Mantids (Dictyoptera: Mantodea) from the Palestinian Territories with an updated list

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Mantids (Dictyoptera: Mantodea) from the Palestinian Territories
with an updated list

Elias N. Handal, Aysha M. Al Wahsh, Reinhard Ehrmann, Zuhair S. Amr,
Roberto Battiston & Mazin B. Qumsiyeh

Abstract

A total of seventeen species of the order Mantodea were recorded from the Palestinian Territories belonging to five families (Empusidae, Eremiaphilidae, Mantidae, Tarachodidae and Toxoderidae) and thirteen genera (Ameles, Blepharopsis, Empusa, Eremiaphila, Eremoplana, Holaptilon, Iris, Mantis, Microthespis, Miomantis, Pareuthyphlebs, Rivetina, and Sphodromantis). Ameles syriensis, Rivetina syriaca and Eremiaphila braueri are new records for the Palestinian Territories. Their presence in this area is updated and discussed in a biogeographic and conservation perspective. Further researches on specific issues on their taxonomy and biology are here raised and evidenced.

Zusammenfassung


Introduction

Praying mantids, also known by the locals in the Arab world as the "Lord's horse" or "Prophet's horse", represent a large group of insects worldwide with more than 2500 described (EHRMANN 2002, BATTISTON et al. 2010, ROY 2014, PATEL & SINGH 2016). Members of Mantodea are carnivores that feed on other species of insects and occasionally on small vertebrates thus having potential as biological control agents (SYMONDSON et al. 2002).

Few studies were undertaken on the Mantodea of Middle East. From the most recent regional overviews, CAESAR et al. (2015) listed about 43 species from Iraq, Jordan, Lebanon, Syria and Turkey. Other studies were conducted in Egypt (MOHAMMAD et al. 2011), Jordan (BATTISTON & FONTANA 2005, ABU-DANOUN & KAT-BEH-BADER 2007, EID et al. 2009), the Arabian Peninsula (KALTEBNACH 1982, 1984, 1991), and Turkey (DEMIRSOY 1977, ÇİPLAK & DEMIRSOY 1997); Turkey and Cyprus (EHRMANN 2011), and the Mediterranean basin (BATTISTON et al. 2010).
Two species were first described from Palestine: *Eremiaphila brunneri* (Werner 1905), and *Holaptilon pusillulum* (Beier 1964). Most of our knowledge on the Palestinian Territories is based on old literature (Brulé 1832, Costa 1878, Giglio-Tos 1893, Krauss 1909, Buxton & Uvarov 1923, Buxton 1924, Uvarov 1923, 1931, 1933, 1939a and b, Enslin 1929, Bodenheimer 1933, 1935, 1937, 1953, Beier 1964, Kaltenbach 1963, Amiati 1991). This communication reports on the mantids studied at the Palestine Museum of Natural History (PMNH, www.palestinenature.org) at Bethlehem University.

**Materials and Methods**

Field trips were conducted to collect mantids from the different parts of the Palestinian Territory between 2012-2016 covering 46 localities (Table 1, Figure 1). All specimens were preserved and deposited at the Palestine Museum of Natural History (PMNH). Identification was done according to Battiston et al. (2010), Mohamad et al. (2011) and original descriptions.

### Table 1: List of visited localities and their coordinates.

<table>
<thead>
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<th>Location</th>
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<tr>
<td>Ain Yabroud</td>
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<td>Safit</td>
<td>32°4′42.8514″</td>
<td>35°10′21.8238″</td>
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</table>

**Results**

A total of seventeen species belonging to five families (Mantidae, Empusidae, Eremiaphilidae, Tarachodidae and Toxoderidae) of praying mantids were identified from the Palestinian Territories. From the family Mantidae we recorded ten species (*Ameles kervillei* Bolivar, 1911, *Ameles syriensis* Giglio-Tos, 1915, *Holaptilon pusillulum* Beier, 1964, *Sphodromantis viridis viridis* (Froskål, 1775), *Mantis religiosa religiosa* Linnaeus 1758, *Eremoplana inflex* Uvarov, 1924, *Rivetina syriaca* (Saus-
From the family Empusidae we recorded two species (*Blepharopsis mendica* (Fabricius 1775) and *Empusa fasciata* Brullé 1832), from the family Tarachodidae one species *Iris oratoria* (Linnaeus 1758), and from the family Eremiaphilidae three species (*Eremiaphila braueri* Krauss 1902, *Eremiaphila brunnieri* Werner 1905 and *Eremiaphila* cf. *uvarovi* Bodenheimer 1933). Family Toxodoridae, one species, *Parreuthyphlebs palmonii* (Uvarov, 1939) was recorded.

