

SPIDERS

OF KAZAKHSTAN

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Cover image and previous page: Allohogna singoriensis, a large Central Asian species of borrowing wolf-spider (family Lycosidae).

Dedicated to Sergei V. Ovtchinnikov (1958–2007)



ACKNOWLEDGEMENTS

The idea of preparing a popular book on the spiders of Kazakhstan was initiated by Sergei V. Ovtchinnikov (1958–2007), our friend and colleague, and a tireless explorer of Middle Asia and Kazakhstan, who tragically passed away in 2007 and to whom we dedicate this book.

We wish to express our gratitude to the following fellow-arachnologists who helped us in gathering information about various arachnid groups: Alexei V. Chemeris (Tomsk, Russia; Opiliones), Selvin Dashdamirov (Dusseldorf, Germany; Pseudoscorpiones), Victor Ya. Fet (Huntington, USA; Scorpiones), Bernhard A. Huber (Bonn, Germany; Araneae: Pholcidae), Mark Judson (Paris, France; Pseudoscorpiones), Irina I. Marchenko (Novosibirsk, Russia; Acari), Yuri M. Marusik (Magadan, Russia; Araneae: Araneidae and Dictynidae), Andrei V. Tanasevitch (Moscow, Russia; Araneae: Linyphiidae) and Sergei L. Zonstein (Tel-Aviv, Israel; Araneae: Mygalomorpha and Filistatidae). Sergei L. Esyunin (Perm, Russia) and Alexander N. Fomichev (Novosibirsk, Russia) kindly allowed us to include their unpublished records of spiders from East Kazakhstan in our checklist. Yuri M. Marusik and Mykola M. Kovblyuk (Simferopol, Ukraine) provided critical comments and helpful suggestions on the early draft of the book. David Penney (Manchester, UK) edited the English of the final draft.



Water spider (*Argyroneta aquatica*) constructing its 'diving bell'.



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Spider wasp (*Priocnemis perturbator*) moving a paralyzed wolf spider (*Trochosa* sp.).



INTRODUCTION

Spiders are amongst the most astonishing creatures on Earth. The variety of their form and biodiversity is impressive indeed, with more than 42,750 species found and described in the world fauna to date. The majority of spiders are small, 2–3 mm long, but in the tropics real giants can be encountered, for example, the group commonly referred to as tarantulas may reach about 10 cm in adult body length, with a leg-span the size of a dinner plate and can weigh as much as 85 g. Most spiders live for a few months, up to one year, but large tarantulas can live for as long as 25 years! Spiders occur on all continents except Antarctica, from hot deserts to alpine highlands, and some even live under water. Spiders can even be found ballooning on their silk threads at a height of about 5 km, as a means of dispersal to new habitats. In a single square metre of typical mixed forest of the temperate zone one can find 200–300 spiders of various families (although sometimes there can be significantly more than this, e.g. up to 1200 in some regions of Finland). What do they do there and how do they interact with each other and with other organisms? Spiders also have one of the longest geological histories (fossil records) of any terrestrial animal group. Due to their ubiquitous nature spiders have been our close neighbours for the entire history of humankind. Despite this, they still remain rather poorly known and retain an aura of fearful mystery and enigma.

The name of the class Arachnida originates from the Greek word ‘arachne’, meaning literally ‘spider’. In Greek mythology, Arachne was a girl from the city of Colophon, who was famous as a fine weaver and embroiderer and who once boasted that she had a greater talent than Athena, goddess of wisdom, warfare and crafts. Offended by Arachne’s arrogance, Athena set a contest between the two weavers in which Arachne won. The goddess became so envious of the mortal weaver’s success that she transformed Arachne into a spider, destined to weave for all her life. The idea of the myth surely came from watching spiders at work.

Spiders are well known as producers of fine silk, which many of them weave into intricate webs. The silk is indeed a trademark of all spiders. The silk thread is thin, about 0.005 mm in diameter, and so light that if a spider could spin a single silk thread to encircle the globe it would weigh less than 170 g. Nonetheless, spider silk is surprisingly strong and elastic, being five times stronger than a steel wire of the same diameter and at the same time capable of stretching out 2–20 times its length. The ability to produce silk and to use it for many different purposes, including prey capture, retreat construction, burrow lining, safety lines, aerial dispersal (ballooning), and protecting their eggs in cocoons, was and is certainly one of the main factors driving the evolution of spiders and accounts for their contemporary biodiversity and ecological success.

Another common peculiarity of spiders is the use of venom for killing the prey and for protecting them from enemies. Only one group of spiders – the cribellate web-weavers of the family Uloboridae (see p. 46) – lacks venom glands and relies



exclusively upon a silk snare to catch the prey. The venom toxicity of spiders has always caused superstitious, almost innate fear in people, although the majority of spiders are absolutely harmless. Globally, there are some 200 dangerous spiders (less than 1% of all the known species) and the lion's share of them live in the tropics.

In Kazakhstan, only the Karakurt (*Latrodectus tredecimguttatus*) and the Mediterranean Recluse Spider (*Loxosceles rufescens*) are dangerous, out of the 978 spider species recorded to date. Nevertheless, local people not only fear spiders, particularly the Karakurt, but also ascribe some supernatural qualities to them (see Rossikov, 1904). For instance, according to popular local belief at the beginning of 20th century, if an abdomen from a dried Karakurt was burned out near the bed of an epileptic, this would help to oust the malicious spirit from the sick person who then would recover. The deep fear of the Karakurt is partly because of the local belief that a man bitten by one will inevitably become sexually impotent after recovery. Such a fear was further reinforced by another local belief that if someone were destined to be bitten by the Karakurt, any precautions to avoid this would be futile. Nevertheless, the presence of numerous Karakurts in the steppe was considered a good omen, foretoking a rich grass harvest and plentiful offspring from sheep.

Certain esteem to spiders exists in all cultures. For instance, there is a legend that the spider protected the baby Jesus during the escape of the Holy Family to Egypt. During their dangerous trip the Holy Family ended up in the hills and hid in a cave. Then a spider came and wove a dense web over the cave's entrance. When the persecutors came by looking for the baby Jesus, they passed the cave where the Holy Family was hidden because the spider web was intact. Yet, it is a common, almost universal belief that the presence of a spider inside a house is a good sign. Moreover, a spider descending upon you from the roof or a tree is a token that you will soon receive good news, a legacy or financial profit.

Spiders have always been and always will be our diminutive neighbours, whether we like them or not. Therefore, let us learn a little about these amazing creatures. Indeed, they can generate lots of interest and enjoyment if we pay even a small amount of attention to them.



Southern wood ants (*Formica rufa*) attacking a wolf spider (*Alopecosa* sp.).



SPIDERS OF KAZAKHSTAN

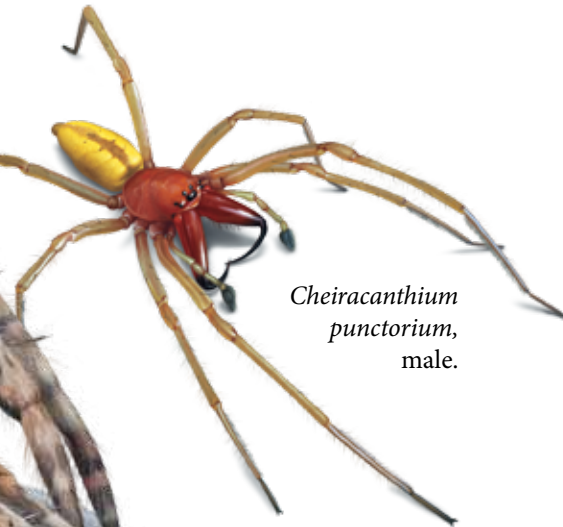
ABOUT THIS BOOK

Kazakhstan, or officially the Republic of Kazakhstan, is a country in Central Asia and the ninth largest country in the world in terms of area occupied, covering some 2.7 million square kilometres (the size of Western Europe). Kazakhstan lies in between the Caspian Sea in the west and the north-west border of China in the east, and extends across the 1800 km-long longitudinal line from the forest-steppe zone of West Siberia in the north to the deserts of Middle Asia in the south (see map). This is why the country encompasses a great variety of landscapes and habitats, such as, (semi)deserts, steppes, taiga-forests, rock-canyons, hills, deltas, river valleys and snow-capped mountains.

The aim of this book is to provide an accessible introduction to the spiders of Kazakhstan. The main part of the book (pages 25–200) covers 176 spider species, representing most of the genera (except for those of Linyphiidae) found in Kazakhstan to date. All species are illustrated and provided with their Latin name, and their distribution and natural history are briefly described, in cases where such data exist. References to biological data, if any, are restricted to regional literature only. The order of families in the main part of the book is based on their systematic relationships and follows Mikhailov (1997).

A detailed description of each individual arachnid order found in Kazakhstan is outside the scope of this book. Such general information can easily be obtained from many books and two recently published volumes are worth mentioning here: Beccaloni (2009), providing a detailed and accessible account on biology, anatomy and behaviour of all extant groups of arachnids, and Dunlop & Penney (2012), providing a unique, comprehensive synopsis of all fossil groups of arachnids (including several extinct orders in addition to all the extant ones). Thus, only brief general

Female orb-weaver (*Araneus angulatus*) sitting on tree bark.



*Cheiracanthium
punctorium*,
male.



characteristics of the arachnid orders occurring in Kazakhstan are provided below, with lists of references to relevant literature for the Kazakhstan fauna. This is followed by an illustrated account of selected groups of spiders. Technical words have been kept to a minimum and those that were necessary to use are explained in the glossary on page 201.

In the appendix (pages 207–227) we also provide complete checklists of all arachnid species recorded from Kazakhstan to date, apart from Acari (mites and ticks).



Female ground spider
(*Gnaphosa lucifuga*), and
male jumping spider
(*Philaeus chrysops*).



Female wolf spider (*Trochosa robusta*) carrying its egg sac (top), and female crab spider (*Misumena vatia*) with its prey (bottom).

SPIDERS AND THEIR ALLIES

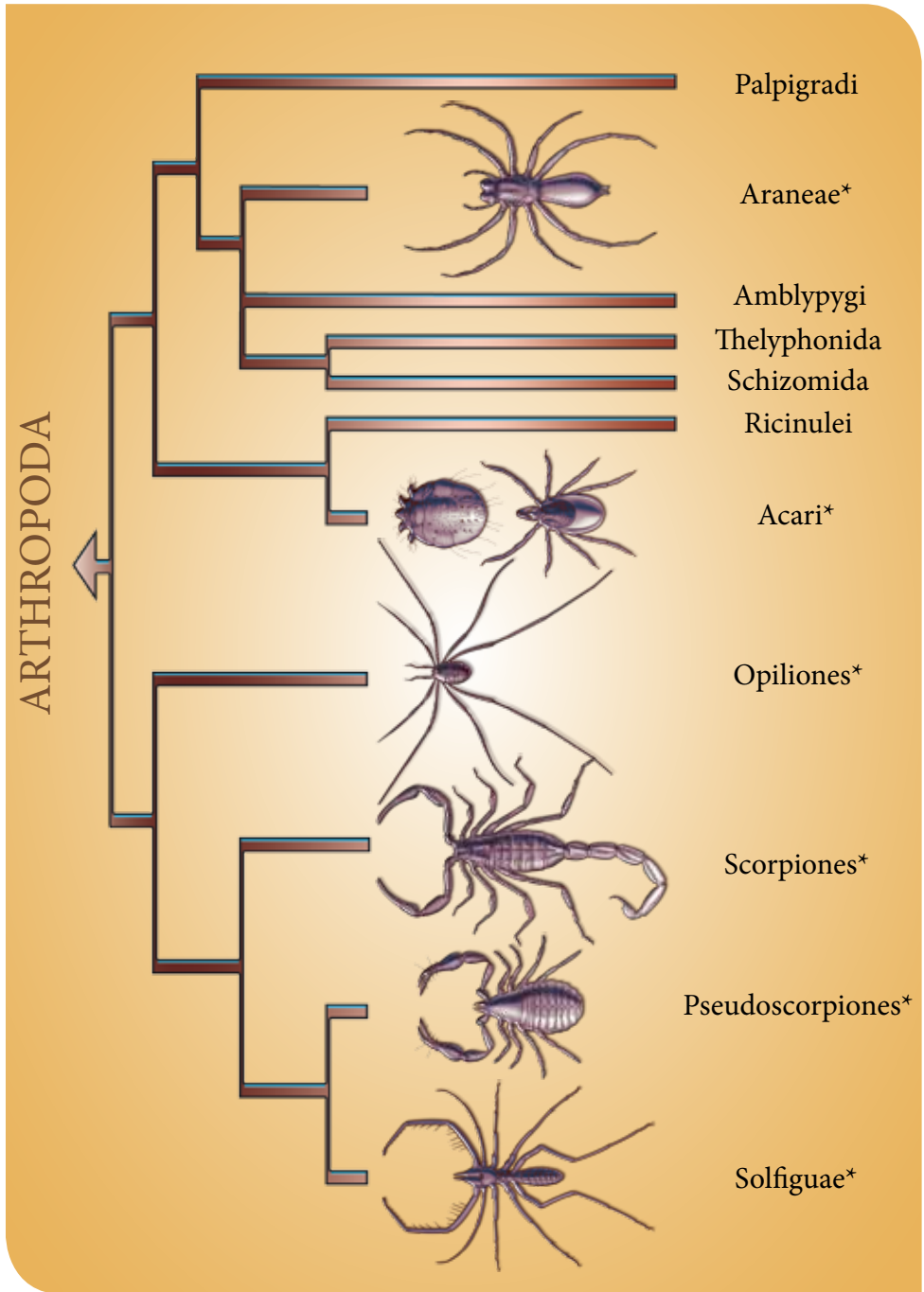


Female European garden spider (*Araneus diadematus*) with its prey.



SPIDERS OF KAZAKHSTAN

A diagram of interrelationships of the main orders of Arachnida (simplified from Wheeler & Hayashi, 1998: fig. 5)



*Arachnid groups marked with asterisks are found in Kazakhstan (see pages 207–209, for species lists)



SPIDERS AND THEIR ALLIES

All creatures on the Earth have distant or close relatives, and spiders are no exception. Spiders are invertebrates (animals without a backbone) and are classified within the most diverse (in terms of described species) group of organisms, known as arthropods (formal taxon name = Arthropoda), which constitute more than 90% of all known animals. As in other arthropods, such as insects, crustaceans, centipedes and millipedes, spiders have jointed legs and an external skeleton made of chitin (a natural polymer, derivative of glucose). Amongst arthropods, spiders belong to the class Arachnida, which includes approximately 111,000 described species. All arachnids have four pairs of walking legs consisting of six to seven (or more, as in harvestmen) segments. The class Arachnida includes at least ten kindred groups called orders, such as scorpions, false-scorpions, harvestmen, camel-spiders, and others; spiders make up one of these orders and are scientifically referred to as Araneae. The true relationships between the arachnid orders are not fully understood and are a matter of ongoing debate. Nevertheless, many specialists are in favour of the hypothesis that spiders are most closely related to the whip spiders (Amblypygi) (see diagram on p. 12), a small group of bizarre-looking organisms that live predominantly in the tropics. Although spiders only superficially resemble the whip spiders, both groups appear to have had a common origin or ancestor, and both have a body consisting of two parts, prosoma (= the anterior portion of the body) and opisthosoma (= the posterior portion), joined by a slender waist or pedicel. Spiders can be distinguished from all other arachnids by the following combination of key features: (1) the presence of poison glands situated in the chelicerae and carapace; (2) the development of silk glands which exude silk via silk-spinning organs (spinnerets) located at (or close to) the rear end of the abdomen; and (3) mature males with pedipalps modified as copulatory organs for transferring sperm to females.



Female burrowing wolf spider (*Lycosa praegrandis*) known from throughout Kazakhstan.



SPIDERS OF KAZAKHSTAN

SOLIFUGAE – Camel spiders

Camel spiders make up a small arachnid order, numbering about 1100 species worldwide. Their size varies from 10–15 mm in small forms and up to 50–70 mm in large ones. The colour is usually brownish yellow, sandy yellow or off-white, more rarely variegated or dark. The prosoma is divided into three segments, of which the anterior one bears a pair of disproportionately large chelicerae (= jaws) directed anteriorly, leg-like pedipalps that function as tactile organs, and the first pair of legs. This segment is markedly arched and chitinized and bears a pair of eyes at its front edge. Camel spiders are typical dwellers of arid (steppe and desert) landscapes of warm temperate, subtropical and tropical regions. They are predominantly nocturnal animals, but some are diurnal – the latter are usually brighter coloured. In spite of a common misconception, camel spiders are not venomous. They are voracious predators that feed on any animal they are able to subdue. In Kazakhstan, there are 16 species of camel spiders (see p. 207).

Relevant literature: Birula (1938), Gromov (1993), Gromov & Kopdykbaev (1994).



Galeodes caspius is a common Central Asian species of camel spider. It is a strictly nocturnal predator and in the daytime hides in burrows made in sandy soil. This species hunts in bushes using a 'sit-and-wait' strategy, and its prey consists of caddisflies, beetles and grasshoppers.

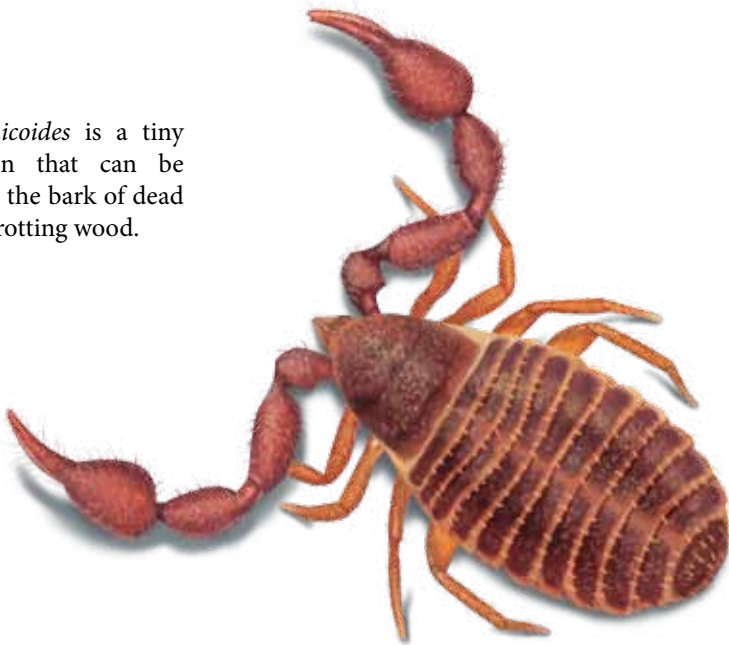


PSEUDOSCORPIONES – False-scorpions

False-scorpions are small arachnids with pincer-like pedipalps, usually not exceeding 2–5 mm in body length. They superficially resemble scorpions but lack the venomous ‘tail’. There are some 3450 species of false-scorpions known worldwide. They are especially diverse and numerous in the tropics. The pincer-like pedipalps of false-scorpions are multi-functional tools: besides grasping and paralyzing the prey (the finger tips possess openings of poison glands), they are also used as tactile and chemosensory organs. False-scorpions are widespread but poorly studied due to their small size and reclusive lifestyle. They can be found in leaf litter, under stones and loose bark, in burrows and animal/bird nests, in ant/wasp nests, and also in human dwellings (e.g. in book-stacks) – hence their other common name of book scorpions. False-scorpions are predators, feeding on small invertebrates such as springtails, tiny beetles, fly larvae, small spiders, soil mites and nematodes. The prey is caught and held by the pincers and paralyzed by poison, then macerated by the chelicerae and sucked dry. False-scorpions have a very interesting way of dispersing to new habitats, known as phoresy. They attach by their claws to the legs of flying insects, such as flies, bees and beetles and ‘ride along’ with them for long distances. In Kazakhstan, there are 25 species of false-scorpions (see p. 207).

Relevant literature: Dashdamirov (1991), Dashdamirov & Schawaller (1992, 1993a,b, 1995), Harvey (2012), Redikorzev (1922, 1934a,b, 1949), Schawaller (1985, 1986, 1989).

Chernes cimicoides is a tiny false-scorpion that can be found under the bark of dead trees and in rotting wood.





SCORPIONES – Scorpions

Scorpions make up a small arachnid order numbering about 1900 species worldwide. They are one of the oldest representatives of terrestrial arthropods. The world's largest scorpion is the Emperor Scorpion *Pandinus imperator* from tropical forest regions of West Africa – reaching 26 cm in length, and the smallest scorpions belong to the genus *Microtityus* and reach only 12 mm in adult length. The majority of scorpions live in subtropical and tropical countries, including Middle Asia, Kazakhstan, southern Crimea and the Caucasus. Scorpions are easily recognizable by their pincer-like pedipalps, elongated segmented body and long, flexible 'tail' (which is actually the elongated abdomen) with a venomous stinger at its tip. All scorpions are nocturnal creatures and are very resistant to unfavourable environmental conditions such as high temperature and drought, and to long periods of starvation. Scorpions are viviparous, giving birth to live young rather than laying eggs. Youngsters stay on their mother's back for some time and are protected by her. The venom of about 30 species is deadly to humans. In Kazakhstan, there are only five species of scorpions (see p. 208).

Relevant literature: Birula (1917), Fomichev (2011), Gromov (2001), Gromov & Kopykbaev (1994), Piryulin (2000), Stockmann & Ythier (2010).



The Caucasian Scorpion *Mesobuthus caucasicus* is the largest scorpion in Kazakhstan, with a body length of up to 8 cm. It occurs in rocky plots of arid mountains and sandy deserts but is rare. Its sting is very painful for humans.



OPILIONES – Harvestmen

Harvestmen make up the third largest arachnid order, after spiders and mites, currently numbering about 6500 species described worldwide. These are small to medium arachnids, with a small rounded body, ranging in size from 1 to 22 mm, and long to very long, thin legs, hence their common name ‘daddy-long-legs’. The prosoma and opisthosoma are broadly joined giving the appearance of a one-piece body. There are two eyes situated in the centre of the prosoma on an elevated structure called the ocularium. The chelicerae are claw-shaped; in the male, the basal segments of the chelicerae often bear prominent apophyses. Harvestmen possess odoriferous glands to repel enemies. They are not poisonous and are omnivorous, hunting live prey (insects and other invertebrates) or scavenging on dead organisms. Some harvestmen live in groups, a habit that gives them better protection from predators. Maternal care is usually limited to guarding the eggs until youngsters have moulted. In Kazakhstan, there are 21 species of harvestmen (see p. 208).

Relevant literature: Chemeris *et al.* (1998), Gritsenko (1972, 1975, 1976, 1979a,b), Šilhavý (1967), Snegovaya & Staręga (2008), Staręga (2003), Tchemeris & Logunov (2002).



Phalangium opilio is one of the commonest species of harvestmen. It can be found on vertical tree trunks, fences and building walls, even in large cities.



Mites and ticks make up the most diverse arachnid group. Acari are of uncertain taxonomic rank (subclass or order) and some researchers consider the group as two separate orders. Nonetheless, combined they number approximately 55,500 described species (there may be even more than this number that are as yet undescribed!). The majority of them have a single body unit or tagma in which the border between the prosoma and opisthosoma is poorly marked. Size usually varies from microscopic (0.1 mm) to small (3 mm). However, fully fed and engorged females of ticks can reach a length of 30 mm and multiply their unfed weight by as much as 100–120 times. The chelicerae are either claw-shaped or are developed to form a sucking apparatus called a hypostome. Eyes are present in some groups but absent in others. Acari are not poisonous and display a wide spectrum of feeding habits. They can be predators, blood-sucking parasites, detritus feeders, scavengers and plant or fungi feeders. Many mites and ticks have medical importance as vectors of an astonishing range of human and animal pathogens; others are serious agricultural pests. The acarine fauna of Kazakhstan remains incompletely studied and the total number of species occurring there is unknown.

Relevant literature (selected works only): Beglyarov (1981), Filippova (1966, 1977), Galuzo (1948, 1950, 1957), Gilyarov (1977, 1978), Gilyarov & Krivolutskii (1975), Grishina & Andrievskii (1985), Mitrofanov *et al.* (1987), Pavlovskii (1955), Senotrusova (1987), Serdyukova (1956), Vainstein (1960), Volgin (1969), Zakhvatkin (1941).



