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New *Monoctenus* Dahlbom, 1835 (Hymenoptera: Symphyta) species from Georgia

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Japoshvili, G. & Haris, A: *New Monoctenus Dahlbom, 1835 (Hymenoptera: Symphyta) species from Georgia.*
Abstract: *Monoctenus lechkhumensis* **sp.n.** is described from Georgia, Dogurashi and compared to *Monoctenus nipponicus* Takeuchi, 1940.

Keywords: Hymenoptera, Symphyta, Diprionidae, Monoctenus, new species, Georgia, Caucasus

Introduction

This paper is part of a project on the investigation of the insects of Georgia (Sakartvelo – name of Country of Georgia in the native language) with special focus on the fauna of the Caucasus Mountains, conducted by the Institute of Entomology, Agricultural University of Georgia in Tbilisi, under the ptoject Caucasus Barcode of Life (CaBOL).

Monoctenus Dahlbom, 1835 is a small genus of family Diprionidae consisting 14 species worldwide, from which 3 species occur in Europe, 5 in Japan and 6 in the new world. No *Monoctenus* species have been reported from Georgia or in the Caucasus so far. Their host plants are: *Juniperus communis, Juniperus flaccida, Juniperus* spp., *Cryptomeriae japonica, Chamaecyparis pisifera, Chamaecyparis* spp. and *Thuja* spp. (Okutani 1958, Smith et al. 2010, Macek et al. 2020). *Monoctenus* species have free living larvae feeding on young, still soft needles of various Conifers (listed above); pupae are in the upper layers of the soil in a solid cocoon. Adults lay eggs in young buds of the host-plants (Macek et al. 2020).

Material and methods

The applied method was Malaise trapping from 17th till 24 of May in the Tsageri municipality, altitudes in the mountains of Northwestern Caucasus of Sakartvelo. Later, material was placed in 96% ethanol for further sorting and studies. The sawfly material was mounted in March of 2022.

For the identification and differential diagnosis of *Monoctenus lechkhumensis* Haris and Japoshvili sp. nov. the following papers and monographs were consulted: mono-

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graphs and identification keys of GUSSAKOVSKIJ (1947), LACOURT (2020), MACEK et al. (2020) and SMITH (1975) species descriptions of CRESSON (1880), DE LIRA-RAMOS et al. (2022), NORTON (1872), ROHWER (1918), SMITH et al. (2010), TAKEUCHI (1940) and TOGASHI (2001).

Description

Monoctenus lechkhumensis sp. nov.
(Figs. 1-4)

Holotype: female, Dogurashi, 17-24. 05. 2021, alt. 1 070 m, 42.669761° N, 42.785362° E. Deposited in the collection of Institute of Entomology, Agricultural University of Georgia.

Female. Head black, labrum yellowish brown, apex of mandible reddish brown. Thorax black, wide hind margin of pronotum and tegula yellow, cenchri brownish white. Coxae black with yellow apices. Trochanters yellow. Basal half of anterior femur black, apical half yellow. Middle and hind femora black with yellow apical quarter. All tibiae entirely yellow. Tarsi brown, basal halves of basitarsi brownish white. Abdomen with broad yellow band: first abdominal segment (propodeum) and anterior margin of tergite 2 black, segments 2-6 yellow, segment 7 yellow with black tergite. Black colour of body without any metallic luster. Apical segments black with narrow white hind margin. Ovipositor black with narrow white margin on apical part, cerci brown. Wings hyaline.

Fig. 1: *Monoctenus lechkhumensis* sp. nov. holotype

Fig. 2: Antennae of *Monoctenus lechkhumensis* sp. nov.

Stigma and veins dark brown. Basal upper quarter of stigma with large white spot.

Temple and vertex shiny with minute sporadic punctures. Head behind eyes parallel. Inner margins of eyes parallel. Head behind eyes smooth without postoccipital carina. OOL : POL : OCL: 11 : 9 : 12. Postocellar furrows deep and divergent. Vertex with deep longitudinal middle furrow. Genae about as long as diameter of median ocellus. Clypeus roundly emarginated in middle, clypeal emargination 0.2x as deep as median length of clypeus. Frontal area not bordered and not elevated. Head with one deep supraantennal rounded spit with short deep furrow towards to anterior ocellus. Clypeus and facial area with minute, modaretely dense punctures, shiny. Clypeus additionally with some deep wrinkles. Ratio of last 3 palpar segments: 6 : 7 : 9. Projections of antennal segments 5-8 well developed and about as long as length of the next antennal segment. Apices of projections rounded, not acute. Antenna with 17 or 18 joints (apical 2 joints of one antenna fused in holotype). Antenna about as long as head and thorax till the mesoscutellar appendage together.

