A New Species of the Genus *Cognettia* from Mt. Hayachine, Northern Japan (Oligochaeta: Enchytraeidae) (Enchytraeids in Japan 6)

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**Abstract** A new species of the genus *Cognettia* is described from Mt. Hayachine, northern Japan: *Cognettia hayachinensis* sp. nov. It is characteristic in having one enlarged setae and its arrangement on segments V–VI.

**Key words:** Enchytraeidae, new species, *Cognettia*, Mt. Hayachine, Japan

During the course of a faunistic study of soil animals in a *Picea glehnni* forest of Mt. Hayachine, northern Japan, a new species of the genus *Cognettia* (Oligochaeta: Enchytraeidae) was found. Thirteen species assigned to the genus *Cognettia* were hitherto known from the world (CHRISTENSEN & DOZSA-FARKAS, 1999; NAKAMURA, 2000). The member of the genus *Cognettia* is recorded for the first time from Japan.

The genus *Cognettia* was erected by NIELSEN & CHRISTENSEN (1959), having the following characters, namely, (1) setae sigmoid, without nodulus, (2) head pore at 0/1, (3) dorsal pores absent, (4) gradual transition between oesophagus and intestine, (5) peptonephridia and oesophageal appendages absent, (6) dorsal vessel originating in or behind the clitellar region, (7) blood colorless or colored, (8) spermatheca simple and not attached to the oesophagus, as indicated by NIELSEN & CHRISTENSEN (1959) and Healy (1975; 1996).

**Cognettia hayachinensis** sp. nov.
(Japanese name: Hayachine-himemimizu) (Fig. 1a–d)

**Material examined:** Holotype (NSMT-An-285) from litter-rich Ao layer of soil in a natural forest of *Picea glehnni* (about 1350 m alt.) of Mt. Hayachine in Iwate Prefecture of northern Japan, 16-V-2000, Y. NAKAMURA & T. FUJIKAWA leg.; 2 paratypes (NSMT-An-286, 287), the same data as the holotype.

**Etymology:** The species name refers to the name of type locality, Mt. Hayachine.

**Description:** Medium sized, 9–12 mm long and 0.25–0.35 mm in diameter. Segments: 45–52. Color yellowish, cuticular glands usual form. Clitellum extends over 1/2 XI–1/2 XIII, gland cells small and arranged in transverse rows. Setae (Fig. 1D) sigmoid without nodulus: 1, 3, 4, 5–3, 4, 5 : 3, 4, 5–3, 4, 5. In the dorsolateral bundles V–VI only one enlarged seta present (Length 130 μm against 60–70 μm in other setae). Head pore at 0/1. Dorsal pores absent. Brain (Fig. 1D) as long as wide, slightly incised posteriorly. Three primary septal glands at IV/V and VI, with one septal gland in V. Gradual transition between oesophagus and intestine. Peptonephridia and oesophageal appendages absent. Chloragogen cells intensely brown. Dorsal vessel originating in XII–XV, blood colorless. Lymphocytes scarce in number and oval, but often with pointed ends. Nephridia (Fig. 1B) with a few canals in the anteseptal and the efferent duct tends to arise mid-ventrally on the postseptal, the anteriormost pair at VII/VIII. Seminal vesicles small, but often absent or poorly developed. Egg sac may extend to XVIII. Sperm funnel (Fig. 1A) cylindrical, two times longer than wide, the length approximately one fourth the diameter of the worm. Collar as wide as the funnel itself. The funnel gradually merged into a 6–7 times longer sperm duct. Atrium indistinct. Two or more eggs present at a time. Spermatheca (Fig. 1C) not attached to the oesophagus, with an ectal duct extending into VI or VII, with a small ampulla. No glands at the ectal orifice.
Remarks: This species is distinguished from other species of Cognetta except C. cognetti by the presence of enlarged setae. This species is similar to Cognetta cognetti (Issel, 1905), but separable from the number of enlarged setae. The number of enlarged setae is two per bundle in C. cognetti (Cernosvitov, 1945), while it is one per bundle in the new species.

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Fig. 1. Cognetta hayachinensis n. sp.
A: sperm funnel; B: nephridium; C: spermatheca; D: anterior segments (I–VII), dorsal view (b: brain, sg: septal glands, es: enlarged setae, sp: spermatheca).

References


