

Short Communication

Materials for the fungus flora of Japan (51)*

Hideyuki Nagao

Faculty of Horticulture, Chiba University, 648, Matsudo, Matsudo-city, 271 Japan

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A discomycete in Sarcoscyphaceae is described and illustrated as new to Japan: *Cookeina sulcipes* (Berk.) Kuntze, found on decayed wood along the Aira River, Iriomote Island, Okinawa Pref., Japan.

Key Words—*Cookeina sulcipes*; discomycetes; Iriomote Island; Japan; Sarcoscyphaceae.

110. *Cookeina sulcipes* (Berk.) Kuntze, Rev. Gen. Pl. 2: 849. 1891. Fig. 1

Basionym: *Peziza sulcipes* Berk., Lond. J. Bot. 1: 141. 1842.

Synonyms: *Trichoscypha sulcipes* (Berk.) Sacc., Syll. Fung. 8: 161. 1889.

Pilocratera sulcipes (Berk.) Sacc. et Trav. in Sacc., Syll. Fung. 20: 413. 1911.

For other synonyms see Boedijn (1933) and Rifai (1968).

Apothecia (Fig. 1G) stipitate, scattered on decayed wood. Receptacle 20–25 mm in diam, cupulate, orange when fresh, pale pink to salmon-colored when dried, surface scurfy or pruinose, with concentric ridges around the margin, which is fringed with short white hairs up to 500 μm long. Hymenium orange when fresh, salmon-colored when dried. Stipe cylindrical or compressed, 8–25 \times 3–4.5 mm, concolorous with the receptacle, scurfy or pruinose. Ectal excipulum composed of globose or angular cells, 20–25 \times 12.5–30 μm , arranged in 2 to 3 layers, with scattered aggregations of thick-walled globose cells (Fig. 1E3), which give the scurfy or pruinose appearance to the surface of the receptacle. Hairs around the margin of the receptacle (Figs. 1E1, E2) arising from ectal excipulum, narrowly conical, compound and composed of parallel chains of angular elongated cells, 10–25 \times 7.5–15 μm , narrower toward the tip (15–27.5 \times ca. 5 μm). Medullary excipulum a textura porrecta, composed of parallel, thin-walled hyphae (Fig. 1F). Asci (Figs. 1A1–A3) cylindrical, 295–320 \times 15–20 μm (mean 307 \times 17.8 μm , $n=20$), operculum subapical, 8-spored, at the base slightly narrowed and abruptly passing into a short hypha-like base of the “aporhynque” type (Berthet, 1964, according to Rifai, 1968). Ascospores (Fig. 1D) 25–30 \times 10–15 μm (mean 26.4 \times 13.2 μm , $n=20$), hyaline, ellipsoidal, usually containing two large oil drops, longitudinal striate at maturity. Paraphyses

(Fig. 1B) very fine, frequently branching and anastomosing, apically terminated by enlarged clavate branches, the end cells 12.5–25 \times 3.8–6.3 μm , and some of those prominently projecting as hymenial hairs beyond the hymenium (Fig. 1C).

On dead wood, along the Aira River, Iriomote Island, Okinawa Pref., 5 September 1992, collected by M. Izawa (Nagao-93076). The specimen is deposited in the Herbarium of Ibaraki Natural Museum as INM-2-003785. Note: The genus *Cookeina* is classified in the Sarcoscyphaceae of the Sarcoscyphineae, Pezizales (Rifai, 1968). Fungal flora of Sarcoscyphineae of Japan have been intensively studied (Otani, 1980). Among Sarcoscyphaceae, *Boedijnopeziza*, *Cookeina*, *Phillipsia*, and *Sarcoscypha* have been collected in subtropical parts of Japan: *B. institia* (Berk. et Curt.) S. Ito et Imai from the Bonin Islands (Berkeley and Curtis, 1860; Ito and Imai, 1937) and the Yaeyama Islands (Otani, 1980); *C. tricholoma* (Mont.) Kuntze from the Yaeyama Islands (Otani, 1980); *P. domingensis* (Berk.) Berk. from the Bonin Islands (Berkeley and Curtis, 1860; Ito and Imai, 1937) and the Yaku Island (Otani and Tubaki, 1976); and *S. occidentalis* (Schw.) Seav. from the Bonin Islands (Sato et al., 1991). This is the first documented report of *C. sulcipes* from Japan.

Cookeina sulcipes appears to be common in tropical areas world-wide, growing on dead wood (Boedijn, 1933; Le Gal, 1953; Otani, 1971; Quimio, 1996; Rifai, 1968; Tan, 1990; Zoberi, 1972). Its detailed description and illustrations have been given by Boedijn (1933), Le Gal (1953), Otani (1971), and Rifai (1968).

Literature cited

- Berkeley, M. J. and Curtis, M. A. 1860. Characters of new fungi, collected in the North Pacific Exploring Expedition by Charles Wright. Proc. Am. Acad. Arts Sci. 4: 111–130.
- Boedijn, K. B. 1933. The genera *Phillipsia* and *Cookeina* in Netherlands India. Bull. Jard. Bot. Buitenzorg, Ser. III, 3: 57–76.

* (50): Hongo, T., Nippon Kingakukai Kaiho (Trans. Mycol. Soc. Japan) 38: 99–100, 1997.

