

TUMBLING FLOWER BEETLES (COLEOPTERA, MORDELLIDAE) OF IRAQ

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ABSTRACT

The present study was undertaken to determine the species of tumbling flower beetles (Coleoptera, Mordellidae) found in Iraq. Specimens have been collected from different localities of Iraq since 1970. Results show that the tumbling flower beetles (Mordellidae) are represented with a total of 13 species belonging to four genera of three tribes, two of these species were described by Dr. Horak (1985,1990) as new species for Iraq *Mediimorda maceki* HoraK and *Mordellistena bologna* Horak; two were previously reported *Stenalia escherichi* Schilsk and *Mordellistena pumila* (Gyllenhal) and ten are new records for Iraq. *Stenalia araxicola* Khnzorian, *Stenalia brunneipennis* Mulsant, *Variimorda fasciata* (Fabricious), *Variimorda holzschuhi* Horak, *Mordellistena horaki* Pino., *Mordellistena kraatzi* Emery, *Mordellistena* sp. prob. *Micans* Gemar, *Mordellistena* sp. near *microspmelicte* Ermish, *Mordellistena paraepisterna* Ermisch and *Mordellistena pseudorugipennis* Ermisch.

INTRODUCTION

Tumbling flower beetles or Mordellidae is a large and widely distributed family in order Coleoptera. It includes approximately 1500 species in 113 genera (Lisberg and Young, 2003). Commonly called tumbling flower beetles because their tumbling movements in attempting to escape capture (Borror and DeLong, 1964). The adults are small 2.0 to 8.0 mm in Length, humpbacked beetles with long pointed abdomen (Jackman, 1993). Most Mordellids are black or mottled grey in color and the body is covered with a dense pubescence (Borror and DeLong, 1964). They are commonly found on flowers of many taxonomically diverse plants particularly Compositae and Umbelliferous flowers, on which they feed. Larvae are stem and wood-borers and their food consists largely of pithy plant stems and rotten wood (Lisberg and Young, 2003).

The Mordellid beetles of Iraq have been very poorly studied and are known only from scattered faunistic lists. The first work was given by Schilsky (1898) who described a new species from north of Iraq (Kurdistan) *Anaspiskonigi* Schilsk. Csiki (1915) listed this species in his catalogue to Mordellidae. Blair (1923) described *Pseudopentaria* (= *pentaria*) *mesopotamica* (Blair) as a new species among other Heteromorous Coleoptera. Scott (1929) reported *Mordellistena pumila* (Gyllenhal) among other insects from north of Iraq. Roubal (1932) recorded one species from Baghdad which has been determined only to the genus level *Pentaria* sp. Horak described two new species from Iraq among Mordellid specimens sent to him by me in 1984 for determination. The first one was *Mediimorda maceki* in 1985 and the second one was *Mordellistena bologna* in 1990. The Anaspini species *Anaspis konigi* Schilsky and *Pentaria mesopotamica* (Blair) previously included within the Mordellidae, now in the family Scrpitiidae. Thus, only two species remain within family Mordellidae. Therefore, the present study was carried in order to determine the composition and the distribution of the Mordellidae species in Iraq, hoping to provide basis for future work.

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MATERIALS AND METHODS

A survey of Iraqi tumbling flowers beetles (Mordellidae) were conducted from field samples and literature cited. Specimens were collected from different localities in Iraq since 1970. Adults were collected by a sweeping net and aspirator from flowers of various plants particularly Umbellifera such as *Daucus carota* Linn., *Ammi majus* Linn. and *Ammi visnaga* (Linn.) Lum.

Identification of these specimens was kindly done by Dr. J. Horak. Data for these species including localities and date of collection are given on the list. The number of examined specimens is given in parenthesis. The distribution of the species is marked on the map (Figure 1). The whole materials including the paratypes of the new species *Merimorda maceki* Horak and *Mordellistena bologna* Horak are deposited in the Entomology section of Iraq Natural History Museum. Species marked with an asterisk are new record for Iraq.

