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NOTE

REPORT OF THIRTEEN SPECIES OF MACROPYLINE ORIBATID MITES (ACARI: ORIBATIDA), NEW TO THE FAUNA OF IRAN

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ABSTRACT

The present paper reports thirteen species of macropyline oribatid mites that were collected from various localities in Iran. All species are new to the fauna of Iran. A list of the sampling places is given together with a map.

Key words: Acari, Oribatida, Macropylina, new records, Iran.

تحقیقات کشاورزی ایران

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گزارش سیزده گونه از کنه‌های اریباتید پست (Acari: Oribatida: Macropylina) جدید برای فون ایران

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چکیده

مقاله حاضر سیزده گونه از کنه های اریباتید پست را که از نقاط مختلف ایران جمع‌آوری شده‌اند گزارش می کند. همه گونه‌ها برای اولین بار از ایران گزارش می‌شوند. لیستی از مناطق نمونه‌برداری به همراه یک نقشه ارائه شده است.

INTRODUCTION

Oribatid mites constitute one of the richest arthropod groups in the organic horizons of most soils (5, 13). They have successfully invaded all compartments of the biosphere (11). These mites are actively involved in decomposition of organic matters, in nutrient cycling and in soil formation (5). Some oribatid mites act as intermediate hosts of tapeworms of the anoplocephalid cestodes that parasitize economically important farm animals (5, 7). Furthermore, their role as bioindicators in ecotoxicological experiments and assessment of air and soil quality (6, 11) is significant.

There is little information on oribatid mites of Iran. Faunal lists containing new records and descriptions of several new species have been published by Bayartogtokh and Akrami (3,4), Mahunka and Akrami (12), Akrami and Saboori (1) and Haddad Irani-Nejad *et al.* (8, 9, 10).

The present study reports thirteen species of macropyline oribatid mites of Iran.

MATERIALS AND METHODS

Soil and litter samples were taken from different localities of Iran at various times during 1997 to 2003. The mites in the soil samples were extracted by Berlese funnels. Mites were collected and preserved in 75% ethanol and cleared in lactophenol. The oribatid mite specimens were mounted in Hoyer's medium on glass microscopic slides for identification. The slides were placed in an oven at 45°C for one week. All specimens are deposited in the Depatment of Plant Protection, Tehran University, Iran.

RESULTS AND DISCUSSION

The following check-list contains thirteen species belonging to twelve genera and nine families arranged according to the system of Balogh and Balogh (2). Specific references to localities in the check-list

contain the number of the locality as shown in Fig. 1. In addition, number and name of localities, date of sampling, habitats and name of collectors are given in Table 1. New family and genera for Iran are marked by asterisk.

Check-List of the Identified Species

Ctenacaridae Grandjean, 1954

Gilarovella demeterii* Lange, 1974

Locality:4

Hypochthoniidae Berlese, 1910

Hypochthonius rufulus C. L. Koch, 1836

Locality :11

Brachychthoniidae Thor, 1934

Poecilochthonius italicus* (Berlese, 1910)

Locality: 9

Eobrachychthonius latior* (Berlese, 1910)

Locality: 12

Phthiracaridae Perty, 1841

Phthiracarus furvus Niedbala, 1983

Localities: 11, 14

Lohmanniidae Berlese, 1916

Lohmannia loebli Mahunka, 1974

Localities: 2, 8

Papillacarus aciculatus (Berlese, 1905)

Localities: 1, 6

Mixacarus exilis* Aoki, 1970

Locality: 10

Perlohmanniidae* Grandjean, 1954

Perlohmannia* dissimilis **(Hewitt, 1908)**

Locality: 11

Epilohmannidae Oudemans, 1923

Epilohmannia cylindrica cylindrica **(Berlese, 1904)**

Localities: 3, 6, 12

Epilohmannia styriaca **Schuster, 1960**

Locality : 13

Nothridae Berlese, 1885

Nothrus anauniensis **Canestrini & Fanzago, 1877**

Locality: 5

Camisiidae Oudemans, 1900

Camisia horrida **(Hermann, 1804)**

Locality: 7

Forty- three species of macropyline oribatid mites have been reported so far from few localities in Iran. Therefore, the macropyline oribatid fauna in Iran appears to be rich and warrants more extensive studies.

