

Annotated list of Buprestidae (Coleoptera) and their host plants of Israel

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Abstract: 173 species of Buprestidae, 48 of them new to the Israeli fauna, are listed and annotated according to their host plants, regional distribution, flight period and frequency in Israel. A list is also given of 76 plant genera/species, and their buprestid fauna. Trophic relations, economic importance and faunal elements are discussed.

Kurzfassung: Die Liste führt 173 Arten von Prachtkäfern auf, wovon 48 neu für die Fauna Israels sind. Dazu werden Angaben zu ihren Brutpflanzen, zur regionalen Verbreitung, zur Flugperiode und zu ihrer Häufigkeit in Israel mitteilt. Zusätzlich wird eine Liste von 76 Pflanzengattungen/arten und deren Buprestidenfauna vorgelegt. Trophische Beziehungen, wirtschaftliche Bedeutung und Faunenelemente werden diskutiert.

Key words: Coleoptera, Buprestidae, Israel, host plants, faunal elements, economic importance.

Introduction

The Buprestidae comprise about 15,000 species, mostly native to the warmer parts of the world. There are approximately 1,500 species in the Palaearctic fauna, but only about 270 in Europe. The estimated number of species in Israel may reach 200.

The beetles of this family have enormous ranges of size (2–85 mm worldwide and 3–40 mm in Israel), shape and colour. Some species are narrow and elongated, others are quite flat and round. They vary from entirely black to all colours of the spectrum, many of them having a metallic sheen. In many species the two sexes differ morphologically: males are usually smaller and more slender than females, and they sometimes differ in colour, lengths of antennae and their segments, and in the structure of tibiae and femora. The larvae are whitish, blind, apodous, mostly flattened dorso-ventrally, and hairless; they usually have an enlarged thoracic region. It is possible to distinguish four morpho-ecological types:

a) Acmaeoderinae, Chalcophorinae, Chrysobothrinae, Sphenopterinae and Buprestinae have a strikingly enlarged prothorax; the meso- and metathorax are narrower and very short. They develop mostly in dying wood or bark of trees and shrubs, rarely in stalks of herbs. Some of them, such as *Capnodis* and *Steraspis*, develop in living trees.

b) Agrilinae and Cylindromorphinae differ from the above type in having a narrower prothorax, a longer abdomen, and sclerotized spines on the anal segment; Agrilinae develop under the bark of trees and shrubs, Cylindromorphinae in grass stalks.

c) Trachyinae have homogeneous body segments with strongly convex lateral margins and dark, sclerotized plates both dorsally and ventrally; they develop in leaf parenchyma, where they form characteristic leaf mines.