**Family Mantidae Latreille, 1802**

*Ameles kervillei* Bolivar, 1911  
**Material examined:** Beit Sahour (PMNH4530, 26.4.2014); Beni Nua’im (PMNH1714-6, 7.4.2013); Yatta (PMNH6598, 13.5.2015); Taiba (PMNH1755-17, 12.4.2013). Observed in Bir Zeit (May, 2017).

**Remarks:** *Ameles kervillei* was recorded from the Jordan Valley, Palestine based on specimens in the Natural History Museum in London (AGABITI et al. 2010). It was recorded from the Levant and Egypt (BATTISTON et al. 2010, MOHAMMAD et al. 2011). *A. kervillei* is a small mantis, and is difficult to locate (ABU-DANNOUN & KATBEH-BADER 2007). The male of this species has never been described and AGABITI et al. (2010) hypothesized that *A. massai* Battiston and Fontana 2005 (known only for male specimens) may be a synonym of *A. kervillei*. However, similar characters are also shared by *A. wadisirhani* Kaltenbach 1982 also known only for the male specimen. The taxonomy of these three species need to be better investigated on large series of specimens from all supposed species complemented by molecular analysis. This species was collected both in semi-arid regions near Beni Nuaim and in Mediterranean mesic climates such as Taiba and Bir Zeit.
Ameles syriensis Giglio-Tos, 1915 (Fig. 2-D)

**Material examined:** Taiba (PMNH1734-17, 12.4.2013); Nahaleen (PMNH1735-7, 2.5.2013; PMNH1735-10, 2.5.2013); Wadi Al Quff (PMNH3800, 15.3.2014); Al-Aqaba (PMNH4050, 18.4.2014); Bethlehem (PMNH8169; PMNH8170, 30.4.2016); Yatta (PMNHE10452, 15.4.2017).

**Remarks:** This is a new record for historic Palestine. It was recorded from Jordan, Syria and Turkey (ABU-DANNOUN & KATBEH-BADER 2007, AGABITI et al. 2010, BATTISTON et al. 2010). It can be recognized from similar species of Ameles by less conical eyes with an apical tubercle (AGABITI et al. 2010). This species was collected from different habitats and biogeographic zones ranging from Mediterranean to Irano-Turanian.

Holaptilon pusillulum Beier, 1964

**Material examined:** Wadi Fukeen (PMNH6681, 27.5.2015).

**Remarks:** This species was first described from Jerusalem (BEIER 1964) but has not been observed or collected in Palestine since then. It has been however recently reported from Jordan (ABU-DANNOUN & KATBEH-BADER 2007). This record confirms the presence of this species near its type locality (Wadi Fukeen is to the Southwest of Jerusalem) more than fifty years later. This rare species needs further studies to determine its population stability and whether conservation measures are needed.

Sphodromantis viridis viridis (Froskál, 1775)

**Material examined:** Salfit (PMNH6798, 3.2015).

**Remarks:** S. viridis is a xerothermic species with a wide and expanding distribution in Africa, Asia and Europe (BATTISTON et al. 2017). EHRRMANN (2011) mentioned specimens at Staatliches Museum für Naturkunde Karlsruhe, Germany collected from historic Palestine without defined localities. However, Salfit region is of more Mediterranean climate and certainly not semi-arid areas were the species was reported in Jordan (ABU-DANNOUN & KATBEH-BADER 2007) and Egypt (LAGRECA 1966). Comparisons on a larger series of specimens are thus necessary to better define the morphological variation between desert dwelling forms and this Salfit record in the region in the East Mediterranean. Our Salfit specimen maybe closer to European populations than those other populations but more studies are needed.

