

Two New Insect Species in Austria: One Established, the Other One Not (Yet)

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Abstract

In August 2007 the longhorn beetle *Eburodacrys elegantula* (Gounelle, 1909) was introduced to Vienna with liana for terraristic equipment. The beetle probably came from Brazil. It is not likely to spread in Austria due to climate conditions in winter. Already in 1999, the American Dock leaf bug *Leptoglossus occidentalis* (Heidemann, 1910) was found first in Europe (Italy), and in 2005 also in Austria. In autumn, many bugs were detected near buildings. Extreme weather conditions of the Austrian winter could not stop the spread of this species.

Keywords: *Eburodacrys elegantula*, *Leptoglossus occidentalis*, introduction, invasion, import

Kurzfassung

Zwei neue Insektenarten in Österreich: die eine etabliert, die andere (noch) nicht

Im August 2007 wurde der Bockkäfer *Eburodacrys elegantula* (Gounelle, 1909) mit Lianen für den Terrarienbedarf in Wien eingeschleppt. Dieser Käfer stammt wahrscheinlich aus Brasilien und dürfte sich in Österreich aufgrund der derzeitigen Klimaverhältnisse im Winter nicht ausbreiten können. Bereits 1999 wurde die amerikanische Randwanze *Leptoglossus occidentalis* (Heidemann, 1910) erstmalig in Europa (Italien) gefunden, 2005 auch in Österreich. Zahlreiche Wanzen wurden im Herbst bei Gebäuden angetroffen. Die Winterextreme in Österreich haben die Ausbreitung dieser Art sichtlich nicht verhindert.

Schlüsselworte: *Eburodacrys elegantula*, *Leptoglossus occidentalis*, Einschleppung, Einwanderung, Import

Longhorn Beetle *Eburodacrys elegantula* larvae imported in liana

In August 2007 the Department of Forest Protection, BFW was notified by a reptile owner in Vienna, that she had heard a noise coming from the liana in the Terrarium of her Spiny Tail Lizard (Mountain Horned Dragon, Agamidae) and shortly after, a large insect had emerged, which she correctly identified as a Longhorn Beetle. The piece of liana (Figure 1) had been bought from an Austrian pet shop. Very often they originate in the tropics of South America and despite of the not inconsiderable quantity of imports, Plant Protection Laws do not prescribe import controls.

The piece of liana was handed over to the Forest Protection Department, where under quarantine laboratory conditions seven more of the same exotic Longhorn Beetles hatched over the following weeks. The identification of beetles from other continents, especially from South America, Africa, and Asia, can be difficult due to the many yet unknown species or incomplete identification literature. However, in this case with literature covering European and Asia Minor Longhorn Beetles it was possible at least to propose the following classification: they stem from the *Eburiini* beetles.

After further investigations on the internet, we conclude that the beetle could be classified in the genus

Figure 1: Probably South American liana as terraristic equipment with exit holes of beetles

Abbildung 1: Vermutlich südamerikanische Lianen für den Terrarienbedarf mit Käfer-Ausbohrlöchern





Figure 2: Long horned beetle *Eburodacrys elegantula*, male (a) and female (b), introduced to Vienna with liana

Abbildung 2: Männlicher (a) und weiblicher (b) Bockkäfer *Eburodacrys elegantula*, mit einer Liane nach Wien eingeschleppt

Eburodacrys, and it is most likely to be *Eburodacrys elegantula* Gounelle, 1909 (Figure 2). Although the hind markings of the wing cases (Figure 3) on the beetles are somewhat alternatively marked to the references, the



of the abdomen ranges from yellow to yellow-orange, which is normally only visible during flight. A good identification method is the leaf shaped thickening of the back legs (Figure 5). Also, the teeth on the hind leg are clearly visible. Unlike most of the related family the released stink is more of apple scent in nature, and is not unpleasant.

The species was first described in California 1910, and, as previously mentioned, was found in Europe 1999 in Northern Italy. By 2001, it had populated a larger part

Figure 3: *Eburodacrys elegantula*: Hind patches of the elytra from the beetle hatched in Vienna (a) and from a reference beetle (b) by comparison

Abbildung 3: *Eburodacrys elegantula*: Hintere Flecken auf den Flügeldecken der in Wien geschlüpften Käfer (a) und jene eines Referenzkäfers (b) im Vergleich

(Quelle/source: <http://plant.cdfa.ca.gov/bycid/db/details.asp?id=1654>)

entomology and specialist for Longhorn Beetles Steven Lingafelter (USDA, Smithsonian Institution, Washington, D.C.) could confirm this.

This Longhorn Beetle species occurs in Bolivia, Ecuador, and Brasil (Lingafelter, pers. comm.; Martins et al. 2006; Wappes et al. 2007) and is found in a large range of regions with varying climate and habitat. The complete host range of tree/plant species is unknown. However, due to the winter extremes in Austria it is unlikely that it could survive under current natural climate conditions.

Western Conifer Seed Bug *Leptoglossus occidentalis*, recent in Austria

Masses of large bugs were found in autumn 2007 near BFW Schönbrunn/Vienna. They were identified from the Leaf footed bug group as *Leptoglossus occidentalis* Heidemann, 1910. Although present in Europe since 1999, its presence in Middle Europe was recorded after having been found in Vienna, Carinthia, and Tyrol in autumn 2005 (Rabitsch und Heiss 2005), followed by Salzburg in 2006 (Nowotny 2007).

The 16 – 20 mm long bug is brownish in colour, whereby the mid section has a fine diagonal whitish marking (Figure 4). The upper-side



Figure 4: Dock leafbug *Leptoglossus occidentalis*
Abbildung 4: Randwanze *Leptoglossus occidentalis*



Figure 5: Typical for *Leptoglossus occidentalis*: Hind tibiae with leaf-like expansions and hind femora with spines
Abbildung 5: Typisch für *Leptoglossus occidentalis*: Kräftige Hinterbeine mit blattartiger Verdickung der hinteren Schiene und Zähnen auf dem Schenkel

of Lombardei and Veneto (Bernardinelli & Zandigiacomo 2001). Before being detected in Austria 2005, it was present in Switzerland 2002, Spain 2003, Croatia and Hungary 2004. In 2006, it was found in Germany, France and in the Czech Republic. With its ability to fly, its spread and subsequent population of a region is almost inevitable. Its survival within our climatic conditions is enhanced, due to its overwintering strategy around the protected environments of buildings. Spread in varying larval development stages over long distances occurs through passive transportation of plant material.

The adult *Leptoglossus occidentalis* insect overwinters and draws nutrition from flowers and seeds in spring. The females lay their eggs on conifer needles, with main host plants being Pine species and Douglas fir. The

young larvae feed primarily from the developing cones, and occasionally needles. After the 5th larva stage they become adults, which can be expected from August onwards. In Europe, they have also been found on *Picea*, *Abies*, *Cedrus* and *Juniperus*.

In the United States it is considered a pest, that can affect the potential seed production from a stand, but otherwise there is no visual damage. It is not yet possible to evaluate the potential damage to Austrian forestry (e.g. at Douglas fir). A potential epidemic level is not expected. It is more likely that the bugs become an annoying factor within habituated buildings during their autumn search for an overwinter resting place.

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