



ARACHNIDS

ARACHNIDS, or ARACHNIDA, Pers. *‘ankabūtīān*. The largest chelicerate class of the invertebrate phylum Arthropoda; it includes such familiar, frequently encountered Iranian forms as the true spiders, *‘ankabūt* or *tārtanak* (Araneida); true scorpions, *‘aqrab* or *každom* (Scorpionida); free-living and parasitic mites, *hīra*, and ticks, *kana*, *mella*, *ḡarībgaz*, or *šabgaz* (Acarina); and the solpugids, *rotayl* (Solifugae), popularly known as “tarantulas.” The class also includes harvestmen or daddy longlegs, *‘ankabūt-e pāderāz* (Opiliones), and two smaller groups, the false scorpions, *šebh-e ‘aqrab* (Pseudoscorpiones), and the whip scorpions, *‘aqrab-e šallāqī* (Uropygi). Zoogeographically, the Iranian arachnid fauna differs little from that of adjacent regions. General behavior and life history information available from authoritative entomology and invertebrate zoology texts applies to Iranian representatives as well.

No known representative of major Iranian arachnid groups not covered under separate topics inflicts a significantly toxic bite. However, economically and medically, parasitic mites and ticks surpass all other arthropods, except possibly mosquitoes and flies, in the number of diseases they transmit to humans, as well as in the widespread infestation of domestic stock and native wildlife. According to Iranian folklore, ticks are evil omens, and their bites are associated with potentially fatal fevers. Two families of ticks are represented in Iran: soft ticks, *kana-ye narm* (Argasidae), and hard ticks, *kana-ye saḡt* (Ixodidae). The former group includes both the chicken tick, *kana-ye morḡī*, *Argas persicus*, vector of bird relapsing fever, *tab-e rāje‘a-ye morḡī*, and the *Ornithodoros tholozani*, locally known as *ḡarībgaz* or *šabgaz*. Both species are



widespread in Iran, especially in the central and northwestern portions of the country. Seldom found in rodent burrows, *Ornithodoros tholozani* prefers the mountainous Alborz and Zagros regions, where it commonly infests both stables and human dwellings. As long ago as 1819, M. Kotzebue observed these whitish ticks inhabiting crevices in walls and remarked upon their noxious, sometimes fatal, attacks upon “Strangers (*ġarīb*).”

Solpugids or “tarantulas” (sun spiders, wind spiders, and other variations) are the subject of morbid tales throughout their wide Iranian range. Local folklore often attributes malevolent powers to these common creatures. Such unwarranted, often wildly exaggerated, accounts apparently arise from the solpugids’ conspicuous sizes (up to 50 mm), voracious appetites, unusual behavior, reputedly potent (but actually nonexistent) venom, and superficial resemblance to true spiders. Proportionally, solpugids are armed with probably the strongest “jaws” of any known animal. They can inflict painful, albeit non-venomous, bites, which, however, are subject to complications through infection.

Harvestmen (1-15 mm), or daddy longlegs, are relatively insignificant elements of the Iranian arachnid fauna, because of their dire need for free water. False scorpions (1-7.5 mm) resemble miniatures of their namesakes but lack sting-tipped post-abdominal extensions. Inconspicuously dwelling in silken nests beneath bark and stones, or even non-parasitically on larger animals, they dine upon other small arthropods. Whip scorpions (18-65 mm), harmless inhabitants of southern Iran, also resemble true scorpions but they respond to provocation by secreting an irritating mist infused with a strong acetic acid odor.

BIBLIOGRAPHY

Few published sources specifically cover Iranian arachnids. The Iran National Museum of Natural History (Mūza-ye Mellī-e Tārīḳ-e Ṭabī’ī) in Tehran produced some general articles; researchers at the Rāzī State Institute in Karāḡ have issued reports on scorpion taxonomy and venoms, and the Pasteur Institute in Tehran has undertaken extensive research on the tick *O. tholozani*.



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(‘A, Aḥmadī and R. G. Tuck, Jr.)