Mesonotum and mesoscutellum nearly smooth and shiny with very sporadic minute punctures. Mesoscutellar appendage with sporadic, small punctures, shiny. Metascutellum smooth and shiny. Mesoscutellum flat. Mesepisternum with moderately dense, minute punctures, shiny. Cenchri long and elongated. Length of a cencher : distance between two cenchri: 11 : 6. Intercostal cross vein present. Number of cubital cells: 4. Basalis and first recurrent vein convergent. Anal cell constricted in middle and divided into 2 closed loops. Hind wing with closed cubital and middle cell. Anal cell with long petiole. Transverso-cubito-anal vein (Cu-a) positioned far from apex of anal cell. Claws with minute inner tooth. Inner hind tibial spur : length of basitarsus: 13 : 20. Tarsal segments with well developed white pulvilli. Head and thorax covered with white, sparse pubescence, about 0.7x as long as diameter of anterior ocellus.

First abdominal tergite smooth and shiny, with triangular membranous incision in middle. Other tergites shiny with shallow, transversal surface sculpture. Sawsheath short and emarginated apically with gently curved light brown long setae in dorsal view. Cerci over projecting apex of sawsheath. Length: 5.0 mm.

Fig. 3: Wings of *Monoctenus lechkhumensis* sp. nov.

Male and host-plants are unknown.

Etymology: The specific name refers to the name of region in Northwestern Georgia, Lechkhumi.

The new species has unique position in genus *Monoctenus* Dahlbom, 1835, since no other *Monoctenus* species has yellow transversely banded abdomen. Similar color pattern has the Nearctic *Augomonoctenus libocedrii* Rohwer, 1918. However, between many other morphological differences, *A. libocedrii* has pronotum and tegula black, the black color has bluish metallic luster and subcostal area without any crossvein. In the new species, pronotum and tegulae yellow, the black color without any bluish or metallic luster and subcostal crossvein is present. In the key of TOGASHI (2001) the new spe-

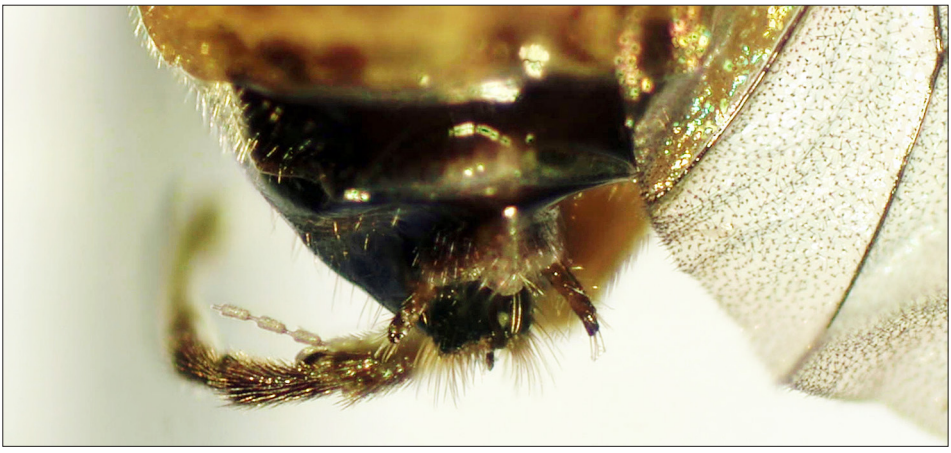

Fig. 4: Sawsheath of *Monoctenus lechkhumensis* sp. nov. in dorsal view

cies runs to *Monoctenus nipponicus* Takeuchi, 1940. *M. nipponicus* has entirely black body and largest projections of antennae are acute. In the new species, abdomen with wide yellow transversal band, pronotum mostly and tegula is entirely yellow; projections of antennae are bluntly rounded.

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