

**A CONTRIBUTION TO THE KNOWLEDGE OF THE GENUS *PROSOPIS*  
(HYMENOPTERA: APIDAE: COLLETINAE) IN ISRAEL**

KLAUS WARNCKE  
*von Ruckteschellweg 18, D-8060 Dachau, FRG*

**ABSTRACT**

Twenty nine species and subspecies of *Prosopis* are recorded from Israel, ten of them for the first time. Locality data in Israel are given for all the species.

**INTRODUCTION**

Bees of the primitive genus *Prosopis* are usually small (4-10 mm), predominantly black and relatively not hairy. Most species are characterized by a white or yellow pattern on the face, which is more extensive in the males. Unlike most other bees, females of *Prosopis* lack a hairy apparatus for collecting pollen. The pollen is carried to the nest in the mouth. The nest is prepared in old clay walls, in branches and twigs of plants or sometimes in empty galls. Over 800 species have been described from most zoogeographical regions, and 70 species are known from the West Palaearctic Region. Thirteen species have been recorded from Israel by Bodenheimer (1937), and 5 were described by Warncke (1981), but the distribution in the country remained poorly known. The present paper records 29 species and subspecies from Israel and gives locality data for all the species. It is based on material deposited in the entomological collection of Tel Aviv University, collected primarily by Prof. H. Bytinski-Salz and other entomologists of the Department of Zoology. Keys for the identification of species, applicable to the Israeli fauna, were provided by Warncke (1972, 1981).

SUBGENUS *PARAPROSOPIS* POPOV, 1939

*Prosopis pictipes* (Nylander, 1852)

DISTRIBUTION: North Africa from Morocco to Cyrenaica, Europe north to 60°, Near East. New to Israel.

MATERIAL EXAMINED: Kal'at Nimrud, Eton, Zefat, Mt. Meron, Nahariyya, Hula, Hammat Gader, Deganya, Bet Shean, Qiryat Hayyim, Carmel, Bet Oren, Binyamina, Herzliyya, Tel Aviv, Miqwe Israel (Tel Aviv), Ramat Gan, Bat Yam, Ramla, Hurvat

Adullam (16 Km S. Bet Shemesh), Aqua Bella (10 Km W. Jerusalem), Jerusalem, Jericho, En Mor, Sede Boqer, N. Ramon (40 Km S. Yeruham), Sinai - St. Katharina, Tarfat-el-Kadarin.

Beginning of March Middle of December (102 specimens).

*Prosopis albonotata* Walker, 1871

LITERATURE: Alfken, 1938:419 (as *P. falsifica* and *P. dinkleri*). Jordan area, Sinai - Dscheb Haman.

DISTRIBUTION: Egypt. New to Israel

MATERIAL EXAMINED: Deganya, Kefar Ruppin, Jordan River, Urim, Jericho, Kallia, En Fashkha, En Gedi, En Boqeq, En Mor.

Middle of February - End of October (33 specimens).

*Prosopis klugi* Friese, 1898

LITERATURE: Alfken, 1935:171; Alfken, 1938:419; Bodenheimer, 1937:173; Friese, 1899:345-346 as *P. albofasciata* n. sp.; Jordan, Sinai - Fersch shech of Arab.

DISTRIBUTION: North Sahara from Atlantic coast to Egypt, Sinai, Israel.

MATERIAL EXAMINED: Jordan River, Nevatim, Yeroham, N. Zin, N. Ramon, (nr. Mezaad Mohila - 40 Km S. Yeroham), Jericho, En Tureiba, En Gedi, N. Mishmar, Sedom, N. Hazeva, N. Bsor, Sinai - W. Watir, W. Tlach, St. Katharina, W. Feiran, W. Tarfa, Tarfat-el-Kadarin, W. Hibran, Et Tur.

End of March - Middle of October (60 specimens).

