



## Taxonomic remarks on some genera of Lixini Schoenherr, 1823 (Coleoptera: Curculionidae)

LEVENT GÜLTEKİN

Atatürk University, Faculty of Agriculture, Department of Plant Protection, 25240 Erzurum, TURKEY. E-mail: lgultekin@gmail.com

### Abstract

Types of forty-six species of Lixini of the genera *Broconius* Desbrochers, 1904, and *Lixus* Fabricius, 1801 were examined to evaluate their status, and lectotypes were designated [or holotypes recognized] when necessary. New synonyms, homonyms, combinations and new names were established as follows: *Lixus* Fabricius, 1801 [= *Broconius* Desbrochers, 1904 **syn. n.**], *Lixus rectirostris* Faust, 1890 [= *Lixus rectirostris* Desbrochers, 1904 **hom et syn. n.** = *Broconius helenae* Alonso-Zarazaga & Lyal, 1999 **syn. n.** = *Lixus rectirostris* Faust subsp. *infrequens* Hoffmann, 1954 **syn. n.**], *Lixus kraatzi* Capiomont, 1875 [= *Lixus confinis* Petri, 1904 **syn. n.**], *Lixus isfahanensis* **nom. n.** [= *Larinus cylindrus* (Hoffmann, 1963) not *Lixus cylindrus* (Fabricius, 1781) **comb. et hom. n.**], *Lixus scolopax* Boheman, 1835 [= *Lixus lutescens* Capiomont, 1875 **syn. n.** = *Lixus operculifer* Petri, 1904 **syn. n.** = *Lixus ewaldi* Alziar, 1978 **syn. n.**], *Conorhynchus mixtus* (Fabricius, 1792) [= *Lixus semilunatus* Petri, 1904 **comb. et syn. n.**], *Lixus elegantulus* Boheman, 1842 [= *Lixus ampli-rostris* Petri, 1904 **syn. n.** = *Lixus colchicus* Petri, 1904 **syn. n.** = *Lixus convexicollis* Petri, 1904 **syn. n.**], and *Lixus nordmanni* Hochhuth, 1847 [= *Lixus iridis* v. *levantinus* Petri, 1904 **syn. n.**].

**Key words:** *Broconius*, *Lixus*, Lixini, Curculionidae, types, nomenclature, taxonomy

### Introduction

With about 62,000 species, weevils (Coleoptera: Curculionoidea) are the largest animal superfamily (Oberprieler et al. 2007). Lixinae is one of the largest subfamilies of Curculionidae, with 1200 species in the world. There is still no basic phylogenetic research on the tribal classification of Lixinae. Ter-Minassian (1967), one of the leading specialists on the subfamily, divided Lixinae as two tribes: Cleonini Schoenherr, 1826 and Lixini Schoenherr, 1823. Alonso-Zarazaga and Lyal (1999) listed three tribes adding Rhinocyllini Lacordaire, 1863. In contrast, Colonnelli (2003) combined Rhinocyllini with Lixini, mentioning no clear morphological or ecological boundaries existing between the two.

Species of Lixini are strictly phytophagous and comprises about 700 species with 15 genera worldwide (Csiki, 1934, Ter-Minassian, 1967, Alonso-Zarazaga and Lyal, 1999). Over 300 species are found in the Palaearctic region and about 200 in the Afrotropical region. The largest genera are *Lixus* Fabricius, 1801 and *Larinus* Dejean 1821. Descriptions of most of the species lack adequate illustrations and are often based only on external morphology, so that it is often difficult to know what are the important species differentiating characters. This lack of information along with a high diversity of similar species makes identification and subsequent study and classification difficult.

In the tribe Lixini, two main ecological groups are distinguished based generally on body form, life history and the ecology of the larvae. The first group comprises *Larinus* and allied genera (Ter-Minassian, 1967), almost all inflorescence inhabitants, with the adult body form usually ovate. The second group comprises *Lixus* and allied genera (Ter-Minassian, 1967), which are stem, root and petiole inhabitants, with an adult body form that is generally long and cylindrical. Whether these groups have phylogenetic meaning requires further detailed study.