RESULTS

A total of 13 species belonging to four genera in three tribes of the family Mordellidae have been found so far in Iraq. Of these only one was listed from the literature and the rest were collected from the fields.

First list of Iraqi Mordellidae

Family Mordellidae (Leach, 1815)

Subfamily Mordellinae Latreille, 1802

Tribe Stenaliini Ermisch, 1956

1. *Stenalia araxicola* Khnzorian, 1957

(1) Jendian (Arbil) 28. V. 1979

2. *Stenalia brunneipennis* Mulsant, 1856

(1) Aradin, 26. V. 1979; (3) Sarsang (Dohuk), 28. VI. 1979; (3) Salahaddin, 21. V. 1983;

(1) Hiran, 27. V. 1979; (1) Pastora, 19. V. 1983; (4) Merawa (Arbil) 28. V. 1979;

(1) Kirkuk, 19. V. 1983.

Tribe Mordellini Smith, 1882

3. *Merimorda maceki* Horak, 1985

(2) Hassarost Mts. (Arbil), 15. VII. 1971; (1) Aradin ;Zawita(Dohuk),27.VI. 1979;

(4) Sarsang (Dohuk), 28.VI. 1979.

4. *Variimorda fasciata* (Fabricius, 1775)

(1) Shaqlawa (Arbil), 4. VII. 1953

5. *Variimorda holzschuhi* Horak, 1984

(1) Sarsang (Dohuk), 28. VI. 1979

Tribe Mordellistenini Ermisch, 1941

6. *Mordellistena bologna* Horak, 1990

(1) Merawa (Arbil), 28. V. 1979; (1) Pastora (Arbil), 19. V. 1983

7. *Mordellistena horaki* Pino, 1985

(2) Aradin (Dohuk), 26. VI. 1979; (2) Sarsang (Dohuk), 28.VI. 1979.

8. *Mordellistena kraatzi* Emery, 1876

(1) Pastora (Arbil) 21. IV. 1977; (1) Kora (Arbil), 20. V. 1983

9. *Mordellistena* sp. prob. *Micans* Germar, 1817

(2) Jadriya (Baghdad) 27. V. 1968

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10. *Mordellistena* sp. near *microscopic* Ermisch, 1977
(1) Rashdia (Baghdad), 4. IV. 1983
11. *Mordellistena paraepisternalis* Ermisch, 1963
(9) Adhaim (Diala) 27. III. 1977; (6) Wajhiya (Diala), 25.IV. 1983.
12. *Mordellistena pseudorugipennis* Ermisch, 1963
(1) Kora (Arbil), 20. V. 1983; (1) Seri-rash (Arbil) 21. V. 1983.
13. *Mordellistena pumila* (Gyllenhal, 1810)
Reported by Scott (1929) from north of Iraq and Derwesh (1965) without data.

DISCUSSION

As a result of the specimens collected by the author and the literature cited on Iraqi tumbling flower beetles (Coleoptera, Mordellidae), the number of the species has been increased to thirteen; of these two are new species (described by Horak, 1985, 1990) for the country. Most of these species are restricted to the northern part of Iraq. The foregoing account is the first attempt to list the tumbling flower beetles of Iraq and the short list of the species reported will undoubtedly be extended when the fauna of western and southern part of Iraq is better known.

