (Halácsy) Baldini occurs). **Morocco:** Battandier (1888: 10); Jahandiez & Maire (1932: 250); Nègre (1961: 241). **Algeria:** Battandier & Trabut (1904: 12); Quézel & Santa (1962: 370). **Tunisia:** Battandier & Trabut (1904: 12); Pottier-Alapetite (1979: 156).

2. *Ranunculus cytheraeus* (Halácsy) Baldini, **stat. nov.**

Ranunculus bullatus L. var. *cytheraeus* Halácsy in Vierh., *K. K. Zool.-Bot. Ges. Wien* **54**: 483 (1904). Type: '*Ranunculus bullatus* L. v. *cytheraeus*. Foliis grosse inciso-dentatis, sparse pilosis subglabrisve, petalis 5, obovatis vel obovato-cuneatis. Ins. Cythera: in dumosis siccis reg. inf., 25.XI.1903, Chr. Leonis 5' (LY!-lectotype, designated here; LY!-isotypes).

Fig. 4.

R. bullatus L. var. *cuneifolius* Coustur. & Gand. in *Bull. Soc. Duffour*:

36 (1914). Type: 'Ranunculus bullatus L., Spec., 774. V. cuneifolius Cousturier et Gandoger. Var. nov.! Cat. Cam. 37 – var. Crète: Candie. Dans les collines au nord d'Hagios-Déka. Décembre 1913, *P. Cousturier 1479*' (LY!-lectotype, designated here; MPU!-isotype).

R. bullatus L. forma *cuneifolius* (Coustur. & Gand.) Coustur. & Gand. in *Bull. Soc. bot. France* **63**: 13 (1916).

R. bullatus L. var. *cyrenaicus* Pamp. in *Nuovo Giorn. Bot. Ital., n. s.*, **26**: 212 (1919). Type: 'Ranunculus bullatus L. var. cyrenaicus Pamp., 5 Gennaio 1917: in fioritura, depressione del terreno fra le due Palme e la linea ferroviaria di Benina in direzione del Giok (Kebir). Arabo = Ain el noogia = occhio di pecora. Gli arabi ne raccolgono i fiori e li uniscono alla mastiche ricavata dalla pianta Hellek (*Periploca laevigata*) detta Elek, per darle il colorito giallo. *Zanon 24*' (FI!-lectotype, designated here).

R. bullatus L. var. *prolifer* sensu Cavara & Grande in *Bull. Soc. Bot. Ital.*: 101 (1925), non Gennari, *Spec. e var. Fl. Sard.*: 29 (1866).

R. bullatus L. subsp. *cytheraeus* (Halácsy) Vierh. in *Österr. Bot. Z.* **84**: 129 (1935).

R. bullatus L. subsp. *cyrenaicus* (Pamp.) Maire, *Fl. Afrique N.* **11**: 139 (1964).

Perennial herb with fibrous roots and fusiform tubers; leaves 3–5(–9) in basal rosette, with silky hairs; pedicels 0.5–1.5(–2.5) cm long; lamina from obovate to elliptical, crenate-denticulate, mucronate, upper surface villose especially at the margin and somewhat pubescent beneath; scapes erect, 3–7(–8) cm long, with spreading hairs, branched with small bracteole at the base of branch; flowers 1–2, (0.5–)1–1.5(–2) cm in diameter, with 5 green sepals 0.3–0.5(–0.7) cm long and 5(–6) yellow and obovate petals, (0.5–)0.8–1.2(–1.5) cm long; receptacle glabrous and elongated; achenes glabrous, 0.1–0.3 cm long, inflated with a short and uncinat beak.

DISTRIBUTION

GREECE. *Cythera*: Halácsy (1904 sub *R. bullatus* L. var. *cytheraeus* Halácsy); Davis (1965: 179 sub *R. bullatus* subsp. *cytheraeus* (Halácsy) Vierh.); **Cyprus**: Davis (1965: 179 sub *R. bullatus* subsp. *cytheraeus* (Halácsy) Vierh.); Meikle (1977: 48 sub *R. bullatus* subsp. *cytheraeus* (Halácsy) Vierh.). **Crete**: Rechinger (1943: 188 sub *R. bullatus* L. var. *cuneifolius* Coustur. & Gand. p.p. & var. *cytheraeus* Halácsy in Vierh. p.p.); Barclay (1986: 82 sub *R. bullatus* L. p.p.); Turland et al. (1993: 132 sub *R. bullatus* L. p.p.).

NORTH AFRICA. **Libya**: Béguinot & Vaccari (1912a, 1912b sub *R. bullatus* sensu Bég. & Vaccari, non L. (1753); Pampanini & Zanon (1919: 212 sub *R. bullatus* L. var. *cyrenaicus* Pamp.); Pampanini (1931: 203 sub *R. bullatus* L. var. *cyrenaicus* Pamp.); Cavara & Grande (1925 sub *R. bullatus* var. *prolifer* sensu Cavara & Grande, non Gennari (1866); Maire (1964: 139 sub *R. bullatus* L. subsp. *cyrenaicus* (Pamp.) Maire; Davis (1965: 179 sub *R. bullatus* L. subsp. *cytheraeus* (Halácsy) Vierh.); Qaiser (1984: 35 sub *R. bullatus* L. subsp. *cytheraeus* (Halácsy) Vierh.).

ACKNOWLEDGEMENTS. We are grateful to the curators of the herbaria cited above for permission to study the collections in their care, and in particular to Prof. P. Schafer (MPU). We are also grateful to Giorgio Padovani (Museo Botanico dell'Università degli Studi di Firenze) and Laura Settesoldi (Erbario Tropicale di Firenze) for their kind assistance in transferring images to CD. CEJ acknowledges generous grant support to the Linnaean Plant Name Typification Project by the Linnean Society of London.

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Catalogue of the lichens of Thailand

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SYNOPSIS. A catalogue of the lichens of Thailand is provided based on published reports. It includes publication details of 554 species and infra-specific taxa together with information on distribution in Thailand, occurrence in other south and south-east Asian countries, literature references and the locations of named specimens.

INTRODUCTION

Before the 1990s, knowledge of the diversity and distribution of the lichen flora of Thailand was based almost entirely on collections made by a handful of foreign visitors in the first half of the twentieth century (Wolseley & Aguirre-Hudson, 1991). During a research project on lichens as environmental indicators based at the Natural History Museum, London, a comprehensive survey of literature concerning lichens in south-east Asia was made and a data base constructed, which forms the basis of this checklist (Aguirre-Hudson & Wolseley, 1994). It was not possible during this time to trace all types described in the literature, or to confirm the accuracy of many earlier identifications. Since then there has been a rapid and productive expansion of lichenological research by Thai practitioners, especially at the Lichen Research Unit, Ramkhamhaeng University, Bangkok, further expanding the list and including many newly described species (Boonpragob et al., 1998; Pooprang et al., 1999; Vongshewarat et al., 1999; Homchantara & Coppins, 2002). The present checklist is conceived as a working document for all researchers in south-east Asia to provide both the literature sources and herbaria in which specimens from Thailand may be seen.

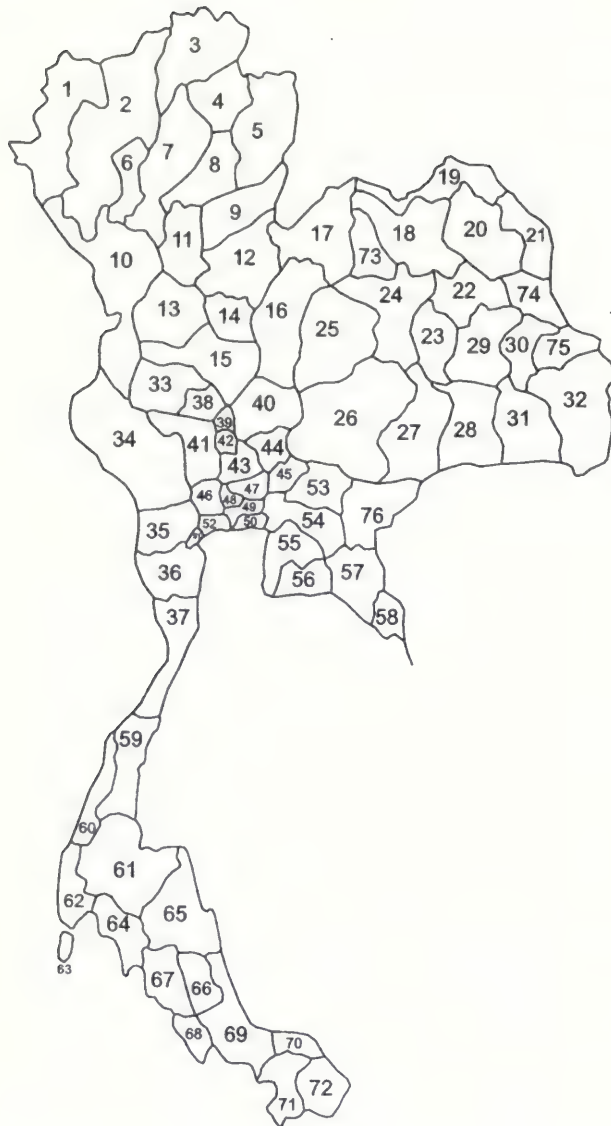
SCOPE AND ARRANGEMENT

This catalogue documents all 554 currently accepted taxa that have been reported in the literature from Thailand, as well as synonyms previously applied to Thai specimens. Genera and species are arranged in alphabetical order, and generic and family concepts follow Hawksworth et al. (1995). Where new combinations have not been made, taxa have been placed in the current genus within square brackets []. Accepted names are shown in bold and synonyms in italics. Distribution within Thailand is given where possible by province including new provinces and their former names (Fig. 1). Literature pertaining to distribution in Thailand is cited and references provided. Location of specimens in herbaria is indicated by abbreviations following *Index Herbariorum* (Holmgren et al., 1990) as shown below:

AAU: Herbarium Jutlandicum, Botanical Institute, University of Aarhus, Denmark.

- BKF:** Forest Herbarium, Royal Forest Department, Bangkok, Thailand.
- BM:** Herbarium, Botany Department, The Natural History Museum, London, UK.
- C:** Herbarium, Botanical Museum, University of Copenhagen, Denmark.
- CANB:** Australian National Herbarium, CSIRO, Canberra, Australia.
- CMU:** Herbarium, Biology Department, Chiang Mai University, Thailand.
- COLO:** Herbarium, Colorado University, Colorado, USA.
- DUKE:** Herbarium, Botany Department, Duke University, Durham, North Carolina, USA.
- E:** Herbarium, Royal Botanic Garden, Edinburgh, UK.
- FH:** Farlow Reference Library and Herbarium of Cryptogamic Botany, Harvard University, Cambridge, Massachusetts, USA.
- GB:** Herbarium, Botanical Museum, Gothenburg, Sweden.
- H:** Herbarium, Botanical Museum, University of Helsinki, Finland.
- KF:** Herbarium, Forest Research Institute, Seoul, Korea.
- KYO:** Herbarium, Botany Department, Kyoto University, Japan.
- L:** Rijksherbarium, Leiden, Netherlands.
- LG:** Herbarium, Botany Department, Liège University, Belgium.
- OSA:** Herbarium, Osaka Museum of Natural History, Japan.
- PSU:** Herbarium, Department of Biology, Prince of Songkla University, Haad Yai, Thailand.
- RAMK:** Herbarium, Biology Department, Ramkhamhaeng University, Bangkok, Thailand.
- TNS:** Herbarium, Department of Botany, National Science Museum, Tokyo, Japan.
- TUR-V:** Vainio herbarium, Biology Department, University of Turku, Finland.
- UPS:** Botanical Museum, Uppsala University, Sweden.
- US:** United States National Herbarium, Botany Department, Smithsonian Institution, Washington DC, USA.

Distribution of taxa in other countries in adjacent areas of south and south-east Asia is indicated under the subheading 'ASIA'. We have avoided making taxonomic judgements on specimens we have not examined. Consequently, a number of highly dubious identifications remain, as do species which will almost certainly be transferred to other genera.



Key to provinces of Thailand

Northern region

1. Mae Hong Son
2. Chiang Mai
3. Chiang Rai
4. Phayao
5. Nan
6. Lamphun
7. Lampang
8. Phrae
9. Uttaradit
10. Tak
11. Sukhotai
12. Phitsanulok
13. Kamphaeng Phet
14. Phichit
15. Nakhon Sawan

Northeastern region

16. Petchabun
17. Loei
18. Udon Thani
19. Nong Khai
20. Sakon Nakhon
21. Nakhon Phanom
22. Kalasin
23. Maha Sarakham
24. Khon Kaen

Eastern region

25. Chaiyaphum
26. Nakhon Ratchasima
27. Buri Ram
28. Surin
29. Roi Et
30. Yasothon
31. Si Sa Ket
32. Ubon Ratchathani

Southwestern region

33. Uthai Thani
34. Kanchanaburi
35. Ratchaburi
36. Phetchaburi
37. Prachuap Khiri Khan

Central region

38. Chai Nat

39. Sing Buri

40. Lop Buri
41. Suphan Buri
42. Ang Thong
43. Phra Nakhon Si Ayutthaya
44. Saraburi
45. Nakhon Nayok
46. Nakhon Pathom
47. Pathum Thani
48. Nonthaburi
49. Bangkok
50. Samut Prakan
51. Samut Songkram
52. Samut Sakhon

Southeastern region

53. Prachin Buri
54. Chachoengsao
55. Chon Buri
56. Rayong
57. Chanthaburi
58. Trat

Peninsular region

59. Chumphon
60. Ranong
61. Surat Thani
62. Phangnga
63. Phuket
64. Krabi
65. Nakhon Si Thammarat
66. Phatthalung
67. Trang
68. Satun
69. Songkhla
70. Pattani
71. Yala
72. Narathiwat

New provinces

73. Nong Bua Lamphu formerly in Udon Thani
74. Mukdahan formerly in Nakhon Phanom
75. Amnat Charoen formerly in Ubon Ratchathani
76. Sra Kaeo formerly in Prachin Buri

Fig. 1 Map of Thailand showing location of provinces. Reproduced with permission from Hamalainen & Pinratana (2001).

Although this Catalogue is based exclusively on published reports and Homchantara's unpublished thesis, we have not included data from an anonymous checklist on the web-site of the Lichen Research Unit at Ramkhamhaeng University, Bangkok (www.ru.ac.th/lichen). This checklist includes the names (without additional information) of 404 species based on specimens held at RAMK. However, although many names can be attributed to literature sources and authoritative determinations, a significant proportion are unauthenticated and are previously unpublished taxa which must be considered possibly doubtful. We are aware that this Catalogue documents a rather small portion of what is almost certainly a very diverse lichen flora; indeed, the actual number of species is probably in excess of 2000. However, we hope that it will provide a basis for future taxonomic research on Thai lichens, and that the research programs currently underway in Thailand will ensure its rapid obsolescence.

CATALOGUE

Anisomeridium (Müll. Arg.) M. Choisy; Monoblastiaceae

[*Anisomeridium*] *Microthelia asiaticum* Vain., *Hedwigia*
46: 180 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 149), Hawksworth
(1985: 135).

SPECIMEN. TUR-V (holotype).

ASIA. India.

Anisomeridium foliicola R. Sant. & Tibell, *Austrobaileya*
2: 531 (1988).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et
al. (1998: 216).

SPECIMENS. CANB.

ASIA. India, Papua New Guinea, Philippines, Sri Lanka.

Anthracothecium Hampe ex A. Massal.;
Pyrenulaceae

Anthracothecium macrosporum Müll. Arg., *Linnaea* **63**:
44 (1888).

Anthracothecium pyrenuloides auct. non (Mont.) Müll. Arg.

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99, as
Anthracothecium pyrenuloides).

SPECIMENS. BM.

ASIA. India, Indonesia.

Anthracothecium parameroides (Vain.) Zahlbr., *Cat. Lich.
Univ.* **1**: 466 (1922).

Bottaria parameroides Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1907: 179; 1909: 143,
both as *Bottaria parameroides*).

SPECIMEN. TUR-V (holotype).

ASIA. Indonesia.

Anthracothecium prasinum (Eschw.) R.C. Harris, in Egan,
Bryologist **90**: 163 (1987).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani
(Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-
Hudson (1997a: 333), Boonpragob et al. (1998: 216).

SPECIMENS. BM, RAMK.

ASIA. Papua New Guinea.

Anthracothecium roseum (Vain.) Zahlbr., *Cat. Lich. Univ.*
1: 468 (1922).

Bottaria rosea Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1907: 179; 1909: 143,
both as *Bottaria rosea*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Arthonia Ach.; Arthoniaceae

Arthonia complanata Fée, *Essai Crypt. Écorc. Offic.*: 54
(1824).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 139).

SPECIMEN. TUR-V.

ASIA. China, Indonesia, Papua New Guinea, Philippines.

Arthonia aff. *mira* R. Sant., *Symb. Bot. Upsal.* **12**(1): 77
(1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et
al. (1998: 216).

SPECIMENS. RAMK.

ASIA. —

Arthonia obscuratula Zahlbr., *Cat. Lich. Univ.* **2**: 71
(1922).

Arthonia stenographella subsp. *obscurata* Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 140, as *Arthonia
stenographella* subsp. *obscurata*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Arthonia ochrodes Nyl., in Willey, *Syn. Gen. Arthonia*: 10
(1890).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 142).

SPECIMEN. TUR-V.

ASIA. —

Arthonia perpallens Nyl., *Ann. Sci. Nat., Bot.*, sér. 4, **20**:
231 (1863).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 141).

SPECIMENS. TUR-V.

ASIA. —

Arthonia rhizophorae Vain., *Bot. Tidsskr.* **29**: 141 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 141).

SPECIMEN. TUR-V (holotype).

ASIA. —

Arthonia varia Nyl. var. *stenographella* (Nyl.) Vain., *Ann.
Acad. Sci. Fenn.*, ser. A, **15**(6): 393 (1921).

Arthonia stenographella Nyl.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 140, as *A.
stenographella*).

SPECIMEN. TUR-V (holotype).

ASIA. Philippines, Sri Lanka.

Arthopyrenia A. Massal.; Arthopyreniaceae

Arthopyrenia siamensis Vain., *Suom. Elain-ja Kasvit.
Seuran Van. Julk.* **1**(3): 55 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 55).

SPECIMEN. TUR-V (holotype).

ASIA. —

Arthothelium A. Massal.; Arthoniaceae

Arthothelium monosporum (Vain.) Zahlbr., *Cat. Lich.
Univ.* **2**: 129 (1922).

Arthonia monospora Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 54, as
Arthonia monospora).

SPECIMEN. TUR-V (holotype).

ASIA. —

Arthothelium ruanum (A. Massal.) Körb., *Parerg. Lich.*: 263 (1861).

Arthonia ruana A. Massal.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 139, as *Arthonia ruana*).

SPECIMEN. TUR-V.

ASIA. —

Arthothelium ruanum var. *phaeosporum* (Vain.) Zahlbr., *Cat. Lich. Univ.* 2: 132 (1922).

Arthonia ruana var. *phaeospora* Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 139, as *Arthonia ruana* var. *phaeospora*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Arthothelium spectabile Flotow ex A. Massal., *Ric. Auton. Lich. Crost.*: 54 (1852).

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99).

SPECIMEN. BM.

ASIA. China, India, Malaysia, Sri Lanka.

Bacidia De Not.; Bacidiaceae

Bacidia affinis Vain., *Acta Soc. Fauna Fl. Fenn.* 53(1): 146 & 154 (1922).

Bacidia atosanguinea Th. Fr.

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99, as *Bacidia atosanguinea*).

SPECIMEN. BM (not located).

ASIA. —

Bacidia manilensis var. *siamensis* Vain., *Suoml. Elain-ja Kasvit. Seuran Van. Julk.* 1(3): 46 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 46).

SPECIMEN. TUR-V (holotype).

ASIA. —

Bacidia umbrina var. *turgida* Th. Fr., *Lichenogr. Scand.* 1: 365 (1874).

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99).

SPECIMEN. BM (not located).

ASIA. —

Bathelium Ach.; Trypetheliaceae

Bathelium madreporiforme (Eschw.) Trevis., *Spighe e Paglie*: 20 (1853).

Laurera madreporiformis (Eschw.) Riddle.

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217, as *Laurera madreporiformis*).

SPECIMENS. CANB.

ASIA. India, Myanmar.

Brigantiaea Trevis.; Brigantiaeeae

Brigantiaea leucoxantha (Spreng.) R. Sant & Hafellner, in Hafellner & Bellemère, *Nova Hedwigia* 35: 246 (1981).

THAILAND. Chiang Mai (Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 333), Boonpragob et al. (1998: 216).

SPECIMENS. BM, RAMK.

ASIA. India, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Taiwan.

Brigantiaea tricolor (Mont.) Trevis., *Spighe e Paglie*: 9 (1853).

THAILAND. Chiang Mai (Doi Suthep N.P., Chiang Dao N.P.), Lampang (Doi Khun Tan N.P.). Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. BM, CMU.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Sri Lanka, Taiwan.

Buellia De Not.; Physciaceae

Buellia blastenioides Vain., *Hedwigia* 46: 171 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 114).

SPECIMEN. TUR-V (holotype).

ASIA. —

Buellia pleiophoroides var. *meiospermoides* Vain., *Bot. Tidsskr.* 29: 113 (1909).

THAILAND. Chiang Mai (Doi Suthep N.P.), Trat (Koh Chang I.), Uthai Thani (Huay Kha Khaeng N.P.). Vainio (1909: 113), Wolseley & Aguirre-Hudson (1997a: 339).

SPECIMENS. BM, TUR-V (holotype).

ASIA. —

Buellia stramineoatra Vain., *Hedwigia* 46: 172 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 115).

SPECIMENS. TUR-V (syntypes).

ASIA. —

Buellia subdives Vain., *Hedwigia* 46: 172 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1907: 172; 1909: 114).

SPECIMENS. TUR-V (syntypes).

ASIA. —

Bulbothrix Hale; Parmeliaceae

Bulbothrix goebelii (Zenker) Hale, *Smithsonian Contr. Bot.* 32: 14 (1976).

Parmelia addenda Vain.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Queen Sirikit Botanical Garden), Trat (Koh Chang I.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1909: 107, as *Parmelia addenda*), Hale (1976a: 14), Mongkonsuk et al. (1996: 16), Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. C (lectotype), TUR-V (isolectotype), BKF, BM, CMU, US, Queen Sirikit Botanical Garden Herbarium.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Taiwan.

Bulbothrix hypochraea (Vain.) Hale, *Phytologia* **28**: 480 (1974).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Pooprang et al. (1999: 118).

SPECIMENS. RAMK.

ASIA. —

Bulbothrix isidiza (Nyl.) Hale, *Phytologia* **28**: 480 (1974).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P., Maetang), Lampang (Doi Pae Luang), Loei (Ban Sui, Phu Kradung), Phitsanulok (Phu Hin Rongkla, N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1995: 318; 1997a: 333; 1997b: 355–356), Moon et al. (2000a: 99).

SPECIMENS. BKF, BM, CMU.

ASIA. China, India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Taiwan.

Bulbothrix laevigatula (Nyl.) Hale, *Phytologia* **28**: 480 (1974).

Parmelia hookeri Taylor.

THAILAND. Chiang Mai (Doi Suthep). Vainio (1921: 37, as *Parmelia hookeri*).

SPECIMEN. TUR-V.

ASIA. —

Bulbothrix meizospora (Nyl.) Hale, *Phytologia* **28**: 480 (1974).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden), Loei (Phu Rhoa N.P.), Nakhon Nayok (Khao Yai N.P.). Boonpragob et al. (1998: 216), Pooprang et al. (1999: 118).

SPECIMENS. BM, RAMK.

ASIA. India, Indonesia, Nepal, Sri Lanka.

Bulbothrix pigmentacea (Hale) Hale, *Phytologia* **28**: 480 (1974).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1995: 318; 1997a: 333; 1997b: 355–56).

SPECIMENS. BKF, BM, CMU.

ASIA. Malaysia, Philippines.

