6. Third Note on *Elaphomyces* and Fungus-inhabiting *Cordyceps* in Japan.

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In the course of his botanical excursion to the northern Honshu carried out during September and October of the last year, the writer collected two species of *Elaphomyces* and one species of *Cordyceps*. One species of the *Elaphomyces* is *E. granulatus* Fr. and the other is one new to science. The species of *Cordyceps*, which was found to be parasitic on *Elaphomyces granulatus*, is *C. ophioglossoides* (Ehrh.) Link which has not yet been recorded in Japan.

1. *Elaphomyces nikkoensis* Imai, sp. nov.

Mycelio atro-brunneo, non copioso, facile separabili, terreno; ascomate globoso dein irregulariter globoso, 1–2 cm. in diam., recente atro, sicco leviter fusciscente, cortice carbonaceo rigidoque, 0.5 mm. crasso, verruculoso, verrucis minute granulosus obtusis; peridio recente 1.5–2 mm. crasso, sicco 0.5–1 mm. crasso, extus albidulo intus griseo, sicco grisescente, homoganeo; gleba initio albo-filamentosa, dein olivaceo-brunnea, demum nigrescente; venis sterilibus griseolis, evanescentibus; capillitiis hyalinis, tenuis, 2–2.5 μ crassis; sporis globosis, atrobrunneis, opacis, 22.5–32.5 μ in diam., verruculosis.

Hab. in silvis coniferarum (*Thujopsis dolabrata* Sieb. et Zacc.). Prov. Shimotsuke: Oku-nikko (S. Imai, Oct. 7, 1937).

Nom. jap. *Nikko-kuro-tsucidango* (n. n.).

The present fungus is somewhat allied to *E. echinatus* Vitt. from which it is easily distinguished by the less asperulate cortex, as well as by the colour of spore mass and by the size of spores.

2. *Elaphomyces granulatus* Fr.

Syst. Myc. III, 58, 1829.

Lycoperdon cervinum L. Sp. Pl. 1183, 1753.

Hypogaeum cervinum Pers. Tent. Disp. Fung. 7, 1797.

Scleroderma cervinum Pers. Syn. Fung. 156, t. 4, f. 2, 1801.

Scleroderma cervinum a granulatum Alb. et Schw. Consp. Fung. 81, 1805.

Tuber cervinum Nees v. Es. Syst. Pilze, 161, t. 15, f. 147, 1817.

Elaphomyces cervinus Schlecht. Fl. Berol. II, 166, 1824, sec. Dodge—Schroet. Pilze Schles. II, 223, 1893.

Elaphomyces officinalis Nees. v. Es. Pl. Officin. Lfg. 16, t. 12, 1827, sec. Fr., & Dodge.

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Hab. in silvis. Prov. Uzen: Monte Nishiazuma (S. Imai, Sept. 30, 1937). Prov. Shimotsuke: Oku-nikko (S. Imai, Oct. 7, 1937).

Distrib. in silvis totius Europae, in Amer. bor., et probabiliter in Asiae.

Nom. jap. *Tsuchi-dango* (n. n.).

This is the first record of the fungus in Japan. *Cordyceps ophioglossoides* (Ehrh.) Link was found on the present fungus in both localities.

A

B

Fig. A—1. Fructifications of *E. nikkoensis* Imai, natural size.
2. Sections of the fresh fructifications, natural size.
3. Sections of the dried fructification, natural size.
4. Spores, $\times 500$.

Fig. B—1. Fructifications of *E. granulatus* Fr., natural size.
2. Sections of the fresh fructifications, natural size.
3. Ascus containing spores, $\times 400$.
4. Spores, $\times 400$.

3. *Cordyceps ophioglossoides* (Ehrh. ex Fr.) Link.

Handb. III, 347, 1833.

Clavaria parasitica Willd. Fl. Berol. 405, 1787, sec. Fr.*Clavaria radicata* Bull. Champ. Fr. 195, t. 440, f. 2, 1789, sec. Fr.*Sphaeria ophioglossoides* Ehrh. Exc. no. 160; Beitr. III, 88, sec. Fr.*Sphaeria radicata* DC. Fl. Fr. II, 283, 1805.*Sphaeria ophioglossoides* Fr. Syst. Myc. II, 324, 1823.*Torrubia ophioglossoides* Tul. Fung. Carp. III, 20, 1865.*Cordyceps parasitica* Seaver, North Amer. Fl. III, 53, 1910.

Hab. parasitica in *Elaphomyces granulato*. Prov. Uzen: Monte Nishiazuma (S. Imai, Sept. 30, 1937). Prov. Shimotsuke: Oku-nikko (S. Imai, Oct. 7, 1937).

Distrib. in silvis totius Europae, in Amer. bor., et probabiliter in Asiae.

Nom. jap. *Tama-yadori-take* (n. n.).

The present fungus is a new addition to the Japanese fungus flora, and it is easily distinguished from other fungus-inhabiting species of this genus by the clavate head with a stipe which is branched into root-like rhizoids at the base and by the subcubical spore-segments.