ACKNOWLEDGEMENT

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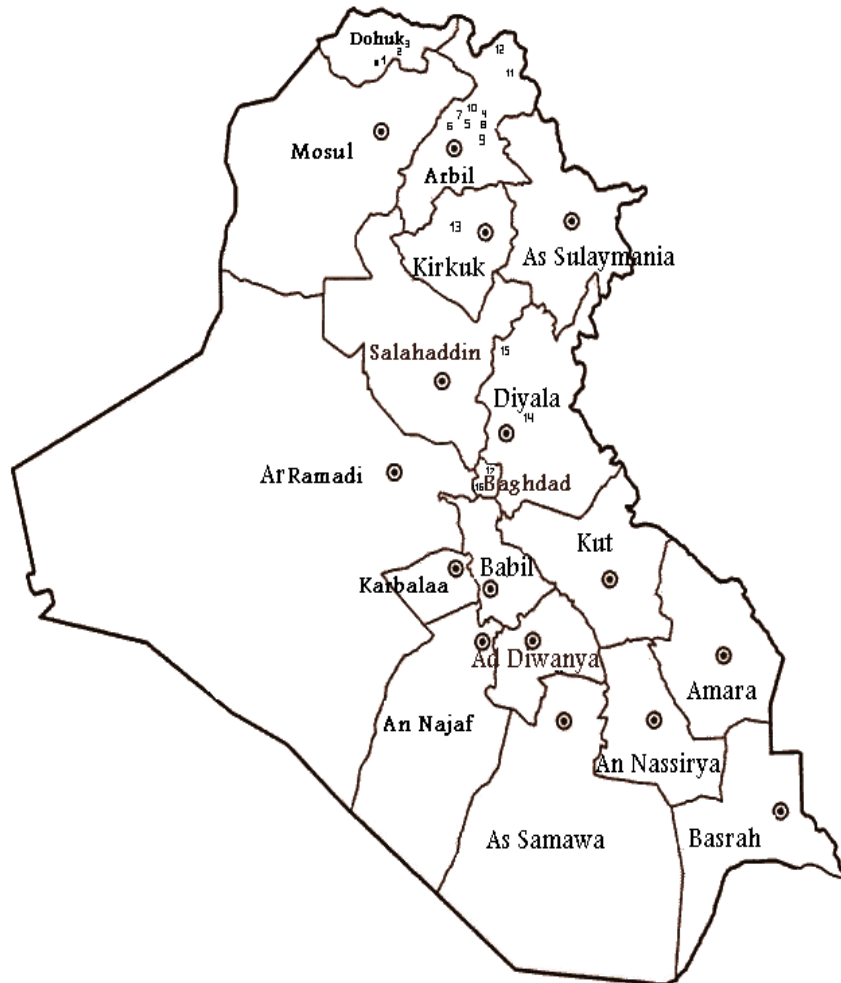


Figure (1): Map of localities mentioned in text
1.Zawita.2.Sarsang.3.Aradin (Dohuk). 4.Seri-Rash 5.Salahaddin.6.Pastora
7.Hiran.8.Shaqlawa 9. Kora 10.Merawa. 11.Jindian. 12.Hassarost Mts.(Arbil).
13.Kirkuk (Kirkuk).14.Wajhiya. 15.Adhaim (Diyala). 16.Jadriya 17.Rashdia
(Baghdad).

خنفساء الأزهار البهلوانية في العراق
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الخلاصة

أخذت الدراسة الحالية على عاتقها الكشف عن أنواع خنافس الأزهار البهلوانية (Coleoptera : Mordellidae) التي وجدت في العراق. جمعت العينات من مواقع مختلفة من العراق منذ ١٩٧٠. أظهرت النتائج ان هناك ١٣ نوعاً تعود الى اربعة اجناس لثلاث قبائل ، نوعان منها قد وصفت من قبل الدكتور هوراك (١٩٨٥ ، ١٩٩٠) انواعاً جديدة هي : *Mordellistena bologna* Horak و *Mediimorda maceki* Hork و *Stenalia escherichi* Schilsk و *Mordellistena pumila* (Gyllenhal) و *Stenalia brunneipennis* Mulsant ، *Stenalia araxicola* Khnzorian ، *Variimorda holzschuhi* Horak ، *Variimorda fasciata* (Fabricious) ، *Mordellistena kraatzi* Emery ، *Mordellistena horaki* Pino و *Mordellistena sp. near* ، *Mordellistena sp. prob. micans* Gemar و *Mordellistena paraepisterna* Ermisch ، *microspmelicte* Ermisch و *Mordellistena pseudorugipennis* Ermisch .