

Mason E. HALE, Jr.*: **New *Parmeliae* from Southeast Asia****

メイスン・E・ヘイル*: 東南アジア産ウメノキゴケ属の新種**

(Pl. XIX)

The lichen genus *Parmelia* is a conspicuous group of foliose lichens in the primary forests of Southeast Asia. The most important researcher in this group as represented in Asia is Dr. Yasuhiko Asahina, whose many publications and meticulous studies have laid a firm groundwork for later workers and whose kindness and cooperation have helped me so much. I take pleasure in dedicating the following four new taxa to him.

***Parmelia kingii* Hale, sp. nov.**

Thallus corticola, laxe adnatus, membranaceus, albedo-cinereascens, usque ad 10 cm latus, lobis sublinearibus vel irregulariter lobatis, subimbricatis, 2-5 mm latis, superne nitidus, emaculatus, modice pustulatus, cortice fragile comminenteque, strato superiore 16-20 μ crasso, strato gonidiale 14-18 μ crasso, medulla 100-110 μ alta, strato inferiore 12-15 μ crasso, subtus niger, modice rhizinosus, rhizinis dichotome ramosis, margine sparse rhizinosus, castaneus. Apothecia adnata, rara, 3-4 mm diametro; hymenium 25-30 μ altum; sporae pauce evolutae, 6-7 \times 9-11 μ , episporio 1 μ crasso.

Type: 14 km south of Khao Yai Forest Station, Prov. Nakhon Nayok, Thailand, 2 July 1963, *R. M. King L-255* (US, holotype; TNS, isotype).

Reactions: Cortex K + yellow; medulla K + red, C -, P + orange, at-ranorin, norstictic acid, and traces of salacinic acid (TLC, benzene-dioxane-acetic acid).

This unusual species (Plate XIX, fig. 1) is distinguished by dichotomously branched rhizines, pustules, and presence of norstictic acid. Norstictic acid is quite rare in Asian species of section *Hypotrachyna*. There are no close relatives here. This lichen grows on branches in mature forests, mostly at higher elevations, but one collection (*Schiffner 3369*) was made on rocks. It is apparently restricted to the Indonesian-Thailand area.

* Smithsonian Institution, Washington, D.C., U.S.A.

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Additional specimens examined. Java: Mt. Bahulanke, *Kostermans W827* (L); Mt. Dorowati-Kukusan, *Groenhart 5972, 5975* (L); Mt. Megamendung, *Schiffner 3369* (L).

Parmelia labrosa (Zahlbr.) Hale, stat. et comb. nov.

Parmelia tenuirima var. *labrosa* Zahlbr. Denkschr. Wiss. Akad. Wien 104: 108, 1941. Type: Dunedin, Saddle Hill, New Zealand, *J. S. Thomson V34* (W, lectotype).

This species is clearly characterized by simple rhizines, lack of cilia, black lower surface, laminal soredia, and presence of lecanoric acid and atranorin (Plate XIX, fig. 2). It is a member of subgenus *Parmelia* sect. *Cyclocheila* (Hale & Kurokawa, 1964) and has nothing to do with *P. tenuirima*, a pseudocyphelette species in sect. *Parmelia*. It has no close relatives in sect. *Cyclocheila* but appears to be restricted to Australia and New Zealand, where it seems to be fairly common on open tree trunks. The syntype specimen cited by Zahlbruckner (*Thomson ZA683*) is identical with *Parmelia reticulata*.

Additional specimens examined. New Zealand: Otago, *Martin 742b, Murray 1277* (BM); Dunedin, *James 564* (BM); Auckland Islands, *James 2111* (BM, US). Australia: Coolamon Plain, New South Wales *McVean 6490* (BM, US).

Parmelia pigmentacea Hale, sp. nov.

Thallus arcte adpressus, tenuis, fragilis, usque ad 2 cm latus, cinereo-albescens, lobis linearibus, 0.5-1.0 mm latis, margine dense ciliatis, ciliis bulbatis, terminis ramosis, superne nitidus, planus, modice isidiatus, isidiis simplicibus, 0.05 mm crassis, usque ad 0.1 mm altis, subtus niger, dense rhizinosus, rhizinis dichotome ramosis. Apothecia ignota.

