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FULL PAPER

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Pleosporales in Japan (2): the genus *Lophiotrema*

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Abstract Five species of the genus *Lophiotrema* are reported in this article. Of these, *Lophiotrema vitigenum* is described and illustrated as a new species. Three species, *L. nucula*, *L. neohysterioides*, and *L. vagabundum*, are newly added to the Japanese mycoflora. *Lophiosphaera orientalis*, *Nodulosphaeria araucariae*, and *N. rosae*, which had been recorded in Japan, are treated as synonyms of *Lophiotrema fuckelii*. A key to the species of *Lophiotrema* in Japan is given.

Key words *Lophiosphaera* · *Lophiotrema* · *Nodulosphaeria* · Pleosporales · Taxonomy

Introduction

This article, the second in a series describing species of the Pleosporales in Japan, reports five species of the genus *Lophiotrema* Sacc. *Lophiotrema* is a small group and comprises about five species (Kirk et al. 2001). To date, no species of the genus have been recorded in Japan.

Materials and methods

Growth rate and colony characteristics were recorded from cultures grown on potato dextrose agar (PDA; Eiken Tokyo, Japan) at 20°C in the dark. Color names and codes followed Kornerup and Wanscher (1978). Sexual reproduction was attempted on rice straw agar (RSA).

Some herbarium specimens were borrowed from the herbarium of the Faculty of Agriculture, Yamaguchi University (YAM). All other specimens and isolates were deposited in the Herbarium of Hirosaki University, Fungi (HHUF).

Abbreviations for collectors' names are KT for K. Tanaka and YH for Y. Harada.

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Taxonomy

Lophiotrema Sacc. emend. Holm & Holm, Symb. Bot. Ups. 28(2):25, 1988.

Lectotype species: *Lophiotrema nucula* (Fr.: Fr.) Sacc., Michelia 1: 338, 1878.

Anamorph: *Pleurophomopsis* Petr.-like (Leuchtmann 1985).

The genus *Lophotrema* was erected by Saccardo in 1878. Traditionally, lophiostomataceous fungi that have "hyalophragmiae" ascospores have been placed in this genus (Saccardo 1883), but Chesters and Bell (1970) treated this genus as a synonym of *Lophiostoma* Ces. & De Not. because they considered both ascospore color and number of transverse septa could not be used for generic distinctions.

Later, Holm and Holm (1988) distinguished it from *Lophiostoma* on the basis of differences in the type of peridium and asci; the peridium in *Lophiotrema* is nearly equal in thickness (~25 μm), whereas in *Lophiostoma* it is broader laterally at the base (~50 μm). The asci in *Lophiotrema* are cylindrical or oblong, unlike clavate or oblong in *Lophiostoma*. This definition has been accepted by Barr (1992), Yuan and Zhao (1994), and Kirk et al. (2001), and we also followed it here.

Key to the species of *Lophiotrema* in Japan

1. Ascospores without appendages 2
1. Ascospores with appendages 4
2. Ascospores elliptic-fusiform with rounded ends, 19–24.5 × 6–9.5 μm, length/width (L/W) mostly 2.9 *L. nucula*
2. Ascospores narrowly fusiform, L/W over 4.0 3

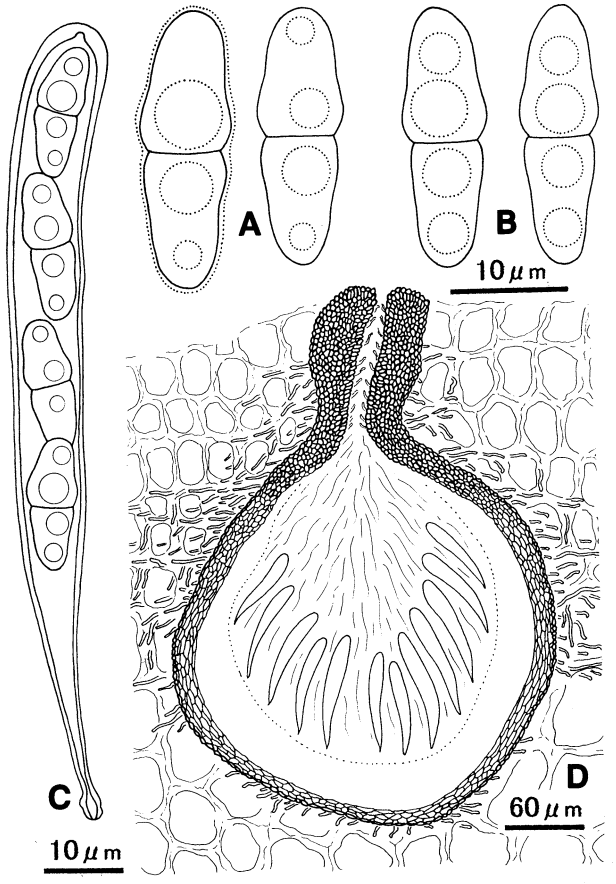

Fig. 1. *Lophiotrema nucula*. **A, B** Ascospores; **C** Ascus; **D** Ascoma in sagittal section. **A, D** HHUF 27321; **B, C** culture 4126