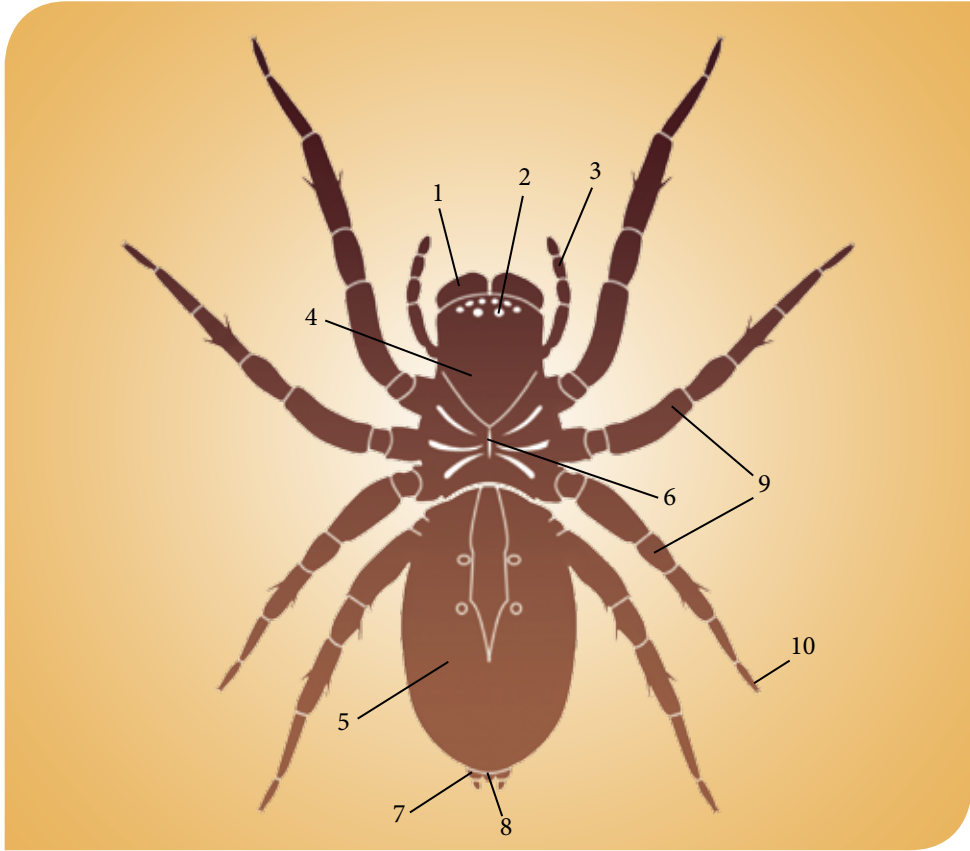
A questing female of the sheep tick *Ixodes ricinus*, which is one of the main vectors of human tick-borne diseases, such as encephalitis and Lyme disease.



ARANEAE – Spiders

Spiders, the main topic of this book, make up the second largest order of arachnids, numbering some 42,750 species described worldwide (see Platnick, 2012). All spiders have a similar body plan (see figure below). Their body consists of two sections: the cephalothorax (or prosoma) and the abdomen (or opisthosoma) which are connected by a narrow waist called the pedicel. The dorsal part of the cephalothorax is

External features of a spider



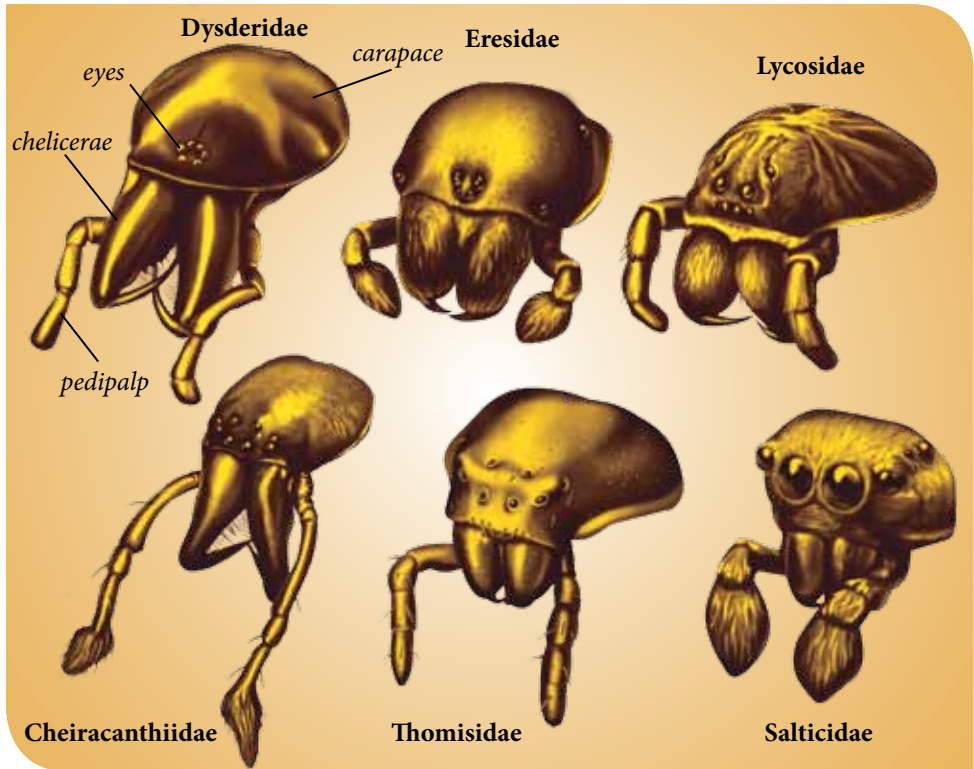
1 – chelicerae; 2 – eyes; 3 – pedipalp; 4 – carapace; 5 – abdomen; 6 – fovea;
7 – spinnerets; 8 – anal tubercle; 9 – walking legs; 10 – claw.

covered by the carapace, which usually bears six or eight eyes anteriorly. These are either situated in rows or clustered together. The number and relative arrangement of the eyes is an important character for defining many spider families (see figure on p. 20). Chelicerae (= jaws) are used to bite the prey. Each chelicera is two-segmented and consists of the basal segment (paturon) and a fang, at the tip of which is a pore leading to the duct of the venom gland. Two short leg-like appendages situated near



SPIDERS OF KAZAKHSTAN

Position of eyes in various spider families



the chelicerae are called pedipalps (or palps) – the main tactile organs of spiders. However, the palps of mature males are modified to function as secondary copulatory organs, which is one of the three main diagnostic features of spiders within the class Arachnida (see earlier). All spiders have four pairs of walking legs. The relative size, shape, spination and other features of the legs also have a diagnostic significance for identifying many spider families. The abdomen of the majority of spiders is non-segmented and shows great variation in shape, size and colour markings across the order.

The ability to produce silk is common to all spiders. Three pairs (sometimes reduced in number or size) of spinnerets are situated at the rear, or close to the rear of the abdomen. Each spinneret carries many tiny spigots, through which silk produced in the glands within the abdomen is extruded. There are six silk glands in total, and each secretes a different type of silk. Combinations of various silk types form all the known diversity of silk threads produced by spiders and are used for diverse purposes (sticky silk, drag line, silk for cocoons or retreats, etc.). Some groups of spiders also have a sieve-like structure in front of the spinnerets called the cribellum. The cribellum also bears lots of tiny spigots that produce a special kind of fine silk which is fuzzed-up into a woolly texture using a comb-like structure (the ca-



A silk retreat of *Clubiona phragmitis* made from rolled up grass; see also p. 136.

consists of insects and other invertebrates. There are two basic classes of spider venoms: neurotoxic venoms, affecting the nervous system by preventing the transmission of nerve impulses, and necrotic venoms, causing localized tissue damage in the area of the bite. Less than 1% of all the known spider species are dangerous to humans and other warm-blooded animals. In Kazakhstan, the best-known dangerous spider using neurotoxic venom is the Karakurt *Latrodectus tredecimguttatus* (see p. 59). Its venom causes cramps, asphyxia, vomiting, extensive salivation and sweating, and can even cause cardiac arrest. Without medical help (e.g. an anti-venom injection) the symptoms can persist

lamistrum) on the metatarsus of the hind leg. The mutual arrangement and size of spinnerets, as well as the presence or absence of a cribellum (or its shape), are used to define and classify some spider families.

The presence of poison glands is another feature common to most spiders. Only one group of spiders – the cribellate orb-weavers of the family Uloboridae (see p. 46) – does not have poison glands. All spiders are predators and use venom for quickly immobilizing or killing their prey, which



The wasp spider (*Argiope bruennichi*) wrapping up its bumblebee prey; see also p. 89.



The beginning of the courting ritual in the orb-weavers (Araneidae).

for weeks and, in rare cases, even result in death. It is known that heating can easily destroy the venom. Therefore, if the region of the bite is cauterized using a lighted match within one minute of being bitten, any consequences of the bite are evaded (see Marikovski, 1956). Other medically important spiders include the recluse spiders *Loxosceles* spp., the bites of which can cause severe necrotic skin and tissue lesions, which may take a very long time to heal. There are some 50 species of recluse spiders known worldwide, of which only the Mediterranean recluse spider *Loxosceles rufescens* has been recorded from Kazakhstan (see p. 30). A bite from this species is not life threatening, but results in spreading skin lesions or slowly healing ulcers, and hence there is a high risk of secondary infection through the wound. There are no other dangerous spider species in Kazakhstan.

The use of silk snares and venom makes spiders highly effective predators, capable of catching prey three or more times their own size. Spiders can hunt not only for insects and other invertebrates, but also for small vertebrates. For instance, the raft spider *Dolomedes fimbriatus* (see p. 111) regularly feeds on small fish and tadpoles. Based on their hunting strategy, all spiders can be subdivided in two broad groups: web-builders and free hunters. The former always rely upon their webs, snare or various web derivatives to catch their prey, the latter rely upon their strength and hunting skills. The hunting spiders can be both ambushers, e.g. crab spiders (Thomisidae) with their impressive camouflage coloration (see p. 166–167), or wandering hunters, e.g. lynx (Oxyopidae) or jumping spiders (Salticidae) which use sight to locate, pursue and catch their prey (see p. 132, 176).

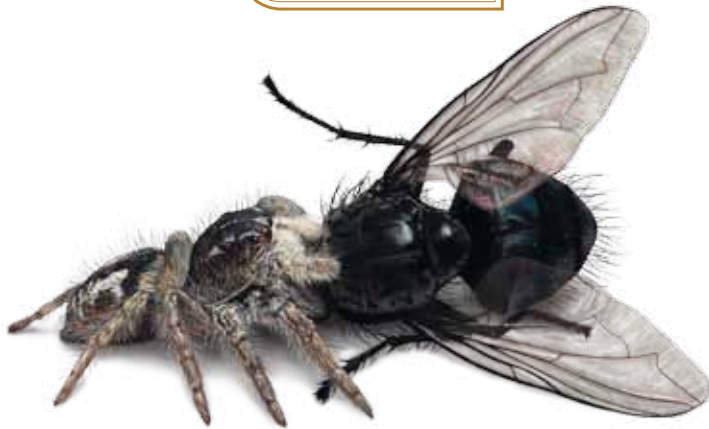
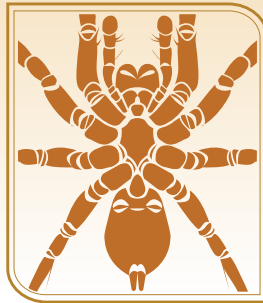


Female crab spider (*Xysticus* sp.) guarding her egg cocoon in order to protect it from enemies, particularly parasitoid wasps.

Reproduction in spiders is rather complicated and usually includes more or less complex courtship behaviour. The main function of the courtship ritual is to make sure the female, which is usually larger, does not mistake the male for prey, and that she is sufficiently stimulated for copulation. Copulation can last from several minutes in the orb-weavers (Araneidae) (see figure on p. 22) to several hours in the dwarf spiders (Linyphiidae). It is a common misconception to think that the spider female always kills and/or eats the male; this is true for a small proportion of spider species only, such as the Karakurt (see p. 59). Maternal care in the world of spiders is the prerogative entirely of females. Many groups not only protect their egg sacs, but also care for the newly hatched spiderlings by carrying them around, as in the wolf spiders (Lycosidae; see p. 100), or even feeding them, as in some comb-footed spiders, e.g. *Phylloneta impressa* (see p. 63).

In Kazakhstan, there are 978 species of spiders recorded to date (see p. 207), 176 of these are described and illustrated in the following sections of this book.

Relevant literature [only major works that appeared after the publication of Mikhailov's (1997) catalogue are listed]: Ballarin *et al.* (2012), Esyunin & Tuneva (2002), Gromov (2011), Huber (2011), Logunov (2010), Logunov & Gromov (2011), Logunov & Marusik (2000, 2003), Marusik & Esyunin (2010), Marusik & Fet (2009), Marusik & Koponen (2001a,b), Marusik & Logunov (2011), Marusik *et al.* (2004), Omelko *et al.* (2011), Piterkina (2009), Piterkina & Ovtsharenko (2007), Ponomarev (2005, 2007, 2008, 2009), Tanasevitch & Piterkina (2007, 2012), Saaristo & Marusik (2004a,b), Schwendinger & Zonstein (2011), Tuneva (2004).



Female wolf spider (*Pardosa lugubris*) carrying its offspring (top), and female jumping spider (*Philaeus chrysops*) with a bluebottle fly (*Calliphora* sp.).

SURVEY OF SPIDERS



Female wolf spider (*Lycosa* sp.) carrying its offspring.

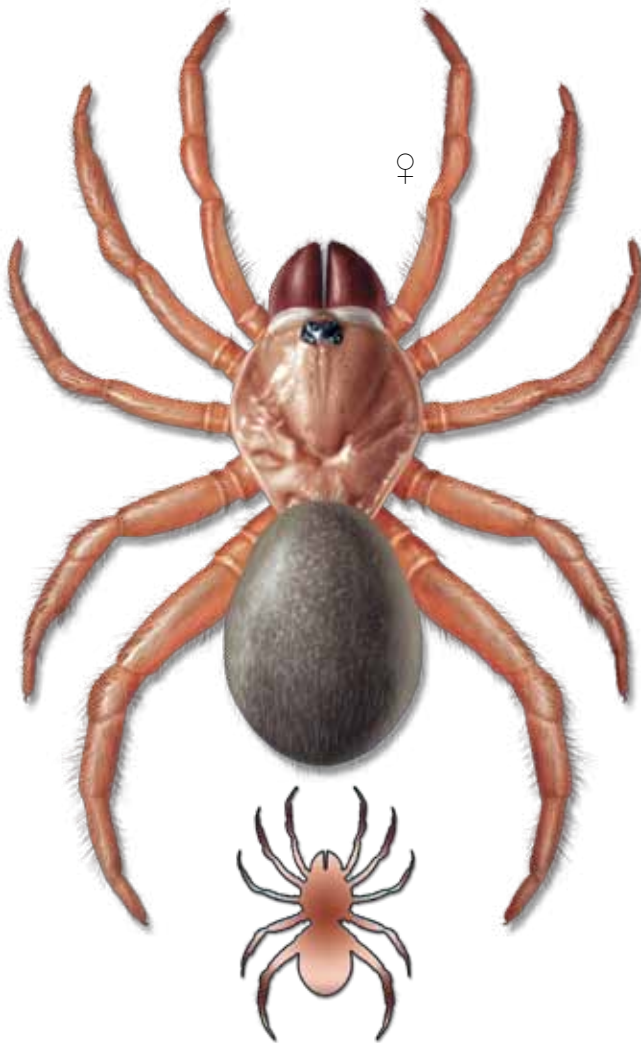


Family CTENIZIDAE – cork-lid trapdoor spiders

A small family of medium-sized to large mygalomorph spiders, with about 130 species described worldwide, mostly from subtropical and tropical regions. The biology of the majority of described species is poorly known and about half of them are known from one sex (females) only. In Central Asia, only three species have been recorded to date. The southern regions of Kazakhstan represent the northernmost limit of the family distribution in Eurasia.

Composition: In Kazakhstan, there is a single species of the genus *Sterrhochrotus* Simon, 1892, which is endemic to Central Asia.

Sterrhochrotus ferghanensis (Kroneberg, 1875)



Distribution: Ferghana valley and south Kazakhstan.

Distribution in Kazakhstan: southern regions, along Syr-Darya River.

Habitat: Clayey deserts.

Natural history: Permanent burrow inhabitant. Vertical burrows are not branched, but are lined with silk and have a thick, self-closing trapdoor decorated with soil particles. Apparently they live in colonies, as described for the related species *S. kitabensis* (Charitonov, 1946) known from the West Tian-Shan Mts, Kyrgyz Republic (see Zonstein, 1985). The male of *S. ferghanensis* is currently unknown.

Maturity: March to April and October.

Body length: 12–25 mm (female).



Family DIPLURIDAE – sheet-web mygalomorphs

A small family of small to large mygalomorph spiders, with more than 180 species described worldwide, occurring in warm areas of all continents except Europe and Antarctica. The diplurid spiders possess long posterior lateral spinnerets used for constructing rather messy sheet-webs with a funnel-like retreat usually running into an existing crevice. In Central Asia, only two species of the Dipluridae have been recorded to date. The southern regions of Kazakhstan represent the northernmost limit of the family distribution in Eurasia.

Composition: In Kazakhstan, there is a single species the genus *Phyxioschema* Simon, 1889.

Phyxioschema raddei
Simon, 1889



Distribution: Turan range.

Distribution in Kazakhstan: Eastern Kyzylkum desert and mountain pediment south of Karatau Mt. Range.

Habitat: Various arid habitats, including clayey deserts.

Natural history: An arid-adapted species, constructing dense, three-dimensional webs of 15–40 cm long. The flat, capture part of the web is about 5–12 cm in diameter and constructed openly on the ground, whereas the funnel-shaped retreat is hidden under rocks or runs into abandoned burrows of rodents and reptiles.

Maturity: May to June, but males until mid-July.

Body length: 25–29 mm (including spinnerets).



SPIDERS OF KAZAKHSTAN

Family NEMESIIDAE – wishbone trapdoor spiders

Medium-sized to large mygalomorph spiders, resembling tarantulas (family Theraphosidae), but differing from them by lacking claw tufts and by possessing three tarsal claws. Almost 360 species have been described worldwide. In Central Asia, six species from two genera have been recorded to date. The southern regions of Kazakhstan represent the northernmost limit of the family distribution in Central Asia (ca. 43–44°N), however there are more northern records of some *Nemesia* species from Europe, e.g. in France (ca. 46°N) and Hungary (ca. 47°N).

Composition: In Kazakhstan, there are two species of the genus *Raveniola* Zonstein, 1987 (see p. 220), and at least two more undescribed species of the same genus.

Raveniola sp.



Distribution: Low-mountain reliefs of Zailiisky Alatau Mt. Range (near Talgar) and from Chon-Kemin River basin (Kyrgyz Republic).

Natural history: Primitive burrow builder; burrows are scantily lined with silk and lack a trapdoor. This is an undescribed species known from females only.

Maturity: May to August.

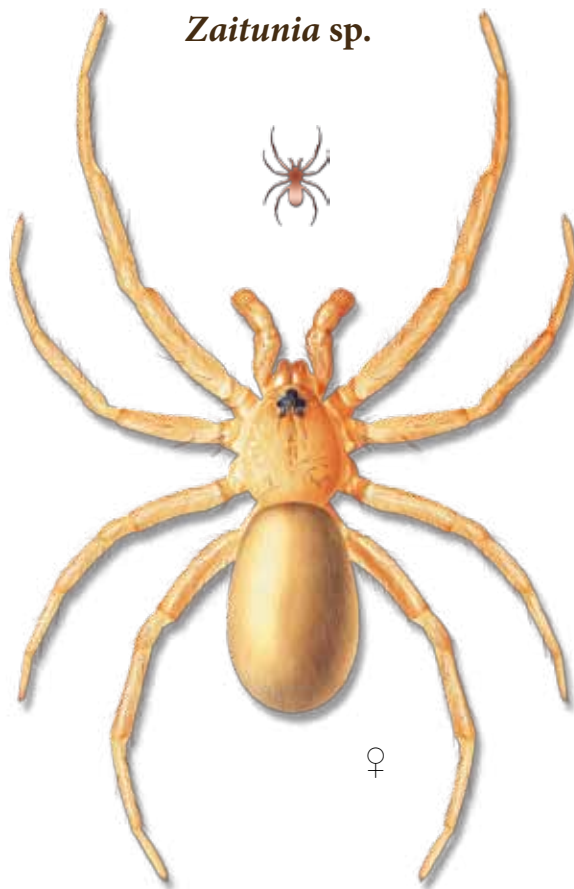
Body length: 12.5–16 mm.



Family FILISTATIDAE – crevice weavers

A family of small to medium-sized cribellate spiders having fused chelicerae and eyes situated as a compact group on a central tubercle. Some 114 filistatid species have been described worldwide, of which eight species in four genera are known from Central Asia. These are sedentary spiders living in silk-lined tubular retreats, which are typically hidden in crevices in rocks, walls and tree bark. The entrances of their retreats are equipped with signal and capture threads extending in all directions.

Composition: In Kazakhstan, there are three species in two genera (see p. 210).



The true number of *Zaitunia* species occurring in Kazakhstan is unknown, but at least four are known to occur. To date, only the species *Z. inderensis* Ponomarev, 2005 has been described, from western Kazakhstan (Atyrau Region). However, this species may be the same (synonymous) with one of the species known from neighbouring territories, e.g. *Z. maracandica* (Charitonov, 1946) reported from Uzbekistan.

Habitat: Desert and semidesert foothills: under stones on clayey soils.

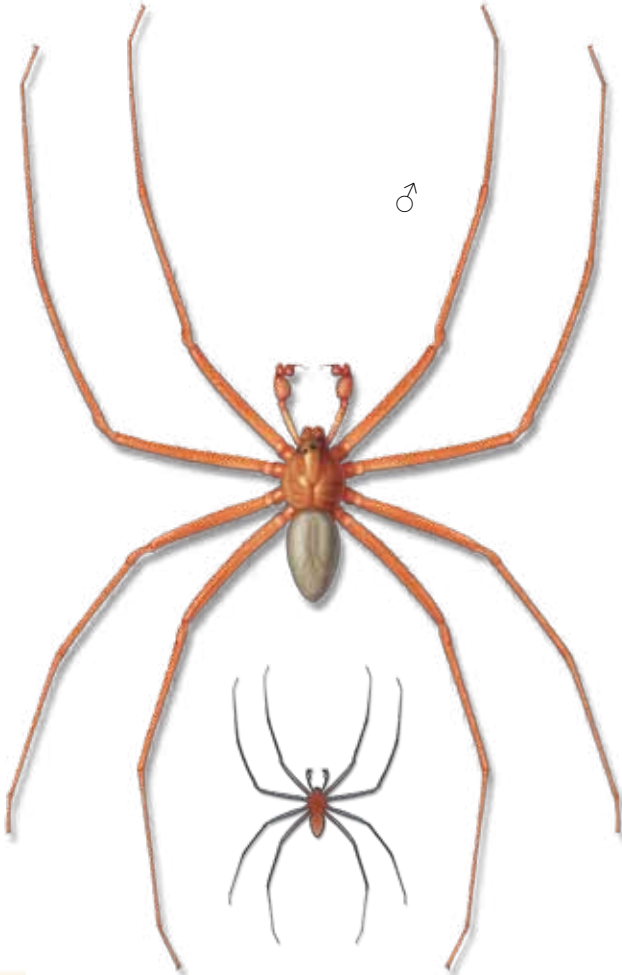
Body length: 4–5.5 mm.



A small family of medium-sized haplogyne spiders, with some 127 species described worldwide. Sicariids can be distinguished by their basally fused chelicerae and the six eyes that are arranged in three separate pairs (diads). Their common name is due to the dark, violin-shaped pattern on the carapace extending backwards from the eyes; they are also known as brown or recluse spiders. Violin spiders are ground-dwellers that typically hide in crevices or under stones, in silk-lined retreats. Representatives of the genus *Loxosceles* Heineken & Lowe, 1835 are notorious because some species are medically important, with their bites causing dermonecrosis (= necrotic skin lesions – see also p. 22).

Composition: In Kazakhstan, there is a single species of the genus *Loxosceles*.

