

A CONTRIBUTION TO THE SNOUT BEETLES FAUNA OF KHORASAN PROVINCE IN IRAN (COLEOPTERA: CURCULIONIDAE)

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ABSTRACT: This study was conducted to identification of curculionid species in Khorasan province during 2006-2008. Results indicated that among 23 curculionid species determined, 7 ones including *Baris limbata* Brisouth, *Aspidapion radiolus* (Marsham), *Dorytomus hirtipennis* (Bedel), *D. longimanus* (Forstor), *Tychius medicaginis* Brisout, *T. turanensis* Faust and *Corigetus seistanicus* Suvorov were reported for the first time from Iran.

KEY WORDS: Curculionidae, Mashhad, Iran, Fauna, New record.

The curculionid species show considerable variation in size, shape, colour and the form of the snout. The snout is fairly well developed in most species, with the antennae arising about the middle of the snout, whereas in some species of the nut weevils, the snout is long and slender, as long as the body or longer. All members of this family (except few occurring in ant nests) are plant feeders in both living and dead plants, and thus those are serious pests of cultivated crop plants such as alfalfa. Every part of plant may be attracted by curculionid species. For instance, while larvae usually feed inside the tissue of the plant, the adults drill holes in fruit, nuts and the other plant parts (Borror et al., 1989; Kheyri, 1989). In spite of the considerable economic damage of curculionid species, there is no information on those fauna in Khorasan province. Thus, the aim of this study focused on the identification of the curculionids in alfalfa fields.

MATERIAL AND METHODS

The species were collected from different kind of grasses and alfalfa fields in Khorasan province either by netting or directly by hand during 2006-2008. All species were put into killing jar, transferred to the laboratory, and then pinned. The species were sent to Dr. Fabio Talamelli in Institute Via della Resistenza, Marignano, Italy to identify or confirm. All species are deposited in the Entomology Collection of Plant Protection Department College of Agriculture, Ferdowsi University of Mashhad, Iran.

RESULTS AND DISCUSSION

In total 23 species of 18 genera representing 8 subfamilies (Apioninae, Baridinae, Cleoninae, Curculionidae, Dryophthorinae, Entiminae, Hyperinae and Uraniinae) were collected from Khorasan province. Among them 7 ones including *Baris limbata* Brisouth, *Aspidapion radiolus* (Marsham), *Dorytomus hirtipennis* (Bedel), *D. longimanus* (Forstor), *Tychius medicaginis* Brisout, *T. turanensis* Faust and *Corigetus seistanicus* Suvorov are new for Iran fauna. List of

curculionid species are presented below, and the species identified for the first time from Iran were showed by an asterisk.

Family: Curculionidae

Subfamily: Dryophthorinae

Sphenophorus piceus (Pallas, 1771)

Material studied: Mashhad: 3 specimens, May 2007. On grasses

Note: This species has been reported from Fars, Ghazvin, Kermanshah, Khuzestan and Sistan and Blouchestan provinces on sugar beet (Broumand, 1998, Kheyri, 1989).

Subfamily: Hyperinae

Hypera tenuicornis (Petri, 1901)

Material studied: Mashhad: 2 specimens, June 2007. On alfalfa

Note: This species has been reported from Ardabil, Hormozgan and Tehran provinces (Modarres Awal, 1997).

H. postica (Gyllenhal, 1813)

Material studied: Mashhad: 10 specimens, July 2006. On grasses.

Note: This species is distributed in Ardabil, Boushehr, East Azarbaijan, Esfahan, Fars, Ghazvin, Ghom, Golestan, Hormozgan, Ilam, Kerman, Khorasan, Khuzestan, Lorestan, Semnan, Sistan and Balouchestan, Tehran and West Azarbaijan provinces on alfalfa, sainfoin, bean, soybean and cotton (Broumand, 1998; Modarres Awal, 1997).

Subfamily: Entiminae

Phacephorus argyrostorum Gyllenhal, 1840

Material studied: Birjand: 5 specimens, May 2006. On grasses.

Note: This species, without defining its hosts has been reported from Boushehr, Golestan, Hormozgan, Khuzestan and Sistan and Blouchestan provinces (Broumand, 1998).

Esamus cylindricollis Reitter, 1891

Material studied: Mashhad: 10 specimens, June 2008. On grasses.

Note: This species is distributed in Ardabil, Boushehr, Hormozgan, Kerman, Khorasan, Khuzestan and Sistan and Blouchestan provinces (Broumand, 1998).

Schelopius planifrons (Fahraeus, 1840)

Material studied: Mashhad: 3 specimens, April 2008. On grasses.

Note: This species has been reported from Ardabil, Fars, Hormozgan, Khorasan, Khuzestan, Sistan and Blouchestan and Tehran provinces (Broumand, 1998; Modarres Awal, 1997).

Sitona cylindricollis (Fahraeus, 1840)

Material studied: Mashhad: 3 specimens, June 2007. On alfalfa.

Note: This species is distributed in Fars, Khorasan, Tehran and Semnan provinces (Broumand, 1998; Modarres Awal, 1997).

S. versicolor Faust, 1887

Material studied: Mashhad: 4 specimens, May 2007. On alfalfa.