3. Ascospores 3-septate, (14–)17–25(–26.5) × 3–5 μm, without sheath *L. neohysterioides*
3. Ascospores 1-septate, 20–26(–29) × 4–5.5 μm, with a sheath *L. vagabundum*
4. Ascospores 13–18(–20.5) × 4–5.5 μm, fusiform, with globose to conical appendages 1.5–4 μm diameter *L. fuckelii*
4. Ascospores (30.5–)32–41.5(–43.5) × 9.5–12 μm, broadly fusiform, with terminal appendages 3–12 μm long *L. vitigenum*

1. ***Lophiotrema nucula*** (Fr.: Fr.) Sacc., Michelia 1: 338, 1878. Figs. 1, 14, 15, 25

≡*Sphaeria nucula* Fr.: Fr., Syst. Mycol. 2: 466, 1823.

≡*Lophiostoma nucula* (Fr.: Fr.) Ces. & De Not., Commun. Soc. Critt. Ital. 1:220, 1863.

For other synonyms, see Holm and Holm (1988) and Barr (1992).

Ascomata 300–360 μm high, 300–435 μm diameter, globose to subglobose. Beak 130–200 μm long. Ascomal wall 10–20 μm thick. Pseudoparaphyses numerous, 1–2 μm thick. Asci (70–)80–110(–120) × (8–)9–11.5 μm (mean = 98.4 × 9.9 μm, *n* = 25), cylindrical to clavate, with a short stalk 15–33 μm long, containing 4(–8) uniseriate ascospores. Ascospores 19–24.5 × 6–9.5 μm (mean = 22.0 × 7.7 μm, *n* = 50), L/W 2.7–3.1 (mean = 2.9, *n* = 50), elliptic-fusiform with rounded ends, with a septum mostly median (0.50), hyaline, one or two guttules in each cell, smooth, with a thin inconspicuous sheath 0.5–1 μm wide. Senescent ascospores 3-septate, brown, echinulate. Ascospores become 3-septate and brown at germination. Germ tubes mainly from both ends of spore.

Cultural characteristics: Colonies on PDA 1.4 cm in diameter after 4 weeks, Grayish-Brown (6F3); reverse similar; no pigment is produced. On RSA, numerous ascomata were formed on the surface of rice straws within 10 weeks. Ascospores are similar in shape and size to those found in nature, 19–26 × 6–8 μm (mean = 22.2 × 7.3 μm, *n* = 50). No anamorph was formed within 3 months.

Material examined: On twigs of *Liriodendron tulipifera* L.: Campus of Iwate University, Ueda, Morioka, Iwate, 141°08′ E, 39°42′ N, Jan. 11, 2002, YH. 843 (HHUF 27321, culture 4126).

Notes: *Lophiotrema nucula* is the lectotype species of the genus (Holm and Holm 1988). It occurs mainly on woody plants, e.g., *Salix*, *Populus*, *Acer*, *Quercus*, and *Ulmus* (Chesters and Bell 1970).

Although our specimen agrees in the main with the description of *L. nucula*, it differs from the latter in some points. For example, Leuchtmann (1985) noted that this species produced anamorphs in culture, whereas single ascospore isolates from our specimen formed only ascomata in culture. The asci have been described as 8-spored by previous authors (Chesters and Bell 1970; Holm and Holm 1988), but mainly 4-spored asci were seen in our collection, as well as in culture conditions.

2. ***Lophiotrema vagabundum*** (Sacc.) Sacc., Michelia 1: 338, 1878. Figs. 2, 11–13

≡*Lophiostoma vagabundum* Sacc., Hedwigia 14: 70, 1875.

For other synonyms, see Holm and Holm (1988).

Ascomata (250–)300–350 μm high, (150–)200–350 μm diameter, globose. Beak 100–130 μm long. Ascomal wall uniformly (8–)15–20 μm thick. Pseudoparaphyses cellular, numerous, septate, branched. Asci 91–123(–130) × 8–10(–11)μm (mean = 106.2 × 9.2 μm, *n* = 43), cylindrical, apex rounded, with a short stipe 5–15 μm long. Ascospores 20–26(–29) × 4–5.5 μm (mean = 23.3 × 4.6 μm, *n* = 80), L/W 4.3–5.9 (mean = 5.1, *n* = 80), fusiform, with the primary septum median to somewhat supramedian (0.47–0.53; mean = 0.49, *n* = 80), hyaline, with or without guttules, smooth, with a sheath 2.5–5 μm wide; sometimes the sheath disappers in water and becomes threadlike (8–10 μm long) at both ends of ascospore. Senescent spores 3-septate, pale brown.