***Loxosceles rufescens* (Dufour, 1820) – Mediterranean
Recluse Spider**



Distribution: Ancient Mediterranean range, but due to human transport this species now seems to have a pantropical distribution.

Distribution in Kazakhstan: Southern regions, in the valley of Syr-Darya River.

Habitat: (Semi)deserts, under stones, in crevices of the ground and in rodent burrows; also a common synanthropic species.

Natural history: This species has potent necrotic (= tissue-destroying) venom, capable of causing lesions (= open sores) as large as a bottle cap (see also p. 22); females have particularly potent venom.

Maturity: January to November.

Body length: 7–7.5 mm.



Family SCYTODIDAE – spitting spiders

A family of small to medium-sized haplogyne spiders, with more than 230 species known worldwide, of which five species in two genera have been recorded from Central Asia. These spiders can be recognized by their unmistakable yellow, domed carapace, slender legs and the characteristic dark brown symmetrical colour pattern of the body. Males and females are very similar in appearance. Scytodids are unique among spiders in their ability to catch prey by spitting strands of gluey silk onto it, hence their common name of spitting spiders.

Composition: In Kazakhstan, there is a single species of the genus *Scytodes* Latreille, 1804.

Scytodes thoracica (Latreille, 1802)



Distribution: Ancient Mediterranean range, but due to human transport this species now has a Holarctic and possibly a pantropical distribution.

Distribution in Kazakhstan: Southern regions, along the border with the Kyrgyz Republic.

Habitat: (Semi)deserts and arid, open woodlands: under stones, in crevices of the ground and in leaf litter, also common inside human dwellings (synanthropic).

Natural history: Nocturnal, slow moving hunter. Female does not make a nest, but carries her bundle of eggs under her body.

Maturity: May to August.

Body length: Male 3–4 mm, female 4–6 mm.



SPIDERS OF KAZAKHSTAN

Family PHOLCIDAE – daddy-long-legs spiders

A group of small to medium-sized araneomorph spiders, with some 1140 species described worldwide, of which ten species in five genera are known from Central Asia. The spiders are easily recognizable by their disproportionately small bodies and very long, slender legs. Many species of daddy-long-legs spiders occur inside human dwellings: in dark corners, sometimes covering the entire ceiling with their irregular spacewebs (*Pholcus*, *Ceratopholcus* and *Artema* species). In the wild, daddy-long-legs spiders can be found in caves/crevices, under stones and in rodent burrows.

Composition: In Kazakhstan, there are nine species in three genera (see p. 221).

Artema transcaspica Spassky, 1934



Distribution: Turan range.

Distribution in Kazakhstan: Foothill plain south of Karatau Mt. Range.

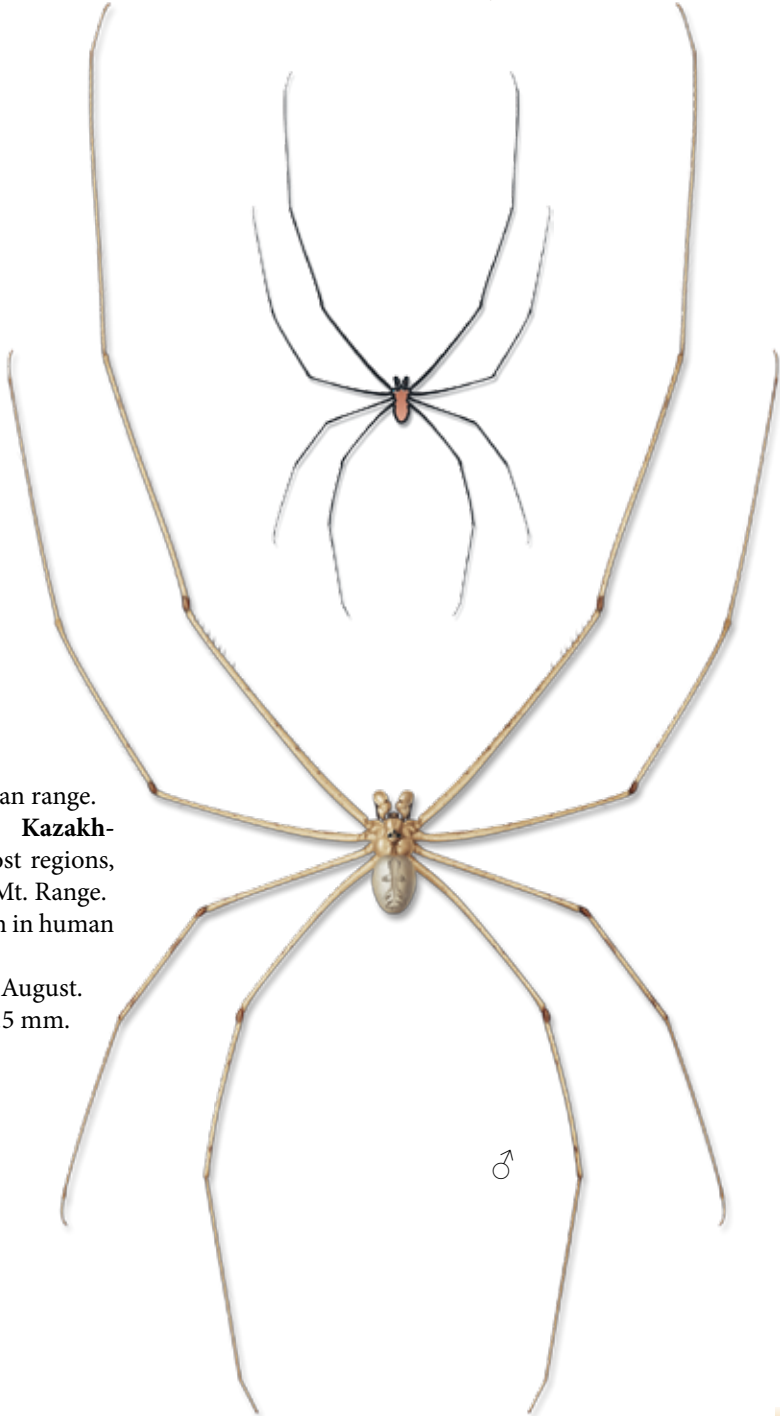
Habitat: Synanthropic species; in the wild it occurs under large stones and in rodent burrows. It is a nocturnal species, which hibernates as adults.

Maturity: May.

Body length: 6.5–8.5 mm.



Ceratopholcus maculipes Spassky, 1934



Distribution: Turan range.
Distribution in Kazakhstan: Southernmost regions, south of Karatau Mt. Range.
Habitat: Common in human dwellings.
Maturity: May to August.
Body length: 4–5.5 mm.



Pholcus phalangioides (Fuesslin, 1775)



♀

Distribution: Cosmopolitan range (due to human transport).

Distribution in Kazakhstan: Northern regions.

Habitat: Synanthropic species.

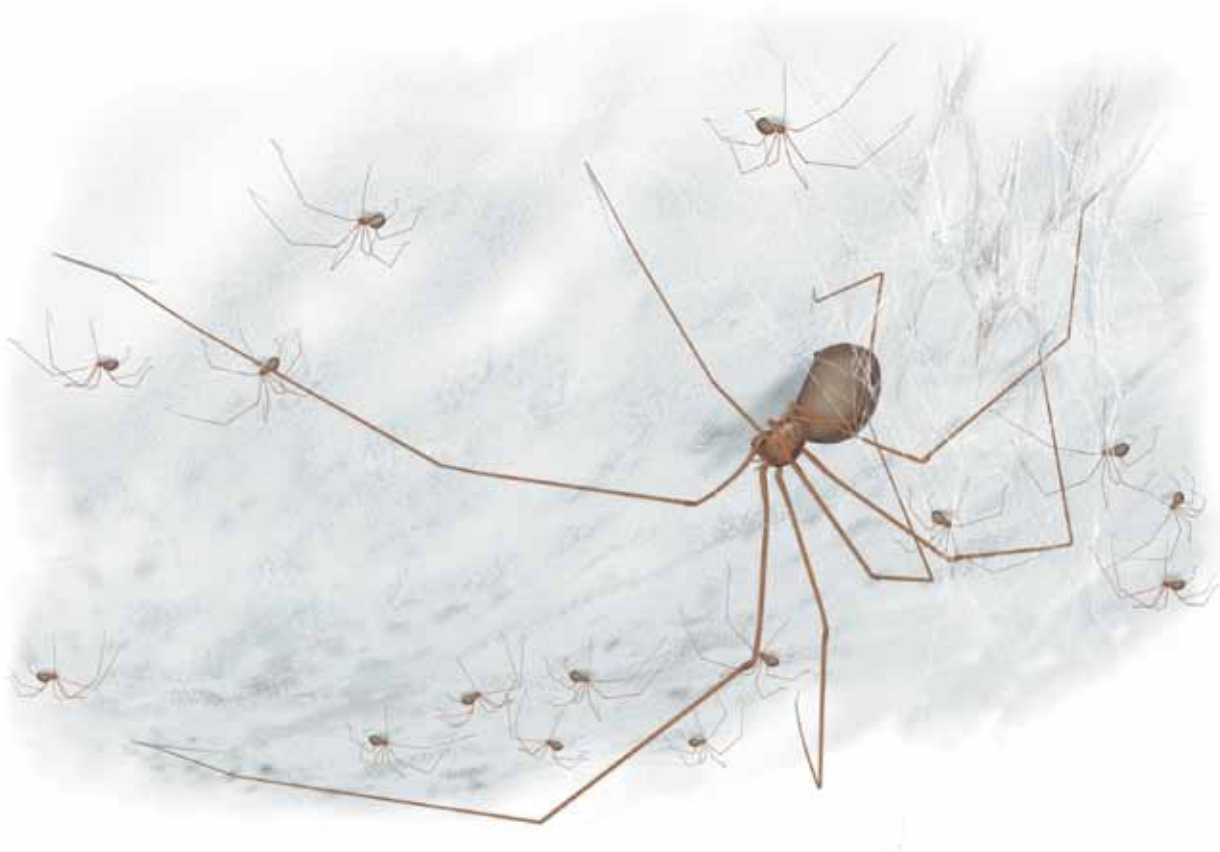
Natural history: Spiders rest hanging upside-down in a simple web of about 25 cm in diameter. Prey (various flying insects) is wrapped in silk before being bitten. When disturbed, the spider shakes the web and vibrates its own body on stretched legs, becoming 'invisible' in the resulting blur. The rosy egg sac contains 20–30 eggs; the female holds the egg sac in her chelicerae.

Maturity: All year round.

Body length: Male *ca.* 6 mm, female 8–9 mm.



Pholcus ponticus Thorell, 1875



Female of *Pholcus ponticus* with spiderlings.

Distribution: West Palaearctic species; its wide distribution is likely to be due to human transport.

Distribution in Kazakhstan: Everywhere apart from the northernmost regions.

Habitat: Synanthropic species; in the wild (in the semidesert and desert zones), occurs in crevices of clayey scarps.

Maturity: All year round.

Body length: 5–5.5 mm.



SPIDERS OF KAZAKHSTAN

Family SEGESTRIIDAE – tubeweb spiders

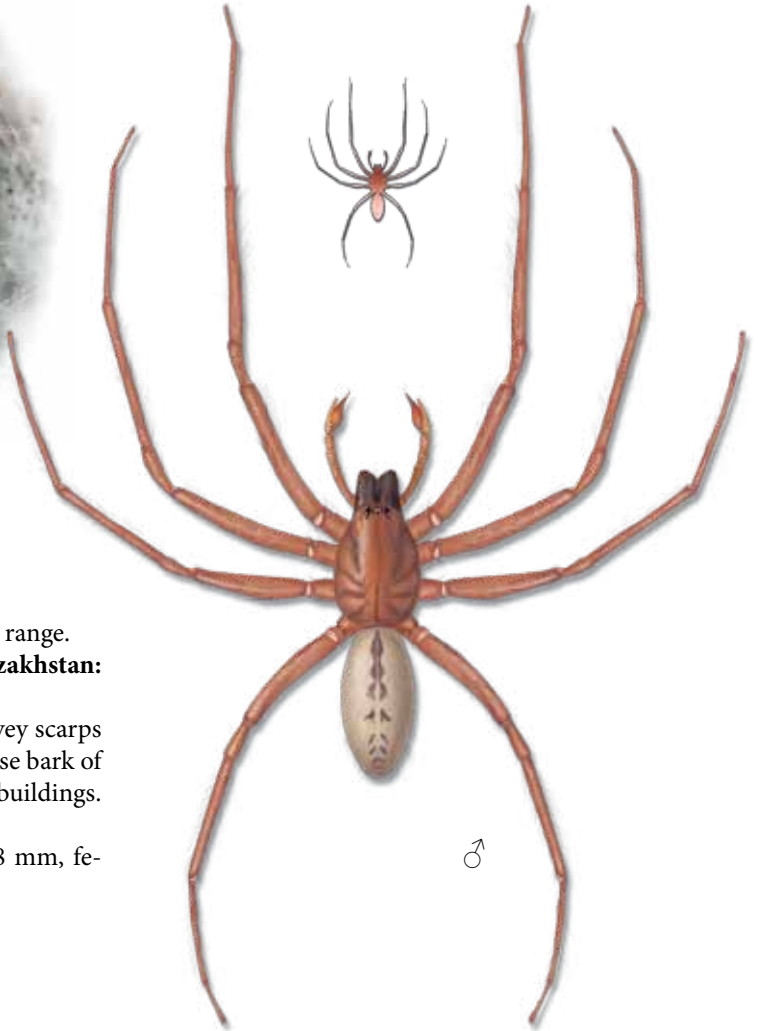
A small family of medium-sized, six-eyed haplogyne spiders, with 118 species described worldwide, of which a single species occurs in Central Asia. A distinct and rather unusual feature of tubeweb spiders is that their third pair of legs is directed anteriorly. These are nocturnal sedentary hunters hiding in crevices, in silk-lined tubular retreats. The entrances of their retreats are equipped with elaborate radiating webs containing several signal lines extending in all directions and are used by the spider to detect approaching prey.

Composition: In Kazakhstan, there is a single species of the genus *Segestria* Latreille, 1804.

Segestria turkestanica Dunin, 1986



Female in its nest.



Distribution: Turkestan range.

Distribution in Kazakhstan: South-eastern regions.

Habitat: Crevices in clayey scarps and rocks, under the loose bark of old trees and in wooden buildings.

Maturity: June.

Body length: Male *ca.* 8 mm, female *ca.* 10 mm.



Family DYSDERIDAE – long-fanged six-eyed spiders

A relatively small family of medium-sized, six-eyed haplogyne spiders numbering about 530 species described worldwide, of which three genera and some 18 species are known from Central Asia. Spiders of this family have well-developed chelicerae with long fangs, which allow some groups (*Dysdera* species) to specialize on preying on woodlice. All dysderids are nocturnal wandering hunters occurring on the ground, in leaf litter or under tree bark. Females make silk retreats for moulting and depositing eggs. One species – *Dysdera crocata* – is a common urban species distributed worldwide by humans. Some *Dysdera* species can live 2–3 years after reaching maturity.

Composition: In Kazakhstan, there are five species in two genera (see p. 211).

Dysdera arnoldii Charitonov, 1956



♀

Distribution: Turkestan range.

Distribution in Kazakhstan: The northern Tian-Shan Mts.

Habitat: Under stones and in leaf litter of the deciduous forests and juniper stands, up to elevations of 2700 m a.s.l.

Maturity: May to June.

Body length: 13–19 mm.



A group of very small, six-eyed, monochromously coloured (yellowish to orange) araneomorph spiders, with some 860 species described worldwide. In Central Asia, one species has been recorded to date and there are at least three undescribed species; however, the true diversity of the goblin spiders in this region is unknown. These are free-living, nocturnal spiders, occurring in a variety of habitats, such as leaf litter and under stones in particular. Their abdomen is usually covered with a scutum (= a hard, sclerotized and often shiny plate), in some groups the abdomen possesses two (dorsal and ventral) scuta.

Composition: In Kazakhstan, there is a single species of the genus *Silhouettella* Benoit, 1979.

Silhouettella cf. *loricatula* (Roewer, 1942)



The species recorded from Kazakhstan under the name *Dysderina loricata* (= *Silhouettella loricatula*) seems to belong to a new species, as Kazakhstan specimens differ from European ones.

Distribution: Turan range.

Distribution in Kazakhstan: South-eastern regions: foothills of North Tian-Shan Mts.

Habitat: Under stones and in leaf litter.

Maturity: March to May.

Body length: Male 1.5–2 mm, female ca. 2 mm.

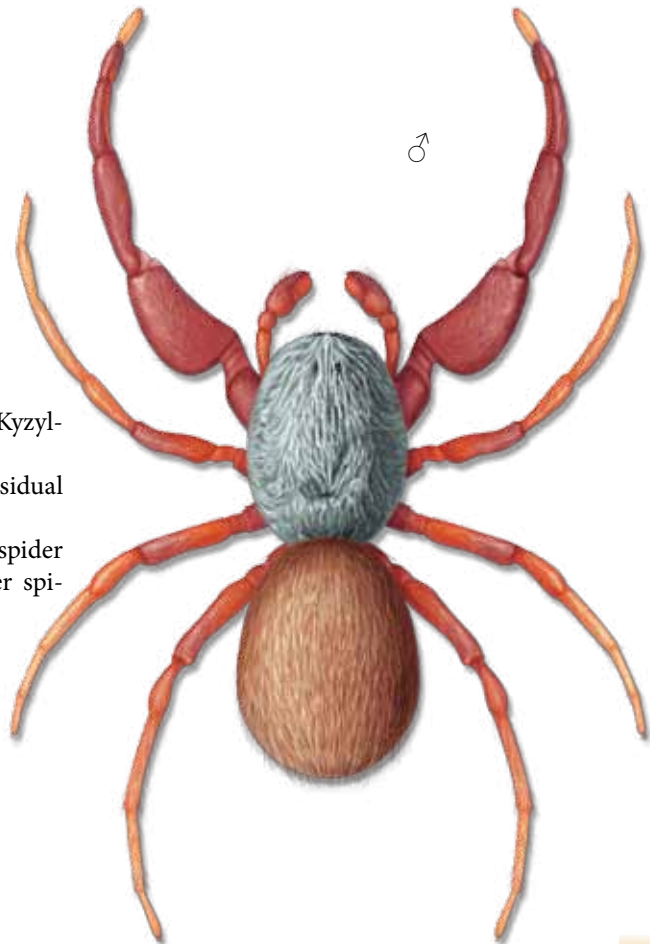


Family PALPIMANIDAE – palp-footed spiders

A poorly studied family of medium-sized araneomorph spiders distributed mostly in (sub)tropical regions. There are some 130 species described worldwide, of which only two species of the genus *Palpimanus* Dufour, 1820 have been recorded from Central Asia to date; it is indeed a small proportion of the true species diversity of Palpimanidae in this region. Palp-footed spiders can be recognized by their heavily sclerotized carapace, usually of brownish reddish colour, and the first pair of legs being markedly stronger than the other legs and with dense brushes of hairs on the inner surfaces of the metatarsus and tarsus. The first legs are held aloft while walking. They are free-living ground-dwellers found under stones, in leaf-litter, crevices in clayey soil, and also inside great gerbil burrows.

Composition: In Kazakhstan, there is a single described species, but at least two more undescribed species are known to occur.

Palpimanus sogdianus Charitonov, 1946



Distribution: Turan range.

Distribution in Kazakhstan: Kyzylkum desert.

Habitat: Under stones of residual mountains.

Natural history: Araneophagic spider specializing on feeding on other spiders.

Maturity: March to July.

Body length: 6–7 mm.



SPIDERS OF KAZAKHSTAN

Family ERESIDAE – velvet spiders

A small family of medium-sized or large spiders, with some 100 species described worldwide. In Central Asia, only two species in two genera have been recorded to date, but these figures do not reflect the true eresid diversity of this region. At least 4–5 additional *Eresus* species occur in Central Asia, the taxonomy of which requires revision. Velvet spiders can be recognized by their convex or rectangular carapace and body, which are densely covered with short plumose hairs – hence their common name. The spiders are either permanent burrow-dwellers, as in females of *Eresus* species, or make silken retreats on bushes, as in *Stegodyphus* species.

Composition: In Kazakhstan, there are two species in two genera (see p. 211), but at least two other representatives of *Eresus* Walckenaer, 1805 are known to occur.

Eresus kollari Rossi, 1846

♂



♀

Female and male on female's web.

Distribution: West Palaearctic range.

Distribution in Kazakhstan: Everywhere except for sandy deserts.

Habitat: Prefer steppe habitats.

Natural history: Females live permanently in silk-lined burrows with a silken roof; the main prey items are beetles. This species displays a highly pronounced sexual size dimorphism, with males two to three times smaller than females and much brighter in colour, having a red-white-black colour pattern that resembles that of ladybird beetles, hence their common name of ladybird spiders.

Maturity: May to November.

Body length: Male 8–11 mm, female 15–30 mm.



Stegodyphus lineatus (Latreille, 1817)



Female with her offspring
in the nest.

Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: Southern and south-eastern regions.

Habitat: Sandy and clayey deserts.

Natural history: Females construct large nests (ca. 30 cm in diameter) made of dense silk between twigs on low thorny desert bushes. The web is attached to a cone-shaped retreat made out of silk and covered with debris and food remains. Each female normally mates with several males. Spiderlings hatch in the retreat, being released from the egg sac with the help of their mother, which further protects them for about two weeks. Then the old female is consumed by her own offspring.

Maturity: May to August.

Body length: Male 8–11 mm, female 9–16 mm.



SPIDERS OF KAZAKHSTAN

Family OECOBIIDAE – dwarf round-headed spiders

A small family of small to medium-sized spiders, with some 110 species described worldwide. In Central Asia, three species in three genera have been recorded to date. These spiders can be distinguished by their characteristic round and flat carapace, with the eyes grouped as a cluster in its centre, and also by their large anal tubercle with long curved hairs. These spiders commonly live on vertical surfaces (rocks, scarps and outer walls of human dwellings) where they construct small sheet webs placed over cracks and crevices. They usually ensnare their prey in silk by rapidly running around it.

Composition: In Kazakhstan, there are three species in three genera (see p. 220).

Ambika nadiae (Spassky, 1936)

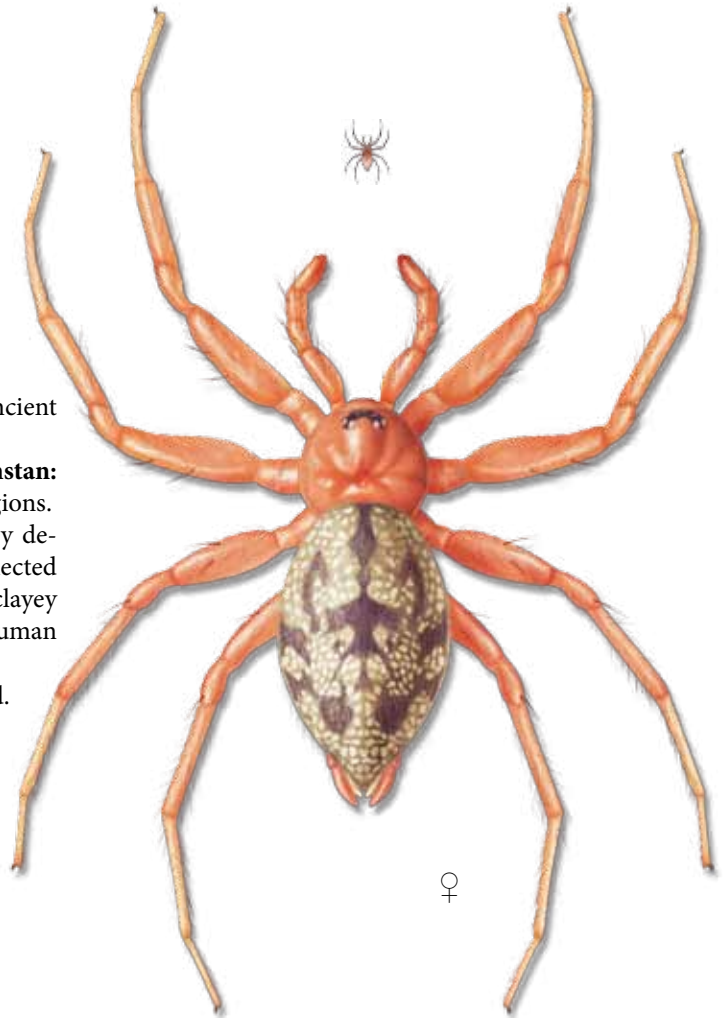
Distribution: East Ancient Mediterranean range.