Bulbothrix queenslandica (Elix & G.N. Stevens) Elix, *Mycotaxon* **47**: 126 (1993).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden), Loei (Nahaew N.P.), Phitsanulok (Phu Hin Rongkla N.P.). Pooprang et al. (1999: 119).

SPECIMENS. RAMK.

ASIA. —

Bulbothrix sensibilis (J. Steiner & Zahlbr.) Hale, *Phytologia* **28**: 481 (1974).

THAILAND. Loei (Nahaew N.P.). Pooprang et al. (1999: 119).

SPECIMENS. RAMK.

ASIA. India, Sri Lanka.

Bulbothrix setschawensis (Zahlbr.) Hale, *Phytologia* **28**: 481 (1974).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Lampang, Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. BKF, BM, CMU.

ASIA. China, India, Nepal.

Byssoloma Trevis.; Pilocarpaceae

Byssoloma chlorinum (Vain.) Zahlbr., *Cat. Lich. Univ.* **8**: 233 (1932).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. RAMK.

ASIA. India, Indonesia, Papua New Guinea.

Byssoloma leucoblepharum (Nyl.) Vain., *Dansk Bot. Ark.* **4**: 23 (1926).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Wolseley & Aguirre-Hudson (1997a: 333), Boonpragob et al. (1998: 216).

SPECIMENS. BM, RAMK.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Singapore, Vietnam.

Byssoloma tricholomum (Mont.) R. Sant., *Symb. Bot. Upsal.* **12**(1): 480 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. RAMK.

ASIA. China, Philippines, Singapore.

Calenia Müll. Arg. emend. R. Sant.; Gomphillaceae

Calenia graphidea Vain., *Ann. Acad. Sci. Fenn.*, ser. A, **15**: 163 (1921).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. RAMK.

ASIA. Indonesia, Malaysia, Papua New Guinea, Philippines.

Calenia aff. *phylogena* (Müll. Arg.) R. Sant., *Symb. Bot. Upsal.* **12**(1): 349 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. RAMK.

ASIA. India, Papua New Guinea, Philippines, Sri Lanka.

Calopadia Veřzda; Ectolechiaceae

Calopadia fusca (Müll. Arg.) Veřzda, *Folia Geobot. Phytotax.* **21**: 215 (1986).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. CANB.

ASIA. Indonesia, Papua New Guinea, Philippines, Sri Lanka.

Caloplaca Th. Fr.; Teloschistaceae

Caloplaca aequata (Hue) Zahlbr., *Cat. Lich. Univ.* **7**: 211 (1931).

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99).

SPECIMEN. BM (not located).

ASIA. —

Caloplaca flavorubescens (Huds.) Laundon, *Lichenologist* **8**: 147 (1976).

Caloplaca aurantiaca (Lightf.) Th. Fr.

THAILAND. Chiang Mai (Doi Inthanon N.P.), Chumphon (Koh Tao I.). Paulson (1930: 99, as *Caloplaca aurantiaca*).

SPECIMENS. BM.

ASIA. Sri Lanka, Taiwan.

Caloplaca holocarpa (Hoffm.) A.E. Wade, *Lichenologist* **3**: 11 (1965).

Caloplaca pyracea (Ach.) Th. Fr.

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99, as *Caloplaca pyracea*).

SPECIMEN. BM (not located).

ASIA. China, India.

[*Caloplaca*] *Placodium testaceorufum* Vain., *Hedwigia* **46**: 170 (1907).

THAILAND. Trat (Lem Ngob). Vainio (1909: 111, as *Placodium testaceorufum*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Canomaculina Elix & Hale; Parmeliaceae

Canomaculina subsumpta (Nyl.) Elix, *Mycotaxon* **65**: 477 (1997).

Rimeliella subsumpta (Nyl.) Kurok.

THAILAND. Chiang Mai (Maetang). Kurokawa (1991: 9, as *Rimeliella subsumpta*); Moon et al. (2000a: 99).

SPECIMEN. TNS.

ASIA. India, Papua New Guinea.

Canomaculina subtinctoria (Zahlbr.) Elix, *Mycotaxon* **65**: 477 (1997).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden), Loei (Nahaew N.P.). Mongkonsuk et al. (1996: 17), Pooprang et al. (1999: 119).

SPECIMENS. RAMK.

ASIA. China, India, Indonesia, Nepal.

Canoparmelia Elix & Hale; Parmeliaceae

Canoparmelia adpersa (Vain.) Elix & Hale, in Elix, Johnston & Verdon, *Mycotaxon* **27**: 278 (1986).

Parmelia adpersa Vain.

THAILAND. Trat (Lem Ngob). Vainio (1907: 168, as *Parmelia adpersa*).

SPECIMENS. C (isoelectotype), TUR-V (lectotype and syntype).

ASIA. Papua New Guinea, Philippines.

Canoparmelia concrescens (Vain.) Elix & Hale, *Mycotaxon* **27**: 278 (1986).

THAILAND. Phitsanulok (Phu Hin Rongkla, N.P.). Moon et al. (2000a: 100).

SPECIMENS. TNS.

ASIA. —

Canoparmelia ecaperata (Müll. Arg.) Elix & Hale, in Elix, Johnston & Verdon, *Mycotaxon* **27**: 278 (1986).

Parmelia malaccensis var. *laeteflavens* Vain.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P., Maetang), Loei (Phu Kradung N.P.), Nakhon Ratchasima (Khao Yai N.P.), Phitsanulok (Phu Hin Rongkla, N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1921: 38, as *Parmelia malaccensis* var. *laeteflavens*), Wolseley & Aguirre-Hudson (1995: 318; 1997a: 333; 1997b: 355–56), Boonpragob et al. (1998: 216), Moon et al. (2000a: 100).

SPECIMENS. BM, CMU, RAMK, TNS, TUR-V (lectotype and syntype of *P. malaccensis* var. *laeteflavens*), US.

ASIA. India, Nepal.

Canoparmelia owariensis (Asahina) Elix, *Mycotaxon* **47**: 127 (1993).

Pseudoparmelia owariensis (Asahina) Hale.

THAILAND. Chiang Mai (Doi Saget), Loei (Ban Sui, Phu Kradung), Phitsanulok (Phu Hin Rongkla, N.P.). Hale (1976b: 39, as *Pseudoparmelia owariensis*), Moon et al. (2000a: 100).

SPECIMENS. TNS.

ASIA. China (Hong Kong).

Canoparmelia pustulescens (Kurok.) Elix, *Mycotaxon* **47**: 127 (1993).

THAILAND. Chiang Mai (Doi Saget), Loei (Phu Kradung). Moon et al. (2000a: 101).

SPECIMENS. TNS.

ASIA. India.

Canoparmelia salacinifera (Hale) Elix & Hale, in Elix, Johnston & Verdon, *Mycotaxon* **27**: 279 (1986).

Pseudoparmelia salacinifera (Hale) Hale.

THAILAND. Chiang Mai (Doi Saget, Doi Suthep N.P.), Loei (Phu Kradung N.P.). Hale (1976a: 46, as *Pseudoparmelia salacinifera*), Wolseley & Aguirre-Hudson (1995: 318), Moon et al. (2000a: 101).

SPECIMENS. BKF, BM, CMU, TNS, US.

ASIA. —

Canoparmelia texana (Tuck.) Elix & Hale, in Elix, Johnston & Verdon, *Mycotaxon* **27**: 279 (1986).

THAILAND. Chiang Mai (Chiang Dao N.P., Queen Sirikit Botanical Garden), Lampang (Doi Khun Tan N.P.), Loei (Phu Kradung N.P.). Hale (1976a: 53), Moon et al. (2000a: 101).

SPECIMENS. BKF, BM, CMU, TNS.

ASIA. India, Malaysia, Sri Lanka.

Catillaria A. Massal.; Catillariaceae

Catillaria testaceolivens (Vain.) Zahlbr., *Cat. Lich. Univ.* **4**: 79 (1927).

Lecidea testaceolivens Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1907: 173; 1909: 117, both as *Lecidea testaceolivens*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Catillaria unicolor (Vain.) Zahlbr., *Cat. Lich. Univ.* **4**: 83 (1927).

Lecidea unicolor Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1907: 173; 1909: 118, both as *Lecidea unicolor*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Cetrariopsis Kurok.; Parmeliaceae

Cetrariopsis wallichiana (Taylor) Kurok., *Mem. Nat. Sci. Mus., Tokyo* **13**: 140 (1980).

Cetraria wallichiana (Taylor) Müll. Arg.

THAILAND. Chiang Mai (Doi Suthep). Vainio (1921: 36, as *Cetraria wallichiana*), Kurokawa (1980: 140), Wolseley & Aguirre-Hudson (1995: 318; 1997a: 333).

SPECIMENS. BM, PSU, TNS.

ASIA. China, Indonesia, Nepal, Philippines, Taiwan.

Cetrelia W.L. Culb. & C.F. Culb.; Parmeliaceae

Cetrelia braunsiana (Müll. Arg.) W.L. Culb. & C.F. Culb., *Contr. U.S. Natl. Herb.* **34**: 493 (1968).

Cetraria collata f. *isidiata* Asahina.

THAILAND. Chiang Mai (Doi Inthanon N.P.). Sato (1962: 3, as *Cetraria collata* f. *isidiata*), Wolseley & Aguirre-Hudson (1997a: 333, 337).

SPECIMENS. BM, TNS.

ASIA. China, India, Malaysia, Papua New Guinea, Philippines, Taiwan.

Cetrelia japonica (Zahlbr.) W.L. Culb. & C.F. Culb., *Contr. U.S. Natl. Herb.* **34**: 511 (1968).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Nakhon Nayok (Khao Yai N.P.). Wolseley & Aguirre-Hudson (1997a: 333), Boonpragob et al. (1998: 216).

SPECIMENS. BM, RAMK.

ASIA. Indonesia, Malaysia, Taiwan.

Cetrelia nuda (Hue) W.L. Culb. & C.F. Culb., *Contr. U.S. Natl. Herb.* **34**: 513 (1968).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Wolseley & Aguirre-Hudson (1997a: 337, 339).

SPECIMEN. BM.

ASIA. China, Taiwan.

Cetrelia olivetorum (Nyl.) W.L. Culb. & C.F. Culb., *Contr. U.S. Natl. Herb.* **34**: 515 (1968).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Wolseley & Aguirre-Hudson (1997a: 337, 339).

SPECIMEN. BM.

ASIA. China, India, Papua New Guinea, Taiwan.

Chaenotheca (Th. Fr.) Th. Fr.; Coniocybaceae

Chaenotheca trichialis (Ach.) Th. Fr., *Nova Acta Regiae Soc. Sci. Upsal.*, ser. 3, **3**: 251 (1860).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMEN. RAMK.

ASIA. India.

Chiodecton Ach.; Roccellaceae

Chiodecton congestulum Nyl., *Bull. Soc. Linn. Normandie*, sér. 2, **2**: 106 (1868).

THAILAND. Trat (Koh Chang I.). Thor (1990: 41).

SPECIMENS. C, TUR-V.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Taiwan.

Chiodecton subsphaerale Nyl., *Bull. Soc. Linn. Normandie*, sér. 2, **2**: 106 (1868).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 138).

SPECIMENS. TUR-V.

ASIA. Malaysia.

Chroodiscus Müll. Arg.; Thelotremataceae

Chroodiscus mirificus (Kremp.) R. Sant., *Symb. Bot. Upsal.* **12**(1): 311 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. RAMK.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Vietnam.

Chrysothrix Mont.; Chrysothricaceae

Chrysothrix candelaris (L.) Laundon, *Lichenologist* **13**: 110 (1981)

Lepraria xanthina Vain.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Trat (Koh Chang I.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1909: 151, as *Lepraria xanthina*), Wolseley & Aguirre-Hudson (1997b: 355).

SPECIMENS. BM, TUR-V.

ASIA. China (Hong Kong), India, Philippines, Sri Lanka.

Cladia Nyl; Cladoniaceae

Cladia aggregata (Sw.) Nyl., *Compt. Rend. Hebd. Séances Acad. Sci.* **83**: 8 (1876).

THAILAND. Loei (Phu Miang, Phu Kradung N.P.). Yoshimura (1978: 37).

SPECIMENS. AAU, C.

ASIA. China (Hong Kong), India, Indonesia, Malaysia, Nepal, Papua New Guinea, Philippines, Taiwan.

Cladonia P. Browne; Cladoniaceae

Cladonia calyciformis Nuno, *J. Jap. Bot.* **47**: 161 (1972).

THAILAND. Loei (Phu Kradung N.P.). Yoshimura (1978: 37).

SPECIMENS. C, TNS (holotype).

ASIA. —

Cladonia ciliata var. *tenuis* (Flörke) Ahti, *Ann. Bot. Fenn.* **15**: 8 (1978).

Cladonia tenuis (Flörke) Harm.

THAILAND. Phu Mieng. Yoshimura (1978: 37, as *Cladonia tenuis*).

SPECIMENS. AAU, C.

ASIA. China, India.

Cladonia didyma var. *vulcanica* (Zoll. & Moritz) Vain., *Acta Soc. Fauna Fl. Fenn.* **4**: 145 (1887).

Cladonia vulcanica Zoll.

THAILAND. Chiang Mai (Doi Inthanon N.P.), Loei (Phu Kradung N.P.). des Abbayes (1956: 259, as *Cladonia vulcanica*), Yoshimura (1978: 38, as *Cladonia vulcanica*).

SPECIMENS. TNS.

ASIA. India, Indonesia, Papua New Guinea, Philippines, Sri Lanka, Taiwan.

Cladonia furcata (Huds.) Schrad., *Spicil. Fl. Germ.*: 107 (1794).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. RAMK.

ASIA. China, India, Indonesia, Taiwan.

Cladonia gymnopoda Vain., *Acta Soc. Fauna Fl. Fenn.* **10**: 172 (1894).

THAILAND. Loei (Phu Miang). Yoshimura (1978: 38).

SPECIMENS. AAU, C.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Taiwan.

Cladonia modesta Ahti & Krog, *Ann. Bot. Fenn.* **24**: 88 (1987).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. RAMK.

ASIA. —

Cladonia ramulosa (With.) Laundon, *Lichenologist* **6**: 225 (1984).

Cladonia pityrea (Flörke) Fr.

THAILAND. Chiang Mai (Doi Suthep N.P.), Khu Kawng. Loei (Phu Luang N.P.). Vainio (1921: 46, as *C. pityrea*), Yoshimura (1978: 38, as *C. pityrea*).

SPECIMENS. C.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka.

Cladonia rangiferina (L.) F.H. Wigg., *Primit. Fl. Holsat.* **90**: 29 (1780).

THAILAND. Loei (Phu Kradung N.P.). Yoshimura (1978: 37), Kurokawa & Kashiwadani (1988: *Lich. Rar. Crit. Exs.* No. 60).

SPECIMENS. C, TNS.

ASIA. China, India, Taiwan.

Cladonia rappii A. Evans, *Trans. Connecticut Acad. Arts* **38**: 297 (1952).

Cladonia calycantha Delise ex Nyl.

THAILAND. Chiang Mai (Doi Suthep N.P.), Loei (Phu Kradung N.P.). Yoshimura (1978: 37, as *C. calycantha*).

SPECIMENS. AAU, BM, C.

ASIA. China, India, Indonesia, Malaysia, Papua New Guinea, Philippines, Taiwan.

Cladonia siamea des Abbayes, *Kew Bull.* **2**: 262 (1956).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.), Loei (Phu Kradung N.P.). Yoshimura (1978: 37), Huovinen & Ahti (1986: 182), Stenroos (1986: 164), Kurokawa & Kashiwadani (1988: *Lich. Rar. Crit. Exs.* Nos. 61, 62).

SPECIMENS. BM (holotype), C, H (isotype), RAMK, TNS.

ASIA. Indonesia, Papua New Guinea.

Cladonia siamea f. *evoluta* des Abbayes, *Kew Bull.* **2**: 262 (1956).

THAILAND. Loei (Phu Kradung N.P.). des Abbayes (1956: 262).

SPECIMENS. BKF, BM (holotype).

ASIA. —

Cladonia siamea f. *pulvinata* des Abbayes, *Kew Bull.* **2**: 263 (1956).

THAILAND. Loei (Phu Kradung N.P.). des Abbayes (1956: 263).

SPECIMENS. BKF, BM (holotype).

ASIA. —

Cladonia squamosa (Scop.) Hoffm., *Deutschl. Fl.* **2**: 125 (1796).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. RAMK.

ASIA. China, India, Indonesia, Papua New Guinea, Philippines, Taiwan.

Cladonia subpityrea Sandst., in Zahlbruckner, *Ann. Naturhist. Mus. Wien* **42**: 61 (1928).

THAILAND. Loei (Dan Sai). Yoshimura (1978: 38).

SPECIMENS. C.

ASIA. Papua New Guinea, Philippines, Taiwan.

Cladonia transindica Ahti, *Ann. Bot. Soc. Zool-Bot. Fenn. 'Vanamo'* **32**(1): 72 (1961).

THAILAND. locality not known. des Abbayes (1964), Ahti (1984: 44), Stenroos (1988: 212).

SPECIMEN. ?

ASIA. China, Indonesia, Malaysia, Vietnam.

Coccocarpia Pers.; Coccocarpiaceae

Coccocarpia dissecta Swinscow & Krog, *Norweg. J. Bot.* **23**: 254 (1976).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden, Doi

Suthep N.P., Doi Inthanon N.P.), Khiri Khan, Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Mongkonsuk et al. (1996: 16).

SPECIMENS. BM, Queen Sirikit Botanical Garden Herbarium.

ASIA. Malaysia, Papua New Guinea, Philippines.

Coccocarpia erythroxyli (Spreng.) Swinscow & Krog, *Norweg. J. Bot.* **23**: 256 (1976).

Coccocarpia molybdaea Pers.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Nakhon Ratchasima (Khao Yai N.P.), Trat (Koh Chang I.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Paulson (1930: 99, as *C. molybdaea*), Arvidsson (1982: 62), Boonpragob et al. (1998: 216).

SPECIMENS. BM, GB, L, RAMK, TNS.

ASIA. China (incl. Hong Kong), India, Malaysia, Myanmar, Papua New Guinea, Philippines, Singapore, Sri Lanka, Taiwan.

Coccocarpia glaucina Kremp., *Nuovo Giorn. Bot. Ital.* **7**: 14 (1875).

THAILAND. Chiang Mai (Doi Suthep N.P.), Nakhon Nayok (Khao Yai N.P.). Boonpragob et al. (1998: 216).

SPECIMENS. BM, RAMK.

ASIA. Malaysia, Papua New Guinea, Philippines.

Coccocarpia palmicola (Spreng.) Arv. & D.J. Galloway, *Bot. Not.* **132**: 242 (1979).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden, Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P.), Nakhon Nayok (Khao Yai N.P.), Tak (Ton Krabakayai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Arvidsson (1982: 76), Wolseley & Aguirre-Hudson (1997a: 333; 1997b: 355), Mongkonsuk et al. (1996), Boonpragob et al. (1998: 216).

SPECIMENS. BM, L, RAMK, TNS, Queen Sirikit Botanical Garden Herbarium.

ASIA. China (incl. Hong Kong), India, Malaysia, Myanmar, Papua New Guinea, Philippines, Singapore, Sri Lanka, Taiwan.

Coccocarpia pellita (Ach.) Müll. Arg. emend. R. Sant., *Symb. Bot. Upsal.* **12**(1): 420 (1952).

THAILAND. Nakhon Nayok (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1998: 216).

SPECIMENS. BM, RAMK.

ASIA. China (Hong Kong), India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka.

Collema F.H. Wigg.; Collemataceae

Collema coccophyllum Nyl., *Syn. Meth. Lich.* **1**: 112 (1858).

THAILAND. Chiang Mai (Doi Suthep). Degelius (1974: 69).

SPECIMEN. TNS.

ASIA. India.

Collema coilocarpum (Müll. Arg.) Zahlbr., *Cat. Lich. Univ.* **3**: 34 (1924).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 333), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. India, Papua New Guinea, Philippines, Sri Lanka.

Conotrema Tuck.; Stictidaceae

Conotrema lumbricoides Sipman, in Aptroot et al., *Biblioth. Lichenol.* **64**: 52 (1997).

THAILAND. Nakhon Sri Thammarat (Khao Luang N.P.). Vongshewarat et al. (1999: 227)

SPECIMENS. RAMK.

ASIA. Papua New Guinea.

Cresponea Egea & Torrente; Roccellaceae

Cresponea chloroconia (Tuck.) Egea & Torrente, *Mycotaxon* **48**: 310 (1993).

Lecanactis deminuens (Nyl.) Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 121, as *Lecanactis deminuens*).

SPECIMEN. TUR-V.

ASIA. —

Crocynia A. Massal.; Lecideaceae

Crocynia pyxinoides Nyl., *Sert. Lich. Trop. Labuan Singapore*: 37 (1891).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1995: 320; 1997a: 333, 339; 1997b: 356), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. Malaysia, Singapore.

Cryptothecia Stirt.; Arthoniaceae

Cryptothecia candida (Kremp.) R. Sant., *Symb. Bot. Upsal.* **12**(1): 65 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMEN. RAMK.

ASIA. India, Indonesia, Malaysia, Sri Lanka.

Cryptothecia obtecta Patw. & Sethy, *Biovigyanam* **13**(2): 46 (1987).

THAILAND. Northern Thailand. Wolseley (1991: 240).

SPECIMEN. BM.

ASIA. India.

Dichosporidium Pat.; Chiodectionaceae

Dichosporidium boschianum (Mont.) Thor, *Opera Bot.* **103**: 64 (1990).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMEN. RAMK.

ASIA. China (Hong Kong), India, Malaysia, Philippines, Singapore, Sri Lanka.

Dictyonema C. Agardh ex Kunth; Meruliaceae

Dictyonema sericeum (Sw.) Berk., *J. Bot. (London)* **2**: 639 (1843).

Dictyonema sericeum f. *thelephora* (Spreng.) Parm.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 151), Parmasto (1978: 110, 111).

SPECIMEN. TUR-V.

ASIA. China (incl. Hong Kong), Indonesia, Papua New Guinea, Philippines, Taiwan.

Dirinaria (Tuck.) Clem.; Physciaceae

Dirinaria aegialita (Ach.) B. Moore, *Bryologist* **71**: 248 (1968).

THAILAND. Chiang Mai (Doi Inthanon N.P., Chiang Dao N.P.), Lampang (Doi Khun Tan N.P., Doi Pae Luang N.P.). Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. BM, CMU.

ASIA. China (Hong Kong), India, Indonesia, Malaysia, Philippines, Sri Lanka, Taiwan, Vietnam.

Dirinaria applanata (Fée) D.D. Awasthi, in Awasthi & Agarwal, *J. Indian Bot. Soc.* **49**: 135 (1970).

THAILAND. Khiri Khan, Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. BM.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Taiwan, Vietnam.

Dirinaria confusa D.D. Awasthi, *Biblioth. Lichenol.* **2**: 56 (1975).

THAILAND. Fang (northern Thailand). Yoshimura (1978: 35).

SPECIMEN. C.

ASIA. China, Papua New Guinea, Taiwan.

Dirinaria consimilis (Stirt.) D.D. Awasthi, in Awasthi & Agarwal, *J. Indian Bot. Soc.* **49**: 135 (1970).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P.), Sara Buri, Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Awasthi (1975: 93), Wolseley & Aguirre-Hudson (1995: 321; 1997a: 333; 1997b: 355).

SPECIMENS. BM, CMU.

ASIA. India, Indonesia, Malaysia, Myanmar, Vietnam.

Dirinaria picta (Sw.) Clem. & Shear, *Gen. Fung.*: 323 (1931).

Physcia picta Nyl.

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden), Khiri Khan, Trat (Koh Chang I.). Vainio (1909: 112, as *Physcia picta*), Paulson (1930: 100, as *P. picta*), Mongkonsuk et al. (1996), Wolseley & Aguirre-Hudson (1995: 321).

SPECIMENS. BM, TUR-V, Herbarium Queen Sirikit Botanical Garden.

