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Authors: Rapuzzi, Pierpaolo, Fekrat, Lida, and Mamarabadi, Mojtaba

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## Description of *Chlorophorus ahmadi* sp. nov. from Northeast Iran (Coleoptera, Cerambycidae, Cerambycinae, Clytini)

Pierpaolo Rapuzzi<sup>1</sup>, Lida Fekrat<sup>2\*</sup> & Mojtaba Mamarabadi<sup>2</sup>

<sup>1</sup> Via Cialla 48, I-33040 Prepotto (UD), Italy

<sup>2</sup> Department of plant protection, Faculty of Agriculture, Ferdowsi University of Mashhad, Mashhad, Iran

\* Corresponding authors: [info@ronchidicialla.it](mailto:info@ronchidicialla.it), [fekrat@um.ac.ir](mailto:fekrat@um.ac.ir)

**Abstract:** In the summer of 2022, during a survey of the juniper forests of the Hezar Masjed Mountains, the entomological team of the Ferdowsi University of Mashhad (Iran) found a species of the genus *Chlorophorus* Chevrolat, 1863 close to *C. elaeagni* Playviltshikov, 1956. After closer examination it appeared to represent a new species, which is described here as *C. ahmadi* sp. nov. The new species is a pest of live *Juniperus polycarpus* K. Koch var. *turcomanica* (B. Fedtsch) R. P. Adams (Cupressaceae) trees.

**Keywords:** New species, *Juniperus*, Hezar Masjed Mountains.

### INTRODUCTION

We describe a new species of Cerambycidae of the genus *Chlorophorus* Chevrolat, 1863 discovered in the North-East of Iran in the *Juniperus* forests of Hezar Masjed Mountains, north of Khorasan Razavi province. A research project in this region was designed and carried out with the aim of evaluating the feasibility of different biological, mechanical, and chemical control methods in the management of main pests and diseases of juniper trees. The arid and semi-arid areas of Northeast Iran with juniper habitats consist of about 3.4 million ha (Fadaei, 2020).

The new species was reared from live small trunks and branches of junipers.

### MATERIAL AND METHODS

Part of the specimens of the new species were collected inside the pupal cell on *Juniperus* branches or small trunks, the rest was obtained from rearings of the same wood.

The binocular microscope used to study the insects was a Wild M3, with magnifications of 10x6, 10x16 and 10x40. The pictures of prepared specimens were taken using a Canon 5D Mark II digital camera with a Nikkor EL 75,

5.6 mm optical zoom; they were stacked with Zerene Stacker.

### *Chlorophorus ahmadi* sp. nov.

Figs 1, 2

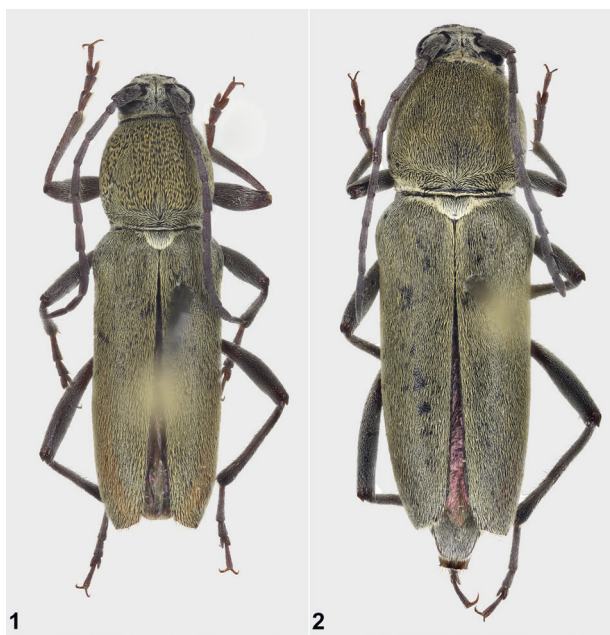
**Type material:** Holotype: 1 male: Iran, Khorasan prov., Hezar Masjed Mountain, VI.2022, ex larva *Juniperus polycarpus* var. *turcomanica* (Coll. P. Rapuzzi); Paratypes: 3 males and 5 females with same data as the holotype (Coll. P. Rapuzzi).