Mantis religiosa religiosa Linnaeus, 1758 (Fig. 2-B)

**Material examined:** Wadi Qana (PMNH5197, 1.2.2014); Bethlehem (PMNH8258, 16.11.2016).

**Remarks:** M. religiosa is a widely distributed species, extending across Asia, Africa, Europe and North America (EHRRMANN 2011). The presence of this species in different habitats and various vegetations is known and here confirmed (BATTISTON & FONTANA 2010).
Figure 2: A: *Blepharopsis mendica* ♀. B: *Mantis religiosa* ♀. C: *Empusa fasciata* ♀. D: *Ameles syriensis* ♂. Bar = 10mm.

*Eremoplana inflex* Uvarov, 1924 (Fig. 3-B)

**Material examined:** Mikhmas (PMNH1759-2, 24.5. 2013); Dar Salah (PMNH5443, 26.12.2014); Bethlehem (PMNH7824, 19.5.2016); Ain Yabroud (PMNH8002, 27.7.2016).

**Remarks:** This very large mantis is found in Sudan, Egypt, the Eastern Mediterranean and into Saudi Arabia (EHRMANN 1996). In Palestine individuals have been found from Mediterranean hills and to the edge of the semi arid regions (e.g. Dar Salah and Mikhmas).

*Rivetina syriaca syriaca* (Saussure, 1869)

**Material examined:** Ain Samia (PMNH7242, 7.9.2015); Artas (PMNH4706, 12.8.2014); Mar Saba (PMNH7843, 27.5.2016; PMNH7842, 27.5.2016; PMNH7844, 27.5.2016).
Remarks: The taxonomy of this genus is problematic and need a revision. *R. syriaca* is found in western Asia and distinguished from the western-distributed *baetica* group by the shape of the pronotum markedly toothed, the short tegminae and the larger fore femora. Our specimens, the first in Palestine are compatible with *syriaca* group (already known to be present from Central Asia in Tadschikistan, Transcaspian, Utsh-Adzhi and Turkey (BATTISTON et al. 2010) and its presence in all the Eastern Mediterranean coast, can be expected.

*Rivetina byblica* La Greca and Lombardo, 1983 (Fig. 3-A)  
Material examined: Mar Saba (PMNH1748-3, 13.5.2013); Ubaidieh (PMNH1748-4, 13.5.2013); Mikhmas (PMNH1759-11, 23.5.2015); Beit Sahour (PMNH1802-4, 12.6.2013); Zababda (PMNH1805-7, 13.6.2013); Um Tut (PMNH1806-3, 13.6.2013); Wadi Al Quff (PMNH1951, 20.6.2013); Bethlehem (PMNH3129, 11.21.2014); Al Walaja (PMNH-4644, 8.8.2014); Wadi Fukaaeen (PMNH4696, 9.8.2014; PMNH4704, 7.8.2014); Artas (PMNH4711-20, 12.8.2014); Idrha (PMNH4968, 23.8.2014); Wadi Qana (PMNH5197, 1.2.2014); Nuwaima (PMNH6506, 24.4.2015); Wadi Tammra (PMNH6901, 3.6.2015); Wadi Al Ta'amra (PMNH6907, 3.6.2015); Wadi Fukeen (PMNH7077, 29.7.2015); Wadi Al Makhrou (PMNH7188, 31.8.2015); Wadi Mukata’ (PMNH7712, 8.4.2016); Mar Saba (PMNH7841, 27.7.2016; PMNH7841, 27.5.2015; PMNH8003, 27.7.2016); Al Qarn (PMNH8000, 29.7.2016); Ain Hijla (PMNH8004, 18.4.2014); Mar Saba (PMNH8007, 27.7.2016; PMNH8008, 27.7.2016); Al Mazra’ah Al Sharqia (PMNH8116, 10.8.2016; PMNH8118, 10.8.2016; PMNH8122, 10.8.2016; PMNH8142, 10.8.2016; PMNH8260, 10.8.2016); Dayr Greer (PMNH8124; PMNH8129, 27.7.2016); Tal Al Assour (PMNH-8125, 27.7.2016; PMNH8162, 27.7.2016; PMNH8127, 27.7.2016); Ajul (PMNH8141, 3.8.2016); Yabroud (PMNH8144, 27.7.2016; PMNH8149, 27.7.2016; PMNH8151, 27.7.2016); Wadi Quff (PMNH8184, 5.2016); Ojja (PMNH8259, 25.7.2016) Wadi Al Zarka (PMNH E10649, E10650, E10657, E10653, 28.4.2017); Yatta (PMNH E1040, E10371, E10381, 25.3.2017).