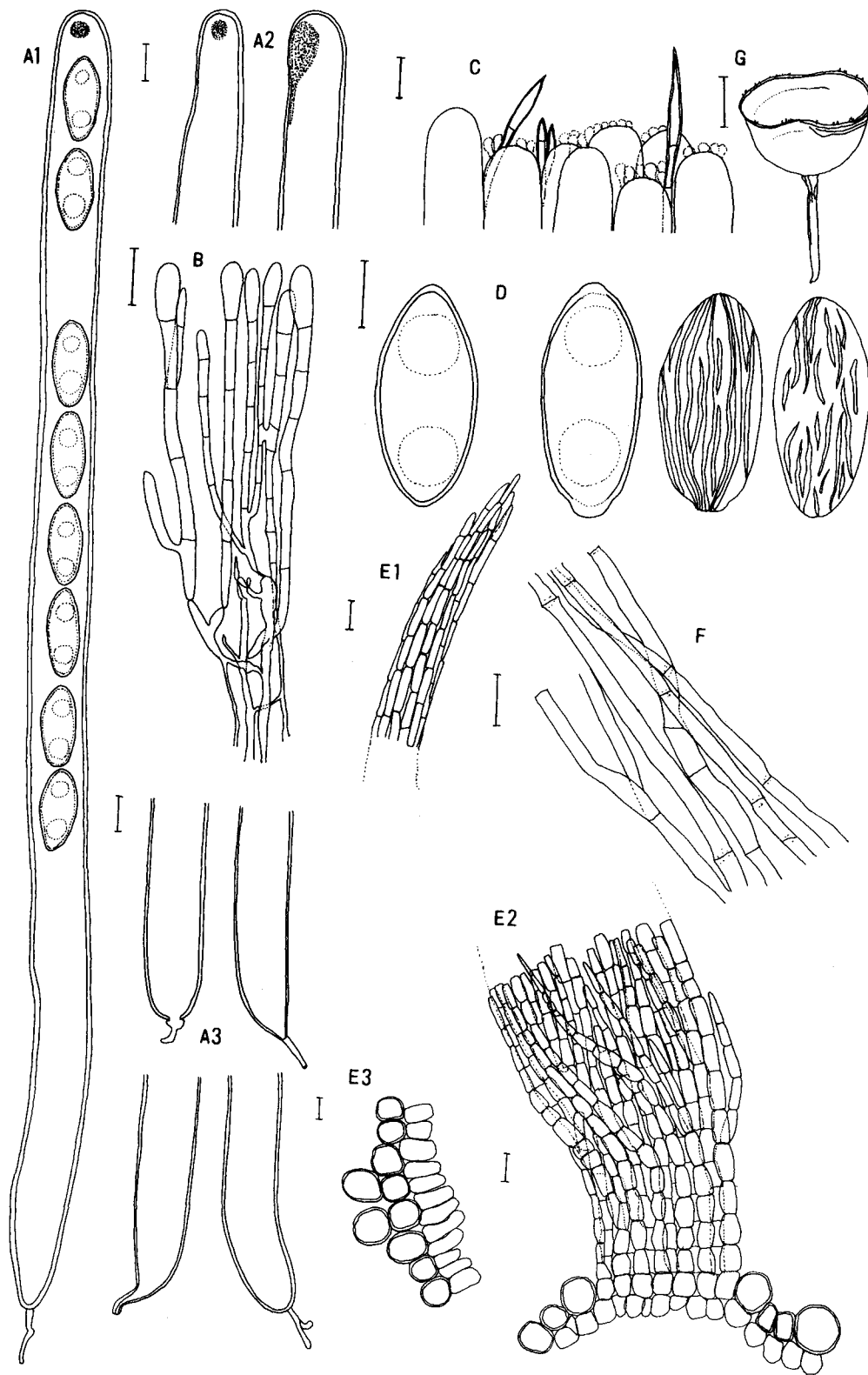


Fig. 1. *Cookeina sulcipes* INM-2-003785.

A1. Ascus and ascospores. A2. Apices of asci. A3. Bases of asci. B. Paraphyses. C. Part of asci, paraphyses and enlarged branches of paraphyses. D. Ascospores. E1. Apex of hair on margin of the receptacle. E2. Section of base of hair including a part of ectal excipulum. E3. Section of a part of ectal excipulum. F. Hyphae of medullary excipulum. G. Apothecium. Scales indicate 10 μ m (A-F) and 10 mm (G).

- Ito, S. and Imai, S. 1937. Fungi of the Bonin Islands, II. Trans. Sapporo Nat. Hist. Soc. **15**: 52–59.
- Le Gal, M. 1953. Les Discomycètes de Madagascar, Paris. pp. 247–259.
- Otani, Y. 1971. Enumeration of the Sarcoscyphaceae and *Scutellinia* (Humariaceae). Bull. Natn. Sci. Mus., Tokyo **14**: 401–422 + pl. 3.
- Otani, Y. 1980. Sarcoscyphineae of Japan. Trans. Mycol. Soc. Japan **21**: 149–179. (In Japanese.)
- Otani, Y. and Tubaki, K. 1976. Notes on the cup fungi and imperfect fungi in Yakushima. Mem. Natn. Sci. Mus., Tokyo **9**: 77–84. (In Japanese.)
- Quimio, T. H. 1996. Fungi, p. 16. LEAD Printing Press, Laguna.
- Rifai, M. A. 1968. The Australasian Pezizales in the herbarium of the Royal Botanic Gardens Kew. Verh. K. ned. Akad. Wet., II **57**(3): 1–295.
- Sato, T., Okada, G. and Nagao, H. 1991. Microfungi in the Bonin Islands. In: Report of the second general survey on natural environment of the Ogasawara (Bonin) Islands, 1990–1991, Tokyo Metrop. Univ., pp. 56–75. (In Japanese.)
- Tan, T. K. 1990. A guide to tropical fungi, pp. 48–49. Singapore Science Centre, Singapore.
- Zoberi, M. H. 1972. Tropical macrofungi, pp. 29–30. Macmillan press, London.