Cultural characteristics: Colonies on PDA 3.7 cm in diameter after 4 weeks, Blond (4C4) in the center, with white margin; reverse similar; no pigment is produced. On RSA, within 6 weeks, only ascomata were found on the surface of rice straws. Asci 105–135 × 8.5–10(–11)μm (mean = 121.1 × 9.4 μm, *n* = 20). Ascospores 22.5–26 × 5–6 μm (mean = 24.4 × 5.6 μm, *n* = 50).

Materials examined: On stems of an unknown herbaceous plant: Sanpinai, Hirosaki, Aomori, 140°30.128′ E,

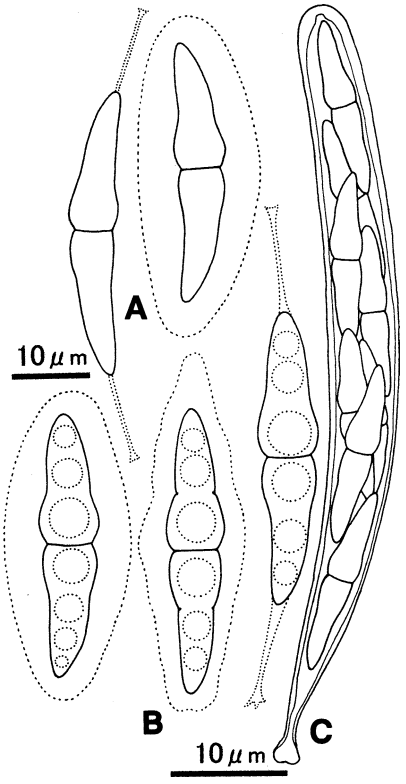

Fig. 2. *Lophiotrema vagabundum*. **A, B** Ascospores; **C** Ascus. **A, C** HHUF 27322; **B** culture 4128

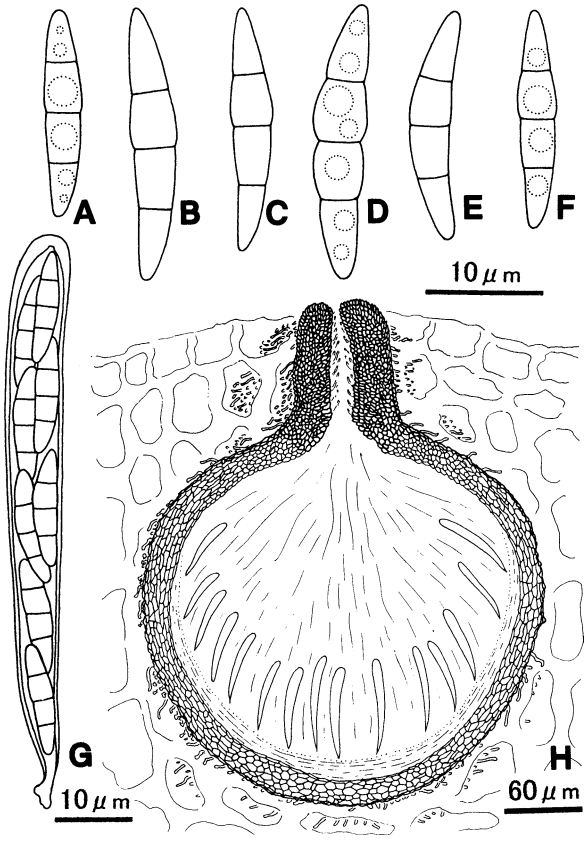

Fig. 3. *Lophiotrema neohysterioides*. **A–F** Ascospores; **G** Ascus; **H** Ascoma in sagittal section. **A, G, H** HHUF 27331; **B** HHUF 27329; **C** HHUF 27330; **D** culture 4133; **E** HHUF 27328; **F** HHUF 27368

40°34.507′ N, Aug. 5, 2001, KT. 636–2 (HHUF 27322). On twigs of an unknown woody plant: same location, Aug. 12, 2001, KT. 664 (HHUF 27323, culture 4128).

Notes: *Lophiotrema vagabundum* is widespread and found on numerous herbaceous dicotyledons and rarely on grasses (Holm and Holm 1988). The peridial wall of this fungus is uniform in thickness (~15–20 μm thick), which is characteristic for the genus *Lophiotrema*. The entire sheath of the ascospore, as illustrated by Holm and Holm (1988, figs. 28, 111), was observed also in our collections, in addition to threadlike appendages in both ends of the ascospore.

This species produced only ascomata in culture, as reported for this species by Leuchtmann (1985).

3. ***Lophiotrema neohysterioides*** M.E. Barr, Mycotaxon 45: 208, 1992. Figs. 3, 9, 10

≡*Sphaeria hysterioides* Schwein., Trans. Am. Philos. Soc. 4: 216, 1832.

