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Surprising finding of the species *Dolocerus reichii* Mulsant, 1862 (Cerambycidae: Cerambycinae) in urban parks in Sofia, Bulgaria

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Abstract. Longhorn beetle species *Dolocerus reichii* Mulsant, 1862 is reported for the first time with exact localities from Bulgaria. Numerous adult beetles were collected and observed on flowers of *Spiraea x vanhouttei* (Briot) Zab. and *Crataegus monogyna* Jacq. in two of the parks of the city of Sofia – Zdrave Park and Borisova Gradina Park.

Key words: *Dolocerus reichii*, urban habitats, Bulgaria

Introduction

Longhorn beetle species *Dolocerus reichii* Mulsant, 1862 (Cerambycidae: Cerambycinae) is known from Southern and Southeastern Europe (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, France, Greece, Italy, Montenegro, Switzerland, European Türkiye), Transcaucasia (Azerbaijan, Armenia, Georgia) and Asian Türkiye (Sama & Löbl 2010, Danilevsky 2020, 2026). Neither Bense (1995), nor Althoff & Danilevsky (1997) or Migliaccio *et al.* (2007) recorded this species for Bulgaria. It seems that *D. reichii* was first listed for the country in the Catalogue of Palaearctic Coleoptera by Sama & Löbl (2010: 145, as *Brachypteroma ottomanum* Heyden, 1863) without exact locality, and this record was probably later repeated in the second revised edition of the Catalogue by Danilevsky (2020).

In the present work, I report an unexpected finding of this species in parks in Sofia, where it was observed in significant numbers on flowering ornamental plants.

Materials and Methods

The material for the present study was collected by the author from early May to early June 2026 from urban parks in the city of Sofia - Zdrave Park (Triaditsa District) and several localities in Borisova Gradina Park (Fig. 1). Adult beetles were collected from flowers *of Spiraea x vanhouttei* (Briot) Zab. and *Crataegus monogyna* Jacq. (Rosaceae). Photographs of the habitats (Fig. 1) and this one of the beetles in Fig. 3 were taken with Canon EOS 2000D digital camera. Photographs of the beetles in Fig. 2 were taken with Canon EOS R50 digital camera with Laowa 90mm f/2.8 2x Ultra Macro APO lens mounted on a WeMacro rail (Wemacro, Shanghai, China). The specimens used in the study are preserved in the Zoological Collection of Sofia University, Faculty of Biology (BFUS).

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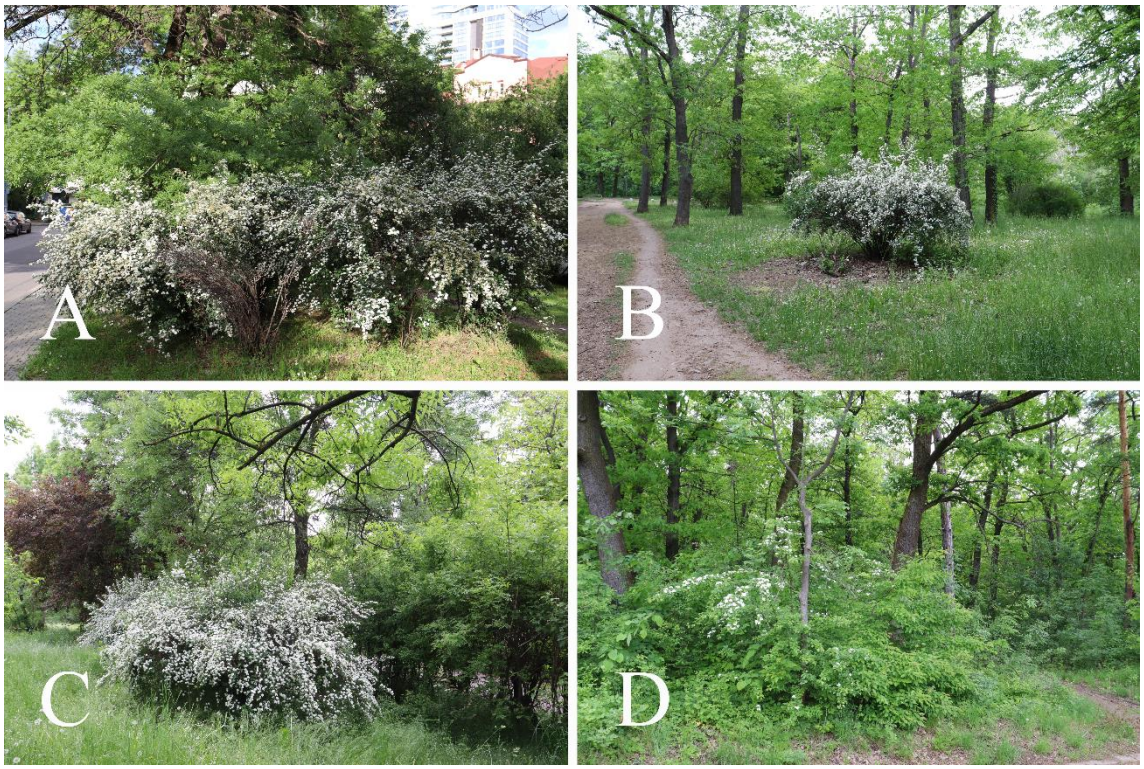

