

ON THE OCCURRENCE OF *ARADUS CINNAMOMEUS* PANZER IN ISRAEL  
AND SOME OTHER EAST MEDITERRANEAN COUNTRIES  
(HETEROPTERA, ARADIDAE)\*

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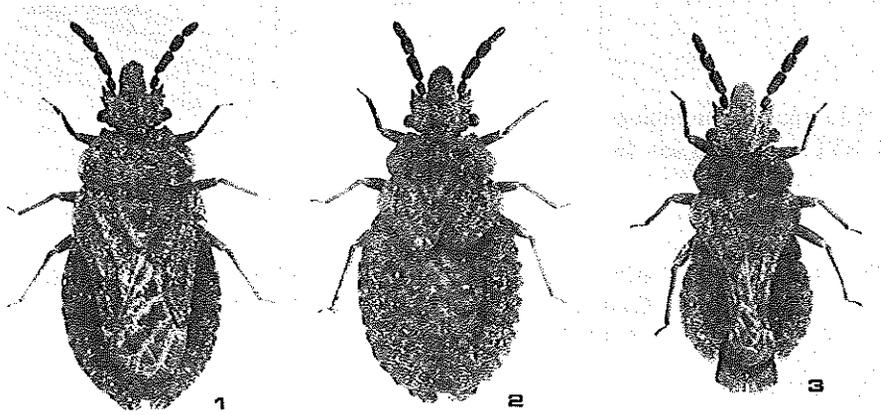
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The Aradidae seem to be very poorly represented in Israel and only few references to them are available in the literature. Bodenheimer (1930) reports one species: "*Aradus* sp. Eine unbestimmt gebliebene kleine scharze Art lebt in April unter der Borke [der Kiefer], ohne Schaden anzurichter (Karmel)." Linnavuori (1961) mentions *A. betulae* L. (four larvae) from Elon (Upper Galilee), collected by Bytinski. However, the first author, who examined two of these larvae, disagrees with this determination, although he agrees that they belong to the *betulae* group. Brammanis (1975) recorded the occurrence of *A. cinnamomeus* Panzer in Israel, based on specimens collected by the second author on *Pinus halepensis* Miller. It is likely that Bodenheimer's *Aradus* sp. belongs to the same species.

Contrary to the poor representation of *Aradus* in Israel, seven species of the genus (but not *A. cinnamomeus*) were recorded from Greece (Drosopoulos, 1980). *A. cinnamomeus*, which has a west-palaeartic distribution, was not reported until recently, from the East Mediterranean. Lately, the first author found it in Crete (Mt. Afendis, 1000 m, 28.IV.80) on *Pinus brutia* Tenore and he also has in his collection a few specimens from Turkey (collected by Holzschuh near Kars, NW-Anatolia, May 1975).

Nearly all species of the genus *Aradus* are mycetophagous and found in association with bark fungi. *A. cinnamomeus*, which sucks the cell sap from the phloem and cambium of young pines, causes deformation and destruction of the vessels. The damage is of economic importance when the insect is present in large numbers (Brammanis, 1975). The adults display wing polymorphism: males are always stenopterous, whereas females are brachypterous or more rarely, macropterous (Figs. 1-3).

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Figs. 1-3. *Aradus cinnamomeus*, dorsal view. 1. macropterous female. 2. brachypterous female. 3. stenopterous male (Photo, Gratl-Innsbruck).

*A. cinnamomeus* was collected in Israel by the second author between 1973 and 1979 in the following areas. Upper Galilee (Biriya, En Zetim, Biranit), Lower Galilee (Zippori), Mt. Carmel, Samaria (Megiddo, Yoqne'am), Judean Foothills (Tarom, Kesalon), Judean Mountains (Sha'ar HaGay, Shores). It was found under the bark scales of the two most common pine species, *Pinus halepensis* and *P. brutia*, usually in small populations. The largest populations were found in spring (April to May) and late autumn (November); the lowest numbers of specimens were found in winter (January-February). Eggs and young larvae could be observed only in May-June.

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