≡*Lophiostoma hysterioides* (Schwein.) Sacc., Syll. Fung. 2: 709, 1883.

=*Lophiostoma hysterioides* Ellis & Langl., J. Mycol. 4: 76, 1888.

≡*Lophiotrema hysterioides* (Ellis & Langl.) Berl., Icon. Pyrenomyc. 1: 4, 1890.

Ascomata (280–)310–460 μm high, (230–)280–330 μm diameter, globose. Beak 60–120 μm long. Ascomal wall 15–25 μm thick at sides. Pseudoparaphyses 1.5–2.5 μm thick. Asci (60–)70–96(–110) × (6–)7–10 μm (mean = 80.7 × 8.0 μm, n = 80), cylindrical, with a short stalk 5–13 μm long, containing (4–)8 overlapping linearly biseriate ascospores. Ascospores (14–)17–25(–26.5) × 3–5 μm (mean = 20.9 × 3.8 μm, n = 245), L/W (4.7–)5.1–5.9 (mean = 5.5, n = 245), fusiform, 3-septate, with the primary septum median (0.48–0.53; mean = 0.50, n = 130), the second cell from the apex slightly enlarged downward and shortest although longer than width, hyaline, with or without guttules, smooth, no sheath or appendages detected. Ascospore germinating from both ends.

Cultural characteristics: Colonies on PDA 2.6 cm in diameter after 4 weeks, Tobacco-Brown (5F6), with somewhat irregular margin; reverse similar; no pigment is produced. On RSA, within 3 weeks, ascomata were formed on the surface of rice straws. Ascospores 19–28 × 4–5 μm (mean = 23.6 × 4.7 μm, n = 43).

Materials examined: On twigs of *Robinia pseudoacacia* L.: Oowasawa River, riverbank, Kadoke, Hirosaki, Aomori, 140°30.532′ E, 40°34.276′ N, Aug. 25, 2001, KT. 713 (HHUF 27328, culture 4132). On twigs of *Phyllostachys bambusoides* Siebold & Zucc.: Sanpinai, Hirosaki, Aomori, July 24, 2001, KT. 588 (HHUF 27368). On twigs of an unknown woody plant: Hirakawa, riverbank, Hiraka, Aomori, 140°32.030′ E, 40°34.005′ N, Aug. 5, 2001, KT. 638-3 (HHUF 27329); Toyohira River, riverbank,

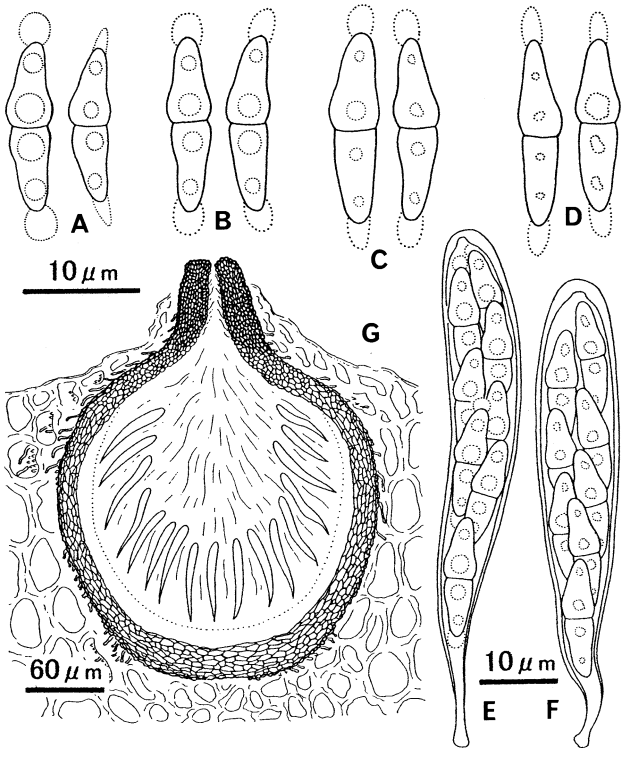

Fig. 4. *Lophiotrema fuckelii*. **A–D** Ascospores; **E, F** Asci; **G** Ascoma in sagittal section. **A** HHUF 27326; **B, E** YAM 21829, holotype of *Nodulosphaeria araucariae*; **C, F** YAM 21936, paratype of *Nodulosphaeria rosae*; **D** YAM 21790, holotype of *Lophiosphaera orientalis*; **G** HHUF 27327

Sapporo, Hokkaido, 141°21.489′ E, 43°02.229′ N, Sept. 2, 2001, KT. 756 (HHUF 27330, culture 4133). On stems of an unknown herbaceous plant: Sanpinai, Hirosaki, Aomori, 140°30.128′ E, 40°34.507′ N, Aug. 5, 2001, KT. 686-2 (HHUF 27331); Aug. 12, 2001, KT. 667-4 (HHUF 27332).