Note: This species has been reported from Ardabil and West Azarbaijan provinces (Broumand, 1998).

Corigetus seistanicus Suvorov, 1915*

Material studied: Mashhad: 4 specimens, July 2006. On grasses.

Polydrusus inustus Germar, 1824

Material studied: Mashhad: 10 specimens, July 2006. On grasses.

Note: This species has been reported on alfalfa, lentil, sainfoin and wheat from Ardabil province (Modarres Awal, 1997).

Subfamily: Baridinae

Baris timida (Rossi, 1792)

Material studied: Mashhad: 3 specimens, April 2006. On grasses.

Note: This species has been reported from Ardabil, East Azarbaijan, Fars, Ghazvin, Golestan, Khuzestan, Kohkilouyeh and Boyerahmad, Lorestan, Mazandaran, Tehran and West Azar-baijan provinces (Broumand, 1976; 1998; Hoffmann, 1954).

B. limbata Brisouth, 1870*

Material studied: Mashhad: 2 specimens, May 2008; Neyshabour: 1 specimen, June 2007 .
On grasses.

Subfamily: Apioninae***Aspidapion radiolus*** (Marsham, 1802)*

Material studied: Mashhad: 2 specimens, June 2007. On grasses.

Apion frumentarium (Linnaeus, 1758)

Material studied: Mashhad (Soran): 4 specimens, May 2007. On grasses.

Note: This species is distributed in East Azarbaijan province (Hoffmann, 1954; Modarres Awal, 1986).

Malvapion malvae (Fabricius, 1775)

Material study: Mashhad (Kazemabad): 3 specimens, June 2008. On alfalfa.

Note: This species has been reported from West Azarbaijan and Tehran provinces (Broumand, 1998).

Subfamily: Curculioninae***Dorytomus hirtipennis*** (Bedel, 1884)*

Material studied: Mashhad (Soran): 4 specimens, May 2008. On alfalfa.

D. longimanus (Forstor, 1771)

Material studied: Mashhad: 3 specimens, July 2007. On grasses.

Cionus olens (Fabricius, 1792)

Material studied: Mashhad: 3 specimens, April 2006. On grasses.

Note: This species is distributed in East Azarbaijan province (Broumand, 1998).

Sibina femoralis Germar, 1824

Material studied: Mashhad: 4 specimens, May 2008. On alfalfa.

Tychius medicaginis Brisout, 1863*

Material studied: Mashhad (Soran): 1 specimen, May 2007; 5 specimens, May 2008. On alfalfa.

T. turanensis Faust, 1887*

Material studied: Mashhad: 4 specimens, July 2006. On alfalfa.

Subfamily: Uraniinae***Alcides haemopterus*** Boheman, 1836

Material studied: Shirvan: 3 specimens, April 2008. On grasses.

Note: This species is distributed in Ghom, Golestan, Khorasan and Tehran provinces (Broumand, 1998).

Subfamily: Cleoninae***Meneleonus anxius*** (Gyllenhal, 1824)

Material studied: Mashhad: 2 specimens, May 2006; Sabzevar, 2 specimens, June 2006. On grasses.

Note: This species has been reported from Esfahan, Fars, Ghom Kerman, Khuzestan, Tehran and West Azarbaijan provinces on sugar beet (Balachowsky, 1963, Borumand, 1998, Farah-bakhsh, 1961, Kheyri, 1989, Modarres Awal, 1997).

Subfamily: Ceuthorrhynchinae***Ceuthorrhynchus*** sp.

Material studied: Mashhad: 8 Specimens, July 2006. On alfalfa.

Note: This species is distributed in Ardabil, Charmahal and Bakhtiari, Golestan and Lorestan provinces (Broumand, 1998).

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LITERATURE CITED

Balachowsky, A. S., 1963. Entomologie appliqué a l'agriculture. Tome I, Vol. I, coleopteres. Masson et Cie Editeurs, Paris, 567-1391 pp.

Borror, D. J., Triplehorn, C. A. & Johnson, N. F. 1989. An introduction to the study of insect. 6th Edition. Saunders College Publishing, San Francisco. 875 pp.

Broumand, H. 1976. List of Curculionidae from province of Fars (1). J. E. S. I., 3 (1, 2): 123-124.

Broumand, H. 1998. The List of Coleoptera in the Insect Collection of Plant Pests and Diseases Research Institute, Tehran). J. E. S. I., 110 pp.

Farahbakhsh, Gh. 1961. Checklist of important insects and other enemies of plants and agricultural products in Iran. Min. Agr. Dep. Plant Prot., Tehran, 1: 1-153.

Hoffmann, A. 1954. Faune de France. 59. coleopteres curculionides. I. Partie. Paul Lechevalier, Paris, 487-1208 pp.

Kheyri, M. 1989. An inventory of pests attacking sugar beet in Iran. Ent. Phyt. Appliq., 56 (1,2): 75-91.

Modarres Awal, M. 1986. Collecting and determining of the fauna of alfalfa and saifoin weevils in Ardabil. J. E. S. I., 8 (1,2): 1-17.

Modarres Awal, M. 1997. List of agricultural pests and their natural enemies in Iran. Revised ed. Ferdowsi University of Mashhad, Iran, no. 429 pp.