ASIA. China (Hong Kong), India, Indonesia, Malaysia, Myanmar, Papua New Guinea, Philippines, Singapore, Sri Lanka, Taiwan, Vietnam.

Echinoplaca Fée; Gomphillaceae

Echinoplaca epiphylla Fée, *Essai Crypt. Écorc. Offic.*: 93 (1824).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMEN. RAMK.

ASIA. China (Hong Kong), India, Indonesia, Papua New Guinea, Philippines, Vietnam.

Echinoplaca pellicula (Müll. Arg.) R. Sant., *Symb. Bot. Upsal.* **12**(1): 367 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMEN. RAMK.

ASIA. China, Indonesia, Papua New Guinea, Philippines, Sri Lanka, Vietnam.

Endocarpon Hedwig; Verrucariaceae

Endocarpon adscendens Müll. Arg., *Bull. Trav. Soc. Murith. Valais* **10**: 58 (1881).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMEN. CANB.

ASIA. —

Enterographa Fée; Chiodectonaceae

[*Enterographa*] *Chiodecton pallidellum* var. *olivaceoalba* Vain., *Bot. Tidsskr.* **29**: 138 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 138), Thor (1990: 86).

SPECIMEN. TUR-V (not located).

ASIA. —

[*Enterographa*] *Chiodecton pallidellum* var. *olivaceostraminea* Vain., *Bot. Tidsskr.* **29**: 137 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 137), Thor (1990: 86).

SPECIMEN. TUR-V (holotype).

ASIA. —

Eremothecella Syd.; Arthoniaceae

Eremothecella macrocephala (R. Sant.) Thor, Lücking & Matsumoto, *Symb. Bot. Upsal.* **32**(3): 39 (2000).

Stirtonia macrocephala R. Sant.

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217, as *Stirtonia macrocephala*).

SPECIMENS. RAMK.

ASIA. Indonesia, Malaysia, Papua New Guinea, Philippines.

Erioderma Fée; Pannariaceae

Erioderma soreliatum D.J. Galloway & P.M. Jørg., *Lichenologist* **7**: 139 (1975).

THAILAND. Chiang Mai (Doi Suthep N.P.), Nakhon Nayok (Khao Yai N.P.). Wolseley & Aguirre-Hudson (1995: 321; 1997a: 339), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. Malaysia, Papua New Guinea, Sri Lanka.

Eschatogonia Trevis., ?Acarosporaceae

Eschatogonia prolifera (Mont.) R. Sant., in Swinscow & Krog, *Macrolichens East Africa*: 86 (1988).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Lampang (Wiang Kosai N.P.), Nakhon Ratchasima (Khao Yai N.P.), Satun (Thaleban N.P.), Uthai Thani (Huay Kha Kaeng Wildlife Sanctuary). Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. —

Everniastrum Hale ex Sipman; Parmeliaceae

Everniastrum cirrhatum (Fr.) Hale ex Sipman, *Mycotaxon* **26**: 237 (1986).

Parmelia cirrhata Fr.

Cetrariastrum cirrhatum (Fr.) W.L. Culb. & C.F. Culb.

Parmelia vulgaris Vain.

THAILAND. Chiang Mai (Doi Suthep, Doi Inthanon, Chiang Dao N.P.), Loei (Phu Luang). Vainio (1921: 38, as *Parmelia vulgaris*), Sato (1962: 3, as *P. cirrhata*), Moon et al. (2000a: 101, as *Cetrariastrum cirrhatum*).

SPECIMENS. BM, CMU, TNS, TUR-V.

ASIA. China, India, Indonesia, Nepal, Sri Lanka, Taiwan.

Everniastrum nepalense (Taylor) Hale ex Sipman, *Mycotaxon* **26**: 239 (1986).

Cetrariastrum nepalense (Taylor) W.L. Culb. & C.F. Culb.

Parmelia americana (Meyen & Flotow) Mont.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P., Maetang), Yala (Banglang N.P.). Vainio (1921: 38, as *Parmelia americana*), Sato (1962: 6, as *P. americana*), Wolseley & Aguirre-Hudson (1995: 321; 1997a: 333), Moon et al. (2000a: 101, as *Cetrariastrum nepalense*).

SPECIMENS. BM, CMU, PSU, RAMK, TNS, Kurokawa, *Lich. Rar. Crit. Exs.* No. 78.

ASIA. China, India, Indonesia, Nepal.

Everniastrum scabridum Elix & Pooprang, in Pooprang et al., *Mycotaxon* **71**: 112 (1999).

THAILAND. Chiang Mai (Doi Suthep N.P.). Pooprang et al. (1999: 112).

SPECIMENS. BM, CMU, RAMK (holotype).

ASIA. —

Everniastrum sorocheilum (Vain.) Hale ex Sipman, *Mycotaxon* **26**: 242 (1986).

Parmelia sorocheila Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.). Sato (1962: 4, as *Parmelia sorocheila* Vain.).

SPECIMEN. OSA.

ASIA. China, Indonesia, Philippines, Taiwan.

Everniastrum vexans (Zahlbr. ex W.L. Culb. & C.F. Culb.) Hale ex Sipman, *Mycotaxon* **26**: 242 (1986).

Cetrariastrum vexans Zahlbr. ex W.L. Culb. & C.F. Culb.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Loei (Phu Luang N.P.). Wolseley & Aguirre-Hudson (1995: 318; 1997a: 333), Moon et al. (2000a: 101, as *Cetrariastrum vexans*).

SPECIMENS. BM, TNS.

ASIA. China, India, Indonesia, Papua New Guinea, Philippines, Taiwan.

Fuscopannaria P.M. Jørg.; Pannariaceae

Fuscopannaria siamensis P.M. Jørg. & Wolseley, in Jørgensen, *J. Hattori Bot. Lab.* **89**: 256 (2000).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Jørgensen (2000: 256).

SPECIMENS. BM (holotype).

ASIA. —

Glyphis Ach.; Graphidaceae

Glyphis cicatricosa var. *confluens* (Zenker) Zahlbr., *Denkschr. Kaiserl. Akad. Wiss., Wien Math.-Naturwiss. Cl.* **83**: 112 (1909).

Glyphis cicatricosa var. *confluens* (Zenker) Vain.

THAILAND. Trat (Koh Chang I.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1909: 136, as *Glyphis cicatricosa* var. *confluens*).

SPECIMENS. BM, TUR-V.

ASIA. Vietnam.

Graphidastra (Redinger) Thor; Chiodectonaceae

Graphidastra byssiseda (Müll. Arg.) Thor, *Opera Bot.* **103**: 80 (1990).

P.A. WOLSELEY, B. AGUIRRE-HUDSON AND P.M. MCCARTHY

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.). Wolseley & Aguirre-Hudson (1997: 333).

SPECIMENS. BM.

ASIA. India, Indonesia, Nepal.

Graphina Müll. Arg.; Graphidaceae

Graphina boschiana Müll. Arg., *Flora* **65**: 385 (1882).

Graphis concolor Nyl.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 128, as *Graphis concolor*).

SPECIMENS. TUR-V.

ASIA. India, Indonesia, Sri Lanka.

Graphina columbiana (Nyl.) Zahlbr., *Cat. Lich. Univ.* **2**: 402 (1924).

Graphis obtecta var. *columbiana* Nyl.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 51, as *Graphis obtecta* var. *columbiana*).

SPECIMEN. TUR-V.

ASIA. India.

Graphina consimilis (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 402 (1923).

Graphis consimilis Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1907: 177; 1909: 127, both as *Graphis consimilis*).

SPECIMEN. TUR-V (holotype).

ASIA. Philippines.

Graphina fissurinoidea (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 406 (1923).

Graphis fissurinoidea (Nyl.) Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 128, as *Graphis fissurinoidea*).

SPECIMEN. TUR-V.

ASIA. —

Graphina glaucorufa (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 407 (1923).

Graphis glaucorufa Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 51, as *Graphis glaucorufa*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Graphina intermedians (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 411 (1923).

Graphis intermedians Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 50, as *Graphis intermedians*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Graphina intricata (Eschw.) Müll. Arg., *Flora* 71: 510 (1888).

Graphis subintricata Kremp.

Graphis extricata Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 126, as *Graphis subintricata* and *G. extricata*).

SPECIMENS. TUR-V.

ASIA. Sri Lanka.

Graphina ruiziana var. ***gracilior*** Müll. Arg., *Flora* 65: 385 (1882).

Graphis ruiziana var. *gracilior* Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 125, as *Graphis ruiziana* var. *gracilior*).

SPECIMENS. TUR-V.

ASIA. Indonesia.

Graphina simplex (Vain.) Zahlbr., *Cat. Lich. Univ.* 2: 425 (1923).

Graphis simplex Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1907: 127 as *Graphis simplex*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Graphina streblocarpa var. ***pauperior*** Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* 1(3): 50 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 50).

SPECIMEN. TUR-V (holotype).

ASIA. —

Graphina subobtecta var. ***feracior*** (Vain.) Zahlbr., *Cat. Lich. Univ.* 2: 427 (1923).

Graphis subobtecta var. *feracior* Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 51, as *Graphis subobtecta* var. *feracior*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Graphis Adans.; Graphidaceae

Graphis afzelii Ach., *Syn. Meth. Lich.*: 85 (1814).

THAILAND. Chiang Mai (Baw Luang), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK, BM.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Singapore, Sri Lanka, Vietnam.

Graphis albonitens Müll. Arg., *Hedwigia* 30: 53 (1891)

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99).

SPECIMEN. BM.

ASIA. —

Graphis glaucocinerea Vain., *Hedwigia* 46: 178 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1907: 178; 1909: 135).

SPECIMENS. TUR-V, FH (both syntypes).

ASIA. —

Graphis hossei Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* 1(3): 54 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 54), Patwardhan & Kulkarni (1976: 127).

SPECIMEN. TUR-V (holotype).

ASIA. India.

Graphis leptospora Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* 1(3): 53 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 53).

SPECIMENS. TUR-V (holotype).

ASIA. —

Graphis lineola Ach., *Lichenogr. Universalis*: 264 (1810).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 134).

SPECIMEN. TUR-V.

ASIA. China (incl. Hong Kong), India, Indonesia, Papua New Guinea, Philippines.

Graphis ochrocheila Vain., *Hedwigia* 46: 178 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1907: 178; 1909: 135)

SPECIMEN. TUR-V (holotype).

ASIA. —

Graphis pyrrocheiloides Zahlbr., *Cat. Lich. Univ.* 2: 321 (1923).

Graphis pyrrocheila Vain.

THAILAND. Trat (Lem Ngob). Vainio (1907: 179; 1909: 136, both as *Graphis pyrrocheila*).

SPECIMEN. TUR-V (holotype).

ASIA. India, Indonesia.

Graphis sauroidea Leight., *Trans. Linn. Soc. London* 25: 452 (1866).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 133).

SPECIMENS. TUR-V.

ASIA. —

Graphis siamensis Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* 1(3): 52 (1921).

THAILAND. Chiang Mai (Doi Suthep). Vainio (1921: 52).

SPECIMENS. TUR-V (holotype).

ASIA. —

Graphis striatula (Ach.) Spreng., *Syst. Veg.*, 16th ed, **4**: 250 (1827).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 134).

SPECIMENS. TUR-V.

ASIA. China, India, Indonesia, Malaysia, Sri Lanka.

Graphis subdisserpens Nyl., *Bull. Soc. Linn. Normandie*, sér. 2, **7**: 16 (1874).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 132).

SPECIMENS. TUR-V.

ASIA. India.

Graphis subdisserpens f. ***arbusculaeformis*** Vain., *Bot. Tidsskr.* **29**: 132 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 132).

SPECIMENS. TUR-V (holotype).

ASIA. —

Graphis tenella Ach., *Syn. Meth. Lich.*: 81 (1814).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1909: 133; 1921: 54).

SPECIMENS. TUR-V.

ASIA. China, India, Indonesia, Sri Lanka.

Graphis tenella var. ***epiphaea*** Vain., *Bot. Tidsskr.* **29**: 133 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 133).

SPECIMENS. TUR-V (holotype).

ASIA. —

Graphis tenella var. ***leptocarpoides*** Vain., *Bot. Tidsskr.* **29**: 133 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 133).

SPECIMENS. TUR-V (syntypes).

ASIA. —

Graphis tenuis Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 53 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 53).

SPECIMENS. TUR-V (syntypes).

ASIA. —

Graphis trichospora Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 52 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 52).

SPECIMEN. TUR-V (holotype).

ASIA. —

Gyalideopsis Veězda; Gomphillaceae

Gyalideopsis rubescens Veězda, *Folia Geobot. Phytotax.* **14**: 67 (1979).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Nakhon Ratchasima (Khao Yai N.P.). Wolseley & Aguirre-Hudson (1997a: 333), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. —

Gymnoderma Nyl.; Cladoniaceae

Gymnoderma coccocarpum Nyl., *Syn. Meth. Lich.* **2**: 26 (1863).

THAILAND. Nakhon Nayok. Yoshimura & Sharp (1968: 635–640), Hawksworth & Yoshimura (1973: 503), Yoshimura (1982: 84), Kashiwadani & Gradstein (1982: 80).

SPECIMENS. US.

ASIA. China, India, Indonesia, Malaysia, Taiwan.

Gyrostomum Fr.; Thelotremataceae

Gyrostomum scyphuliferum (Ach.) Nyl., *Ann. Sci. Nat. Bot.*, sér. 4, **16**: 96 (1862).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Nakhon Ratchasima (Khao Yai N.P.), Trat (Koh Chang I.). Vainio (1909: 121), Wolseley & Aguirre-Hudson (1997a: 333), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK, TUR-V.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Philippines, Taiwan, Vietnam.

Haematomma A. Massal; Haematommataceae

Haematomma collatum (Stirt.) C.W. Dodge, *Beih. Nova Hedwigia* **38**: 41 (1971).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Lampang (Doi Khun Tan N.P.), Uthai Thani (Khao Nang Ram Wildlife Sanctuary). Staiger & Kalb (1995: 89).

SPECIMENS. BKF, BM, CMU, COLO.

ASIA. India, Indonesia, Papua New Guinea, Sri Lanka.

Haematomma puniceum (Ach.) A. Massal., *Atti Reale Ist. Veneto, Sci. Lett. Arti*, ser. 3, **5**: 253 (1860).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Uthai Thani (Khao Nang Ram Wildlife Sanctuary). Vainio (1921: 43), Wolseley & Aguirre-Hudson (1997a: 339).

SPECIMENS. BKF, BM, CMU, TUR-V.

ASIA. China, India, Indonesia, Singapore, Sri Lanka, Taiwan, Vietnam.

Haematomma wattii (Stirt.) Zahlbr., *Cat. Lich. Univ.* **5**: 776 (1928).

THAILAND. Chiang Mai (Doi Suthep N.P., Chiang Dao N.P.). Staiger & Kalb (1995: 89), Wolseley & Aguirre-Hudson (1997a: 333, 339).

SPECIMENS. BM, CMU.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines.

Hafellia Kalb, H. Mayrhofer & Scheidegger;
Physciaceae

Hafellia disciformis (Fr.) Marbach & H. Mayrhofer, in Marbach, *Biblioth. Lichenol.* **74**: 259 (2000).

Buellia disciformis (Fr.) Mudd

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 45, as *Buellia disciformis*).

SPECIMENS. TUR-V.

ASIA. China, India, Indonesia, Vietnam.

Heterodermia Trevis.; Physciaceae

Heterodermia albicans (Pers.) Swinscow & Krog, *Lichenologist* **8**: 113 (1976).

Physcia crispa var. *mollescens* (Nyl.) Vain.

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden), Trat (Koh Chang I.). Vainio (1909: 111, as *Physcia crispa* var. *mollescens*), Mongkonsuk et al. (1996: 17).

SPECIMENS. TUR-V, Queen Sirikit Botanical Garden Herbarium.

ASIA. China, Malaysia, Philippines.

Heterodermia dendritica (Pers.) Poelt, *Nova Hedwigia* **9**: 31 (1965).

Anaptychia dendritica Pers.

THAILAND. Hase Plantation, probably Laos. Kurokawa (1962: 54; 1973: 602, both as *Anaptychia dendritica*).

SPECIMEN. TNS.

ASIA. China, India, Indonesia, Papua New Guinea, Philippines, Taiwan.

Heterodermia diademata (Taylor) D.D. Awasthi, *Geophytology* **3**: 113 (1973).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P., Chiang Dao N.P.). Wolseley & Aguirre-Hudson (1997b: 356).

SPECIMENS. BM.

ASIA. India, China, Malaysia, Papua New Guinea, Sri Lanka.

Heterodermia esorediata (Vain.) Du Rietz & Lynge, in Lynge, *Videnskaps. I. Mat.-Naturv. Kl.* **16**: 14 (1924).

Anaptychia esorediata Vain.

THAILAND. Locality not given. Kurokawa (1959: 179, as *Anaptychia esorediata*).

SPECIMEN. TNS (not seen).

ASIA. India, Indonesia, Philippines.

Heterodermia fragilissima (Kurok.) J.-C. Wei & Y.-M. Jiang, *Lich. Xizang*: 111 (1986).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. BM.

ASIA. China.

Heterodermia hypocaesia (Yasuda) D.D. Awasthi, *Geophytology* **3**: 113 (1973).

Anaptychia hypocaesia Yasuda

THAILAND. Chiang Mai (Doi Suthep N.P., Maetang District), Loei (Phu Krading N.P.). Kurokawa (1973: 603, as *Anaptychia hypocaesia*).

SPECIMENS. TNS.

ASIA. China, Indonesia, Papua New Guinea, Philippines, Taiwan.

Heterodermia hypoleuca (Ach.) Trevis., *Atti Soc. Ital. Sci. Nat.* **11**: 615 (1868).

Anaptychia hypoleuca (Ach.) A. Massal.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Queen Sirikit Botanical Garden), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1921: 45, as *Anaptychia hypoleuca*), Mongkonsuk et al. (1996: 17).

SPECIMENS. BM, TUR-V, Queen Sirikit Botanical Garden Herbarium.

ASIA. China, India, Malaysia, Papua New Guinea, Sri Lanka, Taiwan.

Heterodermia incana (Stirt.) D.D. Awasthi, *Geophytology* **3**: 114 (1973).

Anaptychia incana (Stirt.) Zahlbr.

THAILAND. Hase Plantation, probably Laos. Kurokawa (1962: 92, as *Anaptychia incana*).

SPECIMEN. TNS.

ASIA. China, India, Indonesia, Taiwan.

Heterodermia leucomelos (L.) Poelt, *Nova Hedwigia* **9**: 31 (1965).

Anaptychia leucomelaena (L.) A. Massal.

Anaptychia neoleucomelaena Kurok.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Trat (Koh Chang I., Lem Dan). Vainio (1921: 44, as *Anaptychia leucomelaena*), Kurokawa (1961: 51, as *A. neoleucomelaena*), Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. BM, TUR-V.

ASIA. China, India, Indonesia, Malaysia, Myanmar, Papua New Guinea, Philippines, Sri Lanka, Taiwan.

Heterodermia microphylla (Kurok.) Skorepa, *Bryologist* **75**: 490 (1972).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Nakhon Nayok (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. China, India, Papua New Guinea.

Heterodermia pandurata (Kurok.) J.-C. Wei, *Enum. Lich. China*: 112 (1991).

Anaptychia pandurata Kurok.

THAILAND. Hase Plantation, probably Laos. Kurokawa (1962: 95–96).

SPECIMENS. TNS.

ASIA. Taiwan.

Heterodermia speciosa (Wulfen) Trevis., *Atti Soc. Ital. Sci. Nat.* 11: 614 (1868).

Anaptychia speciosa (Wulfen) A. Massal.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.). Vainio (1921: 45, as *Anaptychia speciosa*).

SPECIMENS. BM, TUR-V.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Sri Lanka.

Hypogymnia (Nyl.) Nyl.; Hypogymniaceae

[*Hypogymnia*] *Parmelia coilocarpa* Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* 1(3): 40 (1921), auct. non Stirt.

THAILAND. Chiang Mai (Doi Suthep). Vainio (1921: 40, as *Parmelia coilocarpa*).

SPECIMENS. BM, TUR-V (syntype).

ASIA. —

Hypogymnia pseudobitteriana (D.D. Awasthi) D.D. Awasthi, in Awasthi & Singh, *Geophytology* 1: 101 (1972).

THAILAND. Chiang Mai (Doi Suthep Pui N.P., Doi Inthanon N.P.). Wolseley & Aguirre-Hudson (1995: 318).

SPECIMENS. BM.

ASIA. India, Malaysia, Papua New Guinea, Taiwan.

Hypogymnia subphysodes (Kremp.) Filson, *Victorian Nat.* 87: 327 (1970)

Parmelia subphysodes Kremp.

THAILAND. Chiang Mai (Doi Suthep, N.P.). Vainio (1921: 40, as *Parmelia subphysodes*), Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. BM, TUR-V.

ASIA. —

Hypogymnia vittata (Ach.) Gas., *Acta Soc. Linn. Bordeaux* 53: 66 (1898).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Wolseley & Aguirre-Hudson (1997a: 333, 337).

SPECIMENS. BM.

ASIA. China, India, Malaysia, Nepal, Taiwan.

Hypotrachyna (Vain.) Hale; Parmeliaceae

Hypotrachyna adducta (Nyl.) Hale, *Phytologia* 28: 341 (1974).

P.A. WOLSELEY, B. AGUIRRE-HUDSON AND P.M. MCCARTHY

THAILAND. Chiang Mai (Doi Inthanon N.P.). Pooprang et al. (1999: 119), Moon et al. (2000a: 101).

SPECIMENS. RAMK, TNS.

ASIA. China, India, Malaysia, Nepal, Philippines, Taiwan.

Hypotrachyna adjuncta (Hale) Hale, *Phytologia* 28: 341 (1974).

Parmelia exsecta Taylor.

Hypotrachyna exsecta (Taylor) Hale.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Loei (Phu Luang N.P.), Phitsanulok. Sato (1962: 3, as *Parmelia exsecta*) Kurokawa (1986: 265, as *Hypotrachyna exsecta*), Pooprang et al. (1999: 120), Moon et al. (2000a: 101, and as *H. exsecta*).

SPECIMENS. BKF, BM, CMU, RAMK, TNS.

ASIA. India, Malaysia, Nepal, Philippines, Sri Lanka, Taiwan.

Hypotrachyna bahiana (Nyl.) Hale, *Smithsonian Contr. Bot.* 25: 23 (1975).

Parmelia bahiana Nyl.

THAILAND. Chiang Mai (Doi Suthep). Vainio (1921: 38, as *Parmelia bahiana*).

SPECIMEN. TUR-V.

ASIA. —

Hypotrachyna chlorobarbatica Elix & Pooprang, in Pooprang, Boonpragob & Elix, *Mycotaxon* 72: 113 (1999).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Pooprang et al. (1999: 113).

SPECIMENS. CANB (isotype), RAMK (holotype).

ASIA. —

Hypotrachyna coorgiana Patw. & Prabhu, *Bryologist* 80: 348 (1997).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Phitsanulok (Phu Hin Rongkla N.P.). Pooprang et al. (1999: 120).

SPECIMENS. RAMK.

ASIA. India.

Hypotrachyna crenata (Kurok.) Hale, *Phytologia* 28: 341 (1974).

Parmelia crenata Kurok.

THAILAND. Chiang Mai (Maetang District). Kurokawa (1988: 167–168, as *Parmelia crenata*), Moon et al. (2000a: 101).

SPECIMENS. TNS.

ASIA. India, Indonesia, Taiwan.

Hypotrachyna dactylifera (Vain.) Hale, *Smithsonian Contr. Bot.* 25: 30 (1975).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.). Moon et al. (2000a: 101).

SPECIMENS. TNS.

ASIA. —

Hypotrachyna ducalis (Jatta) Hale, *Smithsonian Contr. Bot.* **25**: 33 (1975).

THAILAND. Chiang Mai (Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.). Wolseley & Aguirre-Hudson (1997a: 335), Boonpragob et al. (1998: 217).