Notes: We identified this fungus as *L. neohysterioides* because it has hyaline, narrowly fusiform, three equidistant septate ascospores, although the ascospores are slightly larger than those given by Chesters and Bell (1970; 14–20 × 3 μm) or Barr (1992; 14–17 × 3–4 μm). The ascospores of our specimens are somewhat similar to those of *L. myriocarpum* (Fuckel) Sacc. but in the latter they are larger [(24–)28–36 × 4–6 μm] and 3–5-septate (Holm and Holm 1988).

4. ***Lophiotrema fuckelii*** Sacc., Michelia 1: 338, 1878. Figs. 4, 6–8, 21–23

=*Lophiosphaera orientalis* I. Hino & Katum., Bull. Fac. Agric. Yamaguchi Univ. 15: 520, 1964.

=*Nodulosphaeria araucariae* I. Hino & Katum., Bull. Fac. Agric. Yamaguchi Univ. 17: 825, 1966.

=*Nodulosphaeria rosae* I. Hino & Katum., J. Jpn. Bot. 43: 209, 1968.

For other synonyms, see Holm and Holm (1988) and Barr (1992).

Ascomata (180–)310–340 μm high, (140–)215–260 μm diameter, globose. Beak 60–80 μm long. Ascomal wall 10–25 μm thick at side and base. Pseudoparaphyses numerous, septate, branched. Asci (53–)60–80(–84) × 8–12 μm (mean = 71.5 × 9.9 μm, *n* = 57), clavate, with a short stalk 10–24 μm long. Ascospores 13–18(–20.5) × 4–5.5 μm (mean = 15.8 × 4.5 μm, *n* = 117), L/W (2.9–)3.2–4.2(–4.4) (mean = 3.5, *n* = 117), fusiform, with a septum mostly median (0.50), hyaline, one or two guttules in each cell, smooth, with conspicuous globose to conical appendages (1.5–4 μm diameter) at both ends. Senescent spores 3-septate, pale brown. Germ tubes from both ends of ascospores.

Cultural characteristics: Colonies on PDA 4.4 cm in diameter after 4 weeks, Tobacco-Brown (5F6), somewhat arachnoid; reverse similar; no pigments formed. On RSA, ascomata were found within 6 weeks. Ascospores were similar to those found in nature, measuring (13.5–)15–18 × 4–5 μm (mean = 15.9 × 4.7 μm, *n* = 30).

Materials examined: On twigs of *Acer palmatum* Thunb. ex Murray: Hiragishi, Sapporo, Hokkaido, 141°22.124′ E, 43°01.470′ N, June 10, 2000, KT. 275-2 (HHUF 27324). On stems of an unknown plant: Sanpinai, Hirosaki, Aomori, 140°30.128′ E, 40°34.507′ N, Aug. 5, 2001, KT. 634 (HHUF 27325, culture 4130); KT. 666-3 (HHUF 27326); Aug. 12, 2001, KT. 663 (HHUF 27327). On leaves of *Cunninghamia lanceolata* (Lamb.) Hook.: Kuroki, Fukuoka, Oct. 12, 1959, collected by I. Hino and K. Katumoto (YAM 21790, holotype of *Lophiosphaera orientalis*). On leaves of *Araucaria angustifolia* (Bertol.) Kuntze (as *Araucaria brasiliana*): Kuroki, Fukuoka, Oct. 12, 1959, collected by I. Hino and Katumoto (YAM 21829, holotype of *Nodulosphaeria araucariae*). On twigs of *Rosa centifolia* L.: Chyoufu, Shimonoseki, Yamaguchi, Nov. 3, 1964, collected by K. Katumoto (YAM 21941, holotype of *Nodulosphaeria rosae*). On calyx of *Rosa centifolia* L.: Yoshida, Yamaguchi, Nov. 7, 1967, collected by K. Katumoto (YAM 21936, paratype of *Nodulosphaeria rosae*).

Notes: *Lophiotrema fuckelii* is widespread in the world and has been described and illustrated many times (Chesters and Bell 1970; Corlett 1981; Holm and Holm 1988; Kirk 1984; Pirozynski and Morgan-Jones 1968; Taylor and Crous 2000). It is common on *Rubus* stems, but plurivorous on woody and herbaceous, mainly dicotyledonous plants, and also on palms (Hyde et al. 2000).

Two Japanese species, *Nodulosphaeria araucariae* on *Araucaria angustifolia* and *N. rosae* on *Rosae centifoliae*, were described by Hino and Katumoto (1966) and Katumoto (1968), respectively. These two species lack the brown bristles that are features of *Nodulosphaeria* Rabenh. We examined type materials of these fungi, and judged that *N. araucariae* and *N. rosae* are synonyms of *L. fuckelii* because they have a compressed neck in ascomata, and are 1(–3)-septate, with globose to conical bipolar appendaged ascospores.

