



University of Zabol
Graduate school
Faculty of Agriculture
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**The Thesis Submitted for the Degree of PhD (in the field of
Entomology Agricultural Science)**

**Taxonomic study of terrestrial Parasitengona
ectoparasites on arthropod in South
Khorasan province**

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Abstract

Parasitengona mites are a diverse group in the order Trombidiformes and suborder Prostigmata. In order, study of the taxonomy of terrestrial Parasitengona larve were used of different sampling methods including direct observation, netting, light trap, Malaise trap, pit fall trap, their separation of soil with Berlese funnels in South Khorasan province during years 2020 - 2022. The larvae became clear with Lactophenol and microscopic slides were prepared in Hoyer's medium. A total of 35 species belonging to 20 genera from 10 subfamilies, 9 families and 2 superfamilies were identified. A new genus of Neothrombiidae Feider, 1959 were identified with new host from ticks *Rhipicephalus sanguineus* (Acari: Tick: Ixodidae) was reported for first time. five new species for the world of science fauna (marked *) and five species were reported for the first time from Iran (marked **):

Superfamily Erythraeoidea: Family Erythraeidae Robineau-Desvoidy, 1828: Subfamily Erythraeinae Robineau-Desvoidy, 1828: *Erythraeus (Erythraeus) shojaii* Saboori & Babolmorad, 2000, *E. (E.) garmsaricus* Saboori, Goldarazena & Khaieali, 2004, *E. (E.) uhadi* Kamran & Alatawi, 2014**, *E. (E.) sifi* Haitlinger, 2000**, *E. (Zaracarus) coleopterus* Mortazavi, Hajiqanbar & Saboori, 2012, *E. (Z.) lancifer* Southcott, 1995, *E. (Z.) hafezi* Saboori, Hakimitabar & Mahmoudi, 2014, *E. (Z.)* sp. nov. * and *Lasioerythraeus* sp. nov. *; Subfamily Abrolophinae Witte, 1995: *Abrolophus hajiqanbari* Noei, 2022, *Marantelophus iranicus*, (Haitlinger and Saboori, 1996); Subfamily Callidosomatinae Southcott, 1957: *Charletonia damavandica* Karimi Iravanlou, Kamali et Talebi, 2002, *C. terianae* Hakimitabar, Saboori & Seiedy, 2013, *C. volzi* (Oudemans, 1910) ** and *Caeculisoma* sp. nov. *; Subfamily Leptinae Billberg, 1820: *Leptus (Leptus) heleus* Southcott, 1993**, *L. (L.) polythrix* Fain & Elsen, 1987**, *L. (L.) phuketicus* Southcott, 1994, *L. (L.) augusti* Haitlinger, 1999; Family Smarididae Vitzthum, 1929: Subfamily Smaridinae Vitzthum, 1929: *Fessonia papillosa* (Hermann, 1804); Superfamily Trombidoidea: Family Trombidiidae incertae sedis: *Cicaditrombidium lorestanensis* Noei, 2017, *Oskootrombidium prasadi* Saboori, Bagheri & Haddad, 2006; Subfamily Trombidiinae Leach, 1815: *Trombidium southcotti* Zhang et Saboori, 1996; Subfamily: Allothrombiinae Thor, 1935: *Allothrombium pulvinum* Ewing, 1917, *A. triticium* Zhang, 1995, *Monotrombium simplicium* Zhang, 1995; Family: Microtrombidiidae Thor, 1935: Subfamily Eutrombidiinae Thor, 1935: *Eutrombidium sorbasiensis* Mayoral & Barranco, 2004; Subfamily Microtrombidiinae Thor, 1935: *Atractothrombium brevisetosum* Karakurt and Sevsay, 2015, *Platyrombidium fasciatum* (C. L. Koch, 1836); Family Microtrombidiidae incertae sedis: *Empitrombium makolae* Sevsay & Karakurt, 2013; Family Achaemenothrombiidae Saboori, Wohltmann and Hakimitabar, 2010: *Achaemenothrombium saboorii* Noei, 2021, *A. khashayarshahi* Noei, 2022*; Family Trombellidae Thor, 1935: *Nothrotrombidium birjandensis* Noei, 2017, *Nothrotrombidium sadeghi* Noei and Kohansal, 2023*; Family Neothrombiidae Feider, 1959: *Dorohrtrombidium* gen. sp. nov.*.

Key words: Larve, Fauna, Species, Host, South Khorasan.