SPECIMENS. BKF, BM, CMU, RAMK.

ASIA. —

Hypotrachyna granulans K.H. Moon, Kurok. & Kashiw., *Bull. Natn. Sci. Mus., Tokyo*, ser. B, **26**: 135 (2000).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Moon et al. (2000b: 135–137).

SPECIMENS. TNS (holotype), RAMK (isotype).

ASIA. —

Hypotrachyna imbricatula (Zahlbr.) Hale, *Smithsonian Contr. Bot.* **25**: 41 (1975).

Parmelia imbricatula Zahlbr.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Pacho, Maetang), Loei (Ban Sui, Phu Kradung). Hale (1971: 16, as *Parmelia imbricatula*), Moon et al. (2000a: 101).

SPECIMENS. TNS.

ASIA. India, Malaysia, Philippines, Taiwan.

Hypotrachyna immaculata (Kurok.) Hale, *Smithsonian Contr. Bot.* **25**: 41 (1975).

THAILAND. Phitsanulok (Phu Hin Rongkla N.P.). Pooprang et al. (1999: 120).

SPECIMEN. RAMK.

ASIA. India.

Hypotrachyna infirma (Kurok.) Hale, *Phytologia* **28**: 341 (1974).

Parmelia infirma Kurok.

THAILAND. Loei (Ban Sui, Phu Kradung). Hale & Kurokawa (1964: 179, as *Parmelia infirma*), Awasthi (1977: 177), Moon et al. (2000a: 101).

SPECIMEN. TNS.

ASIA. India, Nepal, Taiwan.

Hypotrachyna kingii (Hale) Hale, *J. Jap. Bot.* **43**: 324 (1968).

Parmelia kingii Hale.

THAILAND. Nakhon Nayok (Khao Yai N.P.). Hale (1968: 324, as *Parmelia kingii*), Moon et al. (2000a: 101).

SPECIMENS. TNS (isotype), US (holotype).

ASIA. Indonesia.

Hypotrachyna massartii (Hue) Hale, *Phytologia* **28**: 341 (1974).

THAILAND. Loei (Phu Kradung). Moon et al. (2000a: 102).

SPECIMENS. TNS.

ASIA. —

Hypotrachyna masonhalei Patw. & Prabhu, *Bryologist* **80**: 348 (1997).

THAILAND. Chiang Mai (Doi Suthep N.P.). Pooprang et al. (1999: 121).

SPECIMEN. RAMK.

ASIA. India.

Hypotrachyna orientalis (Hale) Hale, *Phytologia* **28**: 341 (1974).

Parmelia orientalis Hale.

THAILAND. Chiang Mai (Doi Suthep N.P.), Nakhon Nayok (Khao Yai N.P.). Hale (1971: 435, as *Parmelia orientalis* Hale), Culberson & Hale (1973: 166, as *P. orientalis*), Wolseley & Aguirre-Hudson (1995: 318), Boonpragob et al. (1998: 217), Moon et al. (2000a: 102).

SPECIMENS. BM, CMU, KF, TNS (isotype), UPS (isotype), US (holotype).

ASIA. India, Malaysia, Papua New Guinea, Philippines.

Hypotrachyna osseoalba (Vain.) Y.S. Park & Hale, *Taxon* **38**: 88 (1989).

Parmelia osseoalba Vain.

Hypotrachyna formosana auct. non (Zahlbr.) Hale.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Maetang), Loei (Ban Sui, Phu Kradung N.P.), Nakhon Ratchasima (Khao Yai N.P.). Vainio (1921: 39, as *Parmelia osseoalba*), Wolseley & Aguirre-Hudson (1995: 318, as *Hypotrachyna formosana*), Boonpragob et al. (1998: 217, as *H. formosana*), Moon et al. (2000a: 102).

SPECIMENS. BKF, BM, CMU, RAMK, TNS, TUR-V (holotype).

ASIA. China, India, Indonesia, Malaysia, Philippines, Taiwan.

Hypotrachyna physcioides (Nyl.) Hale, *Smithsonian Contr. Bot.* **25**: 54 (1975).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Pacho, Maetang), Loei (Nahaew N.P., Phu Kradung). Pooprang et al. (1999: 120), Moon et al. (2000a: 102).

SPECIMENS. RAMK, TNS.

ASIA. India, Malaysia, Papua New Guinea.

Hypotrachyna ramkhamhaengiana Elix & Pooprang, in Pooprang, Boonpragob & Elix, *Mycotaxon* **72**: 113 (1999).

THAILAND. Sakon Nakhon (Phu Pan N.P.). Pooprang et al. (1999: 113).

SPECIMENS. RAMK (holotype).

ASIA. —

Hypotrachyna scytodes (Kurok.) Hale, *Phytologia* **28**: 341 (1974).

Parmelia scytodes Kurok.

THAILAND. Chiang Mai (Maetang District). Culberson & Hale (1973: 166, as *Parmelia scytodes*), Moon et al. (2000a: 102).

SPECIMENS. TNS.

ASIA. India, Malaysia.

Imshaugia S.L.F. Mey.; Parmeliaceae

Imshaugia placorodia (Ach.) S.L.F. Mey., *Mycotaxon* **35**: 189 (1989).

Parmeliopsis placorodia (Ach.) Nyl.

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Mongkonsuk et al. (1996: 17, as *Parmeliopsis placorodia*).

SPECIMENS. Queen Sirikit Botanical Garden Herbarium.

ASIA. —

Ionaspis Th. Fr.; Hymeneliaceae

Ionaspis tropica Aptroot, in Aptroot et al., *Biblioth. Lichenol.* **64**: 73 (1997).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. Papua New Guinea.

Lasioloma R. Sant.; Ectolechiaceae

Lasioloma arachnoideum (Kremp.) R. Sant., *Symb. Bot. Upsal.* **12**(1): 547 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Vietnam.

Laurera Rchb.; Trypetheliaceae

Laurera benguelensis (Müll. Arg.) Zahlbr., *Cat. Lich. Univ.* **1**: 503 (1992).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden), Nakhon Nayok (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Mongkonsuk et al. (1996: 17), Wolseley & Aguirre-Hudson (1997a: 339, 1997b: 356), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK, Queen Sirikit Botanical Garden Herbarium.

ASIA. India.

Laurera keralensis D.K. Upreti & A. Singh, *Bull. Jard. Bot. Belg.* **57**: 374 (1987).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Sakon Nakhon (Ratchapat Sakon). Vongshewarat et al. (1999: 227).

SPECIMENS. RAMK.

ASIA. India.

Laurera megasperma (Mont.) Riddle, *Bull. Torrey Bot. Club* **44**: 323 (1917).

P.A. WOLSELEY, B. AGUIRRE-HUDSON AND P.M. MCCARTHY

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Vongshewarat et al. (1999: 228).

SPECIMENS. RAMK.

ASIA. India, Papua New Guinea, Sri Lanka.

Laurera meristospora (Mont. & Bosch) Zahlbr., *Cat. Lich. Univ.* **1**: 505 (1922).

Thelenella interrupta Vain.

Clathroporina interrupta (Vain.) Zahlbr.

THAILAND. Trat (Koh Chang I.), Nakhon Ratchasima (Khao Yai N.P.). Vainio (1907: 180, 1909: 149, both as *Thelenella interrupta*), McCarthy (1995: 347, as *Laurera* aff. *meristospora*), Boonpragob et al. (1998: 217).

SPECIMENS. RAMK, TUR-V (holotype of *T. interrupta*).

ASIA. Indonesia, Papua New Guinea.

Laurera meristosporoides P.M. McCarthy & Vongshewarat, in Vongshewarat et al., *Mycotaxon* **71**: 228 (1999).

THAILAND. Phitsanulok (Phu Hin Rongkla N.P.). Vongshewarat et al. (1999: 228).

SPECIMENS. CANB (holotype).

ASIA. —

Laurera phaeomelodes (Müll. Arg.) Zahlbr., in Engler & Prantl, *Nat. Pflanzenfam.* **1**, **1**: 71 (1903).

THAILAND. Phitsanulok (Phu Hin Rongkla N.P.). Vongshewarat et al. (1999: 230).

SPECIMENS. RAMK.

ASIA. India.

Laurera subdiscreta (Nyl.) Zahlbr., *Cat. Lich. Univ.* **1**: 506 (1922).

THAILAND. Buri Ram (Khao Kadong), Sakon Nakhon (Phu Pan N.P.). Vongshewarat et al. (1999: 230).

SPECIMENS. RAMK.

ASIA. India.

Lecanactis Körb.; Roccellaceae

Lecanactis flavisedella (Nyl.) Tehler, *Willdenowia* **22**: 206 (1992).

THAILAND. Chiang Mai (Doi Suthep N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 333, 339).

SPECIMENS. BM.

ASIA. India.

Lecanora Ach.; Lecanoraceae

Lecanora achroella Nyl., *J. Bot.* **14**: 263 (1876).

Lecanora monodorae Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 109, as *Lecanora monodorae*).

SPECIMENS. TUR-V.

ASIA. —

Lecanora cinereocarnea (Eschw.) Vain., *Étud. Class. Lich. Brésil* **1**: 80 (1891).

THAILAND. Chiang Mai (Doi Suthep N.P.), Trat (Koh Chang I., Lem Dan). Vainio (1909: 108; 1921: 41).

SPECIMENS. TUR-V.

ASIA. Philippines, Vietnam.

Lecanora fumigata Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 42 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 42).

SPECIMEN. TUR-V (holotype).

ASIA. —

Lecanora lividocarnea Vain., *Philipp. J. Sci.*, sect. C, **8**: 100 (1913).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 41).

SPECIMENS. TUR-V.

ASIA. Philippines.

Lecanora lividoglaucula Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 41 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 41).

SPECIMEN. TUR-V (holotype).

ASIA. —

Lecanora phaeocardia Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 41 (1921).*Lecanora phaeocardia* var. *lividofuscescens* Vain.*Lecanora phaeocardia* var. *subcrenulans* Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.), Nong Boa, Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1921: 41, 42), Lumbsch et al. (1996: 283–285).

SPECIMEN. TUR-V (holotype of *Lecanora phaeocardia* var. *lividofuscescens*).

ASIA. India, Indonesia.

Lecanora pulicaris (Pers.) Ach., *Syn. Meth. Lich.*: 336 (1814).*Lecanora subfusca* var. *chlarona* Ach.THAILAND. Trat (Koh Chang I.). Vainio (1909: 108, as *Lecanora subfusca* var. *chlarona*).

SPECIMENS. TUR-V.

ASIA. China, India, Papua New Guinea, Philippines.

Lecanora subfusca Ach., *Lichenogr. Universalis*: 393 (1810).

THAILAND. Chiang Mai (Doi Suthep N.P.), Chumphon (Koh Tao I.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Paulson (1930: 99), Wolseley & Aguirre-Hudson (1997b: 356).

SPECIMENS. BM.

ASIA. China, Sri Lanka.

Lecanora subgranulata Nyl., *Lich. Nov.-Zel.*: 62 (1888).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 108).

SPECIMENS. TUR-V.

ASIA. —

Lecidea Ach.; Lecideaceae***Lecidea inolescens*** Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 48 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 48).

SPECIMENS. TUR-V (type not located).

ASIA. —

Lecidopyrenopsis Vain.; Lichinaceae***Lecidopyrenopsis corticola*** Vain., *Hedwigia* **46**: 172 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 117), Zahlbruckner (1926: 172), Henssen (1979: 485; 1989: 102).

SPECIMENS. C (isolectotype), TUR-V (lectotype).

ASIA. —

Leprocaulon Nyl.; Fungi Imperfecti***Leprocaulon arbuscula*** (Nyl.) Nyl., *Lich. Ins. Guineensis*: 8 (1889).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.). Wolseley & Aguirre-Hudson (1997a: 333), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. China, India, Taiwan.

Leptogium (Ach.) S.F. Gray; Collemataceae***Leptogium asiaticum*** P.M. Jørg., *Herzogia* **2**: 466 (1973).

THAILAND. Chiang Mai (Doi Inthanon N.P., Chiang Dao N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. BM, CMU.

ASIA. China, India, Malaysia, Papua New Guinea, Sri Lanka.

Leptogium azureum (Sw. ex Ach.) Mont., in Webb & Berthelot, *Hist. Nat. Îles Canar.* **3**(2): 129 (1840).

THAILAND. Chiang Mai (Doi Suthep N.P., Chiang Dao N.P.), Lampang (Doi Khun Tan N.P.), Nakhon Nayok (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary), Yala (Banglang Reservoir). Boonpragob et al. (1998: 217).

SPECIMENS. BM, CMU.

ASIA. China, India, Indonesia, Malaysia, Papua New Guinea, Sri Lanka, Vietnam.

Leptogium burgessii (L.) Mont., in Webb & Berthelot, *Hist. Nat. Îles Canar.* **3**(2): 129 (1840).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Mongkonsuk et al. (1996: 17).

SPECIMEN. Queen Sirikit Botanical Garden Herbarium.

ASIA. India, Indonesia.

Leptogium caesium (Ach.) Vain., *Acta Soc. Fauna Fl. Fenn.* **7**: 225 (1890).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 116).

SPECIMEN. TUR-V.

ASIA. India, Indonesia, Papua New Guinea.

Leptogium chloromelum (Sw.) Nyl., *Syn. Meth. Lich.* **1**: 128 (1858).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Mongkonsuk et al. (1996: 17).

SPECIMEN. Queen Sirikit Botanical Garden Herbarium.

ASIA. India, Malaysia, Sri Lanka, Taiwan.

Leptogium cochleatum (Dicks.) P.M. Jørg. & P. James, *Lichenologist* **15**: 113 (1983).

Leptogium tremelloides auct.

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99, as *Leptogium tremelloides*).

SPECIMEN. BM.

ASIA. India.

Leptogium coralloideum (Meyen & Flot.) Vain., *Ann. Acad. Sci. Fenn.*, ser. A, **6**(7): 110 (1915).

Leptogium chloromelum auct. non. (Sw.) Nyl.

THAILAND. Chiang Mai (Doi Inthanon N.P.), Chumphon (Koh Tao I.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Paulson (1930: 99, as *Leptogium chloromelum* auct. non. (Sw.) Nyl.).

SPECIMENS. BKF, BM, CMU.

ASIA. Indonesia, Papua New Guinea, Philippines.

Leptogium cyanescens (Rabenh.) Körb., *Syst. Lich. Germ.*: 420 (1855).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P.), Lampang (Doi Khun Tan N.P.), Nakhon Nayok (Khao Yai N.P.), Tak (Ton Krabakayai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley (1991: 236), Wolseley & Aguirre-Hudson (1997a: 333, 1997b: 355), Boonpragob et al. (1998: 217).

SPECIMENS. BKF, BM, CMU.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Papua New Guinea, Sri Lanka, Taiwan.

Leptogium denticulatum Nyl., *Ann. Sci. Nat. Bot.*, sér. 5, **7**: 302 (1867).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P.), Nakhon Nayok (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-

Hudson (1997a: 333; 1997b: 355), Boonpragob et al. (1998: 217).

SPECIMENS. BKF, BM, CMU.

ASIA. China (incl. Hong Kong), India, Malaysia.

Leptogium javanicum Mont., *Syll. Gen. Sp. Crypt.*: 379 (1856).

THAILAND. Chiang Mai (Doi Suthep N.P., Chiang Dao N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 333).

SPECIMENS. BKF, BM, CMU.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines.

Leptogium marginellum (Sw.) S.F. Gray, *Nat. Arr. Brit. Pl.* **1**: 401 (1821).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Queen Sirikit Botanical Garden), Tak (Ton Krabakayai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley (1991: 236), Mongkonsuk et al. (1996: 17).

SPECIMENS. BKF, BM, CMU, Queen Sirikit Botanical Garden Herbarium.

ASIA. India, Indonesia, Papua New Guinea, Philippines.

Leptogium moluccanum (Pers.) Vain., *Étude Class. Lich. Brésil* **1**: 223 (1890).

THAILAND. Chiang Mai (Doi Suthep). Vainio (1921: 46), Sato (1962: 2).

SPECIMENS. TUR-V, TNS.

ASIA. China, India, Indonesia, Papua New Guinea, Taiwan.

Leptogium resupinans Nyl., *Ann. Sci. Nat. Bot.*, sér. 4, **15**: 368 (1861).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Jørgensen (1997: 128).

SPECIMENS. BM.

ASIA. India.

Leptogium trichophorum Müll. Arg., *Flora* **72**: 505 (1889).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.). Vainio (1921: 46).

SPECIMENS. BM, CMU, TUR-V.

ASIA. China, India, Indonesia, Philippines, Taiwan.

Letrouitia Hafellner & Bellem.; Letrouitiaceae

Letrouitia domingensis (Pers.) Hafellner & Bellem., *Nova Hedwigia* **35**: 281 (1982).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P.), Lampang (Doi Khun Tan N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary), Yala (Banglang N.P.). Wolseley et al. (1994: 122), Boonpragob et al. (1998: 217).

SPECIMENS. BM, CMU, RAMK.

ASIA. India, Papua New Guinea, Philippines, Sri Lanka, Taiwan, Vietnam.

Letrouitia flavocrocea (Nyl.) Hafellner & Bellem., *Nova Hedwigia* **35**: 281 (1982).

THAILAND. Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary), Yala (La Or Rung). Wolseley et al. (1994: 122).

SPECIMENS. BM, CMU.

ASIA. India, Philippines.

Letrouitia leprolyta (Nyl.) Hafellner, *Nova Hedwigia* **35**: 693 (1981).

THAILAND. Chumphon (N. of Pranburi), Lampang (Doi Luang), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Hafellner (1981: 694), Wolseley et al. (1994: 122), Wolseley & Aguirre-Hudson (1997a: 333, 339; 1997b: 355).

SPECIMENS. BM.

ASIA. India, Indonesia, Papua New Guinea, Sri Lanka.

Letrouitia subvulpina (Nyl.) Hafellner, *Nova Hedwigia* **35**: 705 (1982).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley et al. (1994: 122), Wolseley & Aguirre-Hudson (1997a: 333; 1997b: 355), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. India, Indonesia, Papua New Guinea, Sri Lanka.

Letrouitia transgressa (Malme) Hafellner & Bellem., *Nova Hedwigia* **35**: 710 (1982).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Lampang (Doi Luang), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley et al. (1994: 122).

SPECIMENS. BM, CMU.

ASIA. India, Indonesia, Taiwan.

Letrouitia vulpina (Tuck.) Hafellner & Bellem., *Nova Hedwigia* **35**: 281 (1982).

THAILAND. Satun (Thaleban N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley et al. (1994: 122), Wolseley & Aguirre-Hudson (1997a: 333, 339; 1997b: 355).

SPECIMENS. BM.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka.

Lobaria (Schreb.) Hoffm.; Lobariaceae

Lobaria discolor (Bory) Hue, *Nouv. Arch. Mus. Paris*, sér. 4, **3**: 23 (1901).

THAILAND. Chiang Mai (Chieng Dao N.P., Doi Inthanon N.P., Doi Suthep N.P.). Yoshimura (1978: 39), Wolseley (1991: 234).

SPECIMENS. BM, C.

ASIA. China, India, Indonesia, Philippines, Sri Lanka, Taiwan.

Lobaria isidiosa (Müll. Arg.) Vain., *Philipp. J. Sci.*, sect. C, **8**: 129 (1913).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.). Sato (1962: 3), Yoshimura (1971: 295).

SPECIMENS. TNS.

ASIA. China, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Taiwan, Vietnam.

Lobaria pseudopulmonaria Gyeln., *Acta Fauna Fl. Univ.*, ser. 2, **1**(5/6): 6 (1933).

THAILAND. Chiang Mai (Chieng Dao N.P., Doi Suthep N.P.), Loei (Phu Luang N.P.). Yoshimura (1971: 291; 1978: 39).

SPECIMENS. C, KYO, TNS.

ASIA. China, India, Indonesia, Malaysia, Papua New Guinea, Philippines, Taiwan.

Lobaria retigera (Bory) Trevis. *Schedae Lich. Veneta* No. 75 (1869).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.). Wolseley & Aguirre-Hudson (1997a: 334).

SPECIMENS. BM.

ASIA. China, India, Indonesia, Philippines, Sri Lanka, Taiwan, Vietnam.

Maronea A. Massal; Fuscideaceae

Maronea constans (Nyl.) Hepp, *Flecht. Eur.*: 771 (1860).

THAILAND. Chiang Mai (Doi Suthep N.P.). Wolseley & Aguirre-Hudson (1997a: 334).

SPECIMENS. BM.

ASIA. India, Philippines.

Mazosia A. Massal.; Opegraphaceae

Mazosia melanophthalma (Müll. Arg.) R. Sant., *Symb. Bot. Upsal.* **12**(1): 117 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Vietnam.

Megalospora Meyen; Megalosporaceae

Megalospora bicolorata (Vain.) Zahlbr., *Cat. Lich. Univ.* **4**: 87 (1927).

THAILAND. Chiang Mai (Doi Sutep N.P.). Vainio (1921: 48).

SPECIMEN. TUR-V (not located).

ASIA. —

Megalospora sulphurata Meyen, in Meyen & Flotow, *Nov. Actorum Acad. Caes. Leop.-Carol. Nat. Cur.* **19**, suppl.: 228 (1843).

THAILAND. Chiang Mai (Doi Suthep N.P.). Wolseley & Aguirre-Hudson (1997a: 339).

SPECIMENS. BM.

ASIA. India, Indonesia, Papua New Guinea.

Megalospora tuberculosa (Fée) Sipman, *Biblioth. Lichenol.* **18**: 156 (1983).

THAILAND. Chiang Mai (Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.). Sipman (1983: 238), Wolseley & Aguirre-Hudson (1997a: 339), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK, US.

ASIA. China, India, Taiwan.

Menegazzia A. Massal.; Hypogymniaceae

Menegazzia terebrata (Hoffm.) A. Massal., *Neag. Lich.*: 3 (1854).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Wolseley & Aguirre-Hudson (1995: 323; 1997a: 339).

SPECIMEN. BM.

ASIA. China, India, Malaysia, Taiwan.

Microtheliopsis Müll. Arg.; Microtheliopsidaceae

Microtheliopsis uleana Müll. Arg., *Flora* **73**: 195 (1890).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka.

Myelochroa (Asahina) Elix & Hale; Parmeliaceae

Myelochroa aurulenta (Tuck.) Elix & Hale, *Mycotaxon* **29**: 240 (1987).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Phitsanulok (Phu Hin Rongkla N.P.). Moon et al. (2000a: 102).

SPECIMENS. TNS.

ASIA. —

Myelochroa entotheiochroa (Hue) Elix & Hale, *Mycotaxon* **29**: 240 (1987).

THAILAND. Chiang Mai (Maetang). Moon et al. (2000a: 102).

SPECIMENS. TNS.

ASIA. —

Myelochroa irrugens (Hue) Elix & Hale, *Mycotaxon* **29**: 241 (1987).

THAILAND. Chiang Mai (Maetang). Moon et al. (2000a: 102).

SPECIMENS. TNS.

ASIA. —

Myelochroa perisidians (Nyl.) Elix & Hale, *Mycotaxon* **29**: 241 (1974).

Parmelina perisidians (Nyl.) Hale.

THAILAND. Loei (Ban Sui). Hale (1976c: 39, as *Parmelina perisidians*), Moon et al. (2000a: 102).

SPECIMENS. TNS, US.

ASIA. Philippines, Sri Lanka.

Myelochroa siamea Kurok., *J. Jap. Bot.* **73**: 13 (1998).

THAILAND. Chiang Mai (Maetang District). Kurokawa (1998: 13), Moon et al. (2000a: 102).

SPECIMENS. BM, TNS.

ASIA. —

Myelochroa xantholepis (Mont. & Bosch) Elix & Hale, *Mycotaxon* **29**: 241 (1987).

Parmelina xantholepis Mont. & Bosch.

THAILAND. Chiang Mai (Maetang, Doi Suthep N.P., Chiang Dao N.P.), Phitsanulok (Phu Hin Rongkla, N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Hale (1976c: 53, as *Parmelina xantholepis*), Moon et al. (2000a: 102).