Distribution in Kazakhstan: South and south-east regions.

Habitat: Sand and clayey deserts, where it can be collected from under stones and clayey scarps, also inside human dwellings.

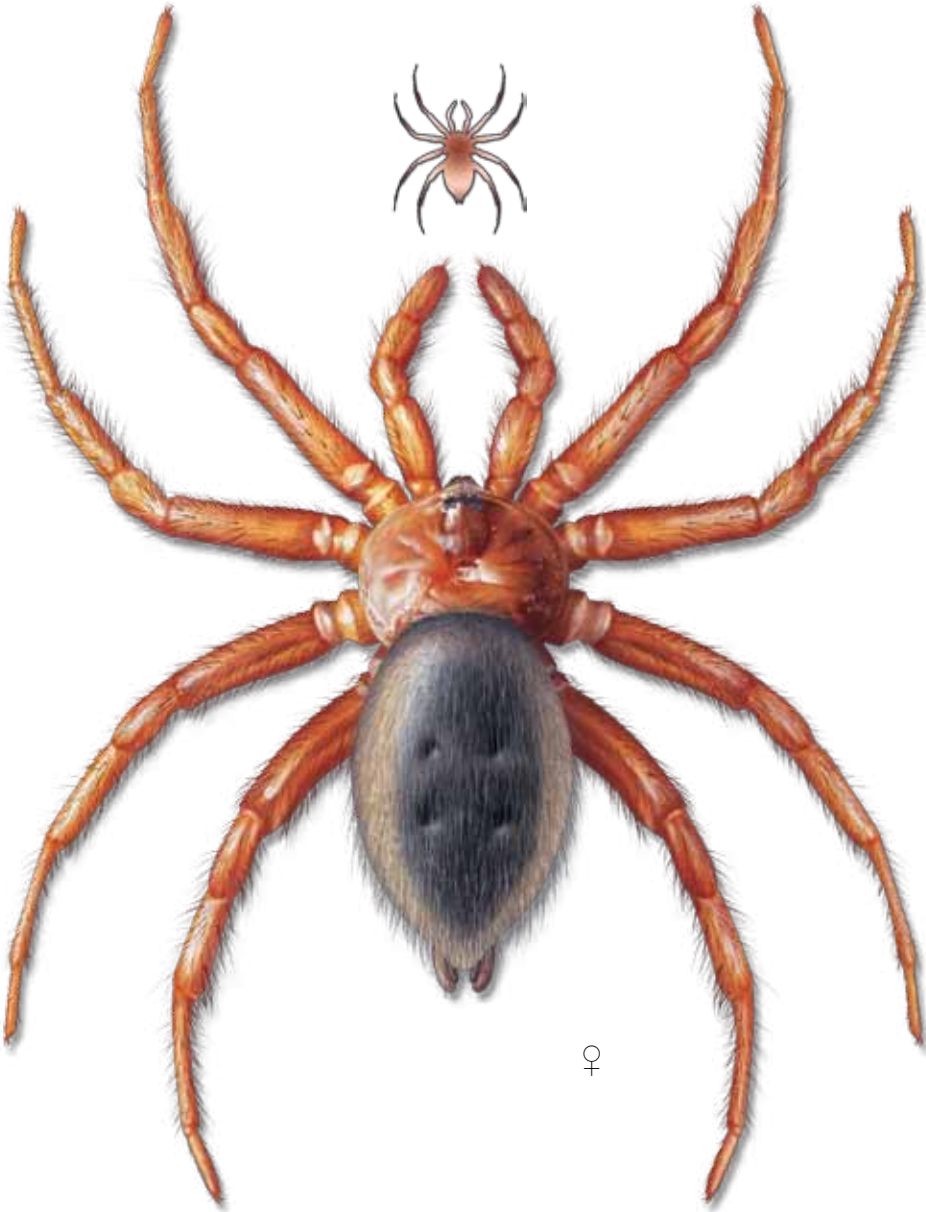
Maturity: All year round.

Body length: ca. 3 mm.





Uroctea limbata (C.L. Koch, 1843)



Distribution: East Ancient Mediterranean range.

Distribution in Kazakhstan: Kyzylkum desert only.

Habitat: Under stones of residual mountains, also around human dwellings.

Maturity: May to June.

Body length: 7–9 mm.

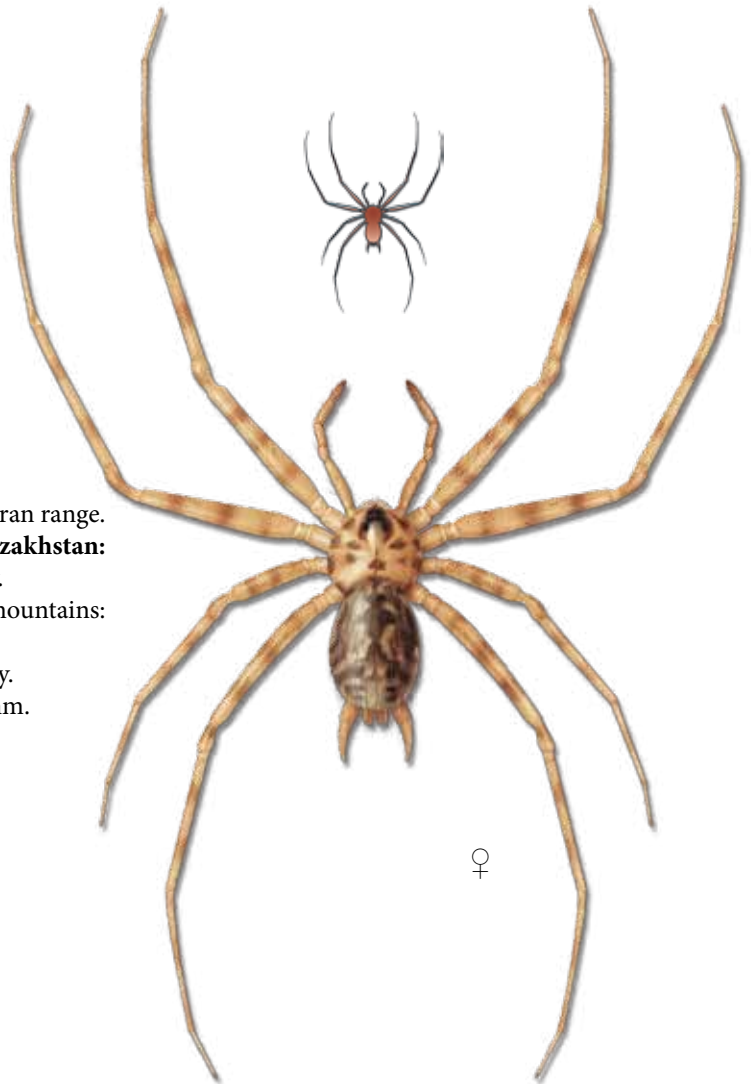


Family HERSILIIDAE – two-tailed spiders

A group of medium-sized spiders known mostly from (sub)tropical regions, with almost 180 species described worldwide. In Central Asia, there are at least six species in three genera, but beyond doubt the true species diversity is higher. These spiders can be easily recognized by their extremely long posterior spinnerets, often as long as the abdomen, hence their common name. The spiders occur both on vertical surfaces (rocks and tree-trunks) and on stony ground where they make flat webs resembling mats. They usually ensnare their prey using their long spinnerets.

Composition: In Kazakhstan, there are three species in two genera (see p. 214).

Deltshevia gromovi Marusik & Fet, 2009



Distribution: East Turan range.

Distribution in Kazakhstan: Kyzylkum desert only.

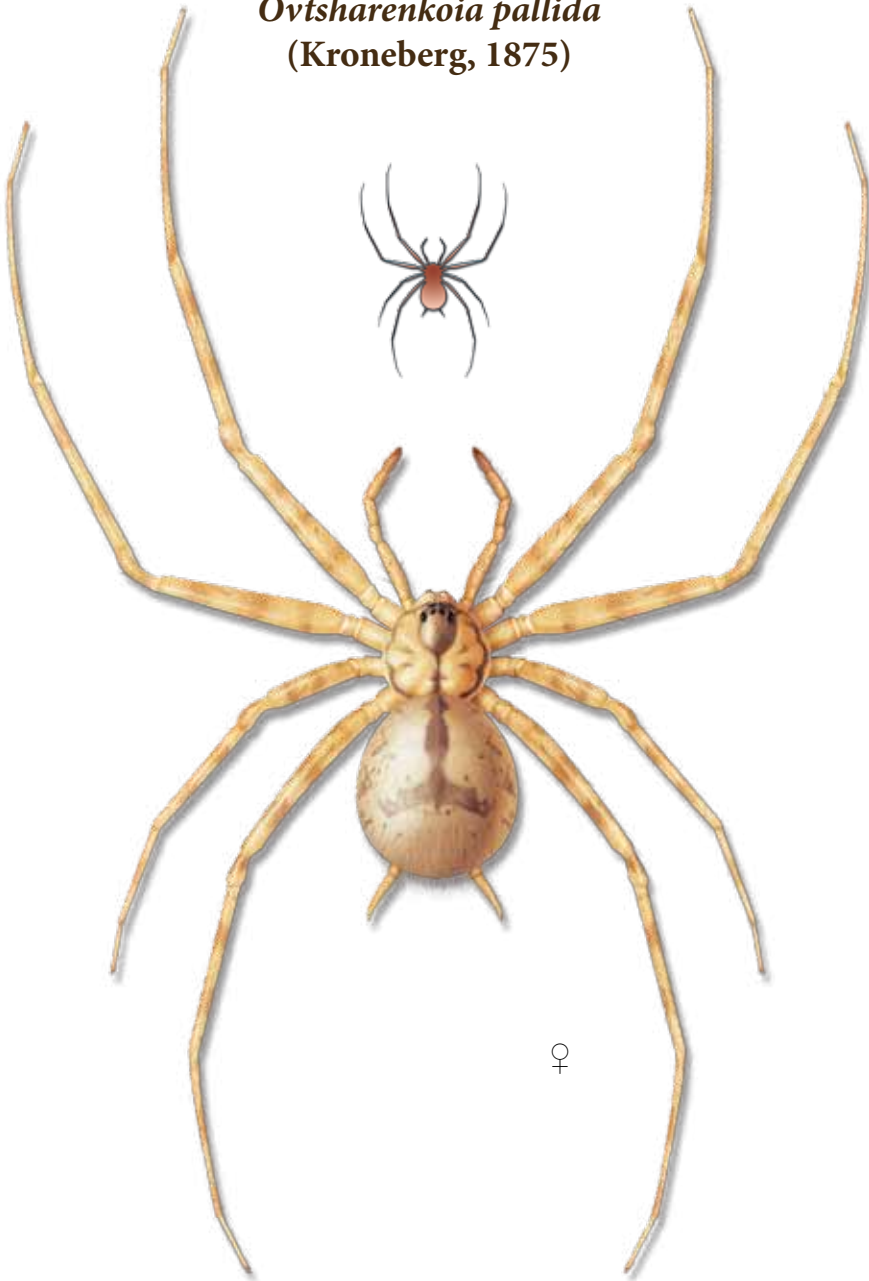
Habitat: Residual mountains: under stones.

Maturity: April to July.

Body length: 5–5.5 mm.



Ovtsharenkoia pallida
(Kroneberg, 1875)



Distribution: Turkestan range.

Distribution in Kazakhstan: Southern regions.

Habitat: Arid low mountain relief: under stones.

Maturity: April to July.

Body length: 4–6 mm.



SPIDERS OF KAZAKHSTAN

Family ULOBORIDAE – cribellate orb-weavers

A family of medium-sized cribellate spiders numbering 262 species described worldwide. In Central Asia, two species of the genus *Uloborus* Latreille, 1806 have been recorded to date. This spider family is unusual in not having venom glands. All the Central Asian species construct aerial orb webs used for capturing their prey, which become entangled in the mechanically sticky silk (cribellate silk).

Composition: In Kazakhstan, there are two species (see p. 227).

Uloborus walckenaerius Latreille, 1806

Distribution: Palearctic range.

Distribution in Kazakhstan:

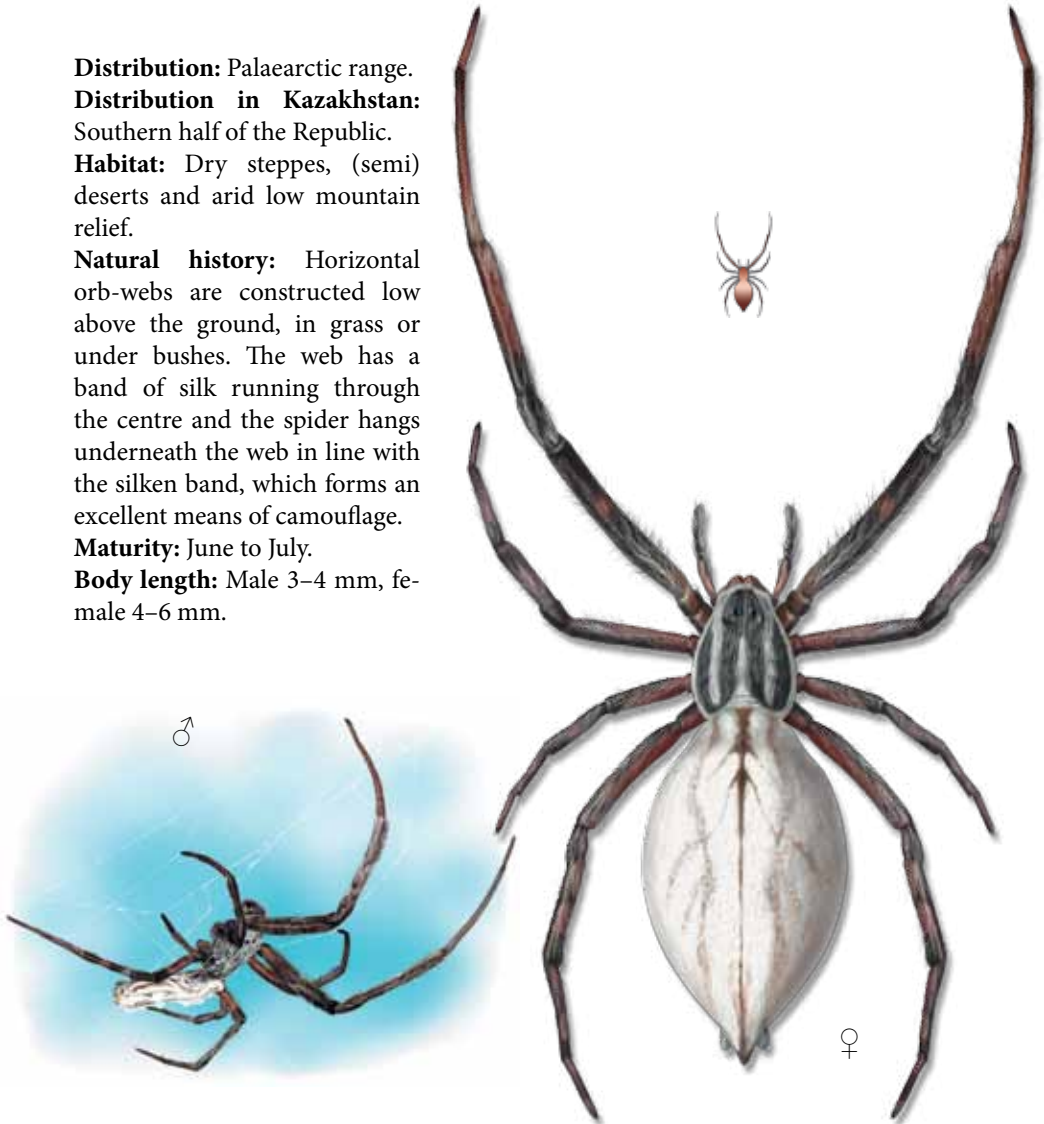
Southern half of the Republic.

Habitat: Dry steppes, (semi) deserts and arid low mountain relief.

Natural history: Horizontal orb-webs are constructed low above the ground, in grass or under bushes. The web has a band of silk running through the centre and the spider hangs underneath the web in line with the silken band, which forms an excellent means of camouflage.

Maturity: June to July.

Body length: Male 3–4 mm, female 4–6 mm.



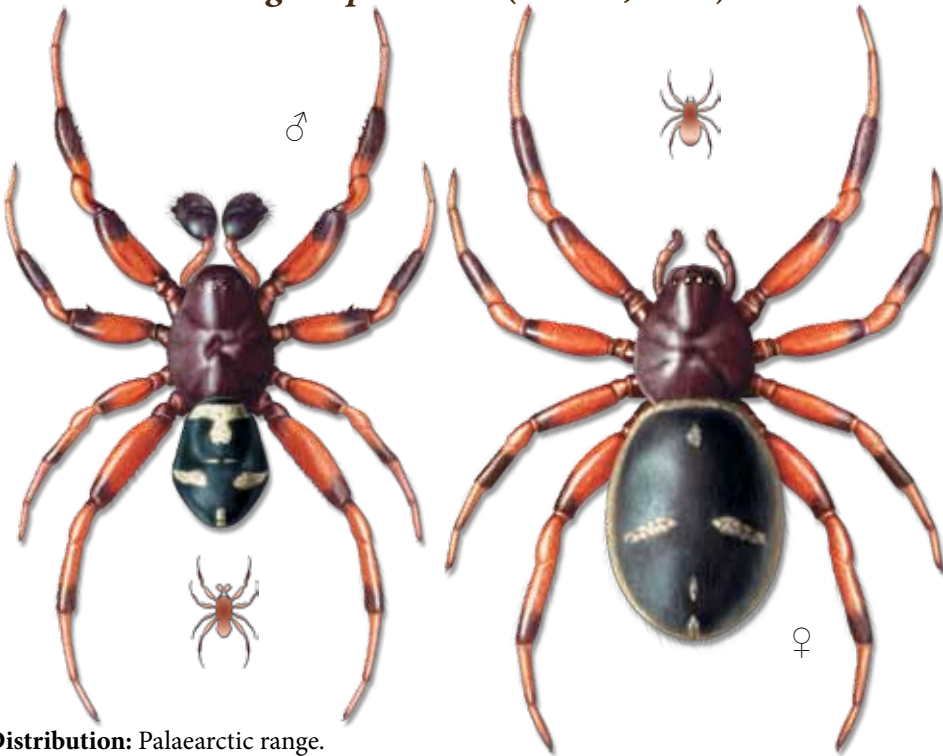


Family THERIDIIDAE – comb-footed spiders

A large and diverse family of small to medium-sized araneoid spiders, with more than 2300 species described worldwide. In Central Asia, 79 species in 24 genera have been recorded to date. Both figures are not final as the Central Asian fauna of theridiids has not been completely inventoried yet. The main characteristics of comb-footed spiders are that they have a row of serrated bristles resembling a comb on the feet (tarsi) of the fourth legs, and they build tangled, irregular space-webs with sticky strands attached to the substrate. The webs are usually built in secluded locations, but some groups do not make webs, e.g. *Robertus* species. Species of the genus *Latrodectus* Walckenaer, 1805, better known as ‘black-widows’, are venomous to people.

Composition: In Kazakhstan, there are 67 species belonging to 24 genera (see p. 224).

Asagena phalerata (Panzer, 1801)



Distribution: Palaearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Steppe habitats, up to 2000 m a.s.l. in the mountains.

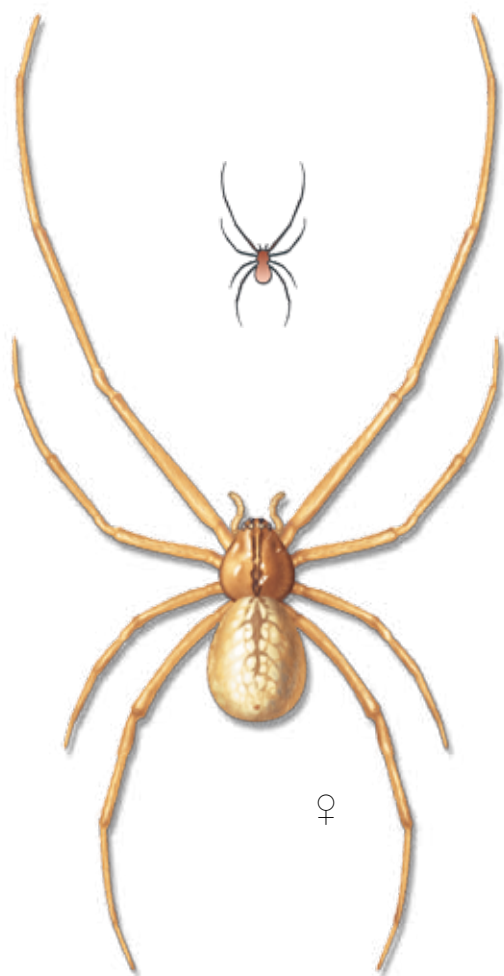
Natural history: Construct webs at ground level or low down in vegetation. Usually found in the presence of ants and seems to be a specialized ant-feeder.

Maturity: April to September.

Body length: 4.5–5 mm.



Chryso nordica
(Chamberlin & Ivie, 1947)



Distribution: Holarctic range.

Distribution in Kazakhstan: The forest-steppe zone of northern and eastern regions.

Habitat: Low wormwood bushes.

Maturity: May to June.

Body length: 2.7–3.5 mm.



Crustulina guttata (Wider, 1834)



♂

Distribution: Palearctic range.

Distribution in Kazakhstan: In the subalpine zone of the southern Altai.

Habitat: Under stones and in dry leaf litter on south-facing, sun-heated slopes.

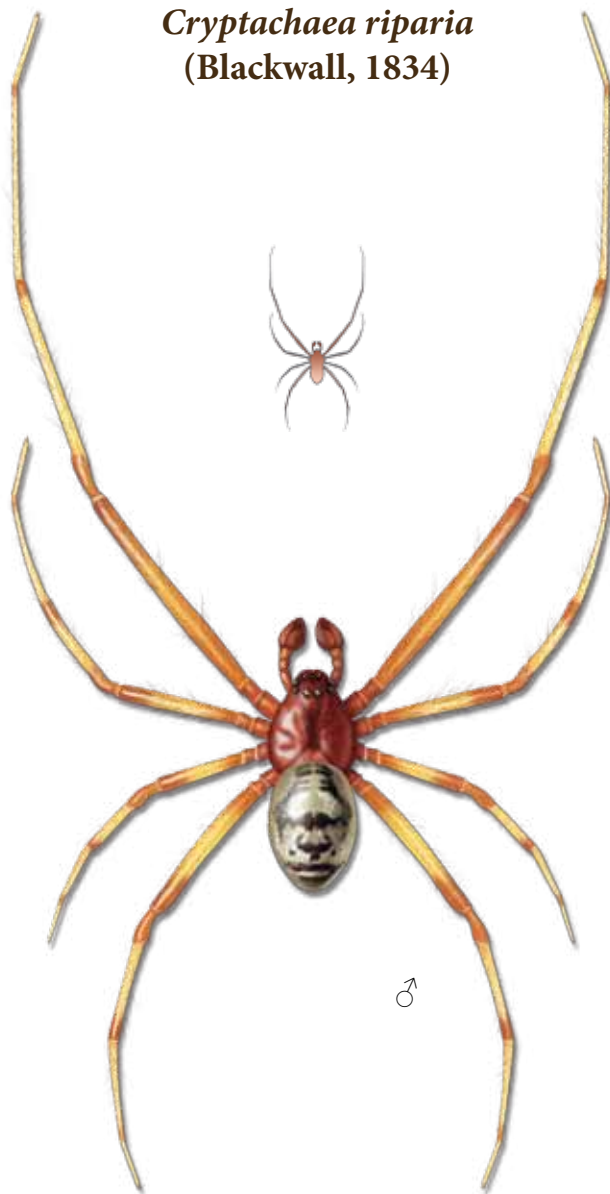
Natural history: Construct frame webs with catching threads near the ground and feed on ants. The female produces one to five egg sacs, each containing 4–10 eggs.

Maturity: July to August.

Body length: 2–2.5 mm.



Cryptachaea riparia
(Blackwall, 1834)



Distribution: Palearctic range.

Distribution in Kazakhstan: Northern regions.