*Prosopis xanthopoda* Vachal, 1895

LITERATURE: Bodenheimer, 1937:173 (without locality).

DISTRIBUTION: Central and eastern Sahara, Israel.

MATERIAL EXAMINED: Zefat, Yoqneam, Jerusalem, Nevatim, En Fashkha, Kallia, En Gedi, N. Ramon, N. Hever, En Boqeq, Sedom, En Hazeva, N. Ramon, N. Zik, Qetura, Gerofit, Elat, Sinai - Bir Zrir, W. Dahab, W. Watir, W. Nazez, St. Katharina, Feiran Oasis, W. Hibran, Abu Rhodes, W. Gerandal, Um Buqma, Et Tur, (W. Umrani?).

End of February - Beginning of December (372 specimens).

*Prosopis elata* Warncke, 1981

LITERATURE: Warncke, 1981:169, Mezada, En Hazeva, Elat, Sinai - Wadi Watir, St. Katharina.

DISTRIBUTION: Israel, Egypt.

MATERIAL EXAMINED: Ramon, En Gedi, Kallia, Mezada, En Hazeva, Elat, Sinai  
W. Watir, St. Katharina, W. Feiran.

End of February – Middle of October (17 specimens).

*Prosopis sinuata* ssp. *gribodoi* Vachal, 1895

LITERATURE: Bodenheimer, 1937:173 as *P. minuta* (without locality – doubtful determination).

DISTRIBUTION: North Africa from Morocco to Algeria, Europe north to 57°, Near East.

MATERIAL EXAMINED: Mt. Hermon, N. Saar, N. Dishon, Ramot Naftali, Yir'on, Zefat, Migdal, Deganya, Bet Shean, Binyamina, W.Faria, Jerusalem.

Middle of May – Beginning of September (24 specimens).

*Prosopis lineolata* Schenck, 1859

LITERATURE: Warncke, 1972: 766, Mt. Carmel.

DISTRIBUTION: North Africa (only Algeria), Europe north to 52°, Near East to Iran.

MATERIAL EXAMINED: Mt. Hermon, Mas'ada, Montfort, Mt. Meiron, N. Moran, Zefat, Mt. Carmel, Tel Aviv, Ramla, Jerusalem, Beer Toviyya.

End of April – End of September (21 specimens).

SUBGENUS *ABRUPTA* MEHELY, 1935

*Prosopis cornuta* (Curtis, 1831)

LITERATURE: Mehely, 1935:138; Warncke, 1972:751, W. Karkara (Elon), Jerusalem.

DISTRIBUTION: North Africa from Morocco to Tunisia, Europe north to 55°, Near East to Turkmen SSR.

MATERIAL EXAMINED: Dan, W. Saar, Elon, Ramot Naftali, Nahariyya, Zefat, Deganya, Afikim, Daburiya, Afula, Bet Oren, Binyamina, Zikhron Ya'aqov, Ramat Hasharon, Ramat Gan, Miqwe Yizrael, Tel Aviv, Petah Tiqwa, Be'erot Yizhaq, W. Faria, Bet Guvrin, Beer Sheva, Yeroham, Gazza, Jericho, W. Ujja, Kallia, Sinai - St. Katharina. Beginning of March – Middle of August. (64 specimens).

SUBGENUS *KOPTOGASTER* ALFKEN, 1912

*Prosopis punctulatissima* (Smith, 1842)

DISTRIBUTION: Morocco, Europe north to 55°, Near East. New to Israel.

MATERIAL EXAMINED: Mt. Hermon (1650 m), 21 June (1♀).

*Prosopis bifasciata* Jurine, 1807

LITERATURE: Bodenheimer, 1937:172 (without locality).

DISTRIBUTION: South Europe, Near East.

MATERIAL EXAMINED: Mt. Meron, Geva, Jerusalem.  
Middle of May – End of August (12 specimens).