Fig. 1. Habitats of *Dolocerus reichii* in urban parks of Sofia, 15.v.2026. A – Zdrave Park, park vegetation with flowering *Spiraea x vanhouttei*; B – Borisova Gradina Park near to Aleya Yavorov Alley, oak grove with flowering *Spiraea x vanhouttei*; C – Borisova Gradina Park opposite the Faculty of Biology of Sofia University, park vegetation with flowering *Spiraea x vanhouttei*; D – Borisova Gradina Park, Aleya Yavorov Alley, park vegetation with flowering *Crataegus monogyna*.

Results and Discussion

***Dolocerus reichii* Mulsant, 1862** (Figs 2, 3)

Material examined:

BULGARIA: Sofia City, Zdrave Park, 42°40.945'N 23°18.673'E, 577 m a.s.l., 07.v.2026, 15 ♂♂ (BFUS-CER000824 – BFUS-CER000838), 10 ♀♀ (BFUS-CER000839 – BFUS-CER000848), on flowers of *Spiraea x vanhouttei*, D. Gradinarov leg.; same data, 15.v.2026, 14 ♂♂ (BFUS-CER000849 – BFUS-CER000862), 10 ♀♀ (BFUS-CER000863 – BFUS-CER000872); same data, 27.v.2026, 6 ♂♂ (BFUS-CER000887 – BFUS-CER000892), same data, 03.vi.2026, 1 ♀ (BFUS-CER000893); Sofia City, Borisova Gradina Park, near to Aleya Yavorov Alley, 42°40.817'N 23°20.651'E, 583 m a.s.l., 08.v.2026, 1 ♀ (BFUS-CER000873), on flowers of *Spiraea x vanhouttei*, D. Gradinarov leg.; Sofia City, Borisova Gradina Park, opposite the Faculty of Biology of Sofia University, 42°41.122'N 23°20.079'E, 558 m a.s.l., 11.v.2026, 2 ♂♂ (BFUS-CER000874, BFUS-CER000875), 1 ♀ (BFUS-CER000876), on flowers of *Spiraea x vanhouttei*, D. Gradinarov leg.; same data, 15.v.2026, 6 ♂♂ (BFUS-CER000877 – BFUS-CER000882), 1 ♀ (BFUS-CER000883); Sofia City, Borisova Gradina Park, Aleya Yavorov Alley, 42°40.826'N 23°20.581'E, 594 m a.s.l., 15.v.2026, 2 ♂♂ (BFUS-CER000884, BFUS-CER000885), 1 ♀ (BFUS-CER000886), on flowers of *Crataegus monogyna*, D. Gradinarov leg.

A total of 70 specimens of *D. reichii* (45 males and 25 females) were collected from early May to early June from the studied habitats, and many more specimens were observed on the flowers without being collected. Most of the beetle specimens were found on the

flowers of *Spiraea x vanhouttei*, widely used as an ornamental plant in the landscaping of parks in Sofia. Copulating pairs were repeatedly observed on the flowers of the same plant in May (Fig. 3).

Along with *D. reichii*, other saproxylic longhorn beetle species were collected on the flowers of *Spiraea x vanhouttei* in the studied localities – *Stenhomalus bicolor* (Kraatz, 1862) (11 specimens in Zdrave Park and eight specimens in Borisova Gradina Park), *Grammoptera ruficornis* (Fabricius, 1781) (one specimen in Zdrave Park and four specimens in Borisova Gradina Park), *Molorchus minor* (Linnaeus, 1758) (three specimens in Borisova Gradina Park), *Molorchus umbellatarum* (Schreber, 1759) (one specimen in Zdrave Park), *Dinoptera collaris* (Linnaeus, 1758) (one specimen in Borisova Gradina Park) and *Alosterna tabacicolor* (De Geer, 1775) (one specimen in Zdrave Park). It seems that the diversity of woody vegetation in Sofia's parks, as well as the deadwood retention, supports populations of the polyphagous species of Cerambycidae in these urban habitats.

The range of *D. reichii* includes countries with warm climates, and its finding in Sofia, and not in more southern regions of Bulgaria, is rather unexpected. It is also surprising that the species has not been registered in previous studies of the urban fauna of Sofia, especially considering its abundance and diurnal activity. It is possible that this apparently thermophilic species has colonised the studied areas as a result of a recent expansion, favoured by the climate change and an urban heat island effect (Dimitrova *et al.*, 2019).

Fig. 2. *Dolocerus reichii* from Zdrave Park in Sofia City, Bulgaria. A – male (BFUS-CER000824); B – female (BFUS-CER000839). Scale bar: 1 mm.

Fig. 3. Copulating pair of *Dolocerus reichii* on flowers of *Spiraea x vanhouttei* in Borisova Gradina Park, Sofia City, Bulgaria, 15.v.2026.

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