

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

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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 schech 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. Nazeb, 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. Begining 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°, (n nominate form), Near East (ssp. *kotschisa*).
New to Israel.

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

Prosopis nigrifacies ssp. *nigrifacies* (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 (n 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 adspersa 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, Baniyas, 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: Me'ad 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).

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