

Short communication

**First record of *Acarophenax rackae* (Acari: Heterostigmata: Acarophenacidae), an egg parasitoid of *Tribolium confusum* (Col.: Tenebrionidae) from Iran**

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چکیده

به دنبال جمع‌آوری برخی از حشرات انباری موجود در انبارهای آرد شهرستان ارومیه، کنه‌ی پارازیت *Acarophenax rackae* Mahunka & Zaki, 1990 متعلق به خانواده‌ی Acarophenacidae از زیر بالپوش‌های شپشه‌ی آرد، *Tribolium confusum* Jacquelin du Val، جمع‌آوری و شناسایی گردید. این کنه برای اولین بار از ایران گزارش می‌شود.

Most of the mites of the family Acarophenacidae are egg parasitoids of their insect hosts in several beetle families such as Cerambycidae, Cucujidae, Dermestidae, Nitidulidae, Scolytidae and Tenebrionidae (Goldarazena *et al.*, 1999). Among the six genera of the family Acarophenacidae, only the genus *Acarophenax* Newstead & Duvall contains parasitoid mite species of graminivorous beetles of the genera *Tribolium* MacLeay and *Cryptolestes* Ganglbauer (Kaliszewski *et al.*, 1995) and can be considered as useful biological control agents (Faroni *et al.*, 2000).

The late M. S. Taheri had collected the flour beetle *Tribolium confusum* Jacquelin du Val in flour storages in Urmia, Azarbaijan-e Gharbi province, in 1993. The acarophenacid mite *Acarophenax rackae* Mahunka & Zaki, 1990 was found under the elytra of the beetle and is a new record for the mite fauna of Iran. The specimen is deposited in the Hayk Mirzayans Insect Museum, Insect Taxonomy Research Department, Iranian Research Institute of Plant Protection, Tehran, Iran. The species *A. rackae* was originally collected on sheep dung in Egypt in 1989 (Mahunka & Zaki, 1990)

There are eight described species in the genus *Acarophenax*, among which *A. rackae* is distinguished by the following characters: setae *e* at least three times longer than setae *f*; setae *c*, *d*, *e* and *f* identical in form and thickness; setae *e* nearly as long as setae *d*; solenidion  $\omega_1$  short, spindle-shaped and much shorter than famulus; two setae of tarsus II strongly dilated.

**References**

- Faroni, L., Guedes, R. & Matioli, A.** (2000) Potential of *Acarophenax lacunatus* (Prostigmata: Acarophenacidae) as a biological control agent of *Rhyzopertha domonica* (Coleoptera: Bostrichidae). *Journal of Stored Products Research* 36, 55-63.
- Goldarazena, A., Ochoa, R. & Jordana, R.** (1999) Revision of the genus *Paradactylidium* Mahunka (Acari: Heterostigmata). *International Journal of Acarology* 25(2), 91-99.
- Kaliszewski, M., Athias-Binche, F. & Lindquist, E. E.** (1995) Parasitism and parasitoidism in *Tarsonemina* (Acari: Heterostigmata) and evolutionary considerations. *Advances in Parasitology* 35, 335-367.
- Mahunka, S. & Zaki, A. M.** (1990) *Acarophenax rackae* sp. n., a new mite species from Egypt (Acari, Tarsonemina, Acarophenacidae). *Parasitologica Hungarica* 23, 121-126.

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