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New data and notes on the distribution of *Lioderina linearis* (Hampe, 1870) (Cerambycidae: Callidiini) in Bulgaria

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Abstract. New records of *Lioderina linearis* (Hampe, 1870) in Bulgaria are presented. The species was collected with light traps in five localities from Black Sea Coast, Rila Mts. and Sredna Gora Mts. Available data on the distribution and host plants of the species in the country are summarized. The species is common in coastal region of Bulgaria and seems not to be rare in lower mountain areas inside the country. The species is attracted to light and can be detected successfully with light traps. Known host plants of *L. linearis* in Bulgaria are species from the genera *Amygdalus* (Mill.), *Juglans* L. and *Pyrus* L.

Key words: Cerambycidae, *Lioderina linearis*, Bulgaria.

Introduction

Lioderina linearis (Hampe, 1870) (Cerambycidae: Callidiini) is distributed in Central, South-Eastern Europe and Asia Minor (after Danilevsky 2017). The species is an obligate saproxylic species. Larvae develop in dead terminal twigs of a number of deciduous and coniferous trees (Sabol 2000, Nardi *et al.* 2010). As host plants of *L. linearis* species of the genera *Amygdalus* (Mill.), *Prunus* L., *Juglans* L., *Pyrus* L., *Abies* Mill. and *Pinus* L. (Sabol 2000) have been reported so far. The species is listed as Data Deficient (DD) in IUCN Red List, its common habitats (traditionally managed orchards) are in decline throughout its distributional range and the current population trend is decrease in numbers (Nardi *et al.* 2010).

In Bulgaria *L. linearis* has been regarded as rare species (Ganev 1984, Georgiev & Hubenov 2006, Migliaccio *et al.* 2007). In the present work new data on the distribution of the species in the country are reported. The available data on the species distribution and host plants in Bulgaria are also summarized.

Materials and Methods

The new data are obtained from regular collection trips for entomological material, carried out by the second author in 2011-2012 in different regions of Bulgaria, as well as a single collection, conducted in the vicinity of Varna (Black Sea Coast) in 2002. All specimens were collected with light traps (combined white and black or white light only). The processing of the material and the identification of *L. linearis* were performed by the first author. The specimens are deposited in the Zoological Collection of Sofia University "St. Kliment Ohridski", Faculty of Biology (BFUS).

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Results

Seven specimens of *L. linearis* - 3 ♂♂ and 4 ♀♀, were collected in five different localities, situated along the Black Sea Coast and at the inland territory of the country (Fig. 1, Fig. 2).

Material examined: Black Sea Coast, Varna, University Botanic garden, 43°14'06.6''N, 28°00'05.94''E, 55 m a.s.l., 07-16.VII.2002, 2 ♂♂, 1 ♀, at light, D. Gradinarov & Y. Petrova leg.; Black Sea Coast, 2,5 km NE Kranevo Vill., Baltata Reserve, 43°21'55.6''N, 28°03'46.20''E, 12 m a.s.l., 22.VII.2011, 1 ♀, at light, O. Sivilov & B. Zlatkov leg.; Black Sea Coast, 1 km SE Kranevo Vill., 43°20'03''N, 28°03'38''E, 150 m a.s.l., 23.VII.2011, 1 ♀, at light, O. Sivilov & B. Zlatkov leg.; Pirin Mts., 1,3 km NE Sugarevo Vill., 41°34'18.32''N, 23°26'11.36''E, 880 m a.s.l., 21.VII.2012, 1 ♀, at light, O. Sivilov & B. Zlatkov leg.; Sredna Gora Mts., 5 km NE Strelcha, 42°33'15''N, 24°20'04''E, 790 m a.s.l., 29.VII.2012, 1 ♂, at light, O. Sivilov & B. Zlatkov leg.

Discussion

Migliaccio *et al.* (2007) listed only two localities for the country's territory – Blagoevgrad (SW Bulgaria, Ganev 1984 cit.) and Ivailovgrad (S Bulgaria). Previously, Sabol (2000) report the species from several distant localities along the Black Sea Coast - Tsarevo (ex Mičurin), Sozopol, Slanchev Bryag and Varna. Distribution of *L. linearis* in Bulgaria, including available literature and the new data is presented in Fig. 2. The species appears to be common along the Black Sea coast and seems not to be rare in lower inland mountain areas, where it was found in several mountains. In the present work the species is newly recorded for Pirin and Sredna Gora Mts. All of our new localities are the first ones with exact coordinates for this species in Bulgaria.

Common method for the species establishment is rearing from larvae, collected together with the inhabited host plant twigs. Such an approach was used in almost all of the earlier reports of *L. linearis* from Bulgaria (Sabol 2000, Migliaccio *et al.* 2007). Mentioned authors report several host plants of the species in the country - *Amygdalus* sp., *Juglans* sp. and *Pyrus* sp. (Sabol 2000) and *Amygladus communis* L. (Migliaccio *et al.* 2007). Our data indicate that adults, both male and female of *L. linearis*, are attracted to light. We consider that light traps are an appropriate method to study the distribution of the species, although it cannot be used directly for the establishment of the host plants.

