

Distribution pattern of the hornets *Vespa orientalis* and *V. crabro* in Iran

(Hymenoptera: Vespidae)

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Abstract. Two species of hornets are present in Iran: *Vespa orientalis* Linnaeus, 1771, has a widespread distribution in most parts of Iran, except for the Caspian coast in northern Iran, but *V. crabro* Linnaeus, 1758, is present only on the Caspian coast. The ambiguity regarding these two species in Iran, their distribution patterns, diagnoses and agricultural aspects are discussed.

Keywords. *Vespa orientalis*, *V. crabro*, hornets, distribution, Iran, Middle East.

Introduction

Wasps of the genus *Vespa*, known as hornets, are among the largest wasps and are widespread in different parts of the world. The genus is represented in Iran by two species, *Vespa orientalis* Linnaeus, 1771 and *V. crabro* Linnaeus, 1771, which are often confused and are subject to misidentification. This article intends to clarify the distribution status and the diagnostic characters of the species in Iran.

Vespa orientalis is known as a common wasp in Iran. FARAHBAKHS (1961) reported this species as a pest of grapes, apricot and other fruits. ESMALI & RASTEGAR (1974) have reported both species, without collecting data. OSTOVAN & KAMALI (1995) studied some biological aspects of *V. orientalis* as a pest of dates in the Kazeroun region (Fars province). In a checklist of Iranian Vespinae, BAGRIACIK & SAMIN (2011) have included these two species.

Both species build relatively large nests in enclosed spaces, such as tree trunks, old buildings and occasionally in the soil. They can be regarded as natural control agents as the workers frequently prey on insects and small arthropods and transfer them into the colony to feed their larvae. In a few cases, they may cause damage to agricultural crops when their population increases greatly.

Distribution records

The specimens were mainly collected using insect nets as well as Malaise traps and window traps. The specimens of the Hayk Mirzayans Insect Museum (HMIM), based at the Iranian Research Institute of Plant Protection (IRIPP), were also examined. The locality data given here include only the newly examined specimens and exclude the localities that have been previously reported by EBRAHIMI & CARPENTER (2008).