SUBGENUS *PROSOPIS* FABRICIUS, 1804

*Prosopis trifida* Alfken, 1936

LITERATURE: Alfken, 1938:419, Jerusalem.

DISTRIBUTION: Near East.

MATERIAL EXAMINED: Zefat, Deganya, Geva, Haifa, Jerusalem.  
Middle of June – End of November (15 specimens).

*Prosopis nigrita* ssp. *kotschisa* Warncke, 1981

DISTRIBUTION: Europe north to 62°, (nominate form), Near East (ssp. *kotschisa*).  
New to Israel.

MATERIAL EXAMINED: Mt. Hermon, Tel Aviv.  
End of June – Beginning of September (20 specimens).

*Prosopis nigriacies* ssp. *nigriacies* (Bramson, 1879)

DISTRIBUTION: Southeast Europe, Turkey to north Iran. New to Israel.

MATERIAL EXAMINED: Mt. Hermon (1900 m), 22 July (1♀).

*Prosopis nigrifacies* ssp. *moricei* (Friese, 1898)

LITERATURE: Possible as *P. arabica* Vach., Alfken, 1935:171. and Bodenheimer, 1937:172, Haifa.

DISTRIBUTION: Egypt. New to Israel.

MATERIAL EXAMINED: Dan, Hula, Montfort, Bet Zera, Jordan River, W. Faria, Kefar Shemaryahu, Miqwe Israel (Tel Aviv), Jericho. Also Jordan – Amman.

End of April – Beginning of November (12 specimens).

*Prosopis orientalis* Warncke, 1981

LITERATURE: Warncke, 1981:176, Capernaum, Elon.

DISTRIBUTION: South of Turkey, Israel.

MATERIAL EXAMINED: Elon, Peqi'in, Kefar Nahum, W. Faria.

Beginning of March – Middle of May (4 specimens).

*Prosopis sidensis* Warncke, 1981

LITERATURE: Warncke, 1981:175, W. Fallah, Bet Jimal, Bet Oren, Holon.

DISTRIBUTION: West and South of Turkey, Lebanon and Israel.

MATERIAL EXAMINED: Bet Oren, Holon, Bet Jimal (4 Km S. Bet Shemesh), Sinai – Tarfat-el-Kadarin.

Middle of March – Beginning of April (6 specimens).

*Prosopis hermona* Warncke, 1981

LITERATURE: Warncke, 1981:181, Mt. Hermon.

DISTRIBUTION: Israel (nominate form), Turkey (ssp. *anatolica* Warncke).

MATERIAL EXAMINED: Mt. Hermon (1700-2000 m).

End of July (6 specimens).

*Prosopis tyrolensis* (Forster, 1871)

DISTRIBUTION: Southeast Europe, Turkey. New to Israel.

MATERIAL EXAMINED: Peqi'in, 14 May (1♀).

SUBGENUS *SPATULARIELLA* POPOV, 1939

*Prosopis punctata* ssp. *longimacula* (Alfken, 1936)

LITERATURE: Bodenheimer, 1937:173, Alfken, 1938:419, Jerusalem.

DISTRIBUTION: Southeast Europe, single localities in France and Mid Europe (n nominate form), Near East (ssp. *longimacula* Alfken).

MATERIAL EXAMINED: Mt. Hermon, Mas'ada, En Tinne, Hatzbani, Ramot Naftali, N. Saar, Elon, N. Dishon, Ma'alot Tarshiha, Mt. Meron, N. Moran, Zefat, Haifa, Mt. Carmel, Deganya, Kefar Tavor, Bet Oren, Binyamina, Zikhron Ya'aqov, W. Faria, Tel Aviv, Ramat Gan, Ramla, Beituniya, Udim, Holon, Sha'ar Hagay, Betar, Qiryat Anavim, Jerusalem, Hurvat Adullam (16 Km S. Bet Shemesh), Wadi Auja, N. Fazael, En Gedi, Kallia, N. Avdat, Sinai – Tarfat-el-Kadarin.

