

Carphoborus cholodkovskyi Spessivtsev, 1916 (Coleoptera, Curculionidae, Scolytinae) new to Norway

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Kvamme, T. & Lindelöw, Å. 2014. *Carphoborus cholodkovskyi* Spessivtsev, 1916 (Coleoptera, Curculionidae, Scolytinae) new to Norway. *Norwegian Journal of Entomology* 61, 143–146.

The first record of *Carphoborus cholodkovskyi* Spessivtsev, 1916, from Norway is presented. It was sampled in a dead, standing pine tree (*Pinus sylvestris* L.) on a peat bog at the southern end of Lake Femunden in Hedmark County on 23 June 2014. Description of the substrate and habitat are included, with a discussion on the distribution.

Key words: *Carphoborus cholodkovskyi*, Norway, Coleoptera, Scolytinae, new record.

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Introduction

Carphoborus cholodkovskyi Spessivtsev, 1916, is wrongly mentioned as found in North Norway (Pfeffer 1955, 1995 and others). This is most probably based on Stark (1952), who is the first to mention the species from Norway. According to Milos Knížek (*pers. com.*), Stark has probably misread Strand (1946). Strand mentioned the species in “Nord-Norges Coleoptera”, but not as being from Norway. The species is listed as recorded in Norway in the world catalogue by Wood & Bright (1992), referring to both Strand (1946) and Stark (1952), and later in the Palaearctic Coleoptera catalogue (Knížek 2011). *C. cholodkovskyi* is not listed as recorded in Norway by Hansen *et al.* (1939), Lindroth (1960), Lekander *et al.* (1977), Silfverberg (1979, 2004, 2010) or the database of the Nordic Coleoptera Group (NCG) (2014). We have not been able to locate any Norwegian reference specimens

in collections. Consequently we regard the information as an inherited mistake and the species as new to Norway.

The record

During a visit to the Femunden area (Figure 2) we searched for bark beetles both within Gutulia National Park adjacent and areas outside the protected areas from 23. – 25. June 2014. On Tengstadmyra (61°55'35.2"N 11°53'44.0"E), near Femundsenden in Engerdal Municipality, specimens of *C. cholodkovskyi* (Figure 1) were found in galleries in a dead, standing Scots pine (*Pinus sylvestris* L.), which was laid down for examination. The Femunden area is approximately 665 m above sea level, and the area is typical for a higher altitude forest. Scots pine dominates the area and is interspersed with Norway spruce (*Picea abies* (L.) Karsten), birch (*Betula* spp.),



FIGURE 1. *Carphoborus cholodkovskiy* Spessivtsev, 1916. Photo Vítězslav Maňák.



FIGURE 2. The distribution of *Carphoborus cholodkovskiy* Spessivtsev, 1916, in Scandinavia (modified from Lekander et al. 1977). The red dot indicates the first Norwegian record at Tengstadmyra, near Femundsanden in Engerdal Municipality.



FIGURE 3. The habitat at the border of the bog where *Carphoborus cholodkovskiy* Spessivtsev, 1916, was found.



FIGURE 4. The gallery of *Carphoborus cholodkovskiy* Spessivtsev, 1916, in the sampled Scots pine (*Pinus sylvestris* L.).



FIGURE 5. Old galleries of *Tomicus piniperda* (Linnaeus, 1758) next to new galleries of *Carphoborus cholodkovskiy* Spessivtsev, 1916.

and other deciduous tree species. The sampled pine tree was situated at the forest edge of a boggy area, on a south facing, sun exposed locality (Figure 3). Small pine trees, both dead and alive, were scattered around the border of the peat bog. The pine tree with *C. cholodkovskyi* had thin and rather dry bark which was tightly attached to the stem. Several galleries, with and without egg niches, were found along the sunny side of the stem (Figure 4). The stem diameter where *C. cholodkovskyi* was found, 2–4 m above ground, was approximately 13 cm. On the lower, thicker-barked parts of the stem, the bark was peeled off by woodpeckers, showing galleries of *Tomicus piniperda* (Linnaeus, 1758) (Figure 5). In the upper trunk, galleries of *Pityogenes* spp. were found. These species had colonised and left the tree in 2013.

Discussion

This record in Norway was highly expected. *C. cholodkovskyi* represents the 70th known species of bark beetle established in Norway (Silfverberg 2010, Lindelöw & Kvamme 2013, Kvamme & Lindelöw 2014). The continental climate in the area, with cold winters and relatively warm and dry summers, makes this area a true extension of the Russian taiga. In Sweden the nearest record of *C. cholodkovskyi* is from the area around Idre, Älvdalen municipality (Figure 2). There are no natural barriers between the forests in Norway and Sweden in this area, and the record in Norway belongs to a natural continuation of the distribution in Sweden. We assume the species to be relatively common and distributed in the area.

Ehnström & Axelsson (2002) summarized the biology: the main host tree species is *P. sylvestris*, but also *P. abies* is known as a host tree in Russia. However, *Larix dahurica* Turcz. (= *L. gmelinii* (Rupr.) Kuzen) is also noted as a host tree (Wood & Bright 1992), and so is *Picea obovata* Lebed. (Pfeffer 1995). The development lasts two years and the females may lay eggs in the same galleries two years in a row. The generation period is three years. *C. cholodkovskyi* is polygamous and the galleries have a large nuptial chamber and 3 to 6

egg galleries.

We do not see this species as threatened in this area due to the size of the protected areas, combined with the type of substrate required. The forestry activity is low in the area and the slow-growing trees on the bogs are of minor interest for forestry. There are restrictions on forest cutting operations on bogs in Norway. Bogs constitute a large proportion of the landscape in the area. In Sweden the species is found on bogs as well as areas with poor soil and suppressed pine trees, often boulder fields. If included in the red list, it can only be listed as DD (Data Deficient) due to the lack of data. The red list categories are defined in Kålås *et al.* (2010).

Since *C. cholodkovskyi* has not previously been documented from Norway, it has no common name. We thus propose that the Norwegian common name should be Cholodkovskys furubarkbille. This is in agreement with the naming history. Spessivtsev (1916) named the beetle in honour of his teacher, the Russian professor N.A. Cholodchovsky. The name is also in harmony with the Swedish common name, which is Cholodkovskyis bastborre (Ehnström & Axelsson 2002).

Acknowledgements. We are indebted to Milos Knížek for valuable comments on the manuscript. Thanks also to Siri Bjøner for correcting the language.

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Received: 13 August 2014

Accepted: 25 August 2014