Lophiosphaera orientalis is reported from Japan as needle bright fungus of Chinese fir (*Cunninghamia lanceolata*) by Hino and Katumoto (1964). Because of the morphological similarities between *Lophiosphaera orientalis* and *Lophiotrema fuckelii*, the former species is also treated here as a synonym of *L. fuckelii*.

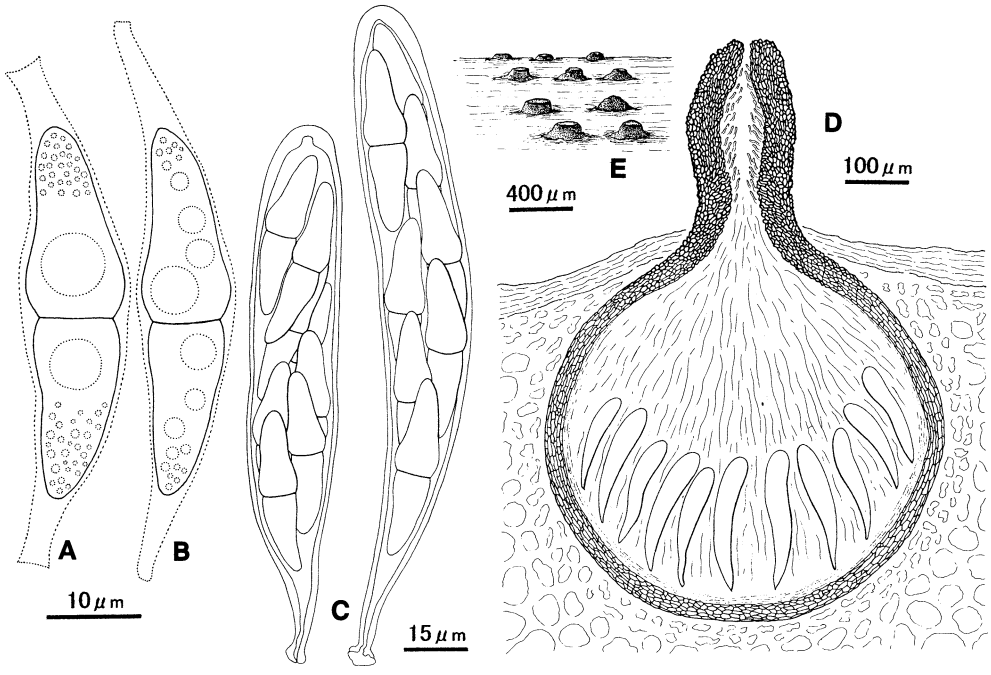

Fig. 5. *Lophiotrema vitigenum*. **A, B** Ascospores; **C** Asci; **D** Ascoma in sagittal section; **E** Surface view of ascomata. **A, C, D, E** HHUF 26930, holotype; **B** culture 4134

This species has been described as a species of *Lophiostoma* by Holm and Holm (1988) and Barr (1992). However, we consider it better palced in *Lophiotrema* than in *Lophiostoma* because it has rather small ascomata and relatively equally thick peridium, unlike other species of *Lophiostoma.*

5. ***Lophiotrema vitigenum*** Kaz. Tanaka & Y. Harada, sp. nov. Figs. 5, 16–20, 24, 26, 27

Ascomata 450–570 μm alta, 350–410 μm diametro, dispersa, immersa vel erumpentia, globosa. Rostorum 150–180 μm longum, centrale, cylindraceum, ex cellulis nigris polygonis vel subglobosis compositum. Periphyses hyalinae, septatae, 1.5–2.5 μm lata. Paries 13–25 μm crassus, ex cellulis brunneis rectangulatis vel polygonis 6–18 × 2.5–5 μm compositus. Pseudoparaphyses copiosae, cellulosae, 1–2.5 μm latae, septatae, ramificantes, anastomosantes, in materia gultinosa. Asci (105–)115–150(–158) × 17.5–23 μm, bitunicati, copiosi, cylindrici vel clavati, apice rotundati, stipitati, 12–24 μm longi, 8-spori, biseriati. Ascosporae (30.5–)32–41.5(–43.5) × 9.5–12 μm, late fusiformes, leviter curvatae, 1-septatae, septo submedio, hyalinae, guttulatae, laeves, appendiculatae. Holotypus: HHUF 26930.

Etymology. In reference to the host genus.