SPECIMENS. BM, CMU, TNS, US.

ASIA. India, Indonesia, Philippines.

Myeloconis P.M. McCarthy & Elix; Myeloconaceae

Myeloconis erumpens P.M. McCarthy & Elix, *Lichenologist* **28**: 406 (1996).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB, RAMK.

ASIA. Papua New Guinea.

Myriotrema Fée; Thelotremataceae

Myriotrema albocinctum Hale, *Bull. Brit. Mus. (Nat. Hist.), Bot.* **8**(3): 273 (1981).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. Malaysia, Sri Lanka.

Myriotrema bahianum (Ach.) Hale, *Mycotaxon* **11**: 132 (1980).

THAILAND. Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 151–153).

SPECIMENS. BM, RAMK.

ASIA. Malaysia, Papua New Guinea, Philippines.

Myriotrema clandestinum (Fée) Hale, *Mycotaxon* **11**: 133 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. Sri Lanka.

Myriotrema compunctum (Ach.) Hale, *Mycotaxon* **11**: 133 (1980).

THAILAND. Lampang (Teak Improvement Centre), Rayong (Klaeng District). Homchantara (1999: 153).

SPECIMENS. BM, RAMK.

ASIA. Indonesia, Philippines, Sri Lanka, Vietnam.

Myriotrema costaricense (Müll. Arg.) Hale, *Mycotaxon* **11**: 133 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1998: 217), Homchantara (1999: 156–158).

SPECIMENS. BM, RAMK.

ASIA. India, Malaysia.

Myriotrema decorticum Hale, *Bull. Brit. Mus. (Nat. Hist.), Bot.* **8**(3): 277 (1981).

THAILAND. Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 159–161).

SPECIMENS. BM.

ASIA. Sri Lanka.

Myriotrema desquamans (Müll. Arg.) Hale, *Mycotaxon* **11**: 133 (1980).

THAILAND. Chantaburi (Khitchakut N.P., Khao Soi Dao Wildlife Sanctuary), Nakhon Sri Thammarat (Khao Luang N.P.), Sukhothai (Ramkhamhaeng N.P.), Tak (Ton Krabak Yai N.P.). Homchanatara (1999: 161–163).

SPECIMENS. BM, RAMK.

ASIA. India, Malaysia, Papua New Guinea, Philippines, Sri Lanka.

Myriotrema fissurinum Hale, *Bull. Brit. Mus. (Nat. Hist.), Bot.* **8**(3): 279 (1981).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Phetchabun (Phu Hin Rongkla N.P.). Homchantara (1999: 159).

SPECIMENS. RAMK.

ASIA. India, Sri Lanka.

Myriotrema glaucescens (Nyl.) Hale, *Mycotaxon* **11**: 133 (1980).

THAILAND. Chiang Mai (Doi Suthep N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 168).

SPECIMENS. BM, RAMK.

ASIA. India, Sri Lanka.

Myriotrema grandisporum Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 224–225, as *Myriotrema* 'unidentified 10').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Myriotrema khaoyaianum Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 209–211, as *Myriotrema* 'unidentified 3').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Myriotrema khuntanense Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Lampang (Doi Khuntan N.P.). Homchantara (1999: 226–227, as *Myriotrema* 'unidentified 11').

SPECIMENS. BM (holotype), RAMK (isotype).

ASIA. —

Myriotrema masonhalei (Patw. & C.R. Kulk.) Hale, *Mycotaxon* **11**: 134 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. India.

Myriotrema microporum (Mont.) Hale, *Mycotaxon* **11**: 134 (1980).

THAILAND. Chiang Mai (Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.), Phetchabun (Phu Hin Rongkla N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 175).

SPECIMENS. BM, RAMK.

ASIA. India, Indonesia, Malaysia, Philippines, Sri Lanka, Taiwan.

Myriotrema microstomum (Müll. Arg.) Hale, *Mycotaxon* **11**: 134 (1980).

THAILAND. Chiang Mai (Doi Suthep N.P.), Phetchabun (Phu Hin Rongkla N.P.), Sukhotai (Ramkhamhaeng N.P.). Homchantara (1999: 177).

SPECIMENS. BM, RAMK.

ASIA. Sri Lanka, Taiwan.

Myriotrema minutulum (Hale) Hale, *Mycotaxon* **11**: 134 (1980).

THAILAND. Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 180).

SPECIMENS. BM.

ASIA. Sri Lanka.

Myriotrema minutum (Hale) Hale, *Mycotaxon* **11**: 134 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 182).

SPECIMEN. RAMK.

ASIA. Malaysia, Sri Lanka.

Myriotrema olivaceum Fée, *Essai Crypt. Écorc. Offic.*: 103 (1824).

THAILAND. Loei (Na Haeo N.P., Phuteen Suansai forest, Ban Bomoeng Noi). Homchantara (1999: 185).

SPECIMENS. RAMK.

ASIA. Sri Lanka.

Myriotrema phaeosporum (Nyl.) Hale, *Mycotaxon* **11**: 134 (1980).

Leptotrema phaeosporum (Nyl.) Müll. Arg.

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99, as *Leptotrema phaeosporum*).

SPECIMEN. BM (not located).

ASIA. —

Myriotrema polytretum Hale, *Bull. Brit. Mus. (Nat. Hist.), Bot.* **8**(3): 291 (1981).

THAILAND. Chiang Mai (Doi Suthep N.P.), Lampang (Doi Pi Luang District), Loei (Phu Ruea N.P.), Uthai Thani (Huay Kha Khaeng N.P.). Homchantara (1999: 187).

SPECIMENS. BM, RAMK.

ASIA. Malaysia, Sri Lanka.

Myriotrema rugiferum (Harm.) Hale, *Mycotaxon* **11**: 135 (1980).

THAILAND. Chiang Mai (Doi Suthep N.P.), Phetchabun (Phu Hin Rongkla N.P.). Homchantara (1999: 189).

SPECIMENS. BM, RAMK.

ASIA. India, Papua New Guinea, Philippines, Sri Lanka.

Myriotrema subconforme (Nyl.) Hale, *Mycotaxon* **11**: 135 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. India.

Myriotrema subgranulosum Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Loei (Na Po District). Homchantara (1999: 205–207, as *Myriotrema* 'unidentified 1').

SPECIMENS. BM (holotype), RAMK (isotype).

ASIA. —

Myriotrema subminutum Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Nakhon Ratchasima (Khao Yao N.P.), Phetchabun (Phu Hin Rongkla N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 215–217, as *Myriotrema* 'unidentified 6').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Myriotrema terebratulum (Nyl.) Hale, *Mycotaxon* **11**: 135 (1980).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Loei (Na Po District),

P.A. WOLSELEY, B. AGUIRRE-HUDSON AND P.M. McCARTHY

Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 196).

SPECIMENS. BM, RAMK.

ASIA. India.

Myriotrema viride Nagarkar & Hale, *Mycotaxon* **35**: 440 (1989).

THAILAND. Sukhothai (Ramkhamhaeng N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1998: 217), Homchantara (1999: 199).

SPECIMENS. BM, RAMK.

ASIA. Malaysia.

Myriotrema wightii (Taylor) Hale, *Mycotaxon* **11**: 135 (1980).

THAILAND. Chiang Mai (Doi Suthep N.P.), Kanchanaburi (Erawan N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 201).

SPECIMENS. BM, RAMK.

ASIA. India, Malaysia, Philippines, Sri Lanka.

Nephroma Ach.; Nephromataceae

Nephroma helveticum Ach., *Lichenogr. Universalis*: 523 (1810).

Nephroma tropicum (Müll. Arg.) Zahlbr.

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.). Wolseley & Aguirre-Hudson (1995: 324; 1997a: 334, 339, as *Nephroma tropicum*).

SPECIMENS. BM, CMU.

ASIA. China, India, Indonesia, Malaysia, Papua New Guinea.

Nephromopsis Müll. Arg.; Parmeliaceae

Nephromopsis stracheyi (Church. Bab.) Müll. Arg., *Flora* **74**: 374 (1891).

Nephromopsis ornata auct. non (Müll. Arg.) Hue

THAILAND. Chiang Mai (Doi Suthep N.P.), Loei (Phu Rua N.P.). Wolseley & Aguirre-Hudson (1995: 324, as *Nephromopsis ornata* auct. non (Müll. Arg.) Hue).

SPECIMENS. BKF, BM, CMU.

ASIA. China, India, Malaysia, Taiwan.

Normandina (Nyl.) Vain.; *incert. sed.*

Normandina pulchella (Borrer) Nyl., *Ann. Sci. Nat., Bot., sér. 4*, **15**: 382 (1861).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Nakhon Ratchasima (Khao Yai N.P.). Wolseley & Aguirre-Hudson (1997a: 334), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. China, Malaysia, Papua New Guinea.

Ocellularia Meyen; Thelotremaaceae

Ocellularia albomaculata Hale, *Bull. Brit. Mus. (Nat. Hist.) Bot.* **8**(3): 300 (1981).

THAILAND. Satun (Thalae Ban N.P.). Homchantara (1999: 237).

SPECIMENS. BM.

ASIA. Sri Lanka.

Ocellularia allosporoides (Nyl.) Patw. & C.R. Kulk., *Kavaka* **5**: 5 (1977).

THAILAND. Lampang (Wiang Kosai N.P.), Chantaburi (Khitchakut N.P.), Kanchanaburi (Khao Lem N.P.), Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 239).

SPECIMENS. BM, RAMK.

ASIA. India.

Ocellularia arecae (Vain.) Hale, *Mycotaxon* **11**: 136 (1980).

Thelotrema arecae Vain.

Thelotrema interpositum Nyl.

THAILAND. Chantaburi (Khitchakut N.P.), Loei (Na Haeo N.P.), Nakhon Ratchasima (Khao Yai N.P.), Phetchabun (Phu Hin Rongkla N.P.), Trat (Koh Chang I.). Vainio (1909: 119, as *Thelotrema arecae*), Salisbury (1971: 277, as *T. interpositum*), Hale (1981: 305), Boonpragob et al. (1998: 217), Homchantara (1999: 242).

SPECIMENS. RAMK, TUR-V (holotype).

ASIA. India, Malaysia, Philippines.

Ocellularia ascidioidea Hale, *Bull. Brit. Mus. (Nat. Hist.) Bot.* **8**(3): 300 (1981).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Phetchabun (Phu Hin Rongkla N.P.), Sukhotai (Ramkhamhaeng N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1998: 217), Homchantara (1999: 245).

SPECIMENS. BM, RAMK.

ASIA. Malaysia, Sri Lanka.

Ocellularia asiatica (Vain.) Hale, *Hedwigia* **46**: 175 (1907).

Thelotrema asiaticum Vain.

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Trat (Koh Chang I.). Vainio (1909: 120, as *Thelotrema asiaticum*), Patwardan & Kulkarni (1977a: 10, as *T. asiaticum*), Boonpragob et al. (1998: 217).

SPECIMENS. RAMK, TUR-V (holotype).

ASIA. India.

Ocellularia chonestoma (Leight.) Zahlbr., *Cat. Lich. Univ.* **2**: 586 (1923).

THAILAND. Kanchanaburi (Khao Lem N.P.). Homchantara (1999: 248).

SPECIMENS. RAMK.

ASIA. Malaysia, Philippines, Sri Lanka.

Ocellularia concolor Meyen & Flot., *Nov. Actorum Acad. Caes. Leop.-Carol. Nat. Cur.* **19**, suppl.: 230 (1843).

THAILAND. Chantaburi (Khitchakut N.P.), Chiang Mai (Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.), Phetchabun (Phu Hin Rongkla N.P.), Sukhothai (Ramkhamhaeng N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 250).

SPECIMENS. BM, RAMK.

ASIA. India, Malaysia, Philippines.

Ocellularia conformis (Fée) Hale, *Mycotaxon* **11**: 136 (1980).

THAILAND. Phetchabun (Phu Hin Rongkla N.P.), Homchantara (1999: 250).

SPECIMENS. RAMK.

ASIA. India.

Ocellularia crassa (Müll. Arg.) Hale, *Mycotaxon* **11**: 136 (1980).

THAILAND. Phetchabun (Phu Hin Rongkla N.P.). Homchantara (1999: 250).

SPECIMENS. RAMK.

ASIA. India.

Ocellularia diacida Hale, *Mycotaxon* **7**: 378 (1978).

THAILAND. Chantaburi (Kitchakut N.P., Namtok Phliu N.P., Khao Soi Dao Wildlife Sanctuary), Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.), Lampang (Doi Pae Luang), Loei (Na Haeo N.P., Phu Riea N.P.), Nakhon Ratchasima (Khao Yai N.P.), Phetchabun (Phu Hin Rongkla N.P.), Sakon Nakhon (Phu Phan N.P.), Sukhothai (Ramkhamhaeng N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1998: 217), Homchantara (1999: 250).

SPECIMENS. BM, RAMK.

ASIA. India, Sri Lanka.

Ocellularia diospyrosis Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Tak (Ton Krabak Yai N.P.). Homchantara (1999: 314-315, as *Ocellularia* 'unidentified 1').

SPECIMENS. BM (holotype).

ASIA. —

Ocellularia dolichotata (Nyl.) Zahlbr., *Cat. Lich. Univ.* **2**: 589 (1923).

Thelotrema siamense Vain.

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Trat (Koh Chang I.). Vainio (1907: 174; 1909: 120, as *Thelotrema siamense*), Hale (1981: 303), Sethy et al. (1987: 193), Boonpragob et al. (1998: 217), Homchantara (1999: 264).

SPECIMENS. BM, C (isolecotype), RAMK, TUR-V (lectotype).

ASIA. India, Malaysia, Papua New Guinea, Philippines, Singapore.

Ocellularia emersa (Kremp.) Müll. Arg., *Flora* **69**: 310 (1886).

THAILAND. Chanthaburi (Khitchakut N.P.), Loei (Phu Ruea N.P.), Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 267).

SPECIMENS. RAMK.

ASIA. Sri Lanka.

Ocellularia epitrypa (Nyl.) Hale, *Mycotaxon* **11**: 136 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1998: 217), Homchantara (1999: 269).

SPECIMENS. BM, RAMK.

ASIA. India, Philippines, Sri Lanka.

Ocellularia eumorpha (Stirt.) Hale, *Mycotaxon* **11**: 136 (1980).

THAILAND. Chiang Mai (Doi Suthep N.P.), Loei (Na Haeo N.P.). Homchantara (1999: 271).

SPECIMENS. BM, RAMK.

ASIA. India, Sri Lanka.

Ocellularia fissa (Nyl.) Hale, *Mycotaxon* **11**: 136 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. India.

Ocellularia flavescens Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Homchantara (1999: 339–341, as *Ocellularia* 'unidentified 13').

SPECIMENS. BM (holotype), RAMK (isotype).

ASIA. —

Ocellularia groenhartii Hale, *Mycotaxon* **3**: 173 (1975).

THAILAND. Chantaburi (Khao Soi Dao N.P., Kitchakut N.P., Namtok Phliu N.P.), Kanchanaburi (Khao Laem N.P.), Lampang (Wiang Kosai N.P.), Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 272).

SPECIMENS. BM, RAMK.

ASIA. India, Indonesia.

Ocellularia gupteii (Nagarkar, Sathy & Patw.) D.D. Awasthi, *Mycotaxon* **23**: 79 (1986).

THAILAND. Chantaburi (Khitchakut N.P.), Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 276).

SPECIMENS. RAMK.

ASIA. India.

Ocellularia inthanonensis Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Homchantara (1999: 333–334, as *Ocellularia* 'unidentified 10').

SPECIMENS. BM (holotype), RAMK (isotype).

ASIA. —

Ocellularia kansriiae Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Pechabun (Phu Hin Rongkla N.P.), Sukhothai (Ramkhamhaeng N.P.). Homchantara (1999: 335–337, as *Ocellularia* 'unidentified 11').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Ocellularia kratingensis Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Chantaburi (Khitchakut N.P.), Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 316–318, as *Ocellularia* 'unidentified 2').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. Malaysia, Philippines, Sri Lanka.

Ocellularia leucina (Müll. Arg.) Hale, *Mycotaxon* **11**: 137 (1980).

THAILAND. Chantaburi (Namtok Phliu N.P.), Kanchanaburi (Kroengkawia), Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 278).

SPECIMENS. RAMK.

ASIA. India.

Ocellularia marivelensis (Vain.) Hale, *Mycotaxon* **11**: 137 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 281).

SPECIMENS. RAMK.

ASIA. India, Malaysia, Philippines.

Ocellularia massalongoi (Mont.) Hale, *Mycotaxon* **11**: 137 (1980).

THAILAND. Chantaburi (Namtok Phliu N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary), Yala (Banlang N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 283).

SPECIMENS. BM, RAMK.

ASIA. India, Malaysia, Papua New Guinea, Philippines.

Ocellularia meiosperma (Nyl.) Hale, *Mycotaxon* **11**: 137 (1980).

THAILAND. Chantaburi (Namtok Phliu N.P.), Chiang Mai (Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 281).

SPECIMENS. RAMK.

ASIA. India, Indonesia, Malaysia, Philippines, Sri Lanka.

Ocellularia melanophthalma Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Phetchabun (Phu Hin Rongkla N.P.). Homchantara (1999: 324–326, as *Ocellularia* ‘unidentified 6’).

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Ocellularia monosporoides (Nyl.) Hale, *Mycotaxon* **11**: 137 (1980).

THAILAND. Chantaburi (Khitchakut N.P.), Phetchabun (Phu Hin Rongkla N.P.). Homchantara (1999: 288–290).

SPECIMENS. RAMK.

ASIA. Sri Lanka.

Ocellularia microascidium (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 595 (1923).

Thelotrema microascidium Vain.

THAILAND. Trat (Koh Kong I.). Vainio (1907: 176, as *Thelotrema microascidium*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Ocellularia neoleucina Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Chantaburi (Namtok Phliu N.P.). Homchantara (1999: 333–334, as *Ocellularia* ‘unidentified 15’).

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Ocellularia neopertusariiformis Hale, *Bull. Brit. Mus. (Nat. Hist.)*, *Bot.* **8**(3): 315 (1981).

THAILAND. Loei (Phu Ruea N.P.), Nakhon Ratchasima (Khao Yai N.P.), Phetchabun (Phu Hin Rongkla N.P.). Homchantara (1999: 290–293).

SPECIMENS. RAMK.

ASIA. Malaysia, Sri Lanka.

Ocellularia nylanderiana Hale, *Phytologia* **26**: 414 (1973).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMEN. RAMK.

ASIA. India.

Ocellularia paleoamplior Aptroot & Sipman, *J. Hattori Bot. Lab.* **91**: 333 (2001).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 326–328, as *Ocellularia* ‘unidentified 7’).

SPECIMENS. RAMK (holotype).

ASIA. —

Ocellularia papillata (Leight.) Zahlbr., *Cat. Lich. Univ.* **2**: 597 (1923).

THAILAND. Chantaburi (Namtok Phliu N.P., Khitchakut N.P.), Lampang (Doi Mae Luang), Nakhon Ratchasima (Khao Yai N.P.), Sakhon Nakhon (Phu Phan N.P.), Sukhothai (Ramkhamhaeng N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1998: 217), Homchantara (1999: 295).

SPECIMENS. BM, RAMK.

ASIA. India, Philippines, Sri Lanka.

Ocellularia peremergens Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.), Loei (Na Haeo N.P.), Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 331–332, 337, 349–350, as *Ocellularia* ‘unidentified 9’, ‘12’, ‘18’).

SPECIMENS. BM (holotype), RAMK (isotype).

ASIA. —

Ocellularia perforata (Leight.) Müll. Arg., *Hedwigia* **31**: 284 (1892).

THAILAND. Chantaburi (Khao Soi Dao Wildlife Sanctuary, Namtok Phliu N.P., Kitchakut N.P.), Nakhon Ratchasima (Khao Yai N.P.), Nakhon Sri Thammarat (Khao Luang N.P.), Phetchabun (Phu Hin Rongkla N.P.), Sukhothai (Ramkhamhaeng N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 297).

SPECIMENS. RAMK.

ASIA. China (Hong Kong), India, Malaysia, Papua New Guinea.

Ocellularia pertusariiformis (Leight.) Zahlbr., *Cat. Lich. Univ.* **2**: 598 (1923).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. India.

Ocellularia pluripora Hale, *Bull. Brit. Mus. (Nat. Hist.)*, *Bot.* **8**(3): 319 (1981).

THAILAND. Chanthaburi (Khitchakut N.P., Namtok Phliu N.P.), Loei (Phu Ruea N.P., Na Haeo N.P.), Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217), Homchantara (1999: 304).

SPECIMENS. RAMK.

ASIA. India, Malaysia.

Ocellularia pluripoides Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Chiang Mai (Doi Suthep N.P.). Homchantara (1999: 318–319, as *Ocellularia* ‘unidentified 3’).

SPECIMENS. BM (holotype).

ASIA. —

Ocellularia punctulata (Leight.) Zahlbr., *Cat. Lich. Univ.* **2**: 599 (1923).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. India, Malaysia.

Ocellularia rhicnoporoides Homchantara & Coppins,
Lichenologist **34**: (in press).

THAILAND. Chantaburi (Namtok Phliu N.P.). Homchantara (1999: 329–330, as *Ocellularia* 'unidentified 8').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Ocellularia sticticans Hale, *Bull. Brit. Mus. (Nat. Hist.), Bot.* **8**(3): 323 (1981).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. RAMK.

ASIA. Sri Lanka.

Ocellularia subleucina Homchantara & Coppins,
Lichenologist **34**: (in press).

THAILAND. Chantaburi (Khitchakut N.P.). Homchantara (1999: 341–343, as *Ocellularia* 'unidentified 14').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Ocellularia wolsleyanum Homchantara & Coppins,
Lichenologist **34**: (in press).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 347–349, as *Ocellularia* 'unidentified 17').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Opographa Ach.; Opographaceae

Opographa* aff. *lambinonii Sérus., *Lejeunia* **90**: 2 (1978).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Sérusiaux (1985: 23).

SPECIMEN. LG.

ASIA. India, Papua New Guinea, Philippines, Sri Lanka.

Opographa prosodea Ach., *Methodus*: 22 (1803).

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 99).

SPECIMEN. BM.

ASIA. China, India, Malaysia, Papua New Guinea, Taiwan.

Opographa robusta Vain., *Bot. Tidsskr.* **29**: 137 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 137).

SPECIMENS. TUR-V (syntypes).

ASIA. Indonesia, Papua New Guinea.

Opographa subvulgata Nyl., *Flora* **52**: 71 (1869).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 136).

SPECIMEN. TUR-V.

ASIA. India.

Pannaria Delise ex Bory; Pannariaceae

Pannaria dispartita (Nyl) Vain., *Suomal. Elain-ja Kasvit. Seuran Vanamon Julk.* **1**(3): 45 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 45).

SPECIMEN. TUR-V.

ASIA. —

Paraparmelia Elix & J. Johnst.; Parmeliaceae

Paraparmelia rodrigueziana (Hue) Elix & J. Johnst.,
Mycotaxon **27**: 280 (1986).

THAILAND. Phitsanulok (Phu Hin Rongkla, N.P.). Moon et al. (2000a: 102).

SPECIMEN. TNS.

ASIA. —

Parmelaria D.D. Awasthi; Parmeliaceae

Parmelaria thomsonii (Stirt.) D.D. Awasthi, *J. Hattori Bot. Lab.* **63**: 368 (1987).

THAILAND. Chiang Mai (Doi Suthep N.P.), Loei (Phu Rua N.P.). Wolseley & Aguirre-Hudson (1995: 325).

SPECIMENS. BM, DUKE, TNS.

ASIA. India, Nepal.

Parmelia Ach.; Parmeliaceae

Parmelia saxatilis (L.) Ach., *Methodus*: 204 (1803).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden), Mongkonsuk et al. (1996: 17).

SPECIMEN. Queen Sirikit Botanical Garden Herbarium.

ASIA. China, India.