Habitat: Grassy undergrowth vegetation of pine-birch forests.

Natural history: The spider often makes its nests under small overhangs of grass and turf, for instance, along low (20–50 cm high) road embankments. The nest contains a small cap-like retreat made of small stones and grass.

Maturity: June to July.

Body length: 3–4 mm.



Dipoena torva (Thorell, 1875)



Distribution: European–Siberian range.

Distribution in Kazakhstan: Northern regions.

Habitat: Birch-aspen groves, usually on fissured trunks of old trees (up to 10 m above the ground).

Maturity: July to August.

Body length: 3–3.5 mm.



Enoplognatha ovata (Clerck, 1757)



Yellow (*lineata*) morph
with a row of black dots.

♀

The *redimita*
morph with two
broad red stripes.



♀

Distribution: West Palaearctic range.

Distribution in Kazakhstan: Astana.

Habitat: Birch groves: on trees, bushes and in grass.

Natural history: A nocturnal species, hunting as an ambush predator. This species makes retreats in slightly rolled leaves in which the female deposits and then guards a greyish blue egg sac containing some 100 yellow-white eggs. The cocoons are enclosed in loose threads of white silk and attached to the under surface of the retreat.

Maturity: May to August.

Body length: Male 3–5 mm, female 6–7 mm.



Enoplognatha serratosignata
(L. Koch, 1879)



Distribution: Palaearctic range.

Distribution in Kazakhstan: Northern, south-eastern and eastern regions.

Habitat: Steppe and desert habitats, up to 3200 m a.s.l. in the mountains.

Maturity: April to August.

Body length: ca. 3.5 mm.



Episinus angulatus (Blackwall, 1836)



♀

Distribution: West Palearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: In grassy undergrowth of deciduous forests.

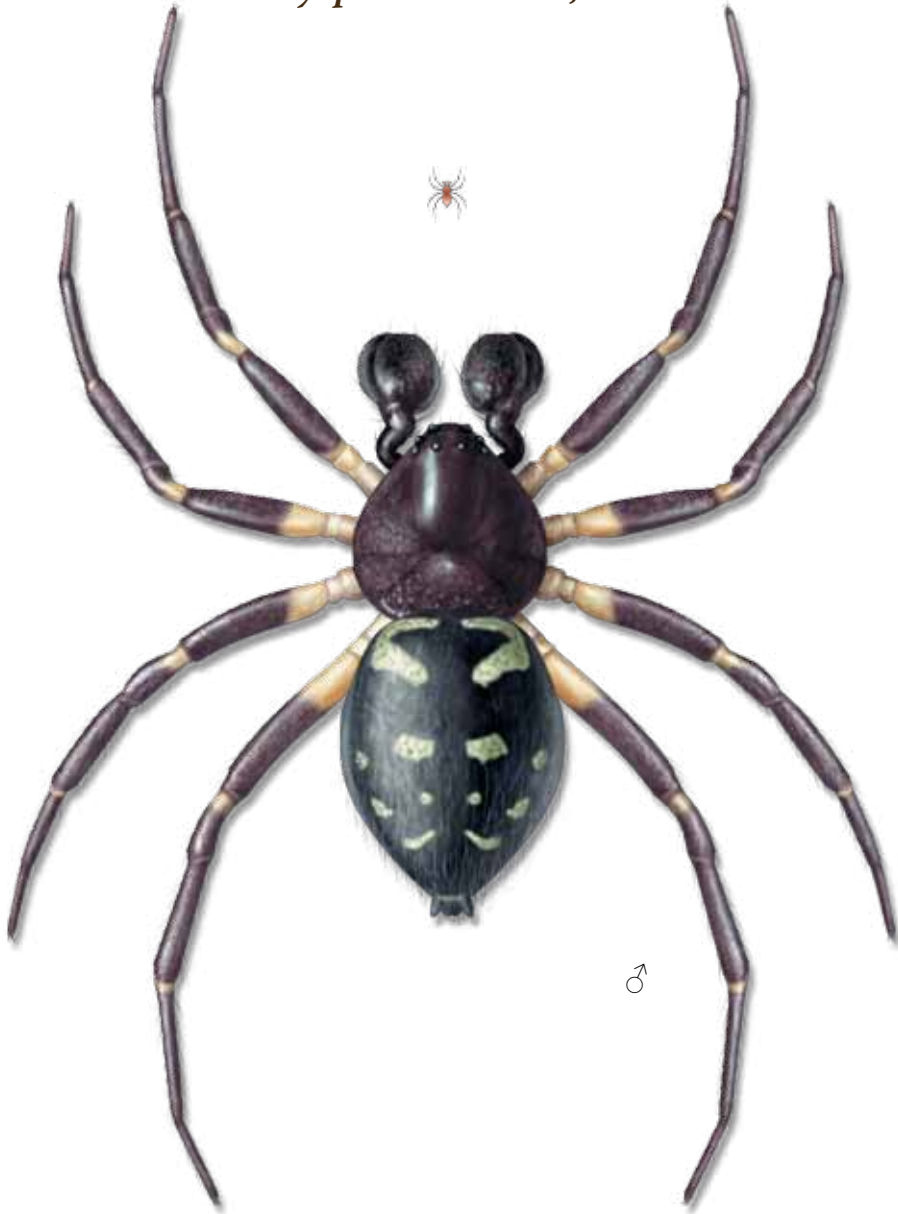
Natural history: The female deposits a single, small egg sac containing 12 pink eggs.

Maturity: January to November.

Body length: 4.5–5.5 mm.



Euryopis saukea Levi, 1951



Distribution: Holarctic range.

Distribution in Kazakhstan: Everywhere.

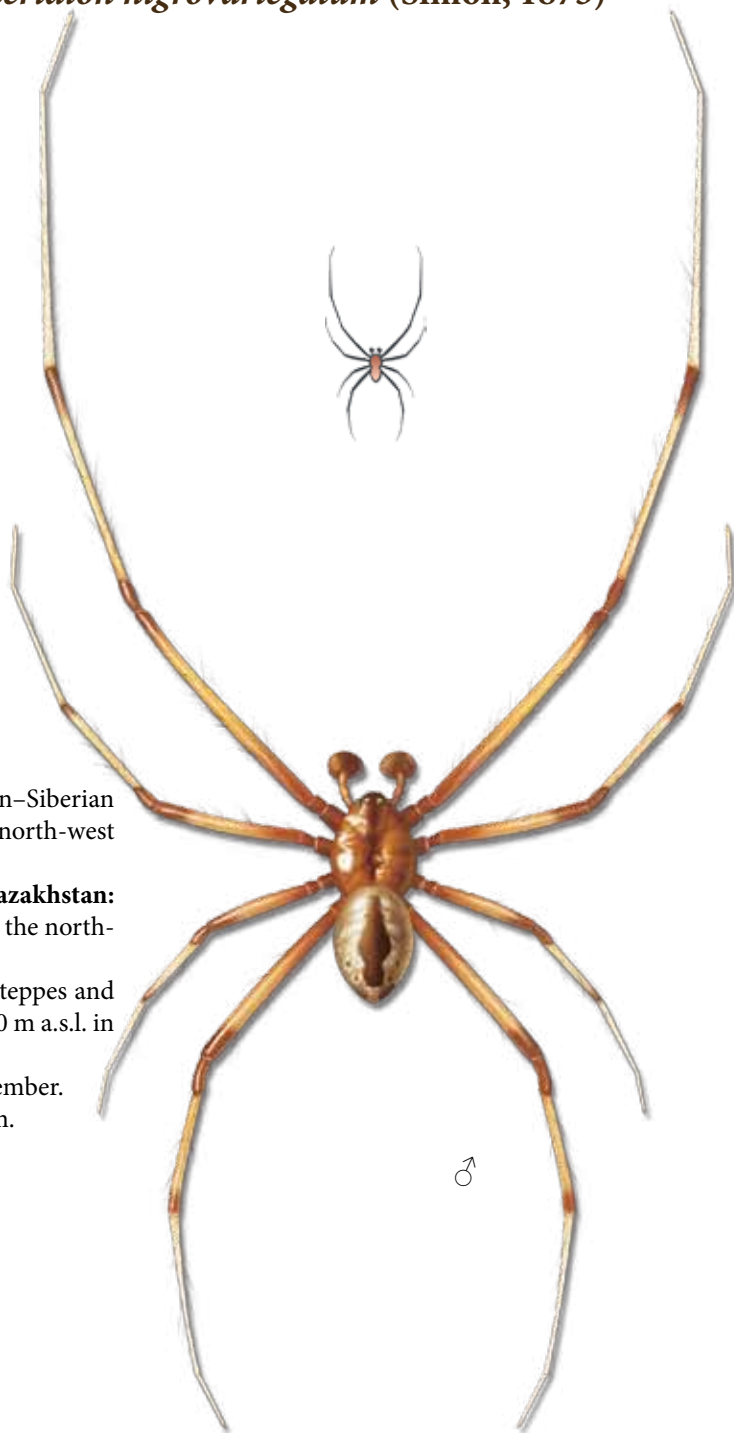
Habitat: Steppe habitats.

Maturity: April to September.

Body length: 2.4–2.9 mm.



Heterotheridion nigrovariegatum (Simon, 1873)



Distribution: European–Siberian range, eastward to north-west China (Xinjiang).

Distribution in Kazakhstan: Everywhere apart from the northern regions.

Habitat: Common in steppes and forest glades, up to 2000 m a.s.l. in the mountains.

Maturity: May to September.

Body length: 3–3.5 mm.



Lasaeola tristis (Hahn, 1833)



Distribution: West Palaearctic range.

Distribution in Kazakhstan: Western, northern and eastern regions.

Habitat: On bushes along forest glades.

Maturity: June to July.

Body length: Male 2.5 mm, female 3.5–4 mm.



Latrodectus pallidus O. Pickard-Cambridge, 1872 –
White Widow



Distribution: East Ancient Mediterranean range.

Distribution in Kazakhstan: Only the Kyzylkum desert, close to Uzbekistan.

Habitat: Sandy deserts.

Natural history: Females make their large and conspicuous nests on desert bushes, at a height of 40–60 cm above ground level, invariably affixed to leaves and branches. The web has a funnel-like retreat, in which clear white egg sacs are deposited and protected by the female. The venom of the White Widow is less potent than that of the Karakurt (see next page).

Maturity: August to October.

Body length: Male 3.5–5.5 mm, female 11–13 mm.



Latrodectus tredecimguttatus (Rossi, 1790) – Karakurt



Distribution: Ancient Mediterranean range, but in western Siberia the species can reach the latitude of Omsk (ca. 55°N).

Distribution in Kazakhstan: North-eastern and southern regions.

Habitat: Dry steppe and (semi)desert habitats.

Natural history: Mature females are dangerously venomous to humans (see p. 21). In Central Asia, it is known under the name ‘Kara-kurt’, meaning ‘black-bug’. During their life, ‘Karakurts’ migrate three times, and it is only during these migrations that they usually come into contact with humans. Fertilized females are sedentary, making their nests in small depressions in the ground, at the entrances of rodent burrows or in secluded locations under bushes. Depending on her nutritional state, a female can deposit 1–13 egg sacs, resulting in a total of more than 3700 eggs. The species overwinters during the egg stage. The biology of the ‘Karakurt’ in Kazakhstan was described in detail by Rossikov (1904) and Marikovski (1947, 1956).

Maturity: Males May to June, females May to October.

Body length: Male 3–6 mm, female 9–17 mm.



Neottiura bimaculata (Linnaeus, 1767)

Distribution: Holarctic range.

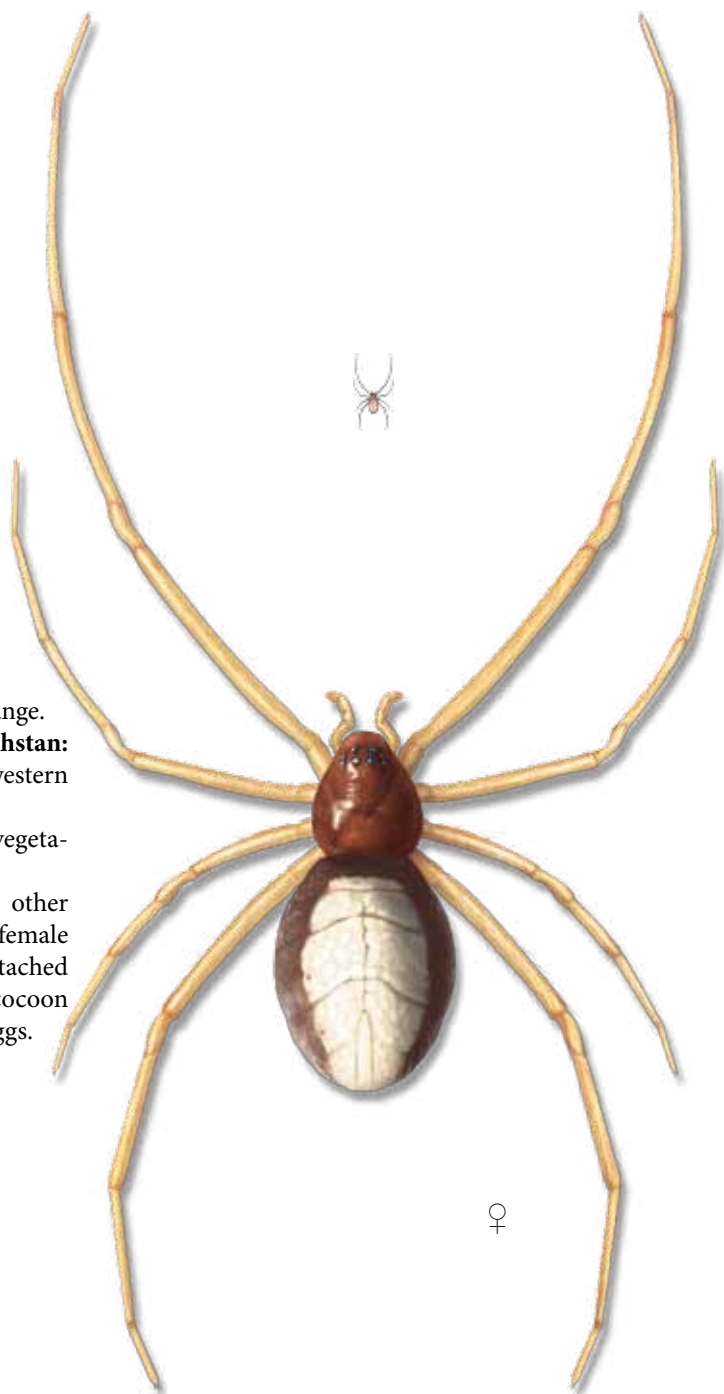
Distribution in Kazakhstan: Everywhere apart from western regions.

Habitat: Dense grassy vegetation near water bodies.

Natural history: Unlike other comb-footed spiders, the female carries its large egg sac attached to the spinnerets; each cocoon contains about 50 white eggs.

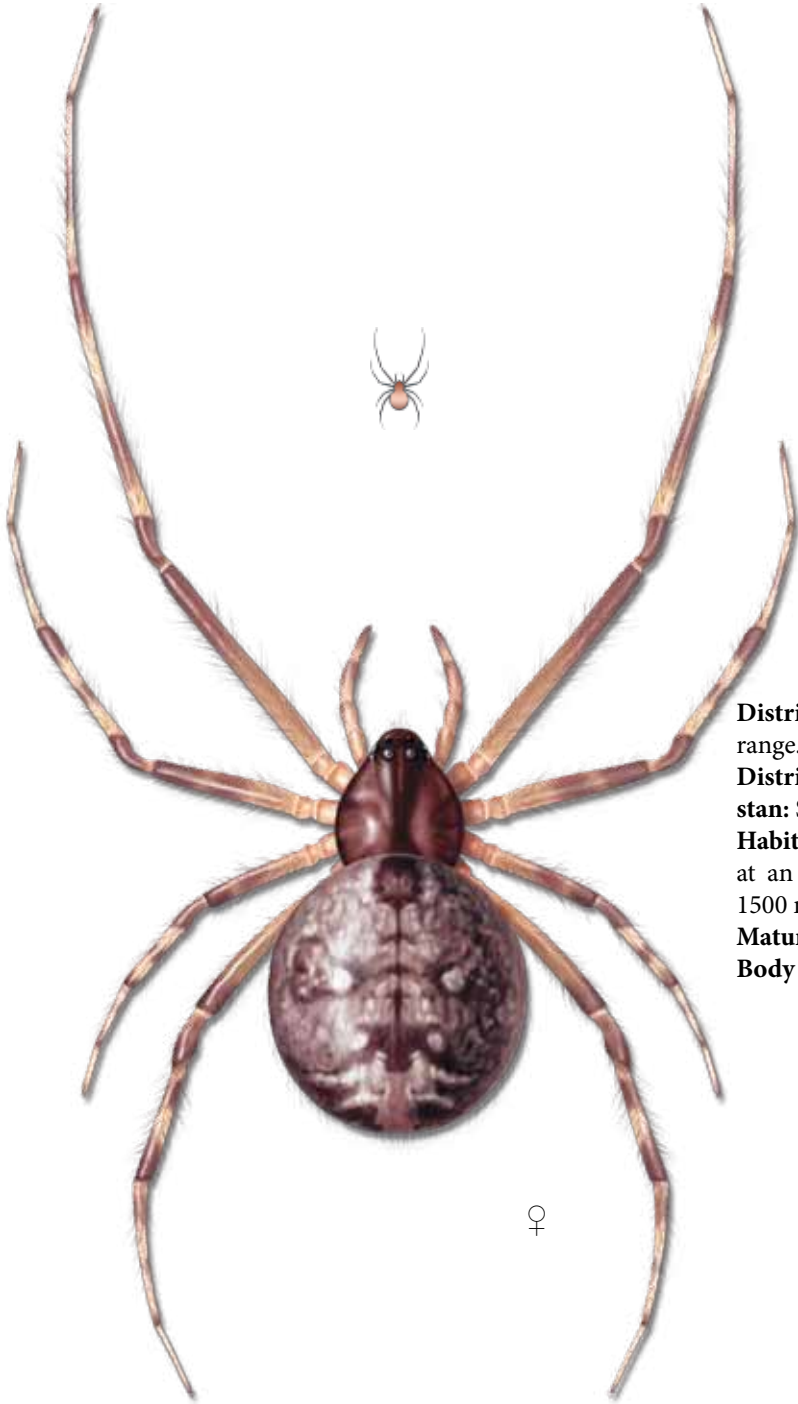
Maturity: May to July.

Body length: 2–2.5 mm.





Ohlertidion ohlerti (Thorell, 1870)



Distribution: Holarctic range.

Distribution in Kazakhstan: South Altai only.

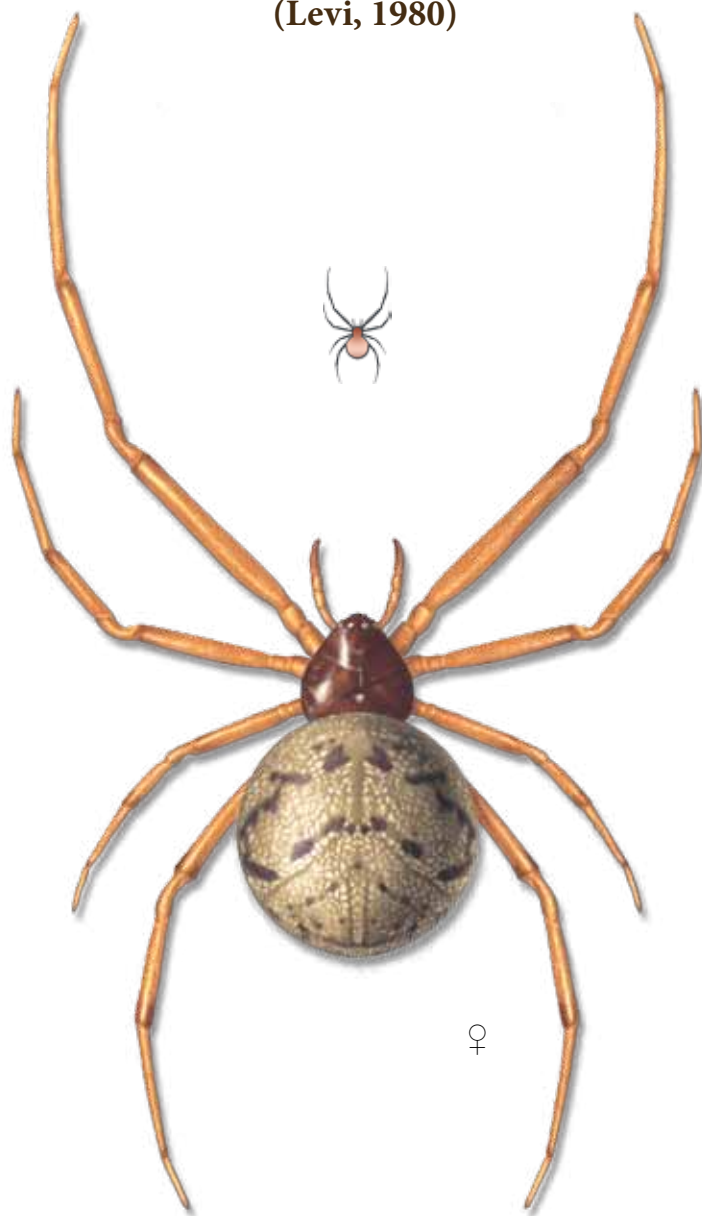
Habitat: Birch forests at an elevation of about 1500 m a.s.l.

Maturity: June to July.

Body length: ca. 3.5 mm.



Parasteatoda tabulata
(Levi, 1980)



Distribution: Holarctic range.

Distribution in Kazakhstan: South-eastern and eastern regions.

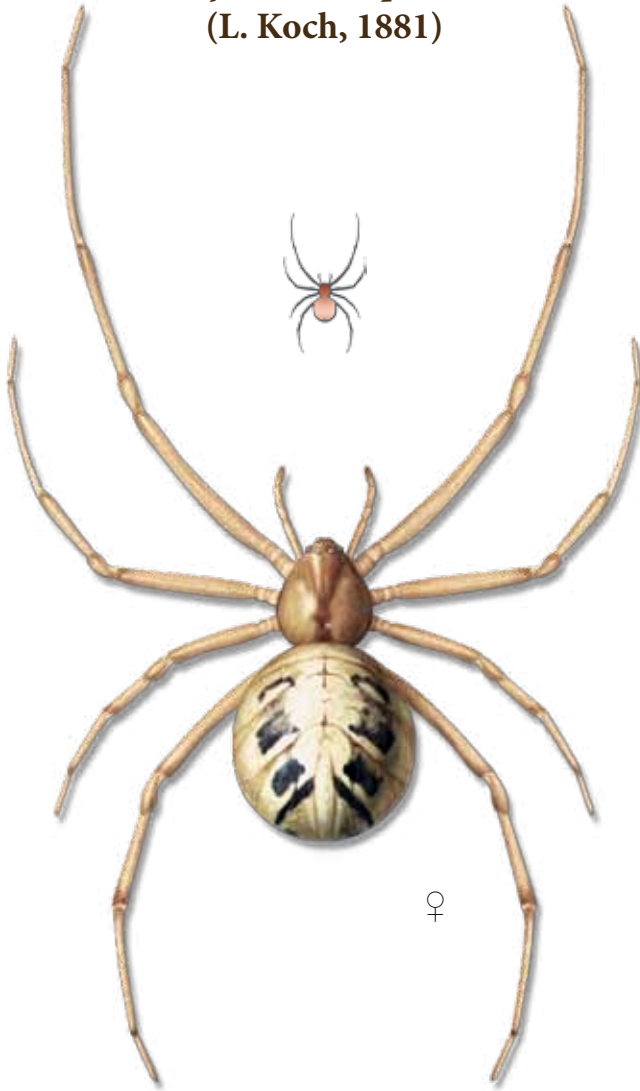
Habitat: Steppe habitats, also inside human dwellings.

Maturity: April to September.

Body length: 3–4.5 mm.



Phylloneta impressa
(L. Koch, 1881)



Distribution: Holarctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Forest and steppe habitats, on low vegetation.

Natural history: Female makes a dome-shaped retreat in which its blue-green egg sac is attached and protected. Later, the female feeds her emergent spiderlings orally by regurgitation and even shares large prey with them. When the mother dies her body is fed upon by the spiderlings. Such behaviour, when spiders live in small family groups for some time, is called 'periodic-social'.