Remarks: This is the most common species in the West Bank, it has been observed in different habitat (Mediterranean, semi-arid and arid). It was originally described by LA GRECA & LOMBARDO (1982) from Wadi Shu’ayb, Jordan (previously recorded as *Rivetina baetica* Rambur, 1839). It was reported from Palestine, Jordan, Syria and Turkey. We found this species in a variety of habitats and biogeographical zones in Palestine.

*Miomantis paykullii* Stål, 1871  

Remarks: BATTISTON et al. (2010) reported this species from "Israel" without specific locality or specimens. Its presence in Palestine at the easternmost edge of its distribution need to be carefully studied and monitored as it may be affected by climatic changes and declining in one part of its range while expanding in another.

*Microthespis dmitriewi* Werner, 1908  
Material examined: Jericho (female), (NMB: Naturhistorisches Museum Basel, Switzerland).

Remarks: It was reported from Palestine by BODENHEIMER (1933). Its distribution range extends over Ethiopia, Yemen, Iran, Oman, reaching as far as Pakistan (EHRMANN 2002).
Family Empusidae Burmeister 1838

*Blepharopsis mendica* (Fabricius 1775) (Fig. 2-A)

**Material examined:** Battir (PMNH1952, 16.6.2016); Mar Saba (PMNH7846, 27.5.2016); Ain Yabroud (PMNH8001, 27.7.2016); Dayr Balout (PMNH E10610, 2.5.2017). Observed in Bir Zeit (April, 2016), Bethlehem (June, 2016), and Yatta (April, 2017).

**Remarks:** This is a widespread species extending over North Africa and the Sahara, the Middle East, to India (ABU-DANNOUN & KATBEH-BADER 2007; BATTISTON et al. 2010) and Turkey (KOÇAK & KEMAL 2017). EHRRMANN (2011) reported on specimens collected from historic Palestine without defined localities at the Staatliches Museum für Naturkunde Karlsruhe (SMNK), Germany. This species was collected on thorny bushes in various habitats in Palestine (Jerusalem, Khirbat an Natsh (31.40N-35.13E), 12 km S Jerusalem, 11 male, 8 female).

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Figure 3: A: *Rivetina byblica* ♂. B: *Eremoplana inflex* ♀. C: *Iris oratoria* ♂. Bar = 10mm.
**Empusa fasciata** Brullé, 1832 (Fig. 2-C)

Material examined: Tarqumia (PMNH1712-26, 4.4.2013); Artas (PMNH4734, 13.8.2014); Bethlehem (PMNH4864, Fall 2012) Wadi Qana (PMNH5243, 1.2.2014); Wadi Al Makhrour (PMNH 5555, 23.1.2015); Beit Sahour (PMNH5796, 25.2.2015); Beit Qad (PMNH6637, 18.3.2015); Wadi Al Bathan (PMNH7268, 19.9.2015); Wadi Al Haramya (PMNH7686, 3.3.2016); Battir (PMNH7853, 5.5.2016); Dayr Jreer (PMNH8130, 27.7.2016); Ain Sinia (PMNH8157, 20.6.2016); Yatta (PMNH E10461, 15.4.2017; PMNH E10404, 25.3.2017).

**Remarks:** *E. fasciata* is a common and widely distributed species in the West Bank. It has a wide range of distribution extending from Eastern Europe to southern Asia (Roy 2004). Only two adults were caught while the rest of the specimens were nymphs, confirming that the life cycle of this species even in the southernmost edges of its distribution tends to overwinter with nymphs and adults present in late spring. Abu-Dannoun & Katbeh-Bader (2007) reported also the high proportion of nymphs in the collected species from Jordan and gave notes on its habitat preference. We collected this species from various habitats throughout the West Bank.

