

## NOTES ON SOME MITES UNDER CERTAIN FIELD CROPS IN CENTRAL IRAQ

Zahida Al-Douri

Iraq Natural History Museum, University of Baghdad. Baghdad, Iraq

### ABSTRACT

A study of some mite species of alfalfa, wheat, and barley was conducted in central Iraq. The mites were extracted using a Tullgren funnel method. Twelve species were recorded. 10 of them belong to suborder Trombidiformes and 2 belong to suborder Sarcoptiformes. Three mites, *Iripipes hystricinus*, *Scutacarus longitarsus*, and *Rhizoglyphus echinopus* are new records for Iraqi mite fauna, and 11 are new host records in alfalfa soil.

### INTRODUCTION

The mite fauna of cohort Tarsonemina and family Acaridae were rather neglected in Iraq, except for Mahmood (1987) who studied family Acaridae were associated with stored grain in Baghdad although they were extensively studied all over the world by many authors such as Cross (1965), Mahunka (1970), Bulanova-Zakhvatkin (1975), Vainshtein (1978), Sevastianov (1986) and Al-Douri (1988). Therefore it is found necessary to make a survey of the different species of Tarsonemid and Acaridid mites in the soil of certain field crops (alfalfa, wheat and barley) in central Iraq.

### MATERIALS AND METHOD

A total of 260 soil samples of alfalfa, wheat and barley from three localities in central Iraq (Baghdad City, Suwaira and Musiba) were taken and once a week when possible during October, November and December 1990 and 1991. The soil samples were collected from the surface layer (0-10 cm) using the aid of an iron sampler (10 x 10 x 10cm). Mites were extracted in the laboratory through a Tullgren funnel extractors kept in 70% ethyl alcohol. The mites were cleared in 10% KOH, washed with distilled water, mounted in Hoyer's medium on glass slides, and then carefully examined, under a stereoscopic binocular microscope.

### RESULTS

Table I summarizes the result of a survey of soil samples in central Iraq. It is found that *Iripipes hystricinus* Berlese, 1903 and *Scutacarus longitarsus* (Berlese, 1905) {Trombidiformes} and *Rhizoglyphus echinopus* (fumouse et Robin) {Sarcoptiformes} constitute first record for the Iraqi mite fauna. Eleven species of mite extracted from alfalfa soil and one mite extracted from both wheat and barley soil are new host records.

### DISCUSSION

Al-Douri (1988) studied the mite of cohort Tarsonemina in Musayid and Suwaira areas in the soil of wheat and barley. She described 4 new species and reported 19 species as new records for Iraq. With the present two newly recorded mites for Iraq of this study the list of Tarsonemid fauna become include (21) species. The group Tarsonemid was neglected in Iraq because of its minute size delicate structure which is very different to deal with, although it is

#### Inheritance of dark head

assumed to play a role in decomposing organic material as they are fungivorous or phytophagous (Gurney-Husy 1967, Suski 1967, Wicht 1970 and Al-Douri 1988).

Mahmood (1987) in her study of mite associated with stored grain in Baghdad reported three species of Acaridae. The total number of species of family Acaridae become four with recording *Rhizoglyphus echinopus* (Funouze et Robin) in the present study. So it seems important to carryout future studies on this mite family.

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Table 1: Results on species, localities (given as numbers) and field crop soil collected in central Iraq.

Mite species		Alfalafa	Barley	wheat
ORDER ACARIFOMES				
Subord.	Trombidiformes			
Fam.	Pygmophoridae			
	Bakerdania centriger(Cooreman)	1	2	3
	Bak. Grasilis (Krczal)	1	2	3
	Bak. Tarsalis (Hirst)	1	2	3
	Brennandania sp.	1	-	-
	Mesopotamiphorus bobylicus			
	Sevastianov et Zahida Al-Douri	-	2	3
Fam.	Scutacaridae			
	Imparipes hystricus (Berlese)			
	Pygmodispus sp.	1	-	-
	Scutacarus quadrangularis (Paoil)	1	-	-
	Scu. Longitarsus (Berlese)	1	2	3
	Scutacarus sp.	1	-	-
Fam.	Tarsonemidae	-	-	3
	Tarsonemidae spl			
	Tarsonemidae sp2	1	2	-
	Subord:Sarcoptiformes	-	2	-
Fam.	Acaridae			
	Rhizoglyphus echinopus(Fumouze	1	2	3
	Et Rodion)			
	Tyropagus spl	1	-	-
	Tyropagus sp2	-	2	3

Localities:

No. 1: Baghdad

No. 2: Musiab 80 km southwest of Baghdad city

No. 3: Suwaira 60-km south Baghdad

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