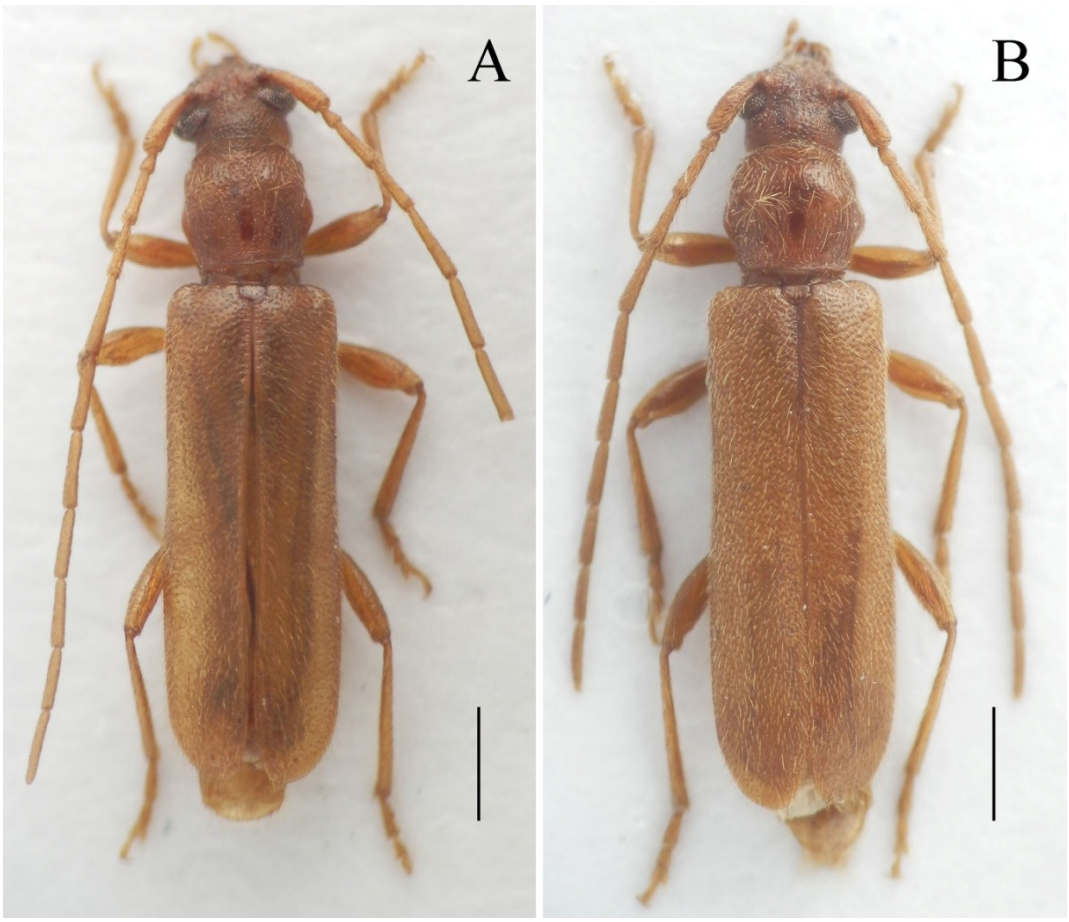

Fig. 1. *Lioderina linearis* (Hampe, 1870). A: Male, Sredna Gora Mts., NE Strelcha, 29.VII.2012; B: Female, Pirin Mts., NE Sugarevo Vill., 21.VII.2012. Scale bars: 1 mm.

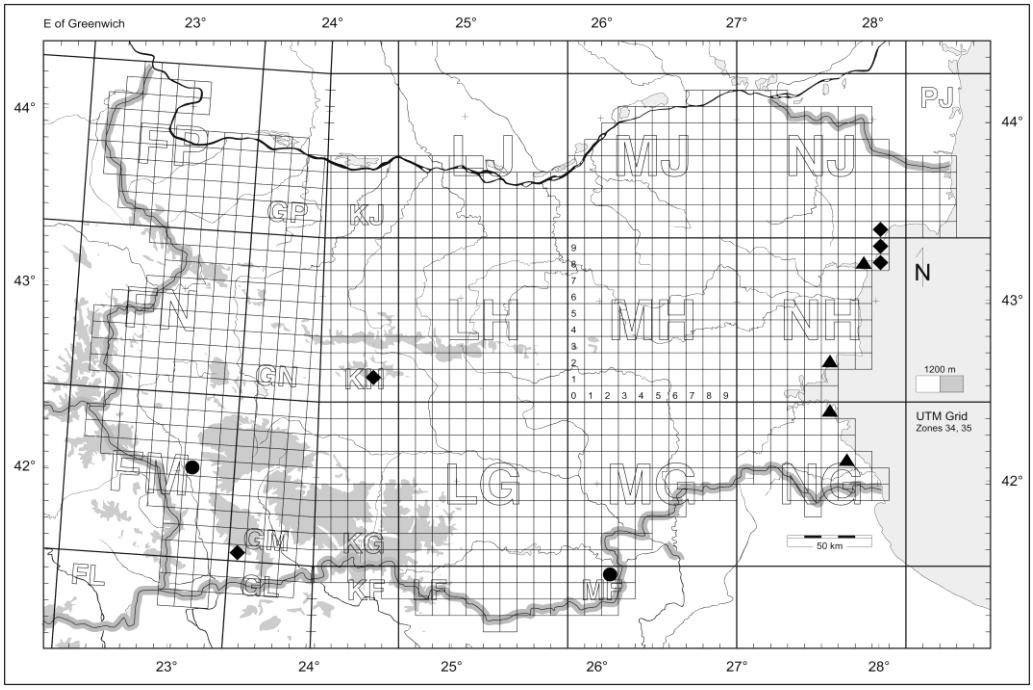

Fig. 2. Localities of Lioderina linearis (Hampe, 1870) in Bulgaria. Legend: ▲ after Sabol (2000); ● after Migliaccio et al. (2007); ♦ new data, Gradinarov & Sivilov (present study).

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