**Family Tarachodidae Giglio-Tos, 1919**

*Iris oratoria* (Linnaeus, 1758) (Fig. 3-C)

**Material examined:** Wadi Al Makhrour (PMNH7199, 31.8.2015); Ubaidieh (PMNH5131, 28.8.2014); Bethlehem (PMNH8261, 17.8.2016). Observed in Zatara (August 2016).

**Remarks:** The Mediterranean praying mantid is wide distributed species from West Mediterranean to India (Battiston et al. 2010) and common in Palestine. More details on its behavior and biology were discussed by Brackenbury (1991) and Abu-Dannoun & Katbeh-Bader (2007).

**Family Eremiaphilidae Saussure, 1869**

*Eremiaphila braueri* Krauss, 1902

**Material examined:** Zatara (PMNH8257, 11.2016).

**Remarks:** This is the first record for this species for historic Palestine. It is known from the Arabian Peninsula (Kaltenbach 1982, 1991) and Jordan (Abu-Dannoun & Katbeh-Bader 2007). Accounts on the behavior of this species were given by Roonwall (1938) and Abu-Dannoun & Katbeh-Bader (2007).

*Eremiaphila brunneri* Werner, 1905

**Material examined:** Beit Sahour (PMNH1802-3, 12.6.2013); Ain Hijla (PMNH4008, 18.4.2014); Wadi Qana (PMNH5245, 1.2.2014); Tulkarem (PMNH6069, 19.3.2015); Wadi Al Ta'amra (PMNH6903, 3.6.2015; PMNH6904, 3.6.2015; PMNH7295, 21.9.2015; PMNH7297, 21.8.2015; PMNH7777, 3.2016); Dayr Balout (PMNH7125, 10.8.2015); Mar Saba (PMNH8006, 27.7.2016).

**Remarks:** This is an endemic species to Palestine and seems to be common in the West Bank from various habitats. It was first described from Jerusalem (Werner 1905).
**Eremiaphila cf. uvarovi** Bodenheimer, 1933  
**Material examined:** Mar Saba (PMNH7845, 27.5.2016).  
**Remarks:** This species was originally described from Ma’an, Jordan and reported from Palestine (BODENHEIMER 1933 and 1953: 228-229).

**Family Toxodidae Saussure, 1869**

**Pareuthyphlebs palmonii** (Uvarov, 1939) (Fig. 4)  
**Material examined:** SMNS, 16♂. Collector and year of collection unknown  
**Remarks:** This species was originally described from Palestine as *Xenomantis palmonii* (UVAROV 1939b). It is endemic to Palestine.

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Figure 4. *Pareuthyphlebs palmonii*. 
Discussion

Despite its small area (5,655 km²), the Palestinian Territory of the West Bank includes four main biogeographical zones: the Irano-Turanian, Saharo-Arabian, Sudanian penetration area and Mediterranean thus with rich fauna and flora (ZOHARY 1947, WHYTE 1950).

The mantid fauna of Palestine is relatively rich with 30 species (see Table 2). By comparison, 11, 16, 23, 46, and 60 species were recorded from Syria, Jordan, Turkey and Cyprus, the Arabian Peninsula, and Egypt respectively (KALTENBACH 1991, EHRMANN 2002, 2011, ABU-DANNOUN & KATBEH-BADER 2007, MOHAMMAD et al. 2011). Previous records of mantids from historic Palestine includes a total of 30 species (BODENHEIMER 1935, 1937, UVAROV 1939b, BEIER 1964, EHRMANN 2011).

However, the list of mantids of Palestine requires further investigation, since some of the listed species was based on old records. For example, Microthespis dmitriewi is a rare species and was listed by BODENHEIMER (1937) and there is only a single record from Jordan (ABU-DANNOUN & KATBEH-BADER 2007). Pareuthyphlebs palmonii, an Ethiopian species with limited localities in Palestine, and the presence of Geomantis larvoides should be verified.