**Description:** Length: males 17.0-18.0 mm (holotype: 17.5 mm), females 17.0-20.0 mm; width 2.6 mm. Body black. Dorsal surface covered with grey-green pubescence; ventral surface with pubescence ashy. Head longer than large; frons square, with thin and long shiny medial line; head, except furrow, entirely covered with short recumbent ashy bristles. Antennal tubercles closely separated, only slightly prominent, separated by shiny medial furrow. Antennae rather short, reaching basal third of elytra when extended posteriorly; third to fifth joints with dense fringe of light bristles on inner side, similar bristles restricted to apex on sixth joint. Pronotum longer than wide, with sides rounded; slightly narrower apically than basally; surface entirely covered with greenish pubescence consisting of strong, recum-

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Figs 1-2. (1) *Chlorophorus ahmadi* sp. nov., holotype male (17.5 mm), Iran, Khorasan prov., Hezar Masjed Mountain, VI.2022, ex larva from *Juniperus excelsa*. (2) *Chlorophorus ahmadi* sp. nov., paratype female (18.0 mm), same data as holotype.

bent, short bristles, the latter oriented backwards; punctuation consisting of strong and large punctures visible below pubescence.

Scutellum as long as wide, covered with ashy pubescence; apex rounded.

Elytra elongate, slightly constricted subapically; apex obliquely truncate, with small tooth on external side; entire surface homogeneously covered with dense greenish pubescence, the latter consisting of recumbent, short, strong bristles. Legs long, black, covered with greenish pubescence; with few scattered long erect black bristles distributed more densely on femora and tibiae of hind legs.

**Differential diagnosis:** The new species strongly resembles *Chlorophorus elaeagni* Plavilstshikov, 1956, a widespread species known from Europe (Caucasus: Azerbaijan), Southern Russia and Middle Asia (Turkmenistan, Uzbekistan, Kazakhstan and Kirgizia; Kadyrov *et al.*, 2016; Karpiński *et al.*, 2018). *Chlorophorus elaeagni* was described from Urda (West Kazakhstan) and its biology is associated with various deciduous trees and shrubs (*Elaeagnus*, *Halimodendron*, *Caragana*, and *Robinia*; Kadyrov *et al.*, 2016). The new species is easily distinguished from *C. elaeagni* as follows: 1) pronotum shorter and more globular in both sexes, with the lateral margins more rounded;

2) scutellum as long as wide, rounded at apex (in *C. elaeagni* longer than wide, with apex acuminate); 3) elytral apex more truncate and with a small tooth externally (the latter missing or at most very small in *C. elaeagni*); 4) shoulders possessing a small carina (missing in *C. elaeagni*); 5) body pubescence grey-green (instead grey-yellow in *C. elaeagni*); 6) antennae and legs shorter and stouter than in *C. elaeagni*.

**Etymology:** We dedicate the new species to Ahmad Baradaran Sirjani, husband of author Lida Fekrat, who passed away recently.

## CONCLUSIONS

The area where the new species was discovered has been poorly investigated so far. Considering the relative richness of its vegetation cover, dominated by the broad-leaved *Pistacia vera* L., 1753 (Anacardiaceae) and the conifer *Juniperus polycarpos* K. Koch var. *turcomanica* (B. Fedtsch) R. P. Adams (Cupressaceae), it is very likely that other interesting findings will be made there in the future.

## ACKNOWLEDGEMENTS

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## REFERENCES

- Fadaei H. 2020. Advanced land observing satellite data to identify ground vegetation in a juniper forest, northeast Iran. *Journal of Forestry Research* 31: 531-539.
- Kadyrov A.K., Karpiński L., Szczepański W.T., Taszakowski A., Walczak M. 2016. New data on distribution, biology, and ecology of longhorn beetles from the area of west Tajikistan (Coleoptera, Cerambycidae). *ZooKeys* 606: 41-64.
- Karpiński L., Szczepański W.T., Plewa R., Walczak M., Hilszczański J., Kruszelnicki L., Łosz K., Jaworski T., Bidas M., Tarwacki G. 2018. New data on the distribution, biology and ecology of the longhorn beetles from the area of South and East Kazakhstan (Coleoptera, Cerambycidae). *ZooKeys* 805: 59-126.
- Plavilstshikov N.N. 1956. *Chlorophorus elaeagni* Plav., sp. nova (Coleoptera, Cerambycidae). *Entomologičeskoe Obozrenie* 35(4): 818-821.