

An interesting *Cleruchus* sp. (Hymenoptera: Mymaridae) from bracket fungi on aspen in Karelia, Russia

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A long series of a fairyfly wasp belonging to the genus *Cleruchus* (Hymenoptera Mymaridae) was collected from the bracket (polypore) fungi *Trametes ochracea* and *Bjerkandera adusta* on aspen, *Populus tremula*, in Kivach, Karelia, Russia. Taxonomic notes are provided on this species, whose female and male are illustrated. It is found to be very similar to, yet slightly different from, *C. polypori* from the Netherlands.

Kivatsun luonnonsuojelualueelta Venäjän Karjalasta kasvatettiin kahdesta kääpälaajista (*Trametes ochracea* ja *Bjerkandera adusta*) haavan rungolta pitkä sarja *Cleruchus* -suvun hiukepistiäistä (Hymenoptera: Mymaridae). Tämän lajin taksonomiaa käsitellään artikkelissa ja lajin naaraasta ja koiraasta esitetään mikroskooppivalokuvia. Laji poikkeaa vain vähän aikaisemmin Hollannista kuvatusta lajista *Cleruchus polypori*.

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Introduction

As reported in another article by Vikberg & Martikainen (2011) in this issue, a long series of a fairyfly wasp belonging to the genus *Cleruchus* Enock, 1909 (Hymenoptera Mymaridae) was collected from the bracket (polypore) fungi *Trametes ochracea* and *Bjerkandera adusta* on aspen, *Populus tremula*, in Kivach, Karelia, Russia by author PM. Its likely hosts are the species of Ciidae (Coleoptera) collected from the same sample and identified by Vikberg & Martikainen (2011). A review of *Cleruchus* species that are apparently associated with Ciidae was given recently by Triapitsyn & Moraal (2008).

Acronyms for the collections are as follows: CVV, private collection of Veli Vikberg, Turenki, Finland; MZH, Zoological Museum, Finnish Museum of Natural History, University of Helsinki, Helsinki, Finland; UCRC, Entomology Research Museum, University of California, Riverside, California, USA. An abbreviation used is: F = funicle (flagellar in males) antennal segment. See *Cleruchus* sp. (Figs 1-6)

Material examined. RUSSIA, Republic of Karelia, Kondopozhskiy District, Kivach [Nature Reserve], 21.v.1998, P. Martikainen, from *Trametes ochracea* and *Bjerkandera adusta* on *Populus tremula* [48 brachypterous females, 32

macropterous females, and 20 almost apterous males, CVV and MZH (40, 25, 13, respectively), and UCRC (8, 7, 7, respectively)].

Taxonomic notes. Female. Length (of dry, point-mounted, shriveled specimens) 0.4-0.46 mm. Body brown to dark brown, with most of gaster almost black (except basally), appendages pale brown to brown. Antenna (Fig. 1) with scape smooth, 3.4-4.0x as long as wide if measured without radicle; pedicel much longer than F1; F1 shorter than following funicular segments and without longitudinal sensilla; F2-F5 cylindrical or subcylindrical, F6 a little wider; F2-F6 subequal in length, each with 1 longitudinal sensillum; clava a little shorter than F4-F6 combined, entire, 2.7-2.9x as long as wide, with 6 longitudinal sensilla. Mesosoma a little shorter than metasoma. In brachypterous individuals, wings moderately (Fig. 3) to greatly (Fig. 4) reduced, with fore wing and hind wing blades either extending to just past apex of venation and with marginal setae few (Fig. 3) or wings reduced to short stubs practically without membrane (Fig. 4). Fore wing in fully winged individuals (Fig. 2) 8.1-8.8x as long as wide, with venation typical of the genus; both macrochaetae short and weak; disc strongly infuscate throughout (with brown), with one subapical, incomplete, median row of 4 to 9 setae and two more or less complete rows of setae along margins; longest marginal seta 3.2-3.4x greatest width of wing. Hind wing (Fig. 2) in fully winged individuals narrow, 19-22x as long as wide; disc infuscate throughout. Petiole very short and hardly visible even in slide-mounted specimens. Gaster elongate; ovipositor 1.3-1.4x length of metatibia, notably exerted beyond its apex (by about 1/3 own length).

Male. Length (of dry, point-mounted, shriveled specimens) 0.4-0.43 mm. Similar to female except for the normal sexually dimorphic characters such as 13-segmented antenna (Fig. 5) and genitalia (Fig. 6). Antenna with F1 notably shorter than following flagellomeres, without longitudinal sensilla. Almost apterous (st-

rongly brachypterous, only short stubs remain of the wings).

Diagnosis. Both sexes of *Cleruchus* sp. have more or less elongate, brown bodies and lack ocelli. Its females are either fully winged or brachypterous, while males are strongly brachypterous (almost apterous). The species keys to *C. polypori* Triapitsyn & Moraal, 2008 in Triapitsyn & Moraal (2008) but it is smaller, its body in both sexes is not as elongate, the funicle segments of the female antenna are relatively shorter, and F1 of the male antenna is relatively larger and more elongate than in the type series of *C. polypori*. The latter species is known from specimens reared in the Netherlands from the fruiting bodies of the bracket fungus *Fomes fomentarius* on ca. 150-200 year old *Fagus sylvatica* trees and also from the fruiting bodies of the same bracket fungus on *Betula* sp. Females of *C. polypori* are mostly fully winged, rarely brachypterous or apterous, while males are apterous (Triapitsyn & Moraal 2008). *Cleruchus* sp. from Karelia is also similar to *C. pieloui* (Yoshimoto, 1971) from New Brunswick, Canada, in which however the clava of the female antenna is notably longer than F4-F6 combined (Yoshimoto, 1971).