The mantids of the Palestinian Territories have different zoogeographical affinities. Species of the genus Ameles are circum-Mediterranean with 17 known species, and are represented by four species here (BATTISTON et al. 2010). Blepharopsis mendica is an African species that extend over North Africa and the Sahara eastwards reaching India. It seems that Bolivaria is a Near Eastern or Central Asian genus. According to EHRMANN (2011) Bolivaria kurda is a synonym for Bolivaria brachyptera (PALLAS 1773), thus this genus is represented by a single species within its range. The genus Empusa is represented by seven species within the Euro-Mediterranean region, with four known species from Palestine. Species of this genus has a wide range of distribution across the African content, southern Europe, Middle East to as far as China. Eremoplana infelix is confined to the Great Rift along the Red Sea reaching as far as Lebanon (BATTISTON et al. 2010). The genus Holaptilon is so far endemic to Jordan and Palestine, with H. pusillulum as a single known species.

Hypsicorypha gracilis is a North African species that extends its distribution to the Arabian Peninsula (BATTISTON et al. 2010). The distribution range of Iris oratoria is circum-Mediterranean, extending to as far as India (BATTISTON et al. 2010). Mantis religiosa has a cosmopolitan distribution covering most continents. Microthespis dmitriewi has a unique distributional pattern, extending from East Africa, across Arabia to Pakistan. Species of the genus Eremiaphila have a wide range across North Africa and the Sahara, Middle East to as far as Pakistan, with 46 described species, many of them, including the six represented in this area need further taxonomic evaluation.
Table 2: List of mantids recorded from Palestine and data source (EHRMANN 2002).

<table>
<thead>
<tr>
<th>Family</th>
<th>REFERENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mantidae</strong></td>
<td></td>
</tr>
<tr>
<td>Ameles aegyptiaca Werner 1913</td>
<td>BODENHEIMER (1937)</td>
</tr>
<tr>
<td>Ameles heldreichi</td>
<td>BODENHEIMER (1937), EHRMANN (2002), AGABITI et al. (2010), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Brunner de Wattenwyl 1882</td>
<td></td>
</tr>
<tr>
<td>Ameles kurvillei Bolivar 1911</td>
<td>AGABITI et al. (2010)</td>
</tr>
<tr>
<td>Ameles syriensis Giglio-Tos 1915</td>
<td>This report</td>
</tr>
<tr>
<td>Bolivaria brachyptera (Pallas 1773)</td>
<td>BODENHEIMER (1937), EHRMANN (2002)</td>
</tr>
<tr>
<td>Eremoplana infelix Uvarov 1924</td>
<td>BODENHEIMER (1933), EHRMANN (2002), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Geomantis larvoides larvoides Pantel 1896</td>
<td>BODENHEIMER (1937)</td>
</tr>
<tr>
<td>Holaptilon pusillulum Beier 1964</td>
<td>BEIER (1964), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Mantis religiosa religiosa Linnaeus 1758</td>
<td>BODENHEIMER (1933), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Microthespis dmitriewi Werner 1908</td>
<td>BODENHEIMER (1937), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Miomantis paykullii Stål 1871</td>
<td>EHRMANN 2002, BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Bolivaria brachyptera (Pallas 1773)</td>
<td>BODENHEIMER (1937), EHRMANN (2002)</td>
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</tr>
<tr>
<td>Microthespis dmitriewi Werner 1908</td>
<td>BODENHEIMER (1937), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Miomantis paykullii Stål 1871</td>
<td>EHRMANN 2002, BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Rivetina baetica baetica (Rambur 1838)</td>
<td>BODENHEIMER (1937), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Rivetina syriaca syriaca (Saussure 1869)</td>
<td>This report</td>
</tr>
<tr>
<td>Sphodromantis viridis viridis (Froskål 1775)</td>
<td>EHRMANN (2002, 2011)</td>
</tr>
<tr>
<td><strong>Empusidae</strong></td>
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</tr>
<tr>
<td>Blepharopsis mendica (Fabricius 1775)</td>
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</tr>
<tr>
<td>Empusa fasciata Brullé 1832</td>
<td>BRULLÉ (1832), BODENHEIMER (1937), EHRMANN (2002)</td>
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<tr>
<td>Empusa hedenborgii Stål 1877</td>
<td>BODENHEIMER (1937)</td>
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<tr>
<td>Empusa uvarovi Chopard 1921</td>
<td>BODENHEIMER (1937), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Empusa longicollis Ramme 1951</td>
<td>RAME (1951), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Hypsicorypha gracilis (Burmeister 1838)</td>
<td>BODENHEIMER (1937), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td><strong>Tarachodidae</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Eremiaphilidae</strong></td>
<td></td>
</tr>
<tr>
<td>Eremiaphila ammonita Uvarov 1933</td>
<td>UVAROV (1933)</td>
</tr>
<tr>
<td>Eremiaphila arabica Saussure 1871</td>
<td>BODENHEIMER (1937) listed as E. dawydowi WERNER (1905)</td>
</tr>
<tr>
<td>Eremiaphila braueri Krauss 1902</td>
<td>This report</td>
</tr>
<tr>
<td>Eremiaphila brunneri Werner 1905</td>
<td>WERNER (1905), UVAROV (1933), BODENHEIMER (1937)</td>
</tr>
<tr>
<td>Eremiaphila gene Lefebvre 1835</td>
<td>BODENHEIMER (1937), UVAROV (1939), EHRMANN (2011)</td>
</tr>
<tr>
<td>Eremiaphila uvarovi Bodenheimer 1933</td>
<td>BODENHEIMER (1933, 1937)</td>
</tr>
<tr>
<td><strong>Toxodidae</strong></td>
<td></td>
</tr>
<tr>
<td>Pareuthyphlebs occidentalis Werner 1928</td>
<td>EHRMANN (2002), BATTISTON et al. (2010)</td>
</tr>
<tr>
<td>Pareuthyphlebs palmonii (Uvarov, 1939)</td>
<td>UVAROV (1939b) listed as Xenomantis palmonii, EHRMANN (2002)</td>
</tr>
</tbody>
</table>
The genus *Eremiaphila* has a well-known problematic taxonomy and is in need of a revision: the validity of many species is under debate and species identification can be done only on large series of specimens (Battiston et al. 2010). The specimens here collected have been identified in three different species using traditional characters for univocal identification such as wings without black spots and smooth dumplings on the hind wing for *Eremiaphila braueri*, the lateral edges of the pronotum with small denticles, dark spot on the hind wing for *Eremiaphila brunneri* and the tegmina without long and black semilunar transversal fascia that is narrow anteriorly for *Eremiaphila* cf. *uvarovi*, according to their original descriptions. Further researches however need to be done on a large series of specimens to confirm the presence of populations of these species in Palestine and the validity of their taxonomy.