Beginning of March – End of November (321 specimens).

*Prosopis armeniaca* Warncke, 1981

LITERATURE: Warncke, 1981:163, Mt. Hermon.

DISTRIBUTION: Turkey, Israel.

MATERIAL EXAMINED: Mt. Hermon (1700 m), 23 June (1♀).

*Prosopis adpersa* Alfken, 1935

LITERATURE: Alfken, 1935:177, Bodenheimer, 1937:172, Wadi el Kelt.

DISTRIBUTION: Southeast Turkey, Israel.

MATERIAL EXAMINED: Mt. Hermon, Haifa, Deganya, Jebel el Kabir, (E. Shekhem), Hartuv, Jerusalem, Ma'ale Agrabbim, En Mor.

Middle of March – Middle of August (15 specimens).

SUBGENUS *NESOPROSOPIS* PERKINS, 1899

*Prosopis gibba* ssp. *damascena* Magretti, 1890

LITERATURE Alfken, 1935:171; Alfken, 1938:419; Bodenheimer, 1937:172; Enslin, 1929:6; Friese, 1899:345 (as *P. damascena* and *P. spinolae*); Jericho, Wadi el Kelt, Qiryat Anavim

**DISTRIBUTION:** North Africa, Europe north to 65°, East to West Asia (nominate form), southern border of Turkey, Israel, Egypt, Iraq (ssp. *damascena*).

**MATERIAL EXAMINED:** Mt. Hermon, Qusbiye, Banias, Tel Dan, Dan, Zefat, Hula, Mahanayim, Ma'alot Tarshiha, Mt. Meron, N. Moran, Geva, Haifa, Deganya, Zikhron Ya'akov, Binyamina, Ma'agan Michael, Tel Aviv, Miqwe Yisrael (Tel Aviv), Petah Tiqwa, W. Faria, Ramla, Jericho, N. Avdat.

Middle of March – End of November (69 specimens).

*Prosopis signata* ssp. *berlandi* Benoist, 1943

**DISTRIBUTION:** Middle Europe north to 61° (nominate form), North Africa from Morocco to Tripolitania, South Europe, Near East to Uzbek SSR, Iran (ssp. *berlandi*). New to Israel.

**MATERIAL EXAMINED:** Mezaad Mohila (N. Ramon, 40 Km S. Yeroham), N. Paran.  
30 March (1♂), 24 April (1♂).

*Prosopis variegata* ssp. *maculata* Alfken, 1904

**LITERATURE:** Bodenheimer, 1937:173, Mehely, 1935:143, Warncke, 1972:762, Jericho.

**DISTRIBUTION:** nominate form: North Africa, Europe north to 55°, east to Central Asia, ssp. *maculata*: Sinai, Israel, Lebanon, Iran.

**MATERIAL EXAMINED:** Mt. Hermon, Kefar Gil'adi, N. Saar, Tantura (= Dor), Binyamina, Naqura, Ramat Hasharon, Ramla, Jericho, Giv'at Shaul (= Dir Yasin), Qiryat Anavim, Jerusalem, Dorot, Bet Guvrin, Lahav, Arad.

Middle of April – Beginning of September (60 specimens).

*Prosopis rugicollis* Morawitz, 1874

**DISTRIBUTION:** Greece, Turkey east to Iran. New to Israel.

**MATERIAL EXAMINED:** N. Saar, Wadi Faria, Arad.  
End of April – Beginning of June (3 specimens).

*Prosopis laevithorax* Alfken, 1924

**LITERATURE:** Alfken, 1924:247-48, Alfken, 1935:171, Bodenheimer, 1937:173; Jerusalem.

DISTRIBUTION: Iran, Israel.

MATERIAL EXAMINED: Jericho, En Gedi, Beer Sheva, Yeroham, Shezaf, N. Zin, (Wadi Fukra), Jericho, En Gedi, En Mor, Mezad Mohila (N. Ramon, 40 Km S. Yeroham).