Maturity: May to August.

Body length: 2.5–5.5 mm.



Platnickina tincta
(Walckenaer, 1802)



Distribution: West Palearctic range.

Distribution in Kazakhstan: Northern regions along the Irtysh River only.

Habitat: Wormwood bushes in pine forests.

Maturity: June to August.

Body length: 2.5–4 mm.



Robertus arundineti
(O. Pickard-Cambridge, 1871)



Distribution: European–Siberian range.

Distribution in Kazakhstan: The steppe zone of western and northern regions.

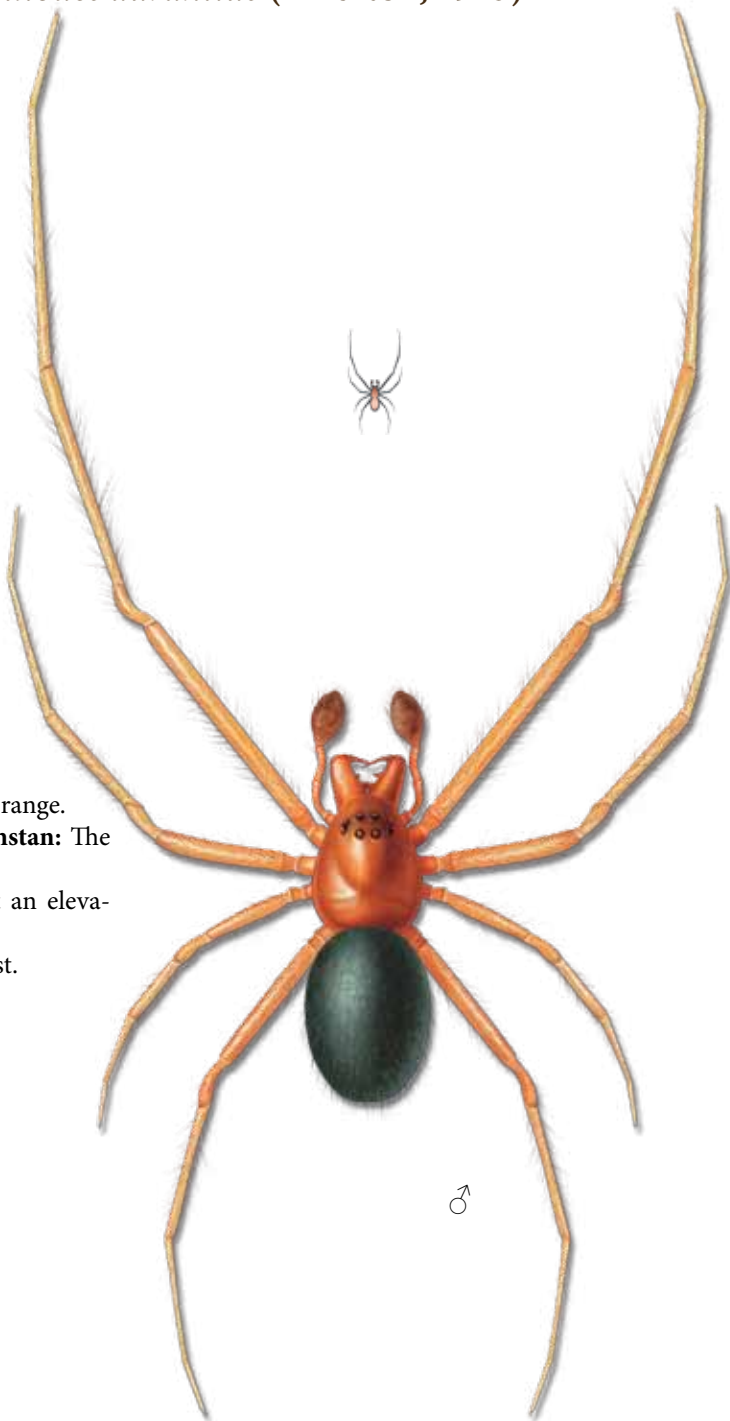
Habitat: Under stones near water bodies and in forest plantations.

Maturity: May to September.

Body length: 2.5–3 mm.



Rugathodes aurantius (Emerton, 1915)



Distribution: Holarctic range.
Distribution in Kazakhstan: The south Altai only.
Habitat: Taiga forest at an elevation about 1100 m a.s.l.
Maturity: June to August.
Body length: 2–3 mm.



Simitidion simile
(C.L. Koch, 1836)



Distribution: West Palaearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: On bushes in steppe habitats, up to 1750 m a.s.l. in the mountains.

Natural history: The female deposits a single egg sac containing about 20 pale yellowish brown eggs.

Maturity: April to July.

Body length: 2–2.5 mm.



Steatoda albomaculata
(De Geer, 1778)



Distribution: Holarctic range.

Distribution in Kazakhstan: Everywhere, one of the commonest species.

Habitat: Steppes and deserts: south-facing, sun-heated slopes along forest glades, up to 4600 m a.s.l. in the mountains.

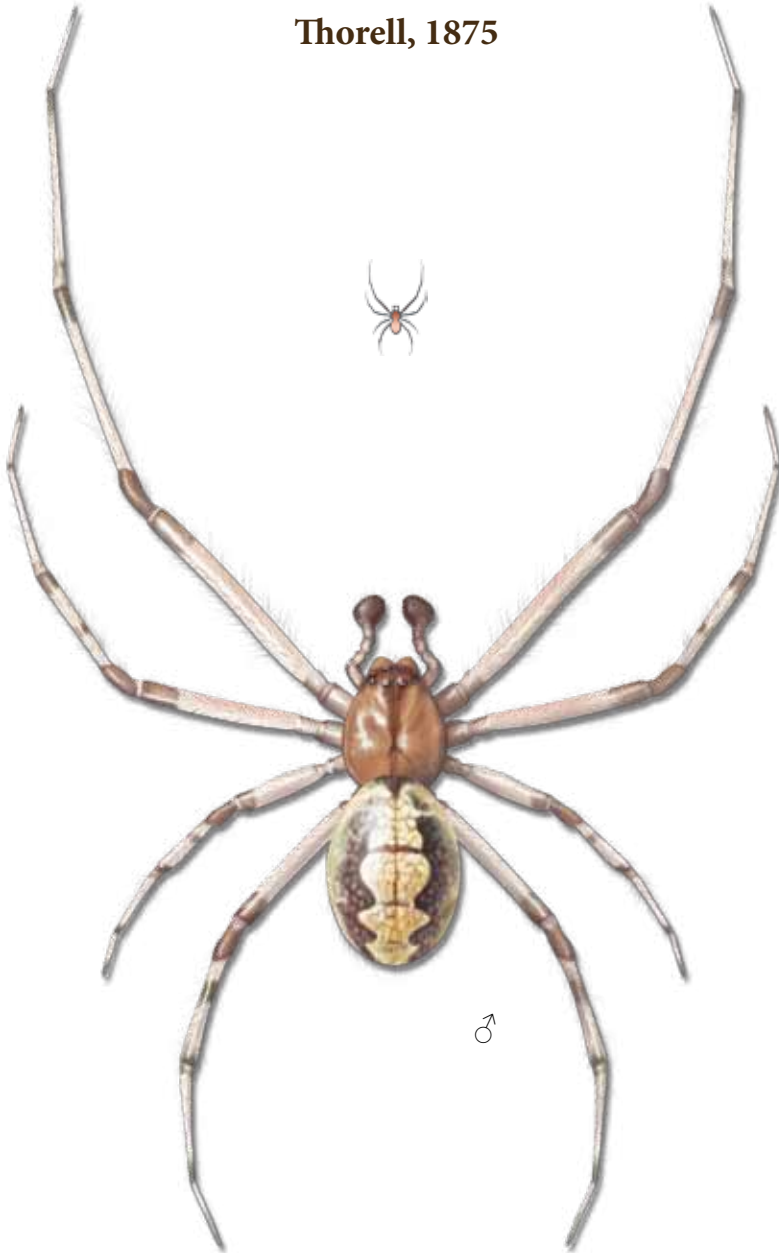
Natural history: This species readily feeds on ants. The female deposits three to four egg sacs covered with earth; each containing about 50 eggs.

Maturity: April to September.

Body length: 5–7 mm.



Theridion innocuum
Thorell, 1875



Distribution: West Palaearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Steppe habitats, up to 3250 m a.s.l. in the mountains.

Maturity: April to September.

Body length: 2.5–3.5 mm.



Theridion varians (Hahn, 1833)



Distribution: Trans-Palaeartic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Meadows of forest glades and inundated meadows in river valleys.

Natural history: The female deposits a single, yellowish egg sac containing 20–60 white eggs.

Maturity: May to July.

Body length: 2.2–4.8 mm.



Family LINYPHIIDAE – sheet-web spiders/money spiders

This is the second largest (in terms of species diversity) spider family in the world, consisting of some 4400 described species, 158 of which have been recorded or described from Central Asia. These are minute to small spiders, with their body length ranging from 1.5–6 mm. All species construct delicate, semi-permanent sheet-webs supported above and below by silk scaffold lines. The spiders feed on small soft-bodied insects, particularly springtails. Although linyphiids occupy almost all habitats, the majority of them live in leaf litter, in moss and in grass close to the ground. Morphologically linyphiids are very similar, often (in the Erigoninae – money spiders) with no colour pattern, and are virtually indistinguishable by their general appearance. The identification of sheet-web spiders always requires the inspection of their copulatory organs and extensive training.

Composition: In Kazakhstan, there are 155 species belonging to 75 genera (see p. 214).

Acartauchenius scurrilis (O. Pickard-Cambridge, 1872)

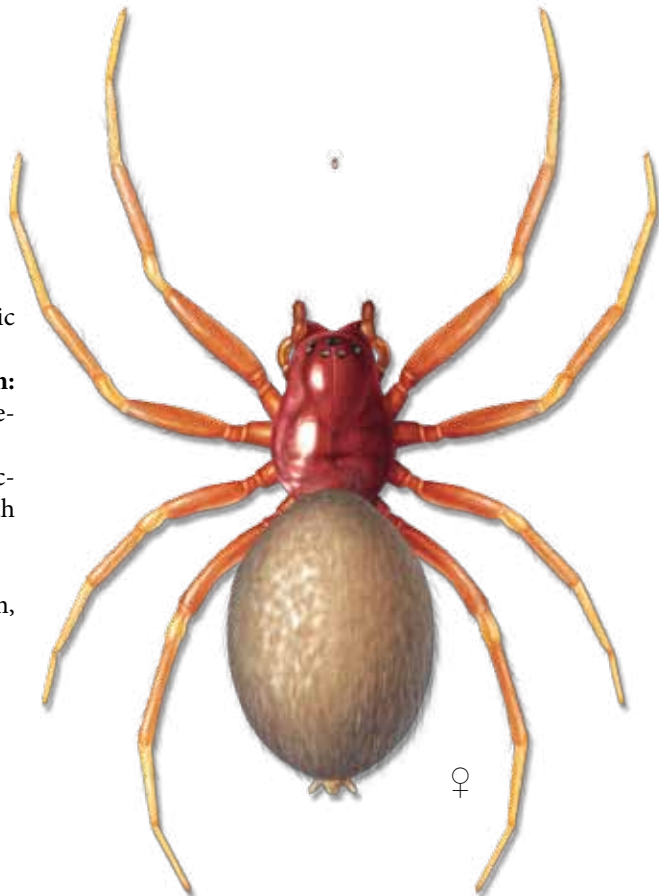
Distribution: West Palaearctic range.

Distribution in Kazakhstan: Western and south-eastern regions.

Habitat: Steppe habitats, occurring in association with ants.

Maturity: September.

Body length: Male 1.5–2 mm, female 1.5–2 mm.





Bolyphantes alticeps
(Sundevall, 1833)



Distribution: Palearctic range.

Distribution in Kazakhstan: South-eastern and eastern regions.

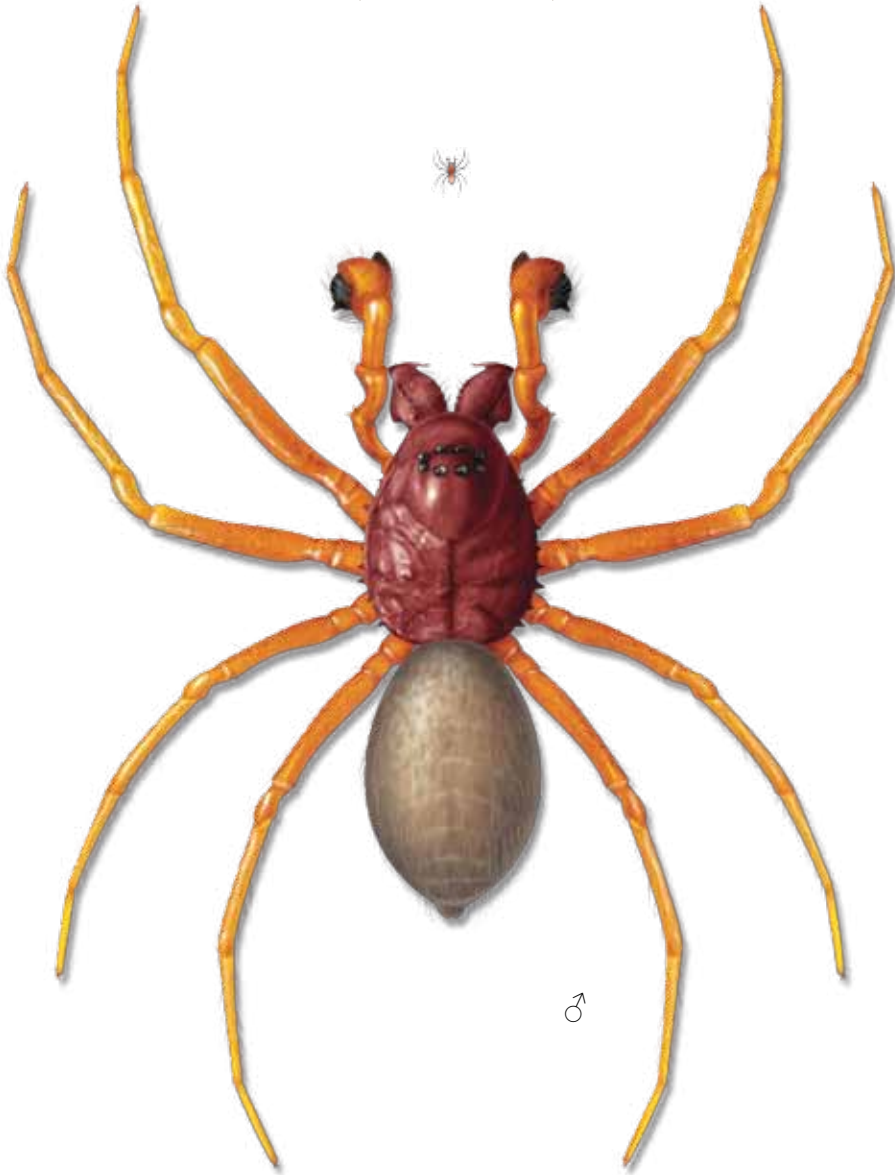
Habitat: Meadows and forest glades in uplands; in the mountains up to the alpine zone.

Maturity: August.

Body length: 3.5–4.5 mm.



Erigone dentipalpis
(Wider, 1834)



Distribution: Holarctic range.

Distribution in Kazakhstan: Everywhere, apart from northern regions.

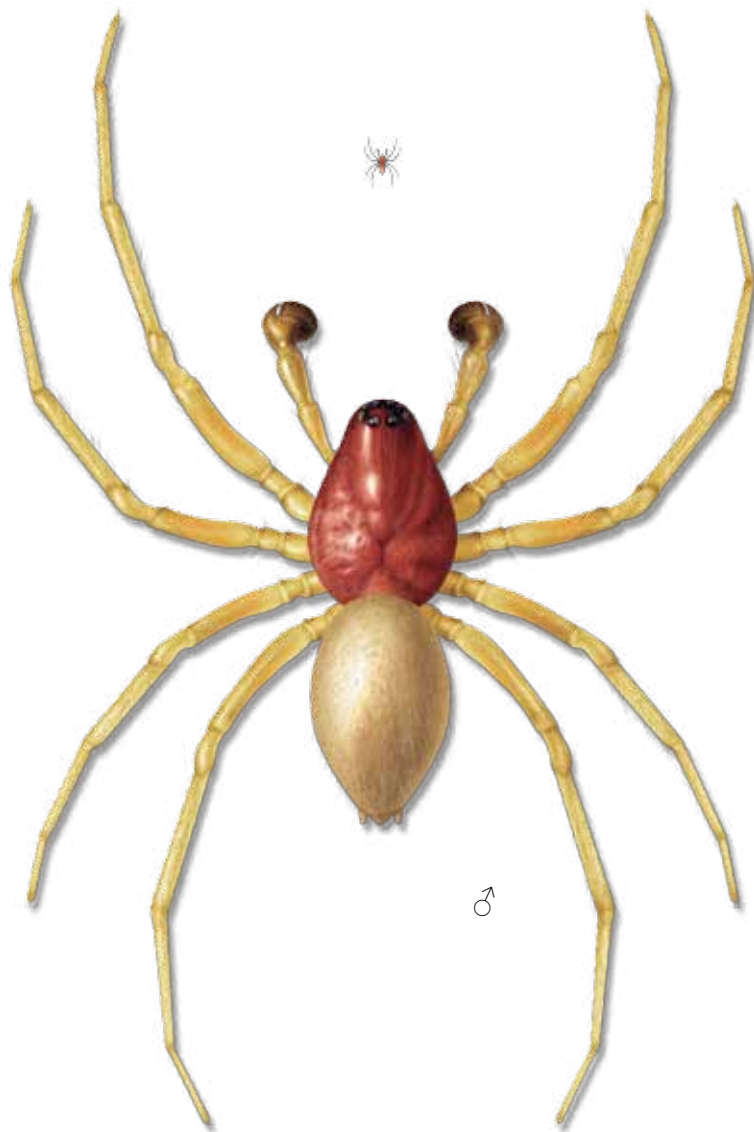
Habitat: Mesic or wet associations in (semi)desert habitats.

Maturity: All year round.

Body length: 2–2.5 mm.



Gnathonarium dentatum
(Wider, 1834)



Distribution: Palearctic range.

Distribution in Kazakhstan: South-eastern regions, in the Charyn River valley only.

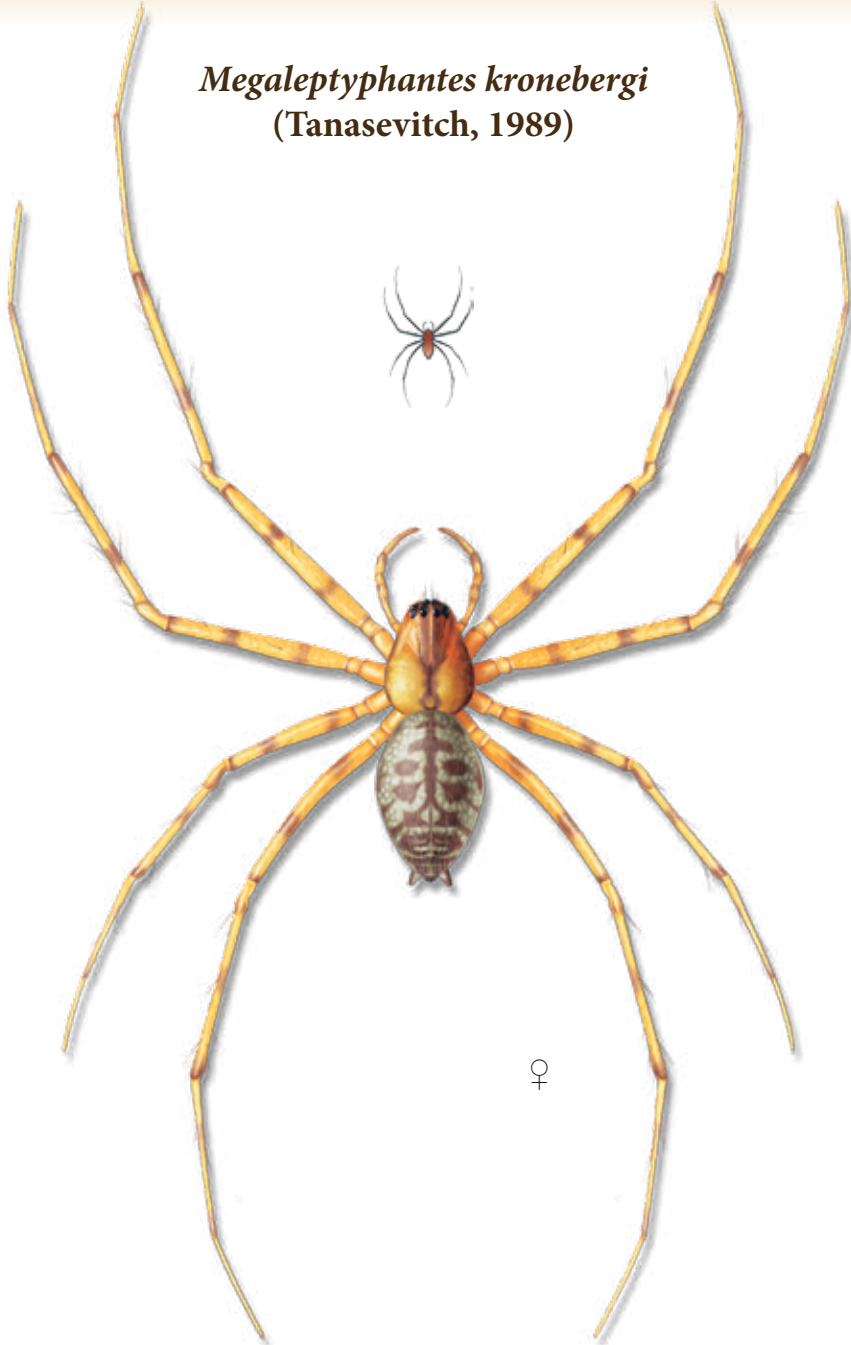
Habitat: Tugai valley forests.

Maturity: April to November.

Body length: 2–2.5 mm.



Megaleptyphantes kronebergi
(Tanasevitch, 1989)



Distribution: Turan–Turkestan range.

Distribution in Kazakhstan: Barsakelmes Island (Aral Sea).

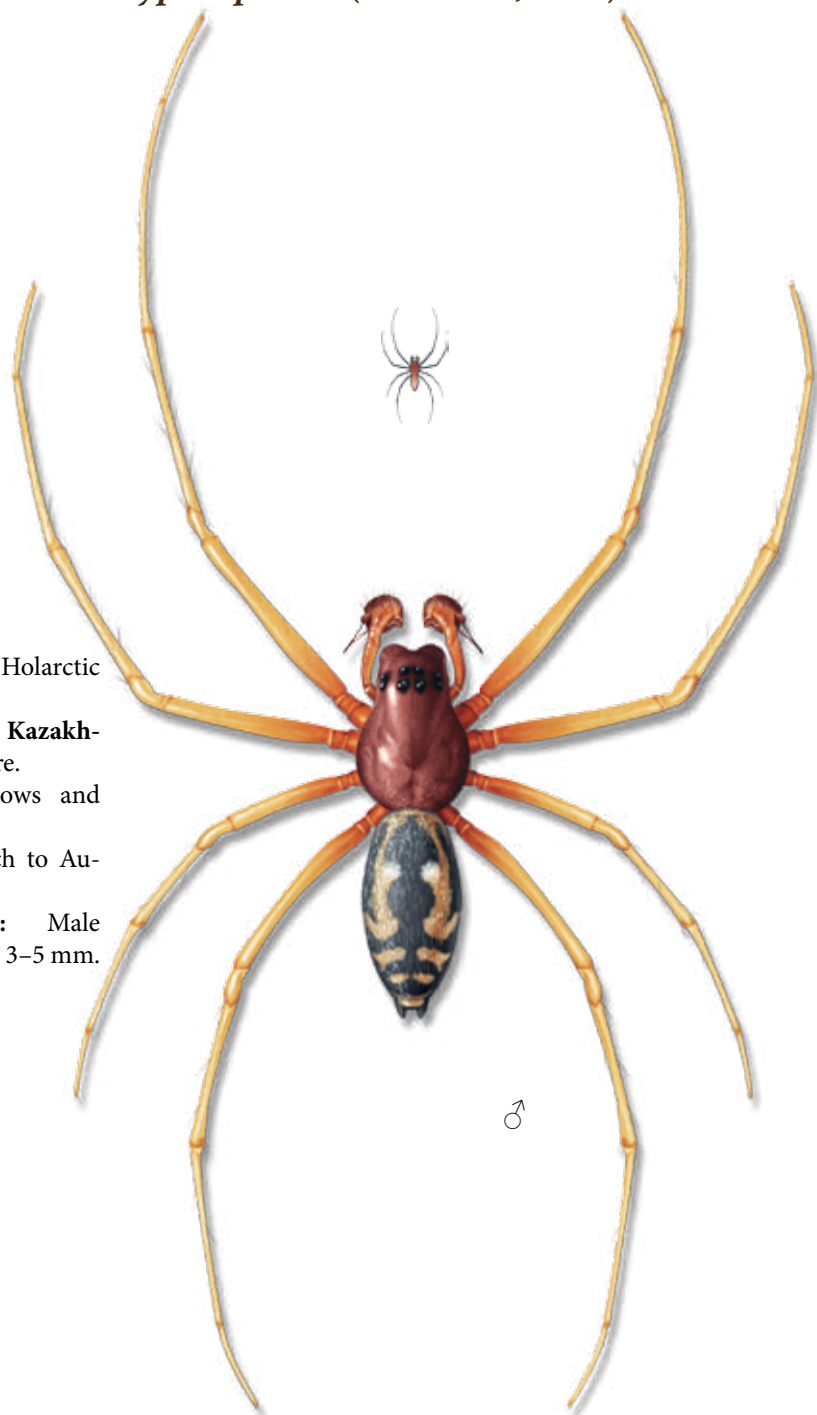
Habitat: Mesic or wet associations in (semi)desert habitats.