Ascomata 450–570 μm high, 350–410 μm diameter, scattered, immersed to erumpent, globose, glabrous, with a slitlike ostiole. Beak 150–180 μm long, central, cylindrical, composed of black polygonal to subglobose cells; with hyaline septate periphyses 1.5–2.5 μm thick. Ascomal wall uniformly 13–25 μm thick, of 4–6 cell layers, composed of parallel rows of rectangular to polygonal, brown, pseudoparenchymatic cells of 6–18 × 2.5–5 μm. Pseudoparaphyses numerous, cellular, 1–2.5 μm thick, with septa at 12- to 35-μm intervals, branched, anastomosed, in a gelatinous matrix, extending to the ostiolar channel. Asci (105–)115–150(–158) × 17.5–23 μm (mean = 131.0 × 20.0 μm, n = 44), bitunicate, numerous, basal, cylindrical to clavate, rounded at the apex, apical chamber present, with a short stalk 12–24 μm long, containing 8 overlapping biseriate ascospores. Ascospores (30.5–)32–41.5(–43.5) × 9.5–12 μm (mean = 37.0 × 10.9 μm, n = 80), L/W 3.1–3.8 (mean = 3.4, n = 80), broadly fusiform, slightly curved, with a septum mostly submedian (0.49–0.53; mean = 0.51, n = 80), strongly constricted at the septum, without dots at ends of septa, upper hemisphere broader, hyaline, one to two large guttules in each cell, smooth, with terminal appendages 3–12 μm long, both ends of appendages truncate, 3–5 μm wide. Senescent spores brown, echinulate, 1–3(–5)-septate. At germination, spores become 3-septate and brown, germ tubes from each ends.

Cultural characteristics: Colonies on PDA 1.6 cm in diameter after 4 weeks, Sepia (4F4) in the center, Blond (4C4) at other parts, with irregular margin; reverse similar; no pigments formed. On RSA, numerous ascomata were formed on the surface of rice straws and in agar near rice straws, within 6 weeks. Ascospores were similar to those found in nature, but slightly larger, (31.5–)36–46(–51) × (8–)9–11(–13) μm (mean = 40.8 × 10.1 μm, n = 50), L/W 3.6–4.6 (mean = 4.1, n = 50). No conidial state was found.

Materials examined: On twigs of *Vitis coignetiae* Pulliat: Kudoji, Hirosaki, Aomori, 140°25′ E, 40°31′ N, Oct. 27, 2001, collected by S. Hatakeyama (HHUF 26930 holotype; culture 4134); (HHUF 26931 isotype; culture 4136); May 2, 2002, collected by S. Hatakeyama 853 (HHUF 27404); Oohata, Shimokita, Aomori, 141°04′ E, 41°21′ N, May 4, 2002, collected by S. Hatakeyama (HHUF 27350). Dried culture specimen: grown on culms of *Oryza sativa* L.: from culture 4134, Mar. 9, 2002, KT. 846 (HHUF 27333): from culture 4136, Mar. 9, 2002, KT. 847 (HHUF 27334).