Parmeliella Müll. Arg.; Pannariaceae

Parmeliella brisbanensis (C. Knight) P.M. Jørg. & D.J. Galloway, *Fl. Australia* **54**: 316 (1992).

THAILAND. Chiang Mai (Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1995: 325; 1997a: 334, 1997b: 356), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. —

Parmeliella papillata P.M. Jørg., *Biblioth. Lichenol.* **78**: 133 (2001).

THAILAND. Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Jørgensen (2001: 134).

SPECIMENS. BM.

ASIA. Papua New Guinea.

Parmelina Elix; Parmeliaceae

Parmelina quercina (Willd.) Hale, *Phytologia* **28**: 483 (1974).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Mongkonsuk et al. (1996: 17).

SPECIMENS. Queen Sirikit Botanical Garden Herbarium.

ASIA. China, India.

Parmelina usambarensis (J. Steiner & Zahlbr.) Hale, *Phytologia* **28**: 483 (1974).

Parmelia usambarensis J. Steiner & Zahlbr.

THAILAND. Loei (near Phu Kradung). Hale (1976c: 51, as *Parmelia usambarensis*), Singh (1979: 222, as *P. usambarensis*), Kurokawa & Kashiwadani (1988: 7, as *P. usambarensis*), Moon et al. (2000a: 102).

SPECIMENS. TNS.

ASIA. India.

Parmelinella Elix & Hale; Parmeliaceae

Parmelinella chozoubae (Singh & Sinha) Elix & Pooprang, in Pooprang et al., *Mycotaxon* **71**: 121 (1999).

THAILAND. Chiang Mai (Doi Suthep N.P.), Loei (Nahaew N.P.), Nakhon Ratchasima (Khao Yai N.P.), Phitsanulok (Phu Hin Rongkla N.P.). Pooprang et al. (1999: 121).

SPECIMENS. RAMK.

ASIA. India.

Parmelinella simplicior (Hale) Elix & Hale, *Mycotaxon* **29**: 242 (1987).

THAILAND. Phitsanulok (Phu Hin Rongkla N.P.). Moon et al. (2000a: 102).

SPECIMENS. TNS.

ASIA. India.

Parmelinella wallichiana (Taylor) Elix & Hale, *Mycotaxon* **29**: 242 (1987).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P., Doi Pacho, Maetang), Loei (Ban Sui, Phu Kradung), Phitsanulok (Phu Hin Rongkla, N.P.), Tak (Ton Krabakayai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1995: 326; 1997a: 334; 1997b: 356), Moon et al. (2000a: 103).

SPECIMENS. BKF, BM, CMU, TNS.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Philippines, Sri Lanka, Taiwan.

Parmelinopsis Elix & Hale; Parmeliaceae

Parmelinopsis expallida (Kurok.) Elix & Hale, *Mycotaxon* **29**: 242 (1987).

Parmelina expallida (Kurok.) Elix & Hale.

THAILAND. Chiang Mai (Maetang District). Hale (1976c: 30 as *Parmelina expallida*), Patwardhan & Prabhu (1977: 111, as

P. expallida), Wolseley & Aguirre-Hudson (1995: 325), Moon et al. (2000a: 103).

SPECIMENS. TNS, US.

ASIA. India, Taiwan.

Parmelinopsis horrescens (Taylor) Elix & Hale, *Mycotaxon* **29**: 242 (1987).

THAILAND. Phitsanulok (Phu Hin Rongkla N.P.). Pooprang et al. (1999: 121).

SPECIMENS. RAMK.

ASIA. India, Sri Lanka.

Parmelinopsis microlobulata (D.D. Awasthi) Elix & Hale, *Mycotaxon* **29**: 242 (1987).

THAILAND. Nakhon Sri Thammarat (Khao Luang N.P.), Phitsanulok (Phu Hin Rongkla N.P.). Pooprang et al. (1999: 121).

SPECIMENS. RAMK.

ASIA. India.

Parmelinopsis minarum (Vain.) Elix & Hale, *Mycotaxon* **29**: 243 (1987).

THAILAND. Chiang Mai (Doi Suthep N.P.). Pooprang et al. (1999: 122).

SPECIMENS. RAMK.

ASIA. —

Parmeliopsis (Nyl. ex Stizenb.) Nyl.; Parmeliaceae

Parmeliopsis ambigua (Wulfen) Nyl., *Lich. Lapp. Orient.*: 121 (1866).

THAILAND. Lampang (Khuntan N.P.). Pooprang et al. (1999: 122).

SPECIMENS. RAMK.

ASIA. Nepal.

Parmotrema A. Massal.; Parmeliaceae

Parmotrema abessinicum (Kremp.) Hale, *Phytologia* **28**: 334 (1974).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Pooprang et al. (1999: 122).

SPECIMENS. RAMK.

ASIA. India, Malaysia.

Parmotrema amaniense (J. Steiner & Zahlbr.) Krog & Swinscow, *Lichenologist* **15**: 129 (1983).

THAILAND. Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 334).

SPECIMENS. BKF, BM.

ASIA. India.

Parmotrema andinum (Müll. Arg.) Hale, *Phytologia* **28**: 334 (1974).

Parmelia andina Müll. Arg.

THAILAND. Chiang Mai (Doi Suthep, Chiang Dao N.P.). Hale (1965a: 236, as *Parmelia andina*).

SPECIMENS. BM, CMU, TNS.

ASIA. India, Malaysia.

Parmotrema austrosinense (Zahlbr.) Hale, *Phytologia* **28**: 335 (1974).

THAILAND. Phitsanulok (Lan Hin Taek, Phu Hin Rongkla N.P.). Moon et al. (2000a: 103).

SPECIMENS. TNS.

ASIA. China.

Parmotrema chinense (Osbeck) Hale & Ahti, *Taxon* **35**: 133 (1986).

Parmelia perlata Ach.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P.), Trat (Koh Chang I.). Vainio (1909: 104, as *Parmelia perlata* Ach.).

SPECIMENS. BM, CMU.

ASIA. China, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Taiwan.

Parmotrema corniculans (Nyl.) Hale, *Phytologia* **28**: 335 (1974).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Pooprang et al. (1999: 122).

SPECIMEN. RAMK.

ASIA. Indonesia, Laos, Malaysia, Papua New Guinea, Philippines.

Parmotrema crinitum (Ach.) M. Choisy, *Bull. Mens. Soc. Linn. Soc. Bot. Lyon* **21**: 175 (1952).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Mongkonsuk et al. (1996: 17).

SPECIMEN. Queen Sirikit Botanical Garden Herbarium.

ASIA. China, India, Papua New Guinea, Sri Lanka, Taiwan.

Parmotrema cristiferum (Taylor) Hale, *Phytologia* **28**: 335 (1974).

Parmelia andina Taylor.

THAILAND. Chiang Mai (Chiang Dao N.P., Doi Suthep N.P.), Nakhon Nayok (Khao Yai N.P.), Udaun, Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Hale (1965b: 241, as *Parmelia andina*), Boonpragob et al. (1999: 217), Moon et al. (2000a: 103).

SPECIMENS. BM, TNS, US.

ASIA. China, India, Indonesia, Malaysia, Myanmar, Papua New Guinea, Philippines, Sri Lanka, Taiwan.

Parmotrema dilatatum (Vain.) Hale, *Phytologia* **28**: 335 (1974).

THAILAND. Chiang Mai (Doi Suthep N.P., Queen Sirikit Botanical Garden), Nakhon Ratchasima (Khao Yai N.P.). Mongkonsuk et al. (1996: 17), Boonpragob et al. (1999: 217), Moon et al. (2000a: 103).

P.A. WOLSELEY, B. AGUIRRE-HUDSON AND P.M. MCCARTHY

SPECIMENS. RAMK, TNS, Queen Sirikit Botanical Garden Herbarium.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Sri Lanka.

Parmotrema dominicanum (Vain.) Hale, *Phytologia* **28**: 335 (1974).

THAILAND. Loei (Phu Kradung). Moon et al. (2000a: 103).

SPECIMENS. TNS.

ASIA. —

Parmotrema elacinatum (Kurok.) Streimann, *Biblioth. Lichenol.* **22**: 94 (1986).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Pooprang et al. (1999: 123).

SPECIMEN. RAMK.

ASIA. Papua New Guinea.

Parmotrema eunetum (Stirt.) Hale, *Phytologia* **28**: 336 (1974).

THAILAND. Chiang Mai (Doi Suthep N.P., Maetang). Moon et al. (2000a: 103).

SPECIMENS. TNS.

ASIA. Sri Lanka.

Parmotrema eurysacum (Hue) Hale, *Phytologia* **28**: 336 (1974).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Mongkonsuk et al. (1996: 17).

SPECIMEN. Queen Sirikit Botanical Garden Herbarium.

ASIA. —

Parmotrema explanatum (Hale) Hale, *Phytologia* **28**: 336 (1974).

Parmelia explanata Hale.

THAILAND. Loei (Phu Kradung). Hale (1965b: 199, as *Parmelia explanata*), Moon et al. (2000a: 103).

SPECIMENS. TNS (holotype), US (isotype).

ASIA. —

Parmotrema gardneri (C.W. Dodge) Sérus., *Bryologist* **87**: 5 (1984).

Parmelia gardneri C.W. Dodge.

THAILAND. Chiang Mai (Doi Inthanon N.P.), Trat (Koh Chang I.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1909: 105, as *Parmelia gardneri*), Wolseley & Aguirre-Hudson (1997a: 334; 1997b: 355).

SPECIMENS. BM, TUR-V.

ASIA. Papua New Guinea.

Parmotrema hababianum (Gyeln.) Hale, *Phytologia* **28**: 336 (1974).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Pooprang et al. (1999: 125).

SPECIMEN. RAMK.

ASIA. China, India, Sri Lanka.

Parmotrema hypotropum (Nyl.) Hale, *Phytologia* **28**: 337 (1974).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Mongkonsuk et al. (1996: 17).

SPECIMEN. RAMK.

ASIA. —

Parmotrema incrassatum Hale ex DePriest & B.W. Hale, *Mycotaxon* **67**: 207 (1998).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Pooprang et al. (1999: 123).

SPECIMENS. Queen Sirikit Botanical Garden Herbarium.

ASIA. China (incl. Hong Kong).

Parmotrema lobulascens (J. Steiner) Hale, *Phytologia* **28**: 337 (1974).

THAILAND. Chiang Mai (Doi Inthanon N.P.), Nakhon Nayok (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1999: 217).

SPECIMEN. BM, RAMK.

ASIA. —

Parmotrema maclayanum (Müll. Arg.) Hale, *Phytologia* **28**: 337 (1974).

Parmelia breviciliata Hale.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Queen Sirikit Botanical Garden), Loei (Ban Sui, Phu Kradung, Phu Luang), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Kurokawa & Kashiwadani (1988: 4, as *Parmelia breviciliata*), Moon et al. (2000a: 103).

SPECIMENS. BM, TNS.

ASIA. Papua New Guinea.

Parmotrema mellissii (C.W. Dodge) Hale, *Phytologia* **28**: 337 (1974).

THAILAND. Loei (Phu Kradung). Moon et al. (2000a: 103).

SPECIMENS. TNS.

ASIA. China, India, Papua New Guinea, Taiwan.

Parmotrema nanfongense (Kurok.) DePriest & B.W. Hale, *Mycotaxon* **67**: 204 (1998).

THAILAND. Chiang Mai (Doi Suthep N.P.). Moon et al. (2000a: 104).

SPECIMEN. TNS.

ASIA. Papua New Guinea, Taiwan.

Parmotrema nilgherrense (Nyl.) Hale, *Phytologia* **28**: 338 (1974).

Parmelia nilgherrensis Nyl.

Parmelia siamensis Vain.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Lampang (Doi Khun Tan N.P.), Nakhon Nayok (Khao Yai N.P.), Tak (Ton Krabakayai N.P.), Yala (Banglang Reservoir). Vainio (1921: 37, as *Parmelia siamensis*), Hale (1965a: 333, as *P. nilgherrensis*), Wolseley & Aguirre-Hudson (1997a: 334).

SPECIMENS. BM, TUR-V (holotype of *Parmelia siamensis*).

ASIA. China, India, Papua New Guinea, Philippines, Sri Lanka.

Parmotrema overeemii (Zahlbr.) Elix, *Australas. Lichenol.* **42**: 23 (1998).

THAILAND. Chiang Mai, Lampang (Doi Khun Tan N.P.), Loei (Phu Kradung N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Pooprang et al. (1999: 123).

SPECIMENS. BKF, BM, CMU, RAMK, TNS, TUR-V.

ASIA. Indonesia, Papua New Guinea.

Parmotrema pancheri (Hue) Hale, *Phytologia* **28**: 338 (1974).

Parmelia pancheri Hue.

THAILAND. Chiang Mai (Doi Suthep). Hale (1965b: 236, as *Parmelia pancheri*), Moon et al. (2000a: 104).

SPECIMENS. TNS, US.

ASIA. —

Parmotrema permutatum (Stirt.) Hale, *Phytologia* **28**: 338 (1974).

Parmelia permutata Stirt.

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Hale (1965b: 302, as *Parmelia permutata*), Kashiwadani (1975: 81), Moon et al. (2000a: 104).

SPECIMEN. TNS.

ASIA. India, Indonesia, Malaysia, Papua New Guinea.

Parmotrema planatilobatum (Hale) Hale, *Phytologia* **28**: 338 (1974).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Pooprang et al. (1999: 124).

SPECIMEN. RAMK.

ASIA. India, Indonesia, Malaysia, Sri Lanka.

Parmotrema platyphyllum (Vain.) Elix, *Australas. Lichenol.* **42**: 23 (1998).

Parmelia platyphyllina Vain.

Parmelia zollingeri auct. non Hepp.

THAILAND. Phitsanulok (Lan Hin Taek), Trat (Koh Chang I.). Vainio (1909: 106, as *Parmelia platyphyllina*), Hale (1965b: 267, as *P. zollingeri*), Moon et al. (2000a: 104).

SPECIMENS. TNS, TUR-V.

ASIA. —

Parmotrema poolii (C.W. Dodge) Krog & Swinscow, *Lichenologist* **15**: 130 (1983).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden), Phitsanulok (Lan Hin Taek). Moon et al. (2000a: 104).

SPECIMENS. TNS.

ASIA. Papua New Guinea.

Parmotrema praesorediosum (Nyl.) Hale, *Phytologia* **28**: 338 (1974).

THAILAND. Chiang Mai (Doi Saget, Maesa, Doi Suthep N.P., Queen Sirikit Botanical Garden), Songkla. David et al. (1990: 1299), Mongkonsuk et al. (1996: 17), Moon et al. (2000a: 104)

SPECIMENS. CANB, TNS, US, Queen Sirikit Botanical Garden Herbarium.

ASIA. China (incl. Hong Kong), India, Malaysia, Papua New Guinea, Singapore, Sri Lanka, Taiwan.

Parmotrema procerum (J. Steiner & Zahlbr.) Hale, *Phytologia* **28**: 338 (1974).

Parmelia procera J. Steiner & Zahlbr.

THAILAND. Chiang Mai (Doi Suthep N.P.). Hale (1965b: 303, as *Parmelia procera*).

SPECIMENS. TNS, US.

ASIA. —

Parmotrema pseudocrinitum (des Abbayes) Hale, *Phytologia* **28**: 338 (1974).

THAILAND. Loei (near Phu Kradung). Kurokawa & Kashiwadani (1988: 6), Moon et al. (2000a: 104).

SPECIMEN. TNS.

ASIA. —

Parmotrema pseudonilgherrense (Asahina) Hale, *Mycotaxon* **5**: 441 (1977).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Pooprang et al. (1999: 124).

SPECIMEN. RAMK.

ASIA. China, India, Nepal.

Parmotrema rampoddense (Nyl.) Hale, *Phytologia* **28**: 338 (1974).

THAILAND. Chiang Mai (Doi Suthep N.P., Queen Sirikit Botanical Garden, Maetang), Loei (Phu Kradung N.P.), Phitsanulok (Lan Hin Taek, Phu Hin Rongkla, N.P.), Kurokawa & Kashiwadani (1988: 6), Mongkonsuk et al. (1996: 17), Moon et al. (2000a: 104).

SPECIMENS. BM, TNS.

ASIA. China, India, Indonesia, Papua New Guinea, Sri Lanka, Taiwan.

Parmotrema robustum (Degel.) Hale, *Phytologia* **28**: 338 (1974).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden),

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Phitsanulok (Lan Hin Taek, Phu Hin Rongkla, N.P.). Mongkonsuk et al. (1996: 17), Moon et al. (2000a: 104).

SPECIMENS. TNS, Queen Sirikit Botanical Garden Herbarium.

ASIA. India, Papua New Guinea.

Parmotrema rubromarginatum Elix & Pooprang, in Pooprang et al., *Mycotaxon* **72**: 115 (1999).

THAILAND. Loei, Nakhon Ratchasima. Pooprang et al. (1999: 115).

SPECIMENS. CANB (isotype), RAMK (incl. holotype).

ASIA. —

Parmotrema saccatilobum (Taylor) Hale, *Phytologia* **28**: 339 (1974).

THAILAND. Phuket (Ban Pae). Moon et al. (2000a: 104).

SPECIMEN. TNS.

ASIA. China, India, Papua New Guinea, Singapore, Taiwan.

Parmotrema sancti-angeli (Lynge) Hale, *Phytologia* **28**: 339 (1974).

Parmelia sancti-angeli Lynge.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Doi Chiang Dao N.P., Maetang), Loei (near Phu Kradung), Phitsanulok (Lan Hin Taek, Phu Hin Rongkla, N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Hale (1965b: 307, as *Parmelia sancti-angeli*), Moon et al. (2000a: 104).

SPECIMENS. BM, TNS, US.

ASIA. China, India, Indonesia, Laos, Papua New Guinea, Sri Lanka, Taiwan.

Parmotrema stuppeum (Taylor) Hale, *Phytologia* **28**: 339 (1974).

Parmelia perforata f. *claudelii* (Harm.) Vain.

Parmelia maxima Hue.

THAILAND. Chiang Mai (Doi Suthep N.P.), Phuket (Ban Pae), Trat (Koh Chang I.). Vainio (1909: 105, as *Parmelia perforata* f. *claudelii*), des Abbayes (1964, as *P. maxima*), Moon et al. (2000a: 104).

SPECIMENS. TNS, TUR-V.

ASIA. India.

Parmotrema subarnoldii (des Abbayes) Hale, *Phytologia* **28**: 339 (1974).

THAILAND. Loei, Nakhon Ratchasima. Pooprang et al. (1999: 124)

SPECIMENS. RAMK.

ASIA. India, Indonesia, Papua New Guinea.

Parmotrema submarginale (Michx.) DePriest & B.W. Hale, *Mycotaxon* **67**: 208 (1998).

Parmotrema michauxianum (Zahlbr.) Hale.

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden). Mongkonsuk et al. (1996: 17).

SPECIMENS. Queen Sirikit Botanical Garden Herbarium.

ASIA. —

Parmotrema sulphuratum (Nees & Flot.) Hale, *Phytologia* **28**: 339 (1974).

THAILAND. Loei (Na Haew N.P.), Nakhon Sri Thammarat (Khao Luang). Pooprang et al. (1999: 124).

SPECIMENS. BM, RAMK.

ASIA. Indonesia, Malaysia, Papua New Guinea.

Parmotrema thailandicum Elix & Pooprang, in Pooprang et al., *Mycotaxon* **72**: 117 (1999).

THAILAND. Phitsanulok (Phu Hin Rongkla N.P.).

SPECIMENS. CANB (isotype), RAMK (holotype).

ASIA. —

Parmotrema tinctorum (Nyl.) Hale, *Phytologia* **28**: 339 (1974).

Parmelia tinctorum Nyl.

Parmelia coralloidea (Meyen & Flot.) Vain.

THAILAND. Chumphon (Koh Tao I.), Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Doi Pacho, Chiang Dao N.P., Queen Sirikit Botanical Garden, Maetang), Chiang Rai, Loei (Ban Sui, Pha Nok Kao), Phitsanulok (Lan Hin Taek, Phu Hin Rongkla, N.P.), Udon-Thani. Vainio (1921: 37, as *Parmelia coralloidea*), Sato (1962: 4, as *P. tinctorum*), Mongkonsuk et al. (1996: 17), Wolseley & Aguirre-Hudson (1997a: 334; 1997b: 355), Moon et al. (2000a: 104).

SPECIMENS. BKF, BM, CMU, RAMK, TNS, TUR-V, Queen Sirikit Botanical Garden Herbarium.

ASIA. China (incl. Hong Kong), Indonesia, India, Laos, Malaysia, Papua New Guinea, Philippines, Singapore, Sri Lanka, Taiwan.

Parmotrema zollingeri (Hepp) Hale, *Phytologia* **28**: 339 (1974).

THAILAND. Chiang Mai (Queen Sirikit Botanical Garden), Loei (Ban Su). Moon et al. (2000a: 105).

SPECIMENS. TNS.

ASIA. China, India, Indonesia, Philippines, Taiwan.

***Pertusaria* DC.; Pertusariaceae**

Pertusaria asiana Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 44 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 44); Oshio (1976: 116).

SPECIMEN. TUR-V (holotype).

ASIA. —

Pertusaria bengalensis Vain., *Hedwigia* **46**: 169 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1907: 169; 1909: 110), Oshio (1976: 116).

SPECIMEN. TUR-V (holotype).

ASIA. —

Pertusaria pustulata (Ach.) Duby, *Bot. Gall.* **2**(2): 673 (1830).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 109), Archer (1997: 135).

SPECIMENS. TUR-V.

ASIA. China, India.

Pertusaria sphaerulifera Vain., *Hedwigia* **46**: 169 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1907: 169; 1909: 109).

SPECIMEN. TUR-V (holotype).

ASIA. —

Pertusaria subnegans Vain., *Hedwigia* **46**: 170 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1907: 170; 1909: 110).

SPECIMEN. TUR-V (holotype).

ASIA. —

***Phaeographina* Müll. Arg.; Graphidaceae**

Phaeographina caesiopruinosa (Fée) Müll. Arg., *Mém. Soc. Phys. Hist. Nat. Genève* **29**(8): 49 (1887).

Graphis caesiopruinosa Fée.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 49, as *Graphis caesiopruinosa*).

SPECIMEN. TUR-V.

ASIA. India, Malaysia, Sri Lanka.

Phaeographina chlorocarpoides (Nyl.) Zahlbr., *Cat. Lich. Univ.* **2**: 321 (1924).

Graphis chlorocarpoides Nyl.

THAILAND. Chiang Mai (Doi Suthep), Trat (Koh Chang I.). Vainio (1909: 124; 1921: 49, both as *Graphis chlorocarpoides*), Kashiwadani (1977: 45).

SPECIMENS. TUR-V, TNS.

ASIA. China, Indonesia, Philippines, Taiwan.

Phaeographina chrysenteron (Mont.) Müll. Arg. *Hedwigia* **30**: 52 (1891).

THAILAND. Chumphon (Koh Tao I.). Vainio (1921: 49), Paulson (1930: 100).

SPECIMEN. TUR-V, BM.

ASIA. China, India, Indonesia, Sri Lanka.

Phaeographina heterocarpoides (Nyl.) Zahlbr., *Cat. Lich. Univ.* **2**: 439 (1924).

Graphis heterocarpoides Nyl.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 123, as *Graphis heterocarpoides*).

SPECIMEN. TUR-V.

ASIA. —

Phaeographina persimilis (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 442 (1923).

Graphis persimilis Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 123, as *Graphis persimilis*).

SPECIMENS. TUR-V.

ASIA. —

Phaeographina scalpturata (Ach.) Müll. Arg., *Flora* **65**: 399 (1882).

Graphis scalpturata Ach.

THAILAND. Chiang Mai (Doi Suthep). Vainio (1921: 49, as *Graphis scalpturata*).

SPECIMENS. TUR-V.

ASIA. China (Hong Kong), India, Indonesia.

Phaeographina schmidtii (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 446 (1923).

Graphis schmidtii Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1907: 176; 1909: 124, both as *Graphis schmidtii*).

SPECIMEN. TUR-V.