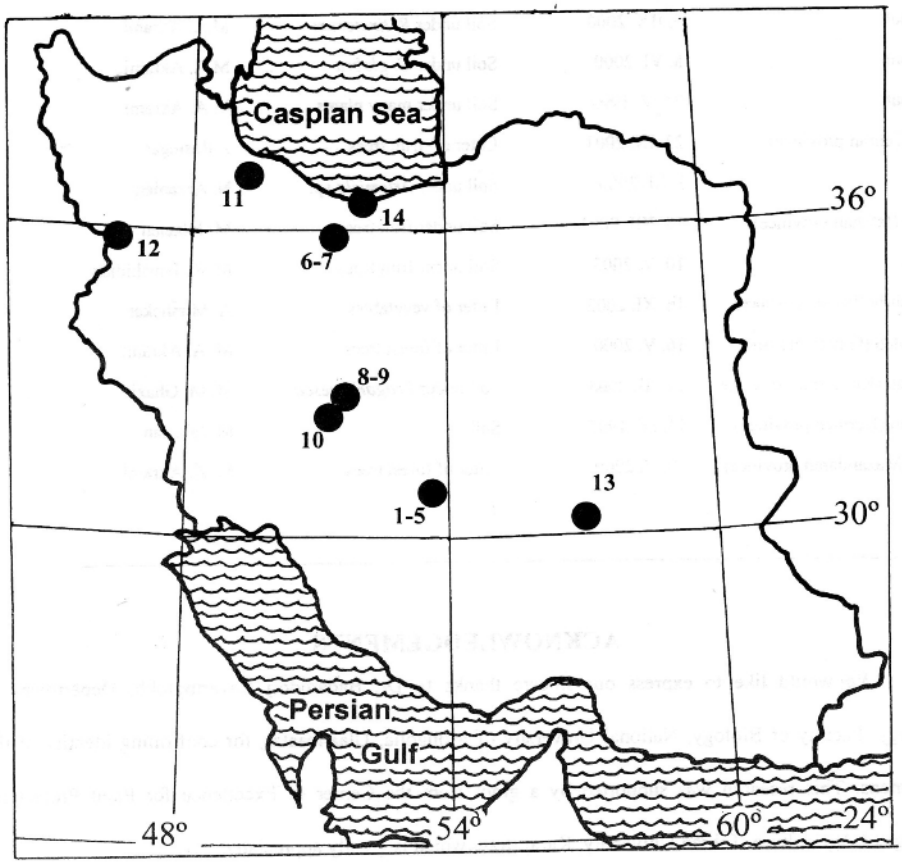

Fig. 1. Map of Iran, showing the sampling locations.

Table 1: Sampling Information

Number and name of locality	Date of sampling	Habitat	Collector
1. Abarkouh (Yazd province)	21. IX. 2000	Soil under *Rubia tinctorum*	M.A. Akrami
2. Abarkouh	11. VII. 1999	Soil under *Glycirrhiza glabra*	M.A. Akrami
3. Abarkouh	5. IIX. 2000	Soil under *R. tinctorum*	M.A. Akrami
4. Abarkouh	8. VI. 2000	Soil under *G. glabra*	M.A. Akrami
5. Abarkouh	24. V. 1999	Soil under many plants	M.A. Akrami
6. Karaj (Tehran province)	23. IX. 2001	Litter of fruit trees	J. Rastegar
7. Karaj	I. XI. 2000	Soil under *Artemisia* sp.	N. Arzanian
8. Isfahan (Isfahan province)	15. XII. 2001	Soil under fruit trees	M. Jalaeian
9. Isfahan	10. V. 2003	Soil under fruit trees	M. K. Jamshidian
10. Fooladshahr (Isfahan province)	16. XI. 2002	Litter of vegetables	A. Mirshekar
11. Masooleh (Guilan province)	16. V. 2000	Litter of forest trees	M. A. Akrami
12. Marivan (Kordestan province)	24. III. 2003	Soil under *Fragaria vesca*	M. M. Ghazi
13. Kerman (Kerman province)	11. IX. 1997	Soil	M. Jalaeian
14. Noor (Mazandaran province)	18. V. 2000	Litter of forest trees	M. A. Akrami

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