Maturity: February to October.

Body length: 3.5–4 mm.



Microlinyphia pusilla (Sundevall, 1830)



Distribution: Holarctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Meadows and forest glades.

Maturity: March to August.

Body length: Male 3–4 mm, female 3–5 mm.



Neriene clathrata
(Sundevall, 1830)



♂

Distribution: Holarctic range.

Distribution in Kazakhstan: South-eastern regions.

Habitat: Wet meadows in uplands.

Maturity: July to October.

Body length: 3.5–5 mm.



Oedothorax apicatus
(Blackwall, 1850)



Distribution: West Palearctic range.

Distribution in Kazakhstan: Western, southern and south-eastern regions.

Habitat: Mesic open meadows, in the mountains up to the alpine zone.

Maturity: May to September.

Body length: ca. 2 mm.



Stemonyphantes lineatus
(Linnaeus, 1758)



♀

Distribution: West Palearctic range.

Distribution in Kazakhstan: South-eastern regions.

Habitat: Mesic low mountain relief, under stones, in litter and in grass, often near water bodies.

Maturity: April to October.

Body length: Male 4–5.5 mm, female 4–7 mm.



Trichoncus villius Tanasevitch & Piterkina, 2007



Distribution: Kazakhstan range, known from western and central Kazakhstan only.

Habitat: Dry steppes and semideserts.

Maturity: April to October.

Body length: ca. 2.5 mm.



Family TETRAGNATHIDAE – long-jawed orb weavers

A group of small to large araneoid spiders occurring worldwide and consisting of some 955 described species, of which 14 species in four genera have been recorded from Central Asia. These spiders construct aerial orb-webs, which are often oriented horizontally. They occur in a variety of habitats but typically in wet meadows making their webs close to or above water. Some groups (e.g. *Pachygnatha* species) make webs in early instars only, then become vagrant hunters. Males and females of *Tetragnatha* species usually co-exist on the same web for some time. Males have markedly elongated chelicerae with long fangs and rows of large teeth and spurs, hence their common name. Males use their long chelicerae to lock the female's chelicerae during mating.

Composition: In Kazakhstan, there are 13 species belonging to four genera (see p. 224).

Pachygnatha degeeri Sundevall, 1830

♀

Distribution: Palaearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: A ground-dweller in meadow and steppe vegetation.

Maturity: April to July.

Body length: Male 2.5–3 mm, female 3–4 mm.



Tetragnatha extensa
(Linnaeus, 1758)



♀

Distribution: Holarctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Wet meadows close to water or in boggy habitats.

Natural history: Females attach their egg sacs to leaves, usually near water; the greyish green egg sac looks like a fragment of mould or a bird dropping and contains 40–70 white eggs.

Maturity: May to August.

Body length: Male 6–9 mm, female 6.5–11 mm.



Family MIMETIDAE – pirate spiders

This is a family of small to medium-sized araneoid spiders, with 156 species described worldwide. In Central Asia, four species in three genera have been recorded to date. Pirate spiders can be recognized by the prolateral spination of strong erect spines on the tibiae and metatarsi of the first two pairs of legs. These are free-living spider-predators occurring in low vegetation, but can also be found on webs of other spiders, in leaf litter or even in rodent burrows (e.g. *Mimetus laevigatus*). Pirate spiders particularly specialize on hunting orb-web (Araneidae) and comb-footed (Theridiidae) spiders, often invading the web of their potential victim and vibrating the silk to mislead the owner into thinking the visitor is a potential mate.

Composition: In Kazakhstan, there are three species in three genera (see p. 220).

Ero aphana (Walckenaer, 1802)



Distribution: Palaearctic range.

Distribution in Kazakhstan: From western to south-eastern regions of the desert zone.

Habitat: Tugai forests in river valleys.

Natural history: The female suspends her round egg sac on a long stalk (*ca.* three times the sac's diameter), surrounds it with wiry silk and then abandons it.

Maturity: June.

Body length: Male *ca.* 2.5 mm, female 2.5–3.5 mm.



Mimetus laevigatus
(Keyserling, 1863)



♀

Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: South-eastern regions.

Habitat: Meadows.

Maturity: May to July.

Body length: 4–5.5 mm.



Family ARANEIDAE – orb-weavers

A large and diverse family of araneoid spiders comprising some 3030 described species worldwide. Of these, 65 species in 19 genera have been recorded from Central Asia. Orb-weavers represent an archetypical group of spiders that everyone has seen or heard of, i.e. the spiders that weave a vertical aerial web of a symmetrical radial structure to capture their prey. The spider can sit in the centre of its web, usually facing head down, or hide nearby in a silk lined, cone-shaped retreat made of naturally curled or rolled leaves, under loose tree bark or in rock crevices. Before feeding on their prey, orb-web spiders wrap and bite their captures and transport them to the centre of the web or to their retreat.

Composition: In Kazakhstan, there are 48 species belonging to 17 genera (see p. 209).

Aculepeira armida (Audouin, 1826)



♀

Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: The southern half of the Republic.

Habitat: Meadow vegetation: tall grass and bushes.

Maturity: June.

Body length: Male 6.5–8.5 mm, female 10–13.5 mm.



Aculepeira ceropegia
(Walckenaer, 1802)



♀

Distribution: West Palearctic range.

Distribution in Kazakhstan: North-western regions.

Habitat: Forest glades: tall grass and bushes.

Natural history: The orb-web is about 50 cm above the ground and is furnished with a dense lattice of threads and a platform of fine silk in the centre in which the spider waits for its prey.

Maturity: May to August.

Body length: Male 6–7 mm, female 11.5–14.5 mm.



Araneus quadratus
Clerck, 1757



♀

Distribution: Palaearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Moist meadows with high herbs and glades in deciduous forests.

Natural history: The orb-web is built in high grass, about 0.5 m above ground. The spider catches and feeds on flying insects, honeybees in particular. Mating takes place in late summer and autumn. The female lays a yellow egg sac containing about 500 eggs.

Maturity: July to September.

Body length: Male 6–9 mm, female 8–19 mm.



Araniella cucurbitina
(Clerck, 1757)



♀

Distribution: West Palearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: On low meadow vegetation and bushes.

Natural history: This species spins a small (10 cm in diameter) web, usually confined to an area beneath a single leaf. The female covers her egg sac with a large volume of woolly silk and protects it for a short time. During the season, each female can produce five to six egg cocoons, each containing 30–150 eggs. Although adults are well camouflaged by their green colour, newly hatched spiderlings are red.

Maturity: May to August.

Body length: Male 3.5–4.5 mm, female 4.5–8.5 mm.



Argiope bruennichi (Scopoli, 1772) – Wasp Spider



Distribution: Palearctic range.

Distribution in Kazakhstan: Everywhere, apart from sandy deserts.

Habitat: Meadows, forest glades, city and town parks.

Natural history: The web is built early in the morning and is about 30 cm wide with the hub about 30 cm above the ground and is usually situated between grasses and herbs. The spider hangs upside-down over the hub with its legs outstretched. The web contains a white zigzag stabilimentum, which reflects ultra-violet rays and seems to be attractive to flying insects. Flies, honeybees and grasshoppers are the main prey (see illustration on p. 21). With the availability of plentiful prey (e.g. of non-biting midges near Balkhash Lake), this spider can live in dense aggregations in which webs of neighbouring spiders are in contact; moreover, the orb-web spider *Araneus pallasii* also occurs in such associations (see Marikovski, 1985). Males are much smaller than females, and 40–50% of them are cannibalized following copulation. The female produces a single egg sac containing 300–400 eggs.

Maturity: June to September.

Body length: Male 5–7 mm, female 15–25 mm.



Argiope lobata (Pallas, 1772)



Distribution: European–Siberian range, eastward to Mongolia.

Distribution in Kazakhstan: Southern regions.

Habitat: Dry steppes, (semi)deserts.

Natural history: The spider weaves an expansive, vertical orb-web between bushes, sometimes more than 1.5 m apart. A new orb-web is constructed daily, usually during the night and it takes up to three hours to weave. As with the wasp spider (see previous), the web contains a white silk zigzag-shaped stabilimentum. The spider hangs upside-down in the centre of the web, with the legs outstretched in pairs, giving the impression that there are only four. The adult female is about three times larger than the male, and almost 50% of the males are cannibalized after copulation. The female lays several egg sacs. The spider produces neurotoxic venom which is not dangerous to humans.

Maturity: July to August.

Body length: Male 5–8 mm, female 15–25 mm.



Cercidia prominens
(Westring, 1851)



Distribution: Holarctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Both open and forest habitats.

Natural history: Constructs a web 4–5 cm above the ground, the spider usually rests in the centre. The female deposits a single egg sac with orange curled threads containing 15 relatively large orange eggs.

Maturity: May to October.

Body length: Male 3.5–4 mm, female 4–5 mm.



Cyclosa oculata
(Walckenaer, 1802)



Distribution: West Palearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Steppe habitats.

Maturity: June to July.

Body length: Male 3.5–4 mm, female 5–6 mm.



Gibbaranea ullrichi
(Hahn, 1835)



Distribution: West Palaearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Steppe and desert grasses and bushes.

Maturity: March to June.

Body length: Male *ca.* 6 mm, female *ca.* 7.5 mm.



Hypsosinga sanguinea
(C.L. Koch, 1844)



Distribution: Palearctic range.

Distribution in Kazakhstan: Northern, eastern and south-eastern regions.

Habitat: Forest glades, in damp situations, where the spider weaves its orb-web about 15 cm above the ground.

Maturity: May to August.

Body length: Male 3–3.5 mm, female 4–4.5 mm.



Larinioides patagiatus
(Clerck, 1757)



♀

Distribution: Holarctic range.

Distribution in Kazakhstan: Northern, eastern and south-eastern regions.

Habitat: Meadows and forest glades, also around human dwellings.

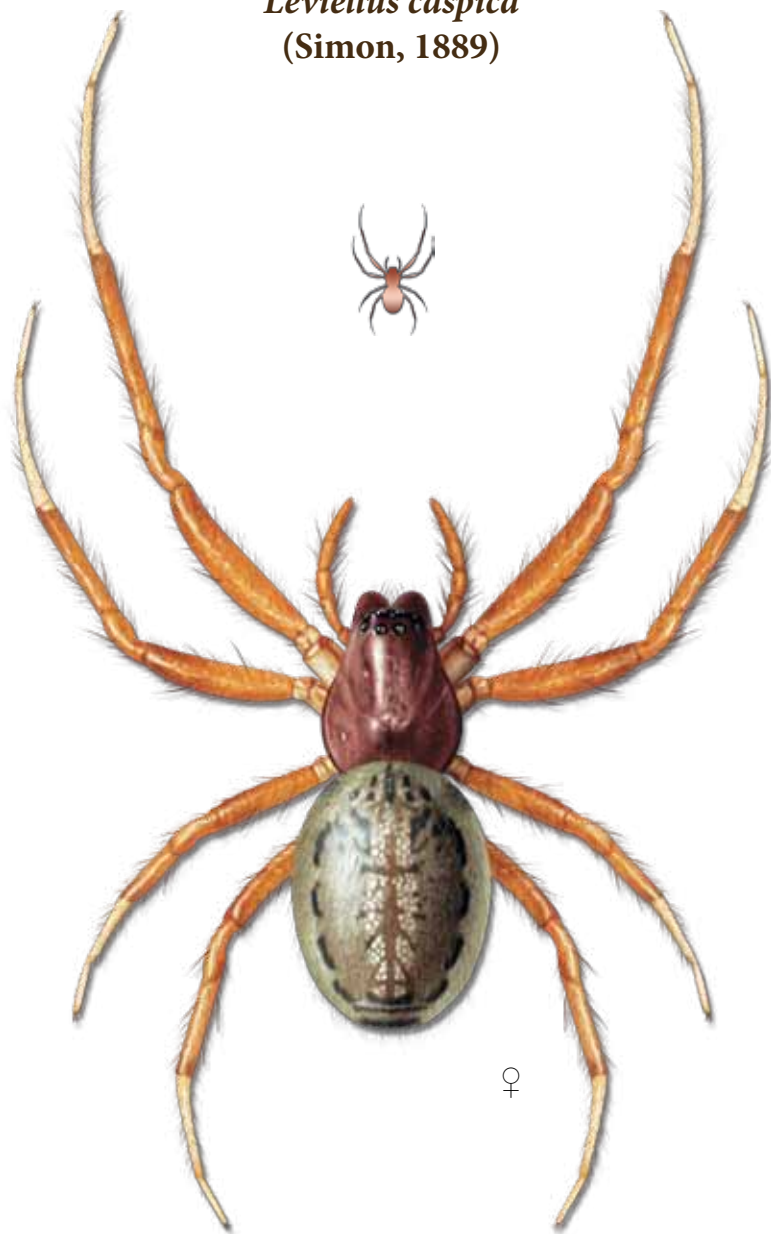
Natural history: The female deposits a greenish egg sac containing about 80 eggs.

Maturity: April to June.

Body length: Male 7–7.5 mm, female 9.5–11 mm.



Leviellus caspica
(Simon, 1889)



Distribution: Turan range.

Distribution in Kazakhstan: Southern regions.

Habitat: This species constructs its web and retreat on trees, often in synanthropic habitats (outer house walls and fences).

Maturity: April.

Body length: Male 3.5–5 mm, female 5–6.5 mm.



Mangora acalypha
(Walckenaer, 1802)



♀

Distribution: West Palearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Meadows and forest glades.

Natural history: The female deposits an egg sac surrounded by loose white silk and containing about 25 yellowish eggs.

Maturity: April to July.

Body length: Male 3–3.5 mm, female 5.5–6 mm.



Neoscona adianta
(Walckenaer, 1802)



Distribution: Palearctic range.

Distribution in Kazakhstan: Everywhere, a very common species.

Habitat: Steppe and (semi)desert habitats, on bushes and grass.

Natural history: With the availability of plentiful prey (e.g. of non-biting midges near Balkhash Lake), this spider can live in dense aggregations (colonies), alongside two other orb-weavers: '*Araneus pallasii* and *Larinioides cornutus* (see Marikovski, 1985).

Maturity: June to August.

Body length: Male *ca.* 4.5 mm, female 5.5–7 mm.



Singa hamata
(Clerck, 1757)



♀

Distribution: Palearctic range.

Distribution in Kazakhstan: Northern, eastern and south-eastern regions.

Habitat: Short grass in meadows near water bodies, where spiders weave their orb-webs low down on vegetation.

Maturity: May to June.

Body length: Male 3–4.5 mm, female 5–6.5 mm.



A large family of mostly ground-dwelling spiders, with almost 2400 species described worldwide. The lycosid fauna of Central Asia remains poorly studied; nevertheless, to date some 127 species in 19 genera have been recorded or described from the region. These spiders have a distinctive eye arrangement: the anterior row of four small eyes is about equal to the second row of two large to very large eyes; there is another pair of eyes forming a third row. Wolf spiders are active hunters that use both stalking and ambushing techniques. They have distinctive maternal care behaviour. The female either carries her egg cocoon attached to her spinnerets or guards it in her burrow. When the spiderlings have emerged, the female carries them on her abdomen for a few days. Large wolf spiders are usually semi-permanent burrow-dwellers.

Composition: In Kazakhstan, there are 104 species belonging to 17 genera (see p. 218).

Acantholycosa norvegica (Thorell, 1872)



Distribution: Palearctic range.

Distribution in Kazakhstan: North-eastern regions.

Habitat: Stony debris of the forest belt and at the upper forest limit in the mountains, up to 2100 m a.s.l.

Natural history: The female deposits a bluish egg sac containing 60–100 eggs.

Maturity: June to July.

Body length: 6–10 mm.



Allohogna singoriensis
Laxmann, 1770



♀

Distribution: European–Central Asian range.

Distribution in Kazakhstan: Northern, eastern and south-eastern regions.

Habitat: Solonetz and saline marshes near water bodies, also glades of mixed and pine forests, and kitchen-gardens in the countryside.

Natural history: Females and immature males of this species live in silk-lined burrows that they dig themselves. Females have a two to three-year life cycle, whereas males usually live for one season. Upon maturing, females may relocate their burrow several times. Each female deposits an egg sac containing 200–700 eggs depending on its nutritional state. When the spiderlings emerge from the egg cocoon they move onto the mother's back. The female abandons its burrow and spreads out the broods over a relatively small range of about 30 m². Then the female is ready to dig a new burrow and deposit a second egg sac. The biology of this species was described in detail by Marikovski (1956).

Maturity: Males June to September, females all year round.

Body length: Male 14–27 mm, female 18–46 mm.



Alopecosa schmidti
Hahn, 1835



♀

Distribution: West Palaearctic range.

Distribution in Kazakhstan: Northern regions.

Habitat: Meadow vegetation with stones and sandy plots, sometimes croplands such as wheat fields.

Maturity: No data.

Body length: 10–13 mm.



Arctosa cinerea
(Fabricius, 1777)



♀

Distribution: West Palaearctic range.

Distribution in Kazakhstan: Northern regions.

Habitat: Stony-sandy shores near bodies of water.

Natural history: Females make silk-lined burrows (4–5 cm deep) in sand and under stones.

Maturity: May to August.

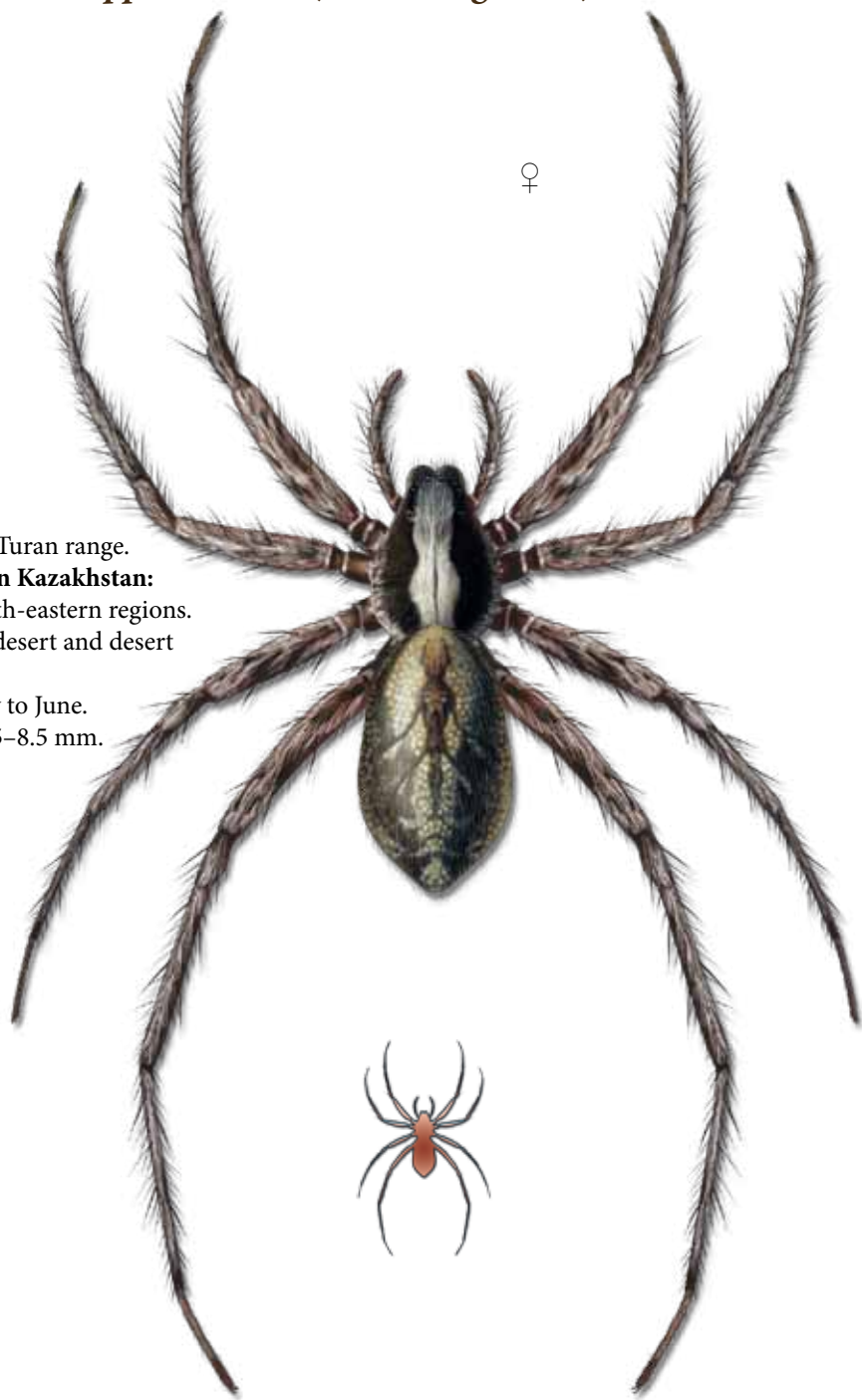
Body length: 9–17 mm.