Type: about 15 km east of Pagbilao, Sierra Madre, Luzon Prov., Philippines, *M. E. Hale 26895* (US, holotype).

Reactions: Cortex K + yellow; medulla K -, C -, P -, rhizines containing a red unknown substance.

This species is very close to *P. subdissecta* Nyl. in having branched bulbate cilia and isidia (Plate XIX, fig. 3). Both are rather common in the lowland dipterocarp forests. *Parmelia pigmentacea* is unusual in being C - (*P. subdissecta* contains gyrophoric acid, C + red) but in having a deep red unidentified pigment in the rhizines and probably lower cortex. It is also smaller and more fragile than *P. subdissecta*.

Additional specimens examined. Philippines: Same locality as the type, *Hale* 26877 (US); 5 mi south of Lucban, Quezon Prov., *Hale* 26966 (US); Mt. Mandalagan, Negros Occ. Prov., *Hale* 26436 (US). Malaya: Ulu Gombak Forest Reserve, Selangor, *Hale* 30057 (US); 40 mi SSE of Kuala Lumpur, Selangor, *Hale* 30285 (US).

Parmelia sectilis Hale, sp. nov.

Thallus adpressus, fragilis, usque ad 10 cm latus, albido-cinereascens, lobis lineari-laciniatis, 1-3 mm latis, subimbricatis, margine anguste nigrescentibus, dense lobulatis, lobulis suberectis, simplicibus vel ramescentibus, superne nitidus, planus, sparse pseudocypbellatus, poris irregulariter angulatis, plurimum submarginatis, subtus niger, dense rhizinosus, rhizinis simplicibus vel sparse furcatis. Apothecia adnata vel breviter subpedicellata, 1-3 mm diametro, amphithecio valde rugoso, isidiato-lobulato; hymenium 70-90 μ altum; sporis 12-16 \times 25-30 μ , episporio 2-3 μ crasso, pycnidii non visis.

Type: Summit of Mt. Data, Mountain Prov., Philippines, *M.E. Hale* 26536 (US, holotype; TNS, isotype).

Reactions: Cortex K + yellow; medulla K + red, C -, P + orange, atranorin and salacinic acid (TLC, benzene-dioxane-acetic acid).

Parmelia sectilis has a strong resemblance to the Japanese *P. pseudoshinanoana* Asah. in respect to numerous lobules. Both also contain salacinic acid and belong to sect. *Parmelia*. However, *P. sectilis* has simple or furcate rhizines, indistinct pseudocypbellae, and large thick-walled spores (Plate XIX, fig. 4). *Parmelia pseudoshinanoana* has squarrosely branched rhizines, distinct linear marginal pseudocypbellae, and aborted or apparently small thin-walled spores. *Parmelia sectilis* is rather common on the trunk and upper branches of both oak and pine trees in Mountain Province at about 2000 m elevation. I did not collect it in the oak montane forests of the southern Philippines, Borneo, or Malaya, suggesting that it is an endemic of the unusual pine forests of Luzon.

Additional specimens examined. Philippines: Mountain Prov.: 10 km north of Mt. Data, *Hale* 26104 (US); near barrio of Mt. Data, *Hale* 26397, 26194, 26219 (US).

Literature Cited

Hale, M. E. and S. Kurokawa: Studies on *Parmelia* subgenus *Parmelia*. Contr. U. S. Nat. Herb. 36: 121-191 (1964).

Explanation of Plate

Pl. XIX. Fig. 1. Holotype of *Parmelia kingii*. Fig. 2. Lectotype of *P. tenuirima* var. *labrosa*. Fig. 3. Holotype of *P. pigmentacea*. Fig. 4. Holotype of *P. sectilis*. All $\times 2$.