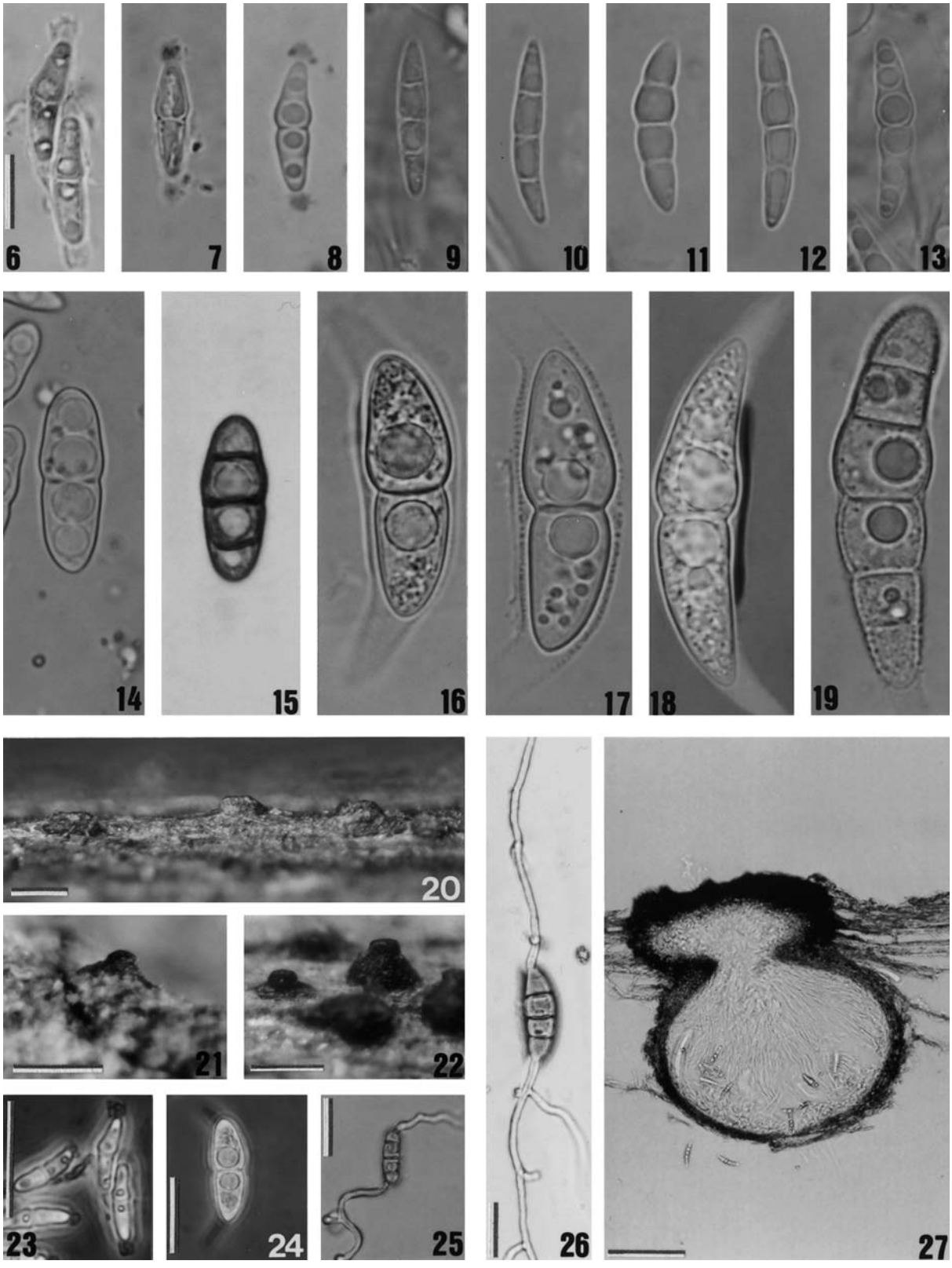

Fig. 6–27. *Lophiotrema* spp. **6–19** Ascospores; **15**, **19**, senescent spores. **20–22** Ascomata on host surface. **23, 24** Ascospores with appendages. **25, 26** Germinated ascospores. **27** Ascoma in frontal section. **6–8, 21–23** *L. fuckelii*. **6, 23** YAM 21829, holotype of *Nodulosphaeria araucariae*; **7, 21** YAM 21936, paratype of *Nodulosphaeria rosae*; **8** HHUF 27327; **22** HHUF 27325. **9, 10** *L. neohysterioides*. **9** HHUF 27331; **10** HHUF 27332. **11–13** *L. vagabundum*. **11** HHUF 27323; **12** HHUF 27322; **13** culture 4128. **14, 15, 25** *L. nucula*. **14** culture 4126; **15, 25** HHUF 27321. **16–20, 24, 26, 27** *L. vitigenum*. **16, 17, 20, 24, 27** HHUF 26930, **18, 19, 26** culture 4134. *Bars* **6–19** 10 μm (same magnification); **20–22** 250 μm; **23–26** 25 μm; **27** 100 μm

Notes: The fungus fits well in the genus *Lophiotrema* because it has immersed to erumpent, globose ascomata with compressed neck; nearly equal thickness peridium; and hyaline, 1-septate ascospores. In the lophiostomataceous fungi recorded until now, four species, *Lophiotrema nucula* var. *heterosporum* Z.Q. Yuan, *Lophiostoma columbiense* M.E. Barr, *Lophiostoma glaciale* Rehm, and *Lophiosphaera viticola* Sacc. might be similar to our fungus in that they have relatively large ascospores.

This fungus, however, differs from *L. nucula* var. *heterosporum* in having broadly fusiform, with terminal appendaged ascospores, rather than clavate to subclavate ascospores that lack gelatinous sheath or appendages, as reported by Yuan and Zhao (1994).

It is also readily separated from *L. columbiense* (Barr 1992) by the presence of bipolar appendages, instead of having a gelatinous sheath of the ascospores. In addition, the peridium of our fungus is thinner (13–25 μm wide vs. up to 50 μm wide in *L. columbiense*) and of equal thickness.

The fungus superficially resembles *L. glaciale* (Holm and Holm 1988), which also has ascospores with terminal appendages, but can be distinguished from the latter by longer and wider ascospores and thinner peridium. According to Holm and Holm (1988), *L. glaciale* occurs mainly on *Aconitum* stems.

It is similar to *L. viticola*, which was also recorded from *Vitis*. There is little information about *L. viticola*, as it was not treated in the major monographs of lophiostomataceous fungi. Taxonomic reexamination has not been made of it after its original publication by Saccardo in 1878, as far as we know. Our fungus differs from *L. viticola* in several characters, compared to the short description of Saccardo (1883). The asci are 17.5–22.5 μm wide in the former but 13–15 μm wide in the latter. Also, the ascospores of our fungus are larger [(30.5–)32–41.5(–43.5) × 9.5–12 μm] than those of *L. viticola* (28–32 × 7–8 μm). Therefore, we describe this fungus as new.

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