Evippa aculeata (Kroneberg, 1875)

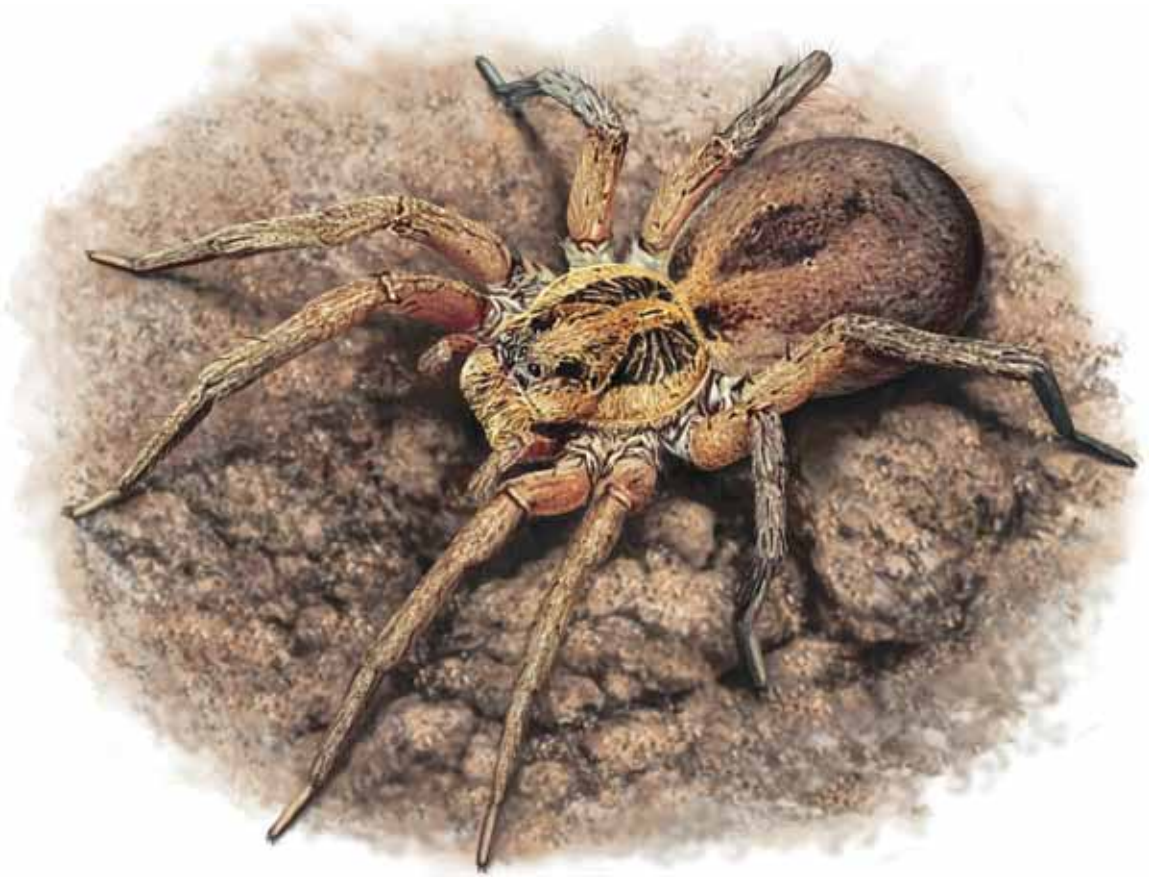
♀

Distribution: Turan range.
Distribution in Kazakhstan:
South and south-eastern regions.
Habitat: Semidesert and desert
sandy habitats.
Maturity: May to June.
Body length: 5–8.5 mm.





Hogna radiata
(Latreille, 1817)



♀

Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: Southern and south-eastern regions.

Habitat: Stony-grass riverbanks, also croplands (e.g. cotton fields).

Natural history: During the daytime, the spiders hide under stones. Females make temporary retreats like sloping silk-lined burrows under stones.

Maturity: April to September.

Body length: 9–25 mm.



Oculicosa supermirabilis
Zyuzin, 1993



♂

Distribution: Turan Lowland between 41 and 43 degrees of latitude.

Distribution in Kazakhstan: Western (Ustyurt plateau) and southern regions.

Habitat: Deserts, prefers vegetation-free plots of white clay.

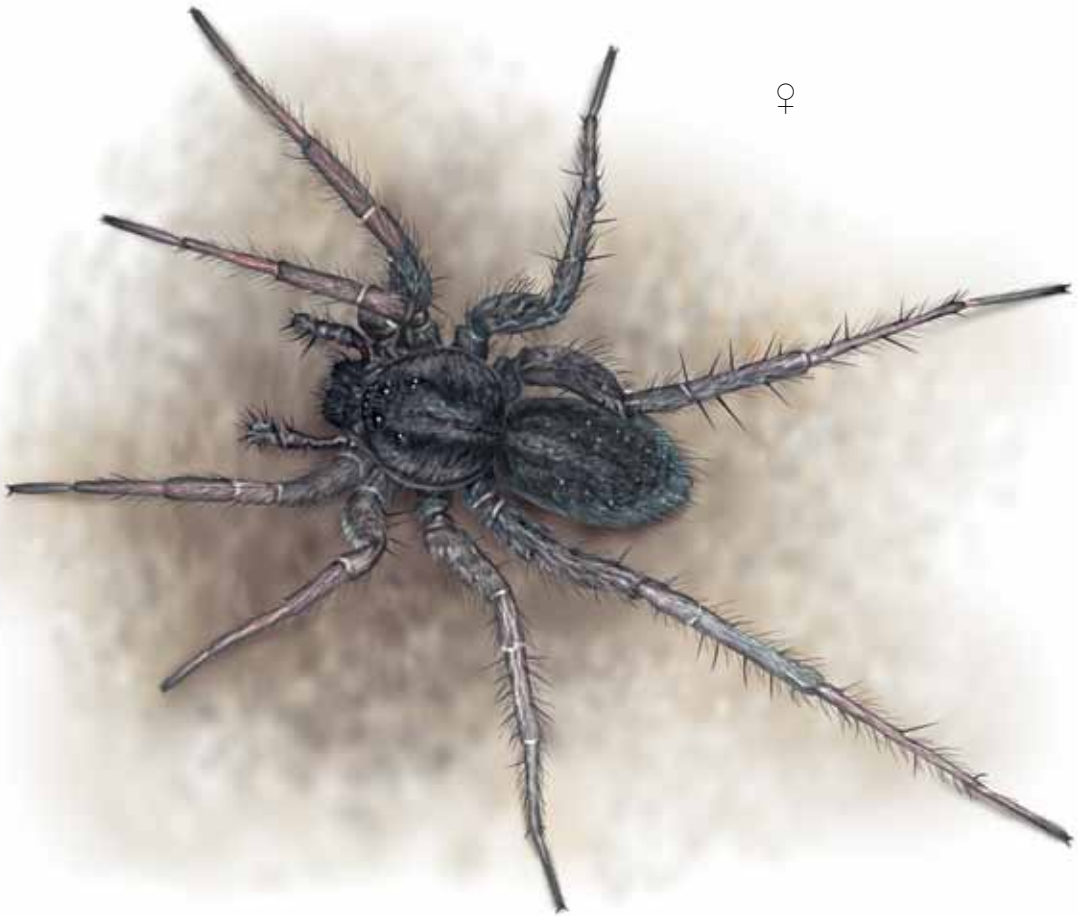
Natural history: Females make permanent vertical burrows with self-closing trapdoors.

Maturity: April to May.

Body length: male 12–14 mm, female 15–20 mm.



Pardosa paludicola
(Clerck, 1757)



Distribution: West Palearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Wet meadows near water bodies.

Natural history: The female deposits a bluish green egg sac containing about 80 white eggs.

Maturity: May to July.

Body length: 7–9.5 mm.



Pirata piraticus
(Clerck, 1757)



♀

Distribution: Holarctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Damp vegetation near water bodies.

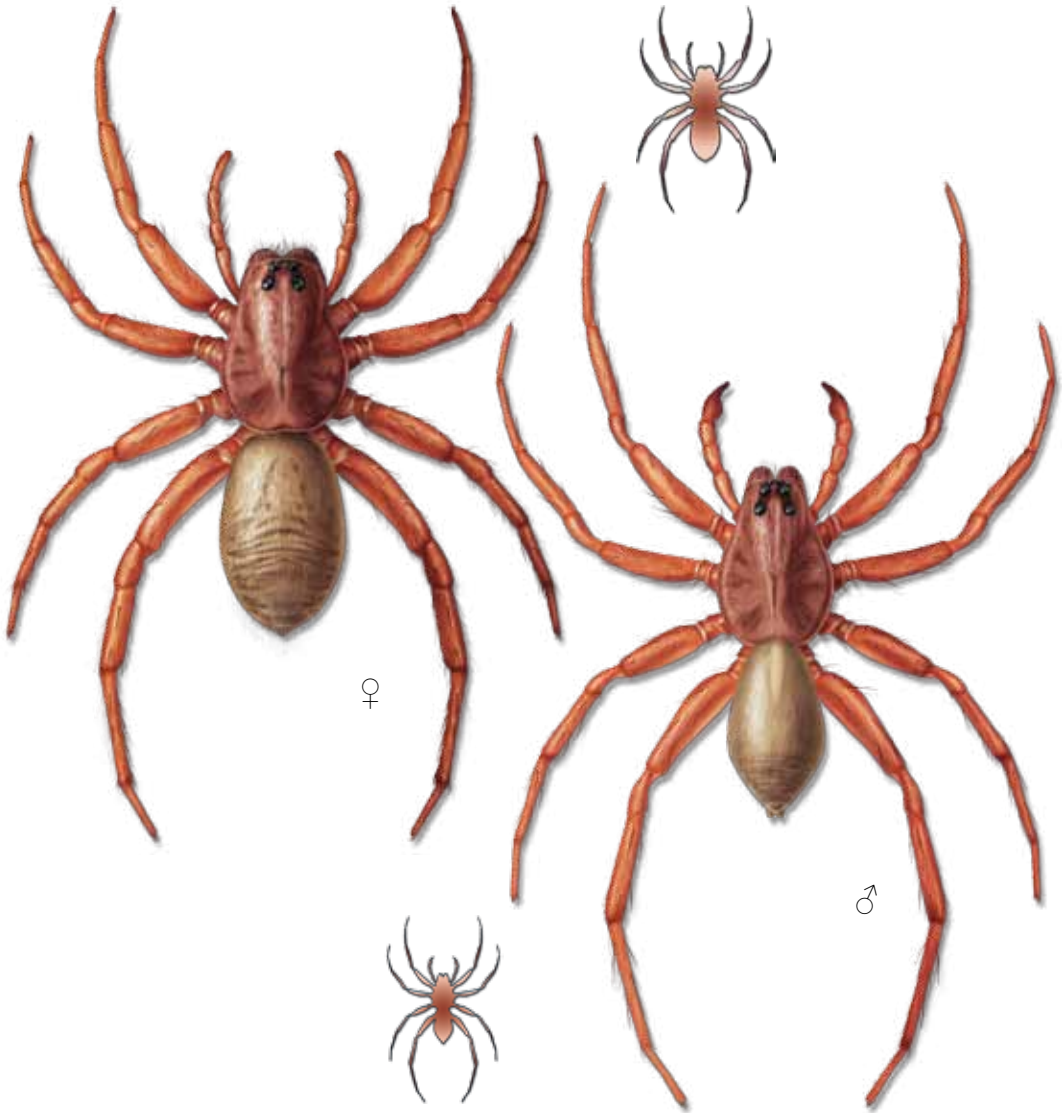
Natural history: Spiders can easily walk and run over water in order to catch insects on or just below the surface. The female constructs a tubular silk retreat where she deposits a white, globular egg sac containing 80–100 yellow eggs.

Maturity: May to June.

Body length: 5–9.5 mm.



Trochosa ruricola (De Geer, 1778)



Distribution: Palearctic range.

Distribution in Kazakhstan: Western and northern regions.

Habitat: Meadow and swampy vegetation, and pebble riverbanks.

Maturity: No data.

Body length: 7–13 mm.



Xerolycosa miniata
(C.L. Koch, 1834)



♂

Distribution: European–Siberian range, easterward to Tuva.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Inundated meadows and pebble riverbanks.

Natural history: The female deposits a white egg sac containing 30–40 yellowish eggs.

Maturity: May to June.

Body length: 4.5–7.5 mm.



Family PISAURIDAE – nursery-web spiders

A relatively small group of medium-sized to large spiders numbering some 330 species described worldwide. In Central Asia, six species in three genera have been found to date. Females of all pisaurids carry their spherical egg sac in the chelicerae and protect it for several weeks. When the spiderlings emerge they are also guarded and protected by the female.

Composition: In Kazakhstan, there are three species in two genera (see p. 221).

Dolomedes fimbriatus (Clerck, 1757) – Raft Spider



♀

Distribution: European–Siberian range.

Distribution in Kazakhstan: Northern and north-eastern regions, rare.

Habitat: Vegetation near freshwater bodies, especially sedge-moors.

Natural history: A semi-aquatic spider that can walk or run on the surface of water. If threatened, it quickly crawls down plant stems under water where it can remain for up to one hour. The Raft Spider preys not only on insects but can even catch tadpoles and small fish. The female carries her egg sac in the chelicerae and weaves a nursery tent around it just before the spiderlings emerge.

Maturity: May to June.

Body length: Male 9–10 mm, female 12–19 mm.



Pisaura mirabilis
(Clerck, 1757)

Male giving a nuptial gift
to female.



Female with her egg sac.

Distribution: West Palaearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Tall vegetation of inundated meadows and forest meadow glades.

Natural history: This species is peculiar among spiders in its mating behaviour because males offer nuptial gifts to females to entice them to copulate. The gift is a prey item wrapped in silk. It has been suggested that such prey gifts protect the males against aggressive behaviour from the females during courtship and mating. The female also demonstrates advanced maternal care of her offspring. She carries the large egg-cocoon in her chelicerae and positioned underneath her body until the eggs are about to hatch. She also weaves a tent-shaped nursery web where the spiderlings hatch and stay for some time, guarded by their mother, until they disperse.

Maturity: May to June, but females occur until August.

Body length: Male 9–12 mm, female 9–15 mm.



Family AGELENIDAE – funnel-web spiders

A group of medium-sized araneomorph spiders numbering some 1150 species described worldwide. In Central Asia, 24 species in seven genera have been recorded or described to date. These spiders can be recognized by the distinctive, long and slender, two-segmented posterior spinnerets and by the typical structure of their non-sticky webs, i.e. concave sheet-like web with a funnel-shaped retreat at one corner. Funnel-web spiders occupy various habitats, usually in grass, low bushes and secluded locations such as under stones, crevices, caves and dark corners of human dwellings.

Composition: In Kazakhstan, there are 15 species in six genera (see p. 209).

Agelena labyrinthica (Clerck, 1757)



Distribution: Palaearctic range.

Distribution in Kazakhstan: Northern and south-eastern regions.

Habitat: Steppe habitats.

Natural history: The web is constructed amongst grass and low bushes. The male and female live together on the female's web for some time before mating. The female deposits a white egg sac (containing 50–120 yellowish eggs) in a silken chamber where she guards it until she dies.

Maturity: June to September.

Body length: 8–14 mm.



Agelena maracandensis (Charitonov, 1946)

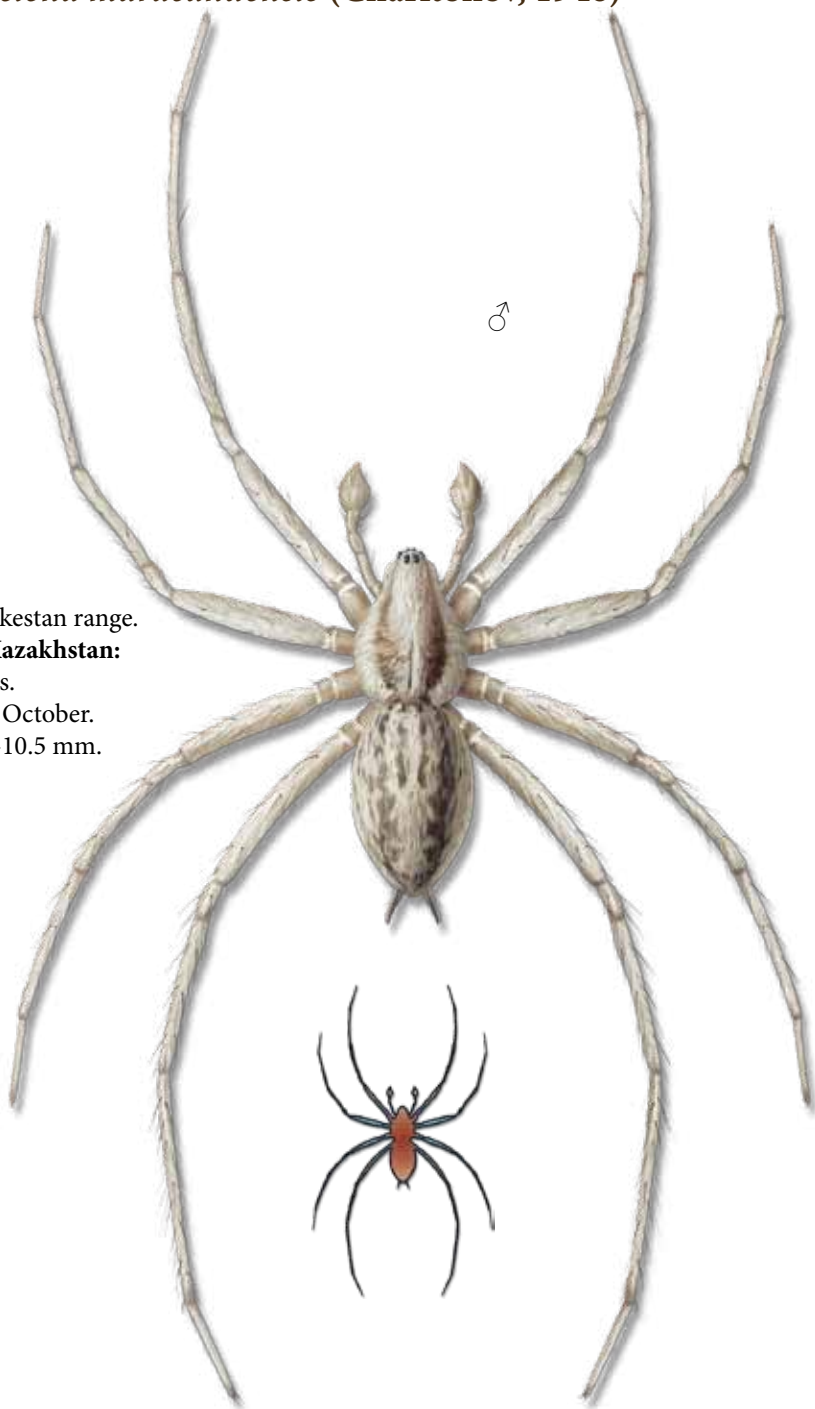
Distribution: Turkestan range.

Distribution in Kazakhstan:

The Tian Shan Mts.

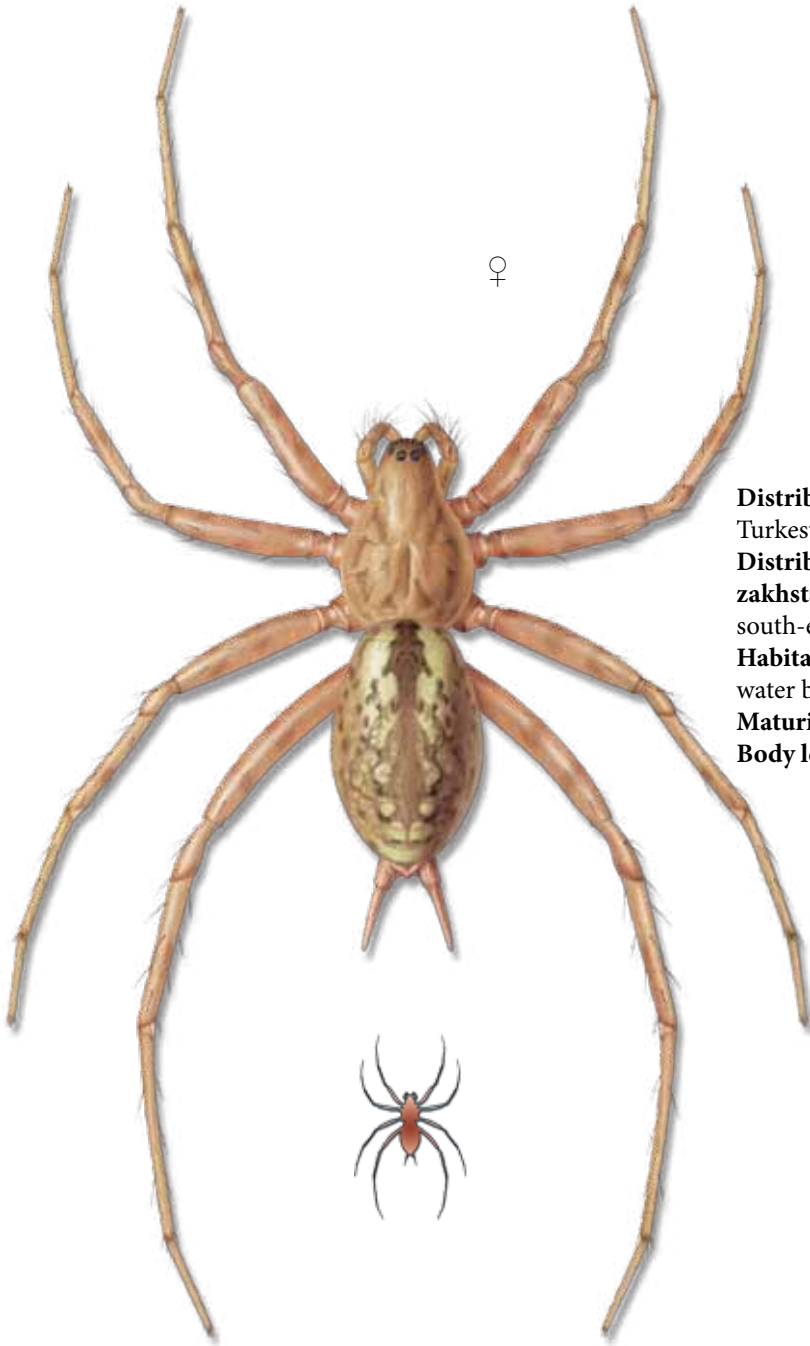
Maturity: June to October.

Body length: 7.5–10.5 mm.





Agelena tadhika Andreeva, 1976



Distribution: Turano-Turkestan range.

Distribution in Kazakhstan: Southern and south-eastern regions.

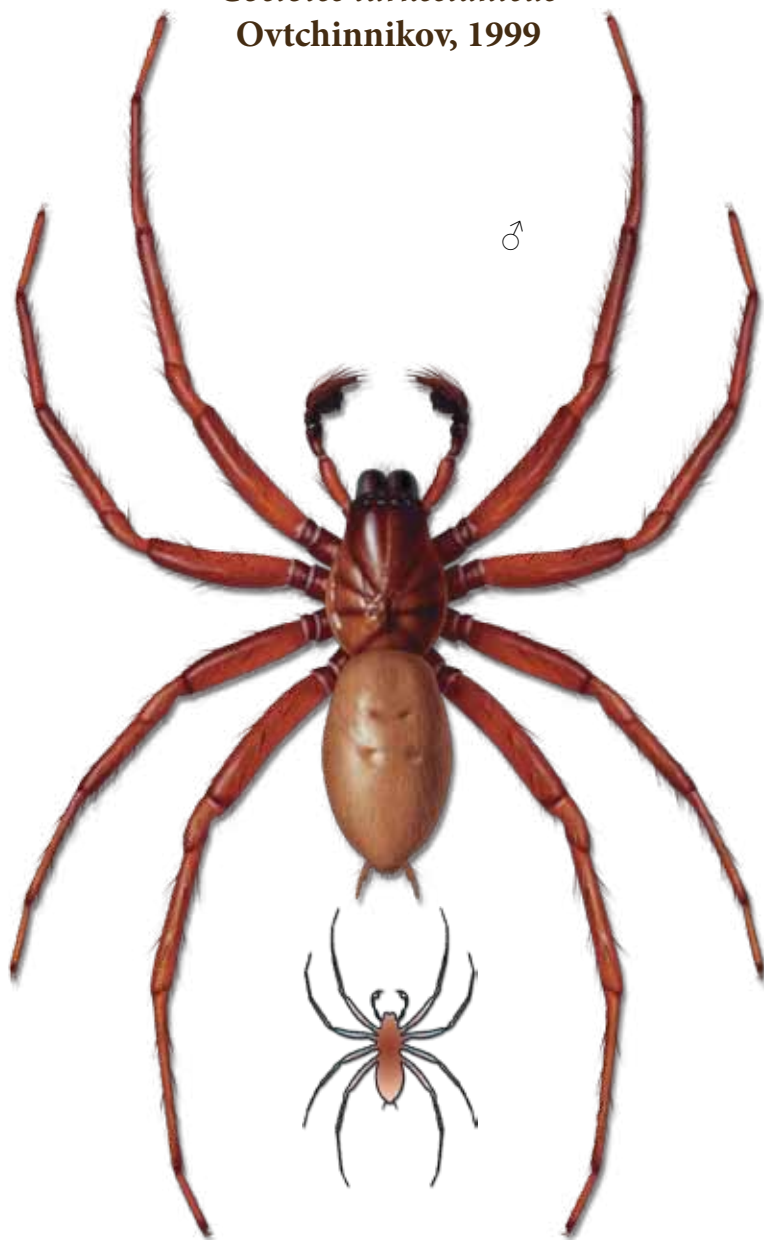
Habitat: Shores of saline water bodies.

Maturity: August.

Body length: 6.5–8 mm.



Coelotes turkestanicus
Ovtchinnikov, 1999



Distribution: Turano–Turkestan range.

Distribution in Kazakhstan: Southern and south-eastern regions.