Beginning of March – End of April (25 specimens).

*Prosopis brevicornis* (Nylander, 1852)

LITERATURE: Alfken, 1938:419, 426-427, as *P. sinaitica*, *P. syriaca*; Deganya, Qiryat Anavim, Jerusalem, Sinai – Geb.

DISTRIBUTION: North Africa, Europe north to 64°, Near East.

MATERIAL EXAMINED: Mt. Hermon, Dan, N. Saar, Menara, Hula, Elon, Mt. Meron, Zefat, Kefar Nahum, Ramot Naftali, Tiberias, Haifa, Deganya, Bet Zera, Bet Shean, Zikhron Ya'aqov, Binyamina, Udim, Tel Aviv, Wadi Faria, Ramla, Aqua Bella (10 Km West Jerusalem), Jerusalem, Betar, Hurvat Adullam (16 Km S. Bet Shemesh), En Gedi, Lahav, Arad, N. Ramon, Sinai – St. Katharina, Mt. Abas, W. Geragenia (2000 m), A'Raba, W. Feiran, Tarfat-el-Kadarin.

End of April – End of November (242 specimens).

*Prosopis rubicola* (Saunders, 1850)

DISTRIBUTION: South Europe, Near East. New to Israel.

MATERIAL EXAMINED: Dan, Dafna, Hula, Mt. Meron, Binyamina, Qiryat Anavim.

Middle of May – End of June (16 specimens).

SUBGENUS *LAMBDOPSIS* MEHELY, 1935

*Prosopis scutellata* Spinola, 1838

LITERATURE: Bodenheimer, 1937:172-173 as *P. scutellaris* and possible as *P. facialis* Per. (without any localities).

DISTRIBUTION: Greece, Near East to Turkmen SSR.

MATERIAL EXAMINED: N. Saar (25 Km E. Qiryat Shemona), Amir (6 Km SE. Qiryat Shemona), N. Dishon, Afula, Haifa, Binyamina, Netanya, Jaffa (Tel Aviv), Beer Tuvia, Chalsa.

Middle of May – End of August (13 specimens).

## REFERENCES

- Alfken, J.D. 1924. Eine neue *Prosopis* – Art aus Palästina. *Konowia* 2: 247-248.
- Alfken, J.D. 1935. Beitrag zur Kenntnis der Bienenfauna von Palästina. *Veröffentlichungen des deutschen Kolonial- und Übersee-Museums in Bremen* 1:169-192.
- Alfken, J.D. 1938. Ein weiterer Beitrag zur Kenntnis der Bienenfauna von Palästina mit Einschluss des Sinai-Gebirges. *Deutsche entomologische Zeitschrift, Berlin*: 418-433.
- Bodenheimer, F.S. 1937. Prodrômus Faunae Palaestinae. *Mémoires de l'Institut d'Égypte, Cairo* 33: 45-248.
- Enslin, E. 1929. Entomologische Streifzüge in Palästina. *Entomologisches Jahrbuch, Leipzig* 38: 85-97.
- Friese, H. 1899. Neue paläarktische Sammelbienen. *Entomologische Nachrichten, Berlin* 24:321-346.
- Mehely, H. 1935. Naturgeschichte der Urbienen. Budapest, 214 pp.
- Warncke, K. 1972. Beitrag zur systematik und Verbreitung der Bienengattung *Prosopis* F. in der Westpaläarktıs. *Bulletin des Recherches agronomiques de Gembloux* 5: 745-768.
- Warncke, K. 1981. Beitrag zur Bienenfauna des Iran – 12. Die Gattung *Prosopis* F., mit Bemerkungen zu weiteren bekannten und unbekanntem paläarktischen Arten. *Bolletino del Museo Civico di Storia Naturale di Venezia* 31:145-195.