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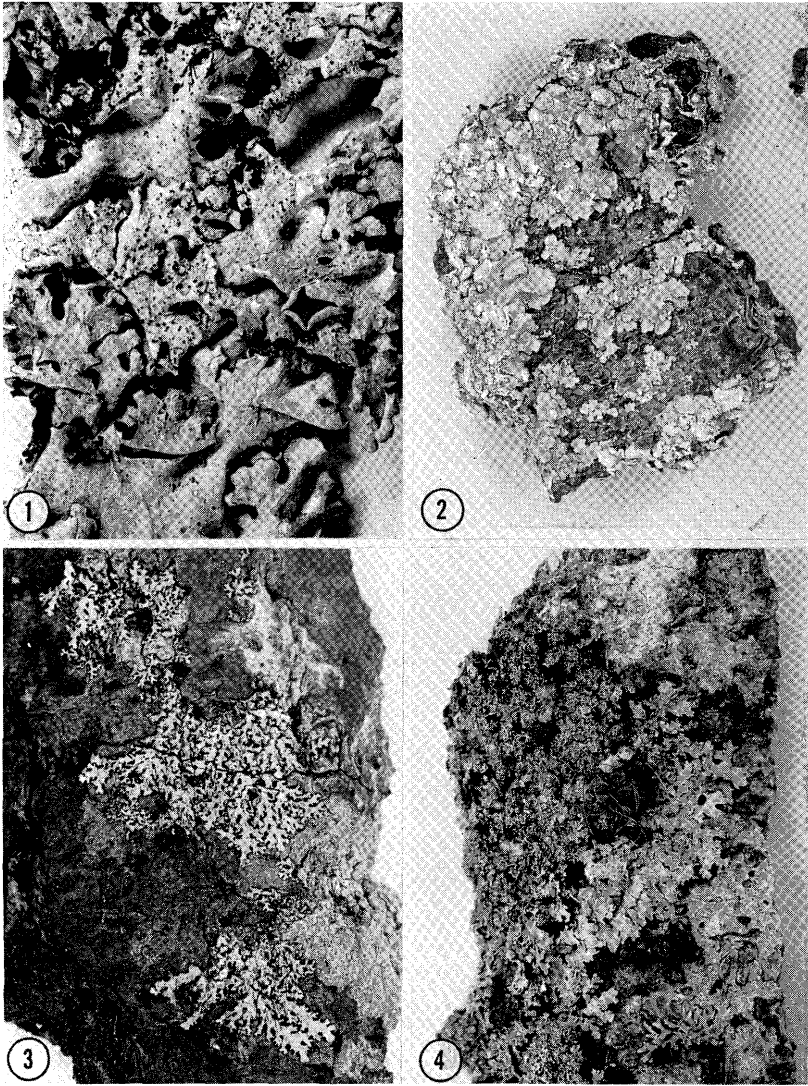
東南アジア産ウメノキゴケの 3 新種を記載し 1 新組合せをつくった。

***Parmelia kingii* Hale** 二分分枝する仮根とバスタールをもち、ノルステクチン酸を含むことで特徴づけられる。タイプ標本はタイで採集されていて、明らかにタイ—インドネシア地域特産と考えられる。

***Parmelia labrosa* (Zahlbr.) Hale** 本種は Zahlbruckner によって *P. tenuirima* var. *labrosa* として記載されたものであるが、*P. tenuirima* とは全く関係なく、ウメノキゴケ亜属 *Cyclocheila* 節に属する。裏面が黒色で、表面に粉芽を生じ、レカノール酸を含むことが特徴である。オーストラリアおよびニュージーランド特産である。

***Parmelia pigmentacea* Hale** 基部膨大したシリアと裂芽をもつので *P. subdissecta* に近いが、髄は C—でジロフォル酸を含まず、仮根には赤色色素を含んでいるので区別される。

***Parmelia sectilis* Hale** 本種は無数の小裂片をもっていて日本産の *S. pseudoshinanoana* に非常によく似ている。しかし、*P. pseudoshinanoana* はスカロス分枝する仮根をもち、葉縁に明瞭な白色線状擬歪点があり、未成熟かあるいは小型の薄膜胞子をつくるのに対して、*P. sectilis* は単一または樹状分枝する仮根をもち、擬歪点は不明瞭、大型の厚膜胞子をつくる。本種はルソン島だけにしか知られていない。



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