Although *Cleruchus* sp. may eventually be proven to represent a good separate species, for the time being we abstain from describing it as a new taxon because a possibility also exists that the minor morphological differences noted above could be within the range of intraspecific variability of *C. polypori* due to geographical, host-induced, or other, unknown, factors.

Acknowledgment

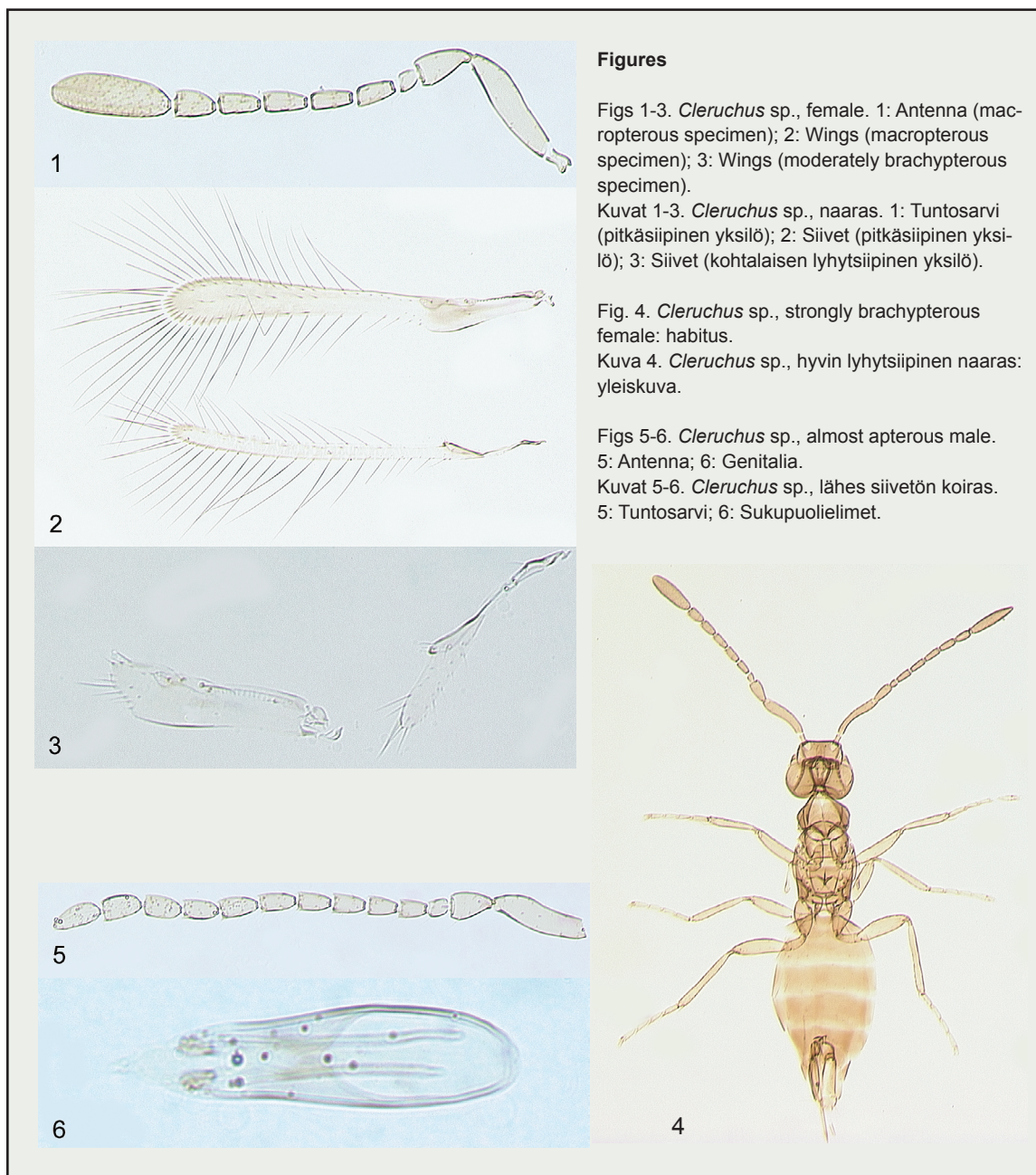
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References

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Figures

Figs 1-3. *Cleruchus* sp., female. 1: Antenna (macropterous specimen); 2: Wings (macropterous specimen); 3: Wings (moderately brachypterous specimen).

Kuvat 1-3. *Cleruchus* sp., naaras. 1: Tuntosarvi (pitkäsiipinen yksilö); 2: Siivet (pitkäsiipinen yksilö); 3: Siivet (kohtalaisen lyhytsiipinen yksilö).

Fig. 4. *Cleruchus* sp., strongly brachypterous female: habitus.

Kuva 4. *Cleruchus* sp., hyvin lyhytsiipinen naaras: yleiskuva.

Figs 5-6. *Cleruchus* sp., almost apterous male. 5: Antenna; 6: Genitalia.

Kuvat 5-6. *Cleruchus* sp., lähes siivetön koiras. 5: Tuntosarvi; 6: Sukupuolielimet.