ASIA. —

Phaeographina subintricata (Kremp.) Müll. Arg., *Bull. Herb. Boissier* **3**: 320 (1895).

Graphis subintricata Vain.

THAILAND. Trat (Koh Kong I.). Vainio (1909: 126, as *Graphis subintricata*).

SPECIMEN. TUR-V.

ASIA. China, India.

Phaeographina subrigida (Nyl.) Zahlbr., *Cat. Lich. Univ.* **2**: 446 (1923).

Graphis subrigida Nyl.

THAILAND. Chiang Mai (Doi Suthep). Vainio (1909: 122, as *Graphis subrigida*).

SPECIMEN. TUR-V.

ASIA. —

Phaeographis Müll. Arg.; Graphidaceae

Phaeographis exaltata (Mont. & Bosch) Müll. Arg., *Flora* **65**: 336 (1882).

Graphis diversa Nyl.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 129, as *Graphis diversa*).

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SPECIMEN. TUR-V.

ASIA. Indonesia, Philippines.

Phaeographis nylanderi (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 382 (1923).

Graphis nylanderi Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 130, as *Graphis nylanderi*).

SPECIMEN. TUR-V.

ASIA. —

Phaeographis rugulosa (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 444 (1923).

Graphis rugulosa Vain.

THAILAND. Chiang Mai (Doi Suthep). Vainio (1921: 49, as *Graphis rugulosa*).

SPECIMEN. TUR-V (holotype).

ASIA. —

Phaeographis sericea (Eschw.) Müll. Arg., *Flora* **71**: 523 (1888).

Graphis sericea (Eschw.) Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 130, as *Graphis sericea*).

SPECIMEN. TUR-V.

ASIA. China (Hong Kong).

Phaeographis subtigrida (Vain.) Zahlbr., *Cat. Lich. Univ.* **2**: 387 (1923).

Graphis subtigrida Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 131, as *Graphis subtigrida*), Patwardhan & Kulkarni (1977b: 721), Wirth & Hale (1978: 29).

SPECIMEN. TUR-V.

ASIA. India.

Phaeophyscia Moberg; Physciaceae

Phaeophyscia hispidula (Ach.) Essl., *Mycotaxon* **7**: 301 (1978).

Physcia setosa (Ach.) Nyl.

THAILAND. Chiang Mai (Doi Inthanon N.P.), Chumphon (Koh Tao I.). Vainio (1909: 130), Paulson (1930: 100, as *Physcia setosa*).

SPECIMENS. BM.

ASIA. China, India, Indonesia, Malaysia.

Phlyctis Wallr.; Phlyctidaceae

[*Phlyctis*] *Phlyctella himalayensis* Nyl., *Lich. Nov.-Zel.*: 73 (1888).

Phlyctis polyphragmia (Nyl.) Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 43, as *Phlyctis polyphragmia*).

SPECIMEN. TUR-V.

ASIA. India, Nepal.

[*Phlyctis*] *Phlyctella neozelandica* Nyl., *Flora* **52**: 121 (1869).

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 100, as *Phlyctella neozelandica*).

SPECIMEN. BM.

ASIA. —

Phyllopsora Müll. Arg.; Phyllopsoraceae

Phyllopsora furfuracea (Pers.) Zahlbr., in Engler & Prantl, *Nat. Pflanzenfam.* **1**(1): 138 (1905).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. Papua New Guinea.

Physcia (Schreb.) Michx.; Physciaceae

Physcia sorediosa (Vain.) Lynge, *Natur. Skrift. I. Math.-Naturvid. Kl.* **16**: 27 (1924).

THAILAND. Chumphon (Koh Tao I.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Paulson (1930: 100).

SPECIMEN. BM (not located).

ASIA. Malaysia, Papua New Guinea.

Physcidia Tuck.; Phyllopsoraceae

Physcidia cylindrophora (Taylor) Hue, *Bull. Soc. Linn. Normandie* **6**(1): 97 (1908).

THAILAND. Chiang Mai (Doi Suthep), Nakhon Ratchasima (Khao Yai N.P.). Kalb & Elix (1995: 286), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. India, Malaysia, Papua New Guinea, Philippines.

Physcidia wrightii (Tuck.) Tuck., *Proc. Amer. Acad. Arts* **5**: 400 (1862).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.), Loei (Phu Kradung N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Kurokawa & Kashiwadani (1988: 15), Kalb & Elix (1995: 291), Wolseley & Aguirre-Hudson (1997a: 334), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK, TNS.

ASIA. Malaysia.

Physma A. Massal.; Collemataceae

Physma byrsaenum (Ach.) Tuck., *Syn. N. Amer. Lich.* **1**: 115 (1882).

THAILAND. Chiang Mai (Doi Suthep N.P.), Uthai Thani (Huay

Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1995: 327).

SPECIMEN. BM.

ASIA. China (Hong Kong), India, Malaysia, Papua New Guinea.

Physma plicatum (Pers.) Hue, *Bull. Soc. Linn. Normandie*, sér. **5**, **9**: 136 (1906).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 116).

SPECIMENS. C, TUR-V.

ASIA. Indonesia.

Platismatia W.L. Culb & C.F. Culb.; Parmeliaceae

Platismatia erosa W.L. Culb & C.F. Culb., *Contr. U.S. Natl. Herb.* **34**: 526 (1968).

THAILAND. Chiang Mai Province (Doi Inthanon N.P.). Wolseley & Aguirre-Hudson (1997a: 337).

SPECIMEN. BM.

ASIA. China, India, Indonesia, Nepal, Philippines, Taiwan, Vietnam.

Polymeridium (Müll. Arg.) R.C. Harris; Trypetheliaceae

Polymeridium albidum (Müll. Arg.) R.C. Harris, *Acta Amazonica* **14** (Suppl.): 69 (1984) ['1986'].

Arthopyrenia siamensis Vain.

THAILAND. Chiang Mai (Doi Suthep). Vainio (1921: 55, as *Arthopyrenia siamensis*), Harris (1993: 624).

SPECIMEN. TUR-V (holotype of *Arthopyrenia siamensis*).

ASIA. Malaysia, Papua New Guinea, Philippines.

Polymeridium catapastum (Nyl.) R.C. Harris, *Acta Amazonica* **14** (Suppl.): 70 (1984) ['1986'].

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Vongshewarat et al. (1999: 231).

SPECIMENS. CANB, RAMK.

ASIA. Malaysia, Papua New Guinea.

Polymeridium quinqueseptatum (Nyl.) R.C. Harris, in Tucker & Harris, *Bryologist* **83**: 12 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Vongshewarat et al. (1999: 231).

SPECIMENS. CANB, RAMK.

ASIA. China (Hong Kong), India, Malaysia, Philippines.

Porina Ach.; Trichotheliaceae

Porina aff. *albicerca* (Kremp.) Overeem, *Bull. Jard. Bot. Buitenzorg*, sér. **3**, **4**: 112 (1922).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Vietnam.

Porina americana Fée, *Essai Crypt. Écorc. Offic.*: 83 (1824).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. —

Porina bellendenica Müll. Arg., *Hedwigia* **30**: 56 (1891).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMEN. CANB.

ASIA. —

Porina conica R. Sant., *Symb. Bot. Upsal.* **12**(1): 232 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Vietnam.

Porina corruscans (Rehm) R. Sant., *Symb. Bot. Upsal.* **12**(1): 223 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. India, Indonesia, Papua New Guinea, Philippines.

Porina eminentior (Nyl.) P.M. McCarthy, *Lichenologist* **32**: 42 (2000).

Clathroporina eminentior (Nyl.) Müll. Arg.

THAILAND. Chiang Mai (Doi Inthanon), Uthai Thani (Khao Nang Rum, Khlong Plou). McCarthy (1995: 329, as *Clathroporina eminentior*).

SPECIMENS. BM.

ASIA. Papua New Guinea.

Porina epiphylla (Fée) Fée, *Essai Crypt. Écorc.*, Suppl. **1**: 76 (1837).

Micropeltis schmidtiana Rostrup.

THAILAND. Nakhon Nayok (Khao Yai N.P.), Nakhon Ratchasima (Khao Yai N.P.), Trat (Koh Chang I.). Rostrup (1902: 211); Santesson (1952: 234), Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. China, India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Vietnam.

Porina erawanensis P.M. McCarthy & Vongshewarat, in Vongshewarat et al., *Mycotaxon* **71**: 231 (1999).

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THAILAND. Kanchanaburi (Erawan N.P.). Vongshewarat et al. (1999: 231).

SPECIMENS. CANB (holotype), RAMK (isotype).

ASIA. —

Porina internigrans (Nyl.) Müll. Arg., *Rep. Australas. Assoc. Advancem. Sci.* **1895**: 452 (1895).

THAILAND. Sukothai (Ramkhamhaeng N.P.). Vongshewarat et al. (1999: 233).

SPECIMEN. RAMK.

ASIA. India, Papua New Guinea.

Porina kansriiae P.M. McCarthy, *Lichenologist* **31**: 239 (1999).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217, as *Porina* aff. *ulceratula* Zahlbr.), McCarthy (1999: 239).

SPECIMENS. CANB (incl. holotype).

ASIA. —

Porina lucida R. Sant., *Symb. Bot. Upsal.* **12**(1): 240 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka.

Porina mastoidea (Ach.) Müll. Arg., *Bot. Jahrb. Syst.* **6**: 399 (1885).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. India, Malaysia, Papua New Guinea, Philippines.

Porina aff. *octomera* (Müll. Arg.) F. Schill., *Hedwigia* **67**: 274 (1927).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. Vietnam.

Porina rufula (Kremp.) Vain., *Acta Soc. Fauna Fl. Fenn.* **7**(2): 227 (1890).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka.

Porina siamensis P.M. McCarthy, *Lichenologist* **31**: 242 (1999).

THAILAND. Nakhon Nayok (Khao Yai N.P.), Nakhon Ratchasima (Khao Yai N.P.). McCarthy (1999: 242).

SPECIMENS. CANB (incl. holotype).

ASIA. —

Porina tetracerae (Ach.) Müll. Arg., *Bot. Jahrb. Syst.* **6**: 401 (1885).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMENS. CANB.

ASIA. China, India, Malaysia, Papua New Guinea, Sri Lanka.

Porina* aff. *vezdae Lücking, *Nova Hedwigia* **52**: 285 (1991).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 212).

SPECIMENS. CANB.

ASIA. —

Porina virescens (Kremp.) Müll. Arg., *Flora* **66**: 331 (1883).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 212).

SPECIMENS. CANB.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Vietnam.

Porina wolseleyae P.M. McCarthy, *Lichenologist* **31**: 244 (1999).

THAILAND. Nakhon Nayok (Khao Yai N.P.). McCarthy (1999: 244).

SPECIMENS. CANB (holotype).

ASIA. —

***Pseudocyphellaria* Vain.; Lobariaceae**

Pseudocyphellaria argyracea (Delise) Vain., *Hedwigia* **37**: 35 (1898).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 217).

SPECIMEN. RAMK.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Taiwan.

Pseudocyphellaria aurata (Sm.) Vain., *Acta Soc. Fauna Fl. Fenn.* **7**: 183 (1890).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 334).

SPECIMENS. BKF.

ASIA. China, India, Indonesia, Malaysia, Philippines, Taiwan.

Pseudocyphellaria beccarii (Kremp.) D.J. Galloway, *Bull. nat. Hist. Mus. London (Bot.)* **24**: 119 (1994).

THAILAND. Chiang Mai (Doi Inthanon N.P.). Wolseley & Aguirre-Hudson (1997a: 334).

SPECIMEN. BM.

ASIA. Malaysia.

***Pseudopyrenula* Müll. Arg.; Trypetheliaceae**

Pseudopyrenula diluta* var. *degenerans Vain., *Bot. Tidsskr.* **29**: 148 (1909).

Pseudopyrenula endoxanthoides Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 148), Harris (1998: 138).

SPECIMEN. TUR-V (holotype).

ASIA. —

***Pyrenula* Ach.; Pyrenulaceae**

Pyrenula anomala (Ach.) Vain., *Ann. Acad. Sci. Fenn.*, ser. A, **6**(7): 189 (1915).

THAILAND. Buri Ram (Khao Kadong), Chanthaburi (Numtokphliu N.P.), Chiang Mai (Queen Sirikit Botanical Garden), Lumpang (Khuntan), Sakon Nakhon (Phu Pan N.P.). Vongshewarat et al. (1999: 234).

SPECIMENS. RAMK.

ASIA. India, Papua New Guinea, Philippines, Vietnam.

Pyrenula approximata Vain., *Bot. Tidsskr.* **29**: 145 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 145).

SPECIMEN. TUR-V (holotype).

ASIA. —

Pyrenula aspistea Ach., *Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesammten Naturk.* **6**: 17 (1814).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 147).

SPECIMENS. RAMK, TUR-V.

ASIA. India, Indonesia, Papua New Guinea, Philippines, Sri Lanka.

Pyrenula confinis (Nyl.) R.C. Harris, *More Florida Lichens*: 109 (1995).

Bottaria confinis (Nyl.) Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 143, as *Bottaria confinis*).

SPECIMENS. RAMK, TUR-V.

ASIA. India, Papua New Guinea, Philippines.

Pyrenula feracissima Vain., *Bot. Tidsskr.* **29**: 145 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 145).

SPECIMENS. TUR-V (holotype).

ASIA. —

Pyrenula glabriuscula (Nyl.) Vain., *Bot. Tidsskr.* **29**: 146 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 146).

SPECIMENS. TUR-V (holotype).

ASIA. China, Philippines.

Pyrenula leucostoma Ach., *Syn. Meth. Lich.*: 124 (1914).

Bottaria libricola (Feé) Vain.

THAILAND. Trat (Lem Ngob). Vainio (1909: 142, as *Bottaria libricola*).

SPECIMENS. TUR-V.

ASIA. Indonesia, Papua New Guinea.

Pyrenula macularis (Zahlbr.) R.C. Harris, *Mem. New York Bot. Gard.* **49**: 94 (1989).

THAILAND. Rayong. Vongshewarat et al. (1999: 234).

SPECIMENS. RAMK.

ASIA. Papua New Guinea.

Pyrenula nitida (Weig.) Ach., *Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesammten Naturk.* **6**: 21 (1814).

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 100).

SPECIMEN. BM (not located).

ASIA. China, India, Indonesia, Sri Lanka.

Pyrenula parvinuclea (Meyen & Flot.) Aptroot, in Aptroot et al., *Biblioth. Lichenol.* **64**: 165 (1997).

Bottaria denudata (Nyl.) Vain.

THAILAND. Chachoesa, Samut Prakan (Muang Boran), Trat (Koh Chang I.). Vainio (1909: 143, as *Bottaria denudata*), Vongshewarat et al. (1999: 234).

SPECIMENS. CANB, RAMK, TUR-V.

ASIA. India, Indonesia, Malaysia, Papua New Guinea.

Pyrenula subaggregata Müll. Arg., *Bot. Jahrb. Syst.* **6**: 410 (1885).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 144).

SPECIMEN. TUR-V.

ASIA. India.

Pyrenula subferruginea (Malme) R.C. Harris, *Mem. New York Bot. Gard.* **49**: 101 (1989).

THAILAND. Kanchanaburi (Erawan N.P.). Vongshewarat et al. (1999: 235).

SPECIMEN. RAMK.

ASIA. Papua New Guinea.

Pyrenula submarginata Vain., *Bot. Tidsskr.* **29**: 146 (1909).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 146).

SPECIMEN. TUR-V (holotype).

ASIA. —

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Pyrenula velatior Müll. Arg., *Flora* **68**: 20 (1885).

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 100).

SPECIMEN. BM.

ASIA. —

Pyrgillus Nyl.; Pyrenulaceae

Pyrgillus indicus (Kremp.) Aptroot, *Biblioth. Lichenol.* **44**: 84 (1991).

Pyrgillocarpon indicum (Kremp.) Nadv.

THAILAND. Chiang Mai (Doi Inthanon, N.P., Doi Suthep N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 334, 339, as *Pyrgillocarpon indicum*).

SPECIMENS. BM.

ASIA. India, Malaysia.

Pyrgillus javanicus (Mont. & Bosch) Nyl., *Mém. Soc. Sci. Nat. Cherbourg* **5**: 334 (1858).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 334, 339), Boonpragob et al. (1998: 217).

SPECIMENS. BM, RAMK.

ASIA. Indonesia, Malaysia, Papua New Guinea, Philippines.

Pyrrhospora Körb.; Lecanoraceae

Pyrrhospora russula (Ach.) Hafellner, in Kalb & Hafellner, *Herzogia* **9**: 86 (1992).

Lecidea russula Ach.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1921: 48, as *Lecidea russula*), Sato (1962: 3, as *L. russula*), Hafellner (1993: 737), Wolseley & Aguirre-Hudson (1997a: 333, 339; 1997b: 356), Boonpragob et al. (1998: 217).

SPECIMENS. BM, CMU, TNS, TUR-V.

ASIA. China (Hong Kong).

Pyxine Fr.; Physciaceae

Pyxine coccifera (Fée) Nyl., *Mém. Soc. Imp. Sci. Nat. Cherbourg* **5**: 108 (1857).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.), Lampang (Doi Khun Tan N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1921: 45), Wolseley & Aguirre-Hudson (1991: 172, 173; 1997a: 334; 1997b: 355).

SPECIMENS. BKF, BM, CMU, RAMK.

ASIA. India, Indonesia, Malaysia, Sri Lanka, Vietnam.

Pyxine consocians Vain., *Philipp. J. Sci.*, Sect. C, **8**: 109 (1913).

THAILAND. Chiang Mai, Uthai Thani. Wolseley & Aguirre-Hudson (1997a: 334; 1997b: 355, 356).

SPECIMENS. BKF, BM, CMU.

ASIA. India, Malaysia, Papua New Guinea, Philippines.

Pyxine coralligera Malme, *Bih. Kongl. Svenska Vetensk-Akad. Handl.* **23**(3): 40(1897).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 334; 1997b: 356).

SPECIMENS. BKF, BM, CMU.

ASIA. India, Papua New Guinea.

Pyxine retirugella Nyl., *Ann. Sci. Nat. Bot.*, sér. 4, **11**: 240 (1859).

Pyxine asiatica Vain.

Pyxine retirugella var. *laevior* Vain.

Pyxine copelandii Vain.

THAILAND. Trat (Koh Chang I.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1909: 113, as *Pyxine asiatica*, *P. retirugella* var. *laevior* and *P. copelandii*). Rogers (1986: 149).

SPECIMENS. BM, TUR-V.

ASIA. India, Malaysia, Papua New Guinea, Philippines.

Pyxine schmidtii Vain., *Hedwigia* **46**: 170 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 112).

SPECIMEN. TUR-V (holotype).

ASIA. —

Ramalina Ach.; Ramalinaceae

Ramalina calicaris (L.) Rohl, *Deutschl. Fl.* **3**(2): 139 (1813).

THAILAND. Chiang Mai (Doi Suthep N.P., Chiang Dao N.P.). Sato (1962: 6), Yoshimura (1978: 37).

SPECIMENS. C.

ASIA. China, India, Indonesia, Taiwan.

Ramalina conduplicans Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 35 (1921).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.). Vainio (1921: 35), Awasthi (1960: 177), Sato (1962: 6).

SPECIMENS. TUR-V (syntypes).

ASIA. —

Ramalina farinacea (L.) Ach., *Methodus*: 263 (1803).

THAILAND. Chiang Mai (Chiang Dao N.P.), Chumphon (Koh Tao I.), Trat (Koh Chang I.). Vainio (1909: 104), Paulson (1930: 100), Yoshimura (1978: 37).

SPECIMENS. BM, C, TUR-V.

ASIA. China, Indonesia, Sri Lanka, Vietnam.

Ramalina hossei Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 36 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 36), Kashiwadani (1988: 129–133).

SPECIMENS. TNS, TUR-V (holotype).

ASIA. Taiwan.

Relicina (Hale & Kurok.) Hale; Parmeliaceae

Relicina abstrusa (Vain.) Hale, *Phytologia* **28**: 484 (1974).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.), Loei (Phu Kradung N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Culberson et al. (1981: 25), Boonpragob et al. (1999: 218), Moon et al. (2000a: 105).

SPECIMENS. BM, RAMK, TNS.

ASIA. China, India, Indonesia, Malaysia, Philippines, Taiwan.

Relicina circumnodata (Nyl.) Hale, *Phytologia* **28**: 484 (1974).

THAILAND. Phitsanulok (Lan Hin Taek, Phu Hin Rongkla, N.P.), Phuket (Ton Sai). Moon et al. (2000a: 105).

SPECIMENS. TNS.

ASIA. Malaysia, Philippines.

Relicina subabstrusa (Gyeln.) Hale, *Phytologia* **28**: 485 (1974).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1999: 218).

SPECIMENS. RAMK.

ASIA. Malaysia, Philippines, Taiwan.

Relicina sublanaea (Kurok.) Hale, *Phytologia* **28**: 485 (1975).

THAILAND. Yala (Wang Pra, Bang-Lang N.P.). Elix (1996: 120).

SPECIMENS. PSU.

ASIA. Indonesia, Malaysia, Philippines, Sri Lanka.

Relicina sublimbata (Nyl.) Hale, *Phytologia* **28**: 485 (1974).

THAILAND. Loei (Phu Kradung). Hale (1975: 31), Wolseley & Aguirre-Hudson (1995: 328), Moon et al. (2000a: 103).

SPECIMENS. BM, TNS, US.

ASIA. Myanmar.

Relicinopsis Elix & Verdon; Parmeliaceae

Relicinopsis intertexta (Mont. & Bosch) Elix & Verdon, *Mycotaxon* **27**: 281 (1986).

Parmelia ecoronata Nyl.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 107, as *Parmelia ecoronata*).

SPECIMENS. BM, TUR-V.

ASIA. India, Indonesia, Philippines, Malaysia, Papua New Guinea.

Relicynopsis rahengensis (Vain.) Elix & Verdon, *Mycotaxon* **27**: 282 (1986).

Parmelia rahengensis Vain.

Pseudoparmelia rahengensis (Vain.) Hale.

THAILAND. Nong Boa near Raheng, Chiang Mai (Doi Saget, Doi Suthep N.P., Doi Inthanon N.P., Chiang Dao N.P., Queen Sirikit Botanical Garden, Maetang), Lampang (Doi Khun Tan N.P.), Phitsanulok (Lan Hin Taek, Phu Hin Rongkla, N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1921: 39, as *Parmelia rahengensis*), Hale (1976a: 42, as *Pseudoparmelia rahengensis*), Wolseley & Aguirre-Hudson (1995: 329; 1997a: 334; 1997b: 335, 366), Moon et al. (2000a: 105).

SPECIMENS. BKF, BM, CMU, TNS, US, TUR-V (lectotype).

ASIA. —

Relicynopsis malaccensis (Nyl.) Elix & Verdon, *Mycotaxon* **27**: 282 (1986).

THAILAND. Loei (Nahaew N.P.), Phitsanulok (Phu Hin Rongkla N.P.). Pooprang et al. (1999: 125).

SPECIMENS. RAMK.

ASIA. India, Indonesia, Malaysia, Philippines, Sri Lanka.

Rimelia Hale & A. Fletcher; Parmeliaceae

Rimelia reticulata (Taylor) Hale & A. Fletcher, *Bryologist* **93**: 28 (1990).

Parmelia cetrata f. *soredifera* Vain.

Rimelia clavulifera (Räsänen) Kurok.

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P., Maetang), Chiang Rai (Ban Lang), Loei (Phu Kradung), Phitsanulok (Lan Hin Taek, Phu Hin Rongkla, N.P.). Vainio (1921: 37, as *Parmelia cetrata* f. *soredifera*), Sato (1962: 3), Wolseley & Aguirre-Hudson (1995: 329), Moon et al. (2000a: 105, as *Rimelia clavulifera*).

SPECIMENS. BKF, BM, CMU, TNS, TUR-V.

ASIA. China, India, Indonesia, Malaysia, Papua New Guinea, Sri Lanka, Taiwan.