Since most of the records for this are from Bodenheimer in the thirties of the last century, the rediscovery of some species here recollected in this area after more than 70 years raise interesting questions and problems on the stability of their populations and habitats, and give some other perspectives on their conservation, in particular for the endemic species or species with their type locality in Palestine. A notable case that should be evidenced is the rediscover of the *Holaption pusillulum* few kilometers far from its type locality after 51 years from its original description and disappearance from the scientific records, except for few records recently reported for Jordan (Abu-Dannoun & Katbeh-Bader 2007) but the presence of a Jordanian population needs to be verified. This unique and important Palestinian population, apparently rare and present in scarce numbers need to be studied in its biology and urgent local and international conservation actions are strongly encouraged.

Vivona & Battiston (2010) reported an analysis for the conservation status for the Euro-Mediterranean Mantids. They considered *Ameles aegyptiaca, Eremiaphila uvarovi, Holaption pusillulum, Pareuthyphlebs palmonii*, and *Pareuthyphlebs occidentalis* as seriously threatened, *Ameles kerivillei, Ameles syriensis, Geomantis larvoides* and *Miomantis paykullii* at potential risk, while the other species are not threatened or at favorable conditions. Further studies on the ecology and habitat preference should be undertaken in the near future to better understand this little known group of insects and address the many challenges facing potential human threats (Qumsiyeh et al. 2017).

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Authors
Elias N. Handal, Aysha M. Al Wahsh & Mazin B. Qumsiyeh
Palestine Museum of Natural History
Bethlehem University
Bethlehem, Palestine.

Reinhard Ehrmann
State Museum of Natural History Karlsruhe, Division of Entomology
Erbprinzenstrasse 13
76133 Karlsruhe, Germany

Zuhair S. Amr
Department of Biology
Jordan University of Science and Technology
Irbid, Jordan.
E-Mail: amrz@just.edu.jo

Roberto Battiston
Musei del Canal di Brenta
via Garibaldi 27
36020 Valstagna (VI), Italy

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