

NEW RECORDS OF APIDAE, ANDRENIDAE, SPHECIDAE AND VESPIDAE (HYMENOPTERA) FROM IRAN

ABD-RABOU, SHAABAN¹, HASSAN GHAHARI², VOLKER MAUSS³
AND JOHN PLANT⁴

1. Plant Protection Research Institute, Ministry of Agriculture, Dokki - Giza, EGYPT
2. Department of Agriculture, Islamic Azad University, Shahr-e-Rey Branch, P. O. Box 18735/334, Tehran - Iran
3. Staatliches Museum für Naturkunde, Abt. Entomologie, Rosenstein 1, D-70191 Stuttgart, Germany
4. Institute für Zoologie, University Wien, Althanstraße 14, A-1090, Vienna, Austria

(Manuscript received 4 December 2004)

Abstract

The present work deals with the survey and identification of different families of Order Hymenoptera during 1998-2004 in Iran. During this work there are 45 species of different families of Order Hymenoptera recorded here as a first time in Iran, including, nineteen species of family Apidae, 3 species of family Andrenidae, 6 species of family Sphecidae and 16 species of family Vespidae. Order Hymenoptera is one of the four great orders of insects (Mason and Tuber, 1993). This order fauna of Iran is rather well studied and attracted some workers i.e. Tirgari, 1969, Esmaili & Rastegar, 1974, Ebadi, 1986, Ebadi and Ahmadi, 1986, Ebrahimi, 1993, Ebrahimi, *et al.*, 1995, Talebi *et al.*, 1995, Modarres Awal, 1997 and Karimpour *et al.*, 2002. Samples were collected from different locations of Iran during 1998-2003. All the materials are deposited in Department of Agriculture, Islamic Azad University, Shahr-e-Rey Branch, Tehran - Iran.

I. Family : Apidae

The Apidae (Hymenoptera: Apoidea) fauna of Iran is rather well studied and until now 22 species are known (Esmaili & Rastegar, 1974, Ebadi, 1986, Talebi *et al.*, 1995). In the present study, 7 species of 3 genera including, *Chelostoma*, *Nomada*, and *Sphcodes* are reported as the new records. The *Bombus* spp. (Hymenoptera: Apidae: Apoidea) fauna of Iran is very diverse and at the same time unknown. Until now, only 11 species are known (Esmaili & Rastegar, 1974, Talebi *et al.*, 1995, Modarres Awal, 1997). In the present study, 12 species of 2 subgenus including, *Bombus Bombus* and *Bombus Psithyrus* are reported as the new records for Iran. All the materials are deposited in Department of Agriculture, Islamic Azad University, Shahr-e-Rey Branch, Tehran - Iran.

Bombus subgenus **Bombus****1. *Bombus lucorum*** (L.)

Location: Mazandaran – Amol, Date of collection: August 2003

2. *B. lapidarius* (L.)

Location: Golestan – Gonbad, Date of collection: May 2002

3. *B. pratorum* (L.)

Location: Khorasan – Mashhad, Date of collection: July 1999

4. *B. wurflenii* (Rad.) ***mastrucatus*** Gerst.

Location: Kordestan – Sanandaj, Date of collection: September 2001

5. *B. hortorum* (L.)

Location: Gilan – Fooman, Date of collection: October 2002

6. *B. hypnorum* (L.)

Location: Yazd – Meibod, Date of collection: October 2000

7. *B. pascuorum* (Scbop.)

Location: Chahar Mahal – Shahr-e-Kord, Date of collection: September 1999

8. *B. jonellus* (Kirby)

Location: Lorestan – Khoram Abad, Date of collection: April 2000

9. *B. subterraneus* (L.) ***latreilleus*** (Kirby)

Location: Kerman – Jiroft, Date of collection: June 2000

Bombus subgenus **Psithyrus****10. *B. barbatellus*** (Kirby)

Location: Azarbayjan – Maragheh, Date of collection: September 1998

11. *B. rupestrisp* (F.)

Location: Isfahan – Najaf Abad, Date of collection: August 1999

12. *B. sylvestris* (Lep.)