Roccella DC.; Roccellaceae

Roccella phycopsis Ach., *Lichenogr. Universalis*: 440 (1803).

THAILAND. Chumphon (Koh Tao I.). Paulson (1930: 100).

SPECIMENS. BM.

ASIA. —

Sarcographa Fée; Graphidaceae

Sarcographa labyrinthica Müll. Arg., *Mém. Soc. Phys. Hist. Nat. Genève* **29**(8): 46 (1887).

Graphis labyrinthica (Ach.) Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 131, as *Graphis labyrinthica*).

SPECIMENS. BM, TUR-V.

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ASIA. Indonesia, Malaysia, Sri Lanka.

Sarcographa medusulina (Nyl.) Müll. Arg., *Flora* **70**: 77 (1887).

THAILAND. Chiang Mai (Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Vainio (1909: 131), Wolseley & Aguirre-Hudson (1997a: 334; 1997b: 355), Boonpragob et al. (1998: 218).

SPECIMENS. BM, RAMK.

ASIA. —

Spilonema Bornet; Coccocarpiaceae

Spilonema schmidtii (Vain.) Henssen, *Symb. Bot. Upsal.* **18**: 97 (1963).

Leptogidium mooreii (Hepp) Nyl.

Leptodendriscum schmidtii Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 115; 1921: 34, as *Leptodendriscum schmidtii*), Henssen (1963: 97).

SPECIMENS. TUR-V (lectotype, syntype).

ASIA. —

Sporopodium Mont.; Ectolechiaceae

Sporopodium hossei Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 47 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 47).

SPECIMEN. TUR-V (holotype).

ASIA. —

Sporopodium leucoxanthum (Spreng.) Vain., *Suom. Elain-ja Kasvit. Seuran Van. Julk.* **1**(3): 47 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 47).

SPECIMEN. TUR-V (holotype).

ASIA. —

Sticta (Schreb.) Ach.; Lobariaceae

Sticta boschiana Mont. & Bosch., in Junghuhn, *Pl. Junghuhn.* **4**: 436 (1855).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.). Wolseley (1991: 233).

SPECIMENS. BM.

ASIA. Indonesia, Philippines.

Sticta fuliginosa (Dicks.) Ach., *Methodus*: 280 (1803).

THAILAND. Chiang Mai (Doi Inthanon N.P., Doi Suthep N.P.). Wolseley (1991: 233), Wolseley & Aguirre-Hudson (1997a: 334).

SPECIMENS. BM.

ASIA. China, India, Indonesia, Philippines.

Sticta nylanderiana Zahlbr., *Cat. Lich. Univ.* **3**: 356 (1925).

THAILAND. Chiang Mai (Chiang Dao N.P., Doi Inthanon N.P., Doi Suthep N.P., Doi Saget). Yoshimura (1978: 38), Wolseley (1991: 233), Wolseley & Aguirre-Hudson (1997a: 334).

SPECIMENS. AAU, BM, C.

ASIA. China, India, Taiwan.

Sticta platyphylloides Nyl., in Hue, *Bull. Soc. Bot. France* **34**: 22 (1887).

THAILAND. Chiang Mai (Doi Suthep N.P.). Yoshimura (1978: 38).

SPECIMEN. AAU.

ASIA. China, India.

Sticta weigelii Isert, in Acharius, *Lichenogr. Universalis*: 446 (1810).

THAILAND. Nakhon Nayok (Khao Yai N.P.). Yoshimura (1978: 39).

SPECIMEN. AAU.

ASIA. China (incl. Hong Kong), India, Indonesia.

Sticta wrightii Tuck., *Amer. J. Arts*, ser. 2, **28**: 204 (1859).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 45).

SPECIMENS. TUR-V.

ASIA. China, Taiwan.

Strigula Fr.; Strigulaceae

Strigula maculata (Cooke & Masee) R. Sant., *Symb. Bot. Upsal.* **12**(1): 186 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMENS. CANB.

ASIA. India, Indonesia, Philippines, Sri Lanka, Vietnam.

Strigula melanobapha (Kremp.) R. Sant., *Symb. Bot. Upsal.* **12**(1): 188 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMENS. CANB.

ASIA. China, India, Malaysia, Papua New Guinea, Philippines, Sri Lanka.

Strigula smaragdula Fr., *Linnaea* **5**: 550 (1830).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMENS. CANB.

ASIA. China, India, Indonesia, Malaysia, Nepal, Papua New Guinea, Philippines, Sri Lanka, Taiwan, Vietnam.

Strigula subtilissima (Fée) Müll. Arg., *Flora* **66**: 346 (1863).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMENS. CANB.

ASIA. China, Indonesia, Papua New Guinea, Philippines, Sri Lanka, Taiwan, Vietnam.

Syncesia Taylor; Roccellaceae

Syncesia albiseda (Nyl.) Tehler, *Fl. Neotropica* **78**: 37 (1996).

THAILAND. Chiang Mai (Doi Suthep N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 339).

SPECIMENS. BM.

ASIA. Sri Lanka.

Teloschistes Norman; Teloschistaceae

Teloschistes flavicans (Sw.) Norman, *Nytt Mag. Naturvidensk.* **7**: 229 (1853).

Teloschistes flavicans f. *glaber* Vain.

THAILAND. Trat (Koh Chang I.). Vainio (1909: 111, as *Teloschistes flavicans* f. *glaber*).

SPECIMENS. TUR-V.

ASIA. China, India, Indonesia, Sri Lanka.

Thelotrema Ach.; Thelotremataceae

Thelotrema alboannuliforme Nagarkar, Sethy & Patw., *Kavaka* **12**(2): 57 (1985).

THAILAND. Loei (Na Haeo N.P.), Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218), Homchantara (1999: 64–66).

SPECIMENS. RAMK.

ASIA. India.

Thelotrema albosorellum (Nyl.) Tuck., *Gen. Lich.*: 139 (1872).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218), Homchantara (1999: 66–67).

SPECIMENS. RAMK.

ASIA. India, Malaysia, Sri Lanka.

Thelotrema astroideum (Berk. & Broome) Hale, *Mycotaxon* **11**: 131 (1980).

THAILAND. Chantaburi (Namtok Phliu N.P.), Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218), Homchantara (1999: 69–71).

SPECIMENS. RAMK.

ASIA. India, Malaysia, Sri Lanka.

Thelotrema calathiforme Vain., *Hedwigia* **46**: 174 (1907).

THAILAND. Trat (Koh Chang I.). Vainio (1909: 119).

SPECIMENS. FH, TUR-V (both syntypes).

ASIA. India.

Thelotrema canarense Patw. & C.R. Kulk., *Norweg. J. Bot.* **24**: 128 (1977).

THAILAND. Chiang Mai (Doi Suthep N.P.), Kanchanaburi (Erawan N.P.), Sakon Nakhon (Phu Phan N.P.). Homchantara (1999: 71–73).

SPECIMENS. BM, RAMK.

ASIA. India.

Thelotrema colobicum Nyl., *Bull. Soc. Linn. Normandie*, sér. 2, **7**: 169 (1873).

THAILAND. Chantaburi (Kitchakut N.P.), Chiang Mai (Doi Suthep N.P.), Loei (Na Haeo N.P., Phu Ruea N.P.), Nakhon Ratchasima (Khao Yai N.P.), Phetchabun (Phu Hin Rongkla N.P.), Sukhothai (Ramkhamhaeng N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Boonpragob et al. (1998: 218), Homchantara (1999: 73–76).

SPECIMENS. BM, RAMK.

ASIA. India, Sri Lanka.

Thelotrema dilatatum (Müll. Arg.) Hale, *Mycotaxon* **11**: 13 (1980).

THAILAND. Chantaburi (Namtok Phliu N.P.). Homchantara (1999: 76–78).

SPECIMENS. RAMK.

ASIA. India, Malaysia, Sri Lanka.

Thelotrema expallescens Nyl., *Flora* **59**: 560 (1876).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMENS. RAMK.

ASIA. —

Thelotrema glaucopallens Nyl., *Ann. Sci. Nat. Bot.*, sér. 4, **2**: 327 (1863).

THAILAND. Chantaburi (Khao Soi Dao N.P., Kitchakut N.P.). Homchantara (1999: 78–81).

SPECIMENS. RAMK.

ASIA. India, Malaysia.

Thelotrema imperfectum Hale, *Bull. Brit. Mus. (Nat. Hist.)*, *Bot.* **8**(3): 255 (1981).

THAILAND. Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 81–83).

SPECIMENS. BM.

ASIA. Sri Lanka.

Thelotrema laceratulum Müll. Arg., *Flora* **70**: 399 (1887).

THAILAND. Lampang (Wiang Kosai N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 84–86).

SPECIMENS. BM, RAMK.

ASIA. India.

Thelotrema lacteum Kremp., in Nylander, *Flora* **47**: 269 (1864).

THAILAND. Sakon Nakhon (Phu Pham N.P.). Homchantara (1999: 86–89).

SPECIMENS. RAMK.

ASIA. India, Papua New Guinea, Sri Lanka.

Thelotrema laemense Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Kanchanaburi (Khao Laem N.P.). Homchantara (1999: 134–136, as *Thelotrema* 'unidentified 3').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Thelotrema lepademersum Nagarkar, Sethy & Patw., *Kavaka* **12**(2): 59 (1985).

THAILAND. Chantaburi (Namtok Phliu N.P.), Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 89–91).

SPECIMENS. RAMK.

ASIA. India.

Thelotrema lepieurii (Mont.) Hale, *Mycotaxon* **11**: 131 (1980).

THAILAND. Chantaburi (Namtok Phliu N.P.). Boonpragob et al. (1998: 218), Homchantara (1999: 91–93).

SPECIMENS. RAMK.

ASIA. India, Indonesia, Sri Lanka.

Thelotrema leprocarpoides Hale, *Bull. Brit. Mus. (Nat. Hist.)*, *Bot.* **8**(3): 259 (1981).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMENS. RAMK.

ASIA. India.

Thelotrema leprocarpum (Nyl.) Tuck., *Gen. Lich.*: 139 (1872).

THAILAND. Loei (Na Haeo N.P.), Sukhothai (Ramkhamhaeng N.P.). Homchantara (1999: 94–96).

SPECIMENS. RAMK.

ASIA. India, Indonesia, Sri Lanka.

Thelotrema monosporum Nyl., *Ann. Sci. Nat. Bot.*, sér. 4, **15**: 46 (1860).

THAILAND. Chiang Mai (Doi Suthep N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 96–100).

SPECIMENS. BM.

ASIA. India, Sri Lanka.

Thelotrema mongkolsukii Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Sukhothai (Ramkhamhaeng N.P.). Homchantara (1999: 129–131, as *Thelotrema* 'unidentified 1').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Thelotrema nureliyum Hale, *Bull. Brit. Mus. (Nat. Hist.), Bot.* **8**(3): 259 (1981).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218), Homchantara (1999: 100–102).

SPECIMENS. RAMK.

ASIA. Sri Lanka.

Thelotrema patens Nyl., *Acta. Soc. Sci. Fenn.* **26**: 17 (1900).

THAILAND. Chiang Mai (Doi Suthep), Phetchabaun (Phu Hin Rongkla N.P.). Homchantara (1999: 102–104).

SPECIMENS. BM, RAMK.

ASIA. Malaysia, Sri Lanka.

Thelotrema phliuense Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Chantaburi (Namtok Phliu N.P.). Homchantara (1999: 138–140, as *Thelotrema* 'unidentified 5').

SPECIMENS. BM (holotype).

ASIA. —

Thelotrema phlyctidioides (Müll. Arg.) Hale, *Mycotaxon* **11**: 132 (1980).

THAILAND. Chantaburi (Namtok Phliu N.P.), Chiang Mai (Doi Suthep N.P.), Nakhon Ratchasima (Khao Yai N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 104–117).

SPECIMENS. BM, RAMK.

ASIA. Sri Lanka.

Thelotrema piluliferum Tuck., *Proc. Amer. Acad. Arts* **7**: 227 (1868).

THAILAND. Chiang Mai (Doi Suthep N.P.). Homchantara: 1999: 107–108.

SPECIMENS. BM.

ASIA. Malaysia, Sri Lanka.

Thelotrema platysporum Harm., *Bull. Séances Soc. Sci. Nancy*, sér. 3, **13**: 41 (1912).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 110–112).

SPECIMENS. BM, RAMK.

ASIA. India, Malaysia, Papua New Guinea, Sri Lanka.

Thelotrema poeltii Patw. & C.R. Kulk., *Norweg. J. Bot.* **24**: 130 (1977).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMENS. RAMK.

ASIA. India.

Thelotrema porinoides Mont. & Bosch, in Junghuhn, *Enum. Pl. Insul. Java Sumatra*: 151 (1855).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218), Homchantara (1999: 114–117).

SPECIMENS. RAMK.

ASIA. India, Indonesia, Malaysia, Papua New Guinea, Philippines.

Thelotrema pseudoexanthismocarpum (Patw. & C.R. Kulk.) Hale, *Mycotaxon* **11**: 132 (1980).

THAILAND. Chiang Mai (Doi Suthep N.P.), Satun (Thalae Ban N.P.), Sukhothai (Ramkhamhaeng N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Homchantara (1999: 117–120).

SPECIMENS. RAMK.

ASIA. India.

Thelotrema pycnophragmium Nyl., *Sert. Lich. Trop. Labuan Singapore*: 5 (1891).

THAILAND. Chantaburi (Namtok Phliu N.P.). Homchantara (1999: 120–122).

SPECIMENS. RAMK.

ASIA. India, Malaysia.

Thelotrema rhododiscum Homchantara & Coppins, *Lichenologist* **34**: (in press).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Homchantara (1999: 136–138, as *Thelotrema* 'unidentified 4').

SPECIMENS. E (isotype), RAMK (holotype).

ASIA. —

Thelotrema rugatulum Nyl., *Bull. Soc. Linn. Normandie*, sér. 2, **7**: 168 (1873).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMENS. RAMK.

ASIA. India

Thelotrema subhiatum Patw. & Nagarkar, *Biovigyanam* **6**: 9 (1980).

THAILAND. Chantaburi (Kitchakut N.P.), Phetchabun (Phu Hin Rongkla N.P.), Sakonnakhon (Phu Phan N.P.). Homchantara (1999: 120–122).

SPECIMENS. RAMK.

ASIA. India.

Thelotrema turgidulum (Müll. Arg.) Hale, *Mycotaxon* **11**: 132 (1980).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218), Homchantara (1999: 125–129).

SPECIMENS. RAMK.

ASIA. India.

Thelotrema weberi Hale, *Phytologia*. **27**: 497 (1974).

THAILAND. Chiang Mai (Doi Suthep N.P.). Homchantara (1999: 107–108).

SPECIMENS. BM.

ASIA. Malaysia, Papua New Guinea, Sri Lanka.

Tricharia Fée emend. R. Sant.; Gomphillaceae.

Tricharia aff. *vainioi* R. Sant., *Symb. Bot. Upsal.* **12**(1): 382 (1952).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMEN. RAMK.

ASIA. China, Indonesia, Papua New Guinea, Philippines.

Trypethelium Spreng.; Trypetheliaceae

Trypethelium eluteriae Spreng., *Anleit. Kenntn. Gew.* **3**: 351 (1804).

THAILAND. Chumphon (Koh Tao I.), Nakhon Ratchasima (Khao Yai N.P.). Paulson (1930: 100), Boonpragob et al. (1998: 218).

SPECIMENS. BM, CANB, RAMK.

ASIA. China (incl. Hong Kong), India, Indonesia, Malaysia, Papua New Guinea, Taiwan, Vietnam.

Trypethelium nigroporum Makhija & Patw., *J. Hattori Bot. Lab.* **73**: 202 (1993).

THAILAND. Loei (Naheaw), Sakonnakhon (Phu Pan N.P.). Vongshewarat et al. (1999: 235).

SPECIMENS. RAMK.

ASIA. India.

Trypethelium tropicum (Ach.) Müll. Arg., *Bot. Jahrb. Syst.* **6**: 393 (1885).

THAILAND. Nakhon Ratchasima (Khao Yai N.P.). Boonpragob et al. (1998: 218).

SPECIMENS. CANB, RAMK.

ASIA. China (Hong Kong), India, Indonesia, Malaysia, Papua New Guinea, Singapore, Vietnam.

Trypethelium variolosum (Ach.) Müll. Arg., *Flora* **68**: 255 (1885).

Pseudopyrenula ochroleuca (Eschw.) Vain.

Pseudopyrenula ochroleuca var. *subdissocians* Vain.

Trypethelium ochroleucum var. *subdissocians* (Vain.) Zahlbr.

THAILAND. Chiang Mai (Doi Suthep N.P.), Trat (Koh Chang I.). Vainio (1909: 147; 1921: 55, as *Pseudopyrenula ochracea*), Harris (1998: 145).

SPECIMEN. TUR-V (holotype of *Pseudopyrenula ochroleuca* var. *subdissocians*).

ASIA. India, Indonesia, Malaysia, Papua New Guinea.

P.A. WOLSELEY, B. AGUIRRE-HUDSON AND P.M. MCCARTHY

Tylophoron Nyl. ex Stizenb.; Caliciales

Tylophoron moderatum Nyl., *Bot. Zeitung* **20**: 279 (1862).

THAILAND. Chiang Mai (Doi Suthep N.P.), Uthai Thani (Huay Kha Khaeng Wildlife Sanctuary). Wolseley & Aguirre-Hudson (1997a: 334, 339).

SPECIMENS. BM.

ASIA. China, India, Taiwan.

Usnea Dill. ex Adans.; Usneaceae

Usnea australis Fr., *Syst. Orb. Veg.*: 282 (1825).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.). Vainio (1921: 33), Sato (1962: 4), Santisuk (1988: 99).

SPECIMEN. TUR-V.

ASIA. —

Usnea baileyi (Stirt.) Zahlbr., *Denkschr. Kaiserl. Akad. Wiss., Wien Math.-Naturwiss. Kl.* **83**: 182, 191 (1909).

Eumitria perrubescens Vain.

Usnea implicita (Stirt.) Zahlbr.

Usnea implicita subsp. *perrubescens* Stirt.

THAILAND. Loei (Phu Luang, Chiang Mai (Doi Suthep N.P.). Vainio (1921: 35, as *Eumitria perrubescens*), Motyka (1936: 62, as *Usnea implicita* subsp. *perrubescens*), Rogers & Stevens (1988: 358), Yoshimura (1978: 35).

SPECIMENS. AAU, C, TUR-V (holotype of *Eumitria perrubescens*).

ASIA. China (incl. Hong Kong), Indonesia, Malaysia, Myanmar, Papua New Guinea, Philippines, Taiwan.

Usnea baileyi subsp. *chrysopora* (Stein) Asahina, *J. Jap. Bot.* **42**: 7 (1967).

THAILAND. Chiang Mai (Doi Suthep N.P., Chiang Dao N.P.). Yoshimura (1978: 36).

SPECIMENS. C.

ASIA. Philippines.

Usnea baileyi subsp. *septentrionalis* Asahina, in Hara, *Fl. Eastern Himalaya*: 598 (1966).

THAILAND. Chiang Mai (Doi Suthep N.P.), Loei (Thung Salaeng, Phu Luang N.P.). Yoshimura (1978: 35).

SPECIMENS. AAU, C.

ASIA. India, Nepal, Taiwan.

Usnea dasycera (Nyl.) Motyka, *Usnea*: 552 (1936–38).

Usnea perplexans f. *dasycera* (Nyl.) Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 33, as *Usnea perplexans* f. *dasycera*).

SPECIMENS. AAU, C.

ASIA. —

Usnea endochroa var. *papillata* (Vain.) Zahlbr., *Cat. Lich. Univ.* **6**: 564 (1930).

Eumitria endochroa var. *papillata* Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 34, as *Eumitria endochroa* var. *papillata*).

SPECIMEN. TUR-V.

ASIA. Philippines.

Usnea endorhodina (Vain.) Zahlbr., *Cat. Lich. Univ.* **6**: 564 (1930).

Eumitria endorhodina Vain.

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 34, as *Eumitria endorhodina*).

SPECIMEN. TUR-V.

ASIA. Philippines.

Usnea florida var. *subcomosa* Vain., *Philipp. J. Sci. Sect. C*, **4**: 652 (1909).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 33).

SPECIMEN. TUR-V.

ASIA. China, Philippines.

Usnea himantodes Stirt., *Scott. Naturalist (Perth)* **7**: 75 (1883).

Usnea neoguineensis var. *gracilior* Asahina.

Usnea neoguineensis var. *neoguineensis* Asahina.

THAILAND. Loei (Phu Luang). Asahina (1968: 497, as *Usnea neoguineensis* var. *gracilior*), Yoshimura (1978: 36, as *U. neoguineensis* and *U. neoguineensis* var. *gracilior*), Stevens (1990: 410).

SPECIMENS. AAU, TNS (holotypes of *Usnea neoguineensis* var. *gracilior* and *Usnea neoguineensis* var. *neoguineensis*).

ASIA. China, Indonesia, Papua New Guinea, Philippines, Taiwan.

Usnea hossei Vain., *Suom. Eläin-ja Kasvit. Seuran Van. Julk.* **1**(3): 34 (1921).

THAILAND. Chiang Mai (Doi Suthep N.P., Doi Inthanon N.P.). Vainio (1921: 34), Zahlbruckner (1933: 581), Sato (1938: 4; 1962: 4), Herre (1963: 65), Santisuk (1988: 99).

SPECIMENS. BKF, TNS, TUR-V (syntypes).

ASIA. China, Malaysia, Taiwan.

Usnea leucospilodea Nyl., *J. Linn. Soc. London (Bot.)* **20**: 30 (1883).

THAILAND. Chiang Mai (Doi Suthep N.P.). Asahina, (1969: 37), Yoshimura (1978: 36).

SPECIMEN. AAU, C.

ASIA. India, Papua New Guinea, Laos, Malaysia, Taiwan.

Usnea luridorufa Stirt., *Scott. Naturalist (Perth)* **7**: 104 (1881).

THAILAND. Doi Suthep. Motyka (1937–38: 523), Awasthi (1986: 374).

SPECIMEN. AAU, C.

ASIA. China.

Usnea pectinata Taylor, in Hooker, *J. Bot. (London)* **6**: 191 (1847).

THAILAND. Chiang Mai (Doi Suthep N.P.), Loei (Phu Kradung N.P., Phu Luang N.P.). Awasthi (1986: 362), Yoshimura (1978: 36), Kurokawa & Kashiwadani (1988: 51).

SPECIMENS. Kurokawa, *Lich. Rar. Crit. Exs.* No. 347, C, AAU.

ASIA. China, India, Malaysia.

Usnea perplexans Stirt. *Scott. Naturalist (Perth)* **6**: 103 (1881).

THAILAND. Chiang Mai (Doi Suthep N.P.). Vainio (1921: 33).

SPECIMEN. AAU.

ASIA. India, Philippines.

Usnea rubicunda Stirt., *Scott. Naturalist (Perth)* **6**: 102 (1881).

THAILAND. Chiang Mai (Doi Suthep N.P.), Phu Miang. Yoshimura (1978: 36).

SPECIMENS. AAU.

ASIA. China, India, Indonesia, Taiwan, Vietnam.

Xanthoparmelia (Vain.) Hale; Parmeliaceae

Xanthoparmelia congensis (Stein) Hale, *Phytologia* **28**: 486 (1974).

THAILAND. Chiang Mai (Doi Saget), Loei (Ban Sui, Phu Kradung), Lumpang (Khuntan N.P.), Phitsanulok (Lan Hin Taek, Phu Hin Rongkla, N.P.), Sakonkakhon (Phu Pan N.P.). Pooprang et al. (1999: 125), Moon et al. (2000a: 105).

SPECIMENS. RAMK, TNS.

ASIA. China (incl. Hong Kong).

Xanthoparmelia mougeotina (Nyl.) D.J. Galloway, *New Zealand J. Bot.* **18**: 538 (1981).

THAILAND. Lumpang (Khuntan N.P.). Pooprang et al. (1999: 125).

SPECIMEN. RAMK.

ASIA. Papua New Guinea.

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