Location: Kermanshah – Ravansar, Date of collection: July 2003

13. *Chelostoma florisomne* (L.)

Location: Isfahan – Shahin Shahr, Time of collection: April 2003

14. *Chelostoma mitis* (Lep.)

Location: Gilan – Lahijan, Time of collection: May 2001

15. *Nomada armata* (Herrich-Schafer)

Location: Khorasa – Mashhad, Time of collection: June 2002

16. *Nomada flavoguttata* (Kirby)

Location: Sistan & Balochestan – Zabol, Time of collection: August 2003

17. *Sphecodes ephippius* (L.)

Location: Azarbayjan – Khoy, Time of collection: May 2002

18. *Sphecodes geoffrellus* (Kirby)

Location: Hamedan – Malayer, Time of collection: September 2003

19. *Sphecodes longulus* (Hagens)

Location: Mazandaran – Ghaemshahr, Time of collection: May 2004

II. Family: Andrenidae

The Andrenidae (Hymenoptera: Apoidea) fauna of Iran is poorly studied. Until now only 4 species are known (Tirgari, 1969, Esmaili & Rastegar, 1974, Talebi *et al.*, 1995, Karimpour *et al.*, 2002).

20. *Andrena bicolor* (Fabricius)

Location: Mazandaran – Sari, Date of collection: September 2003.

21. *Andrena hattorfiana* (Fabricius)

Location: Isfahan – Najaf Abad, Date of collection: July 2000.

22. *Andrena humilis* (Imhoff)

Location: Khorasan – Birjand, Date of collection: June 2002.

III. Family Sphecidae

The Sphecidae (Hymenoptera: Sphecoidea) fauna of Iran is rather well studied and until now 44 species are known (Esmaili & Rastegar, 1974, Ebrahimi, 1993, Ebrahimi, *et al.*, 1995). In the present study, 6 species of 6 genera are reported as a new records from Iran.

23. *Cerceris rybyensis* (L.)

Location: Gilan – Masht, Date of collection: October 2002.

24. *Crabro cribrarius* L.

Location: Golestan - Gonbad, Date of collection: June 2003.

25. *Ectemnius rubicola* (Dufour&Perris)

Location: Golestan - Gorgan, Date of collection: June 2003.

26. *Lindenius albilabris* (F.)

Location: Kordestan- Marivan, Date of collection: September 2002.

27. *Mellinus crabroneus* (Thunberg)

Location: Golestan - Gorgan, Date of collection: July 2003.

28. *Achysphex pompiliformis* (Panzer)

Location: Kermanshah-Ravansar, Date of collection: August 2001.

III. Family : Vespidae

The Vespidae (Hymenoptera: Vespoidea) fauna of Iran is poorly studied, and until now only 7 species are known (Ahmadi and Ebadi, 1986, Modarres Awal, 1997). In the present study, 16 species of 3 subfamilies including, Masarinae, Polistinae and Vespinae, are reported as the new records.

Subfamily Masarinae**29. *Ceramius bicolor*** (Thunberg)

Location: Mazandaran – Befshahr, Date of collection: June 2001

30. *Ceramius capicola* Brauns

Location: Isfahan – Shahr-e-Za, Date of collection: October 2000

31. *Ceramius fonscolombi* Latreille

Location: Markazi – Arak, Date of collection: April 2002

32. *Ceramius hispanicus* Dusmet

Location: Kerman – Jiroft, Date of collection: May 2003

33. *Ceramius tuberculifer* Saussure

Location: Sistan & Balochistan – Zahedan, Date of collection: October 2003

35. *Jugartina braunsi* Schulthess

Location: Hamedan – Malayer, Date of collection: August 2002

36. *Masarina familiaris* Richards

Location: Golestan – Gonbad, Date of collection: September 2003

Subfamily Polistinae**37. *Polistes dominulus*** (Christ) -

Location: Golestan – Gorgan, Date of collection: July 2001

38. *Polistes nimpha* (Christ)

Location: Khorasan – Mashhad, Date of collection: September 2003

39. *Polistes bischoffi* Weyrauch

Location: Lorestan – Khorram Abad, Date of collection: July 2003

Subfamily Vespinae**40. *Vespa crabro*** L.

Location: Khuzestan – Ahwaz, Date of collection: April 2002

41. *Vespula rufa* (L.)

Location: Kordestan – Marivan, Date of collection: June 2000

42. *Vespula vulgaris* (L.)

Location: Kermanshah – Paveh, Date of collection: August 2003

43. *Dolichovespula saxonica* (F.)

Location: Azarbayjan – Marand, Date of collection: October 2001

44. *Dolichovespula media* (Retzius)

Location: Ilam – Ilam, Date of collection: June 2002

45. *Dolichovespula sylvestris* (Scop.)

Location: Mazandaran – Ramsar, Date of collection: September 2003

REFERENCES

1. Ebadi, R. 1986. Evaluation of five honeybee (*Apis mellifera*) races and hybrids in comparison with the native Iranian race in Isfahan region. Proc. VIII. Plant Prot. Cong. Iran, Isfahan Univ. of Technology, p. 9.
2. Ebadi, R. and A. A. Ahmadi 1986. Diseases, pests and predators of honeybees. Rahe Nedjat Publ. Isfaha, 219 pp.
3. Ebrahimi, E. 1993. The sphecid wasps of subfamily Sphecinae(Hym.: Sphecidae) in Iran. J. Entomol.Soc.of Iran 12 and 13 :87-104.
4. Ebrahimi, E., A. Kharazi Pakdel and M. Esmaili 1995. The first record of four aphid predator wasps in Iran. Ibid., p. 290.
5. Esmaili, M. and R. Rastegar 1974. Identified species of aculeate hymenopters of Iran. J. Entomol. Soc. of Iran 2(1): 41-42.
6. Karimpour, Y., A. A. Talebi and Y. Fathipour 2002. Preliminary investigation on the fauna of the polinator bees (Apoidea) in western part of Urmia Lake. 15th Iranian Plant Protection Congress, September 2002, p. 165-166.
7. Mason, W. R. M. and J. T. Tuber 1993. Order Hymenoptera, General comments, p. 4 In Henri And Huber(eds) Hymenoptera of the world: An identification guide to families,Center for Land and Biological Resources Ottawa, Ontario.
8. Modarres Awal, M. 1997. List of agricultural pests and their natural enemies in Iran. Ferdowsi Univ. Press, p. 284.
9. Talebi, A. A., M. Esmaili and S. Tirgari 1995. Alfalfa polinator bees (Hym.: Apoidea) in Karaj. Ibid., p. 93.
10. Tirgari, S. 1969. Exchange and introduction of alfalfa bee polinators between Iran and the United States and the biology of these bees. Proc. II. Plant Protection Congress, Iran, Univ. of Tehran, 112 – 122.

تسجيلات جديدة من فصائل من إيران

APIDAE, ANDRENIDAE, SPHECIDAE AND VESPIDAE

شعبان عبدريه^١، حسن جيهاري^٢، فولكر مواس^٣، جون بلانت^٤

١. معهد بحوث وقاية النباتات - مركز البحوث الزراعية - النقي - جيزة - مصر
٢. قسم الزراعة - جامعة آزاد الإسلامية - صندوق بريد ٤٣٣ / ٥٣٧٨١ - طهران - إيران
٣. متحف سناتلثش للتاريخ الطبيعي - قسم الحشرات - شتوتجارت - ألمانيا
٤. معهد الحيوان - جامعة فيينا - النمسا

تضمن هذا العمل حصر وتعريف لمختلف الفصائل من رتبة غشائية الأجنحة خلال الفترة من ١٩٩٨-٢٠٠٤ في إيران. أثناء هذا العمل وجد ٤٤ نوع من فصائل مختلفة من رتبة غشائية الأجنحة تم تسجيلهم لأول مرة في إيران تتضمن ١٩ نوع من فصيلة Apidae، ٣ أنواع من فصيلة Andrenidae، ٦ من فصيلة Sphecidae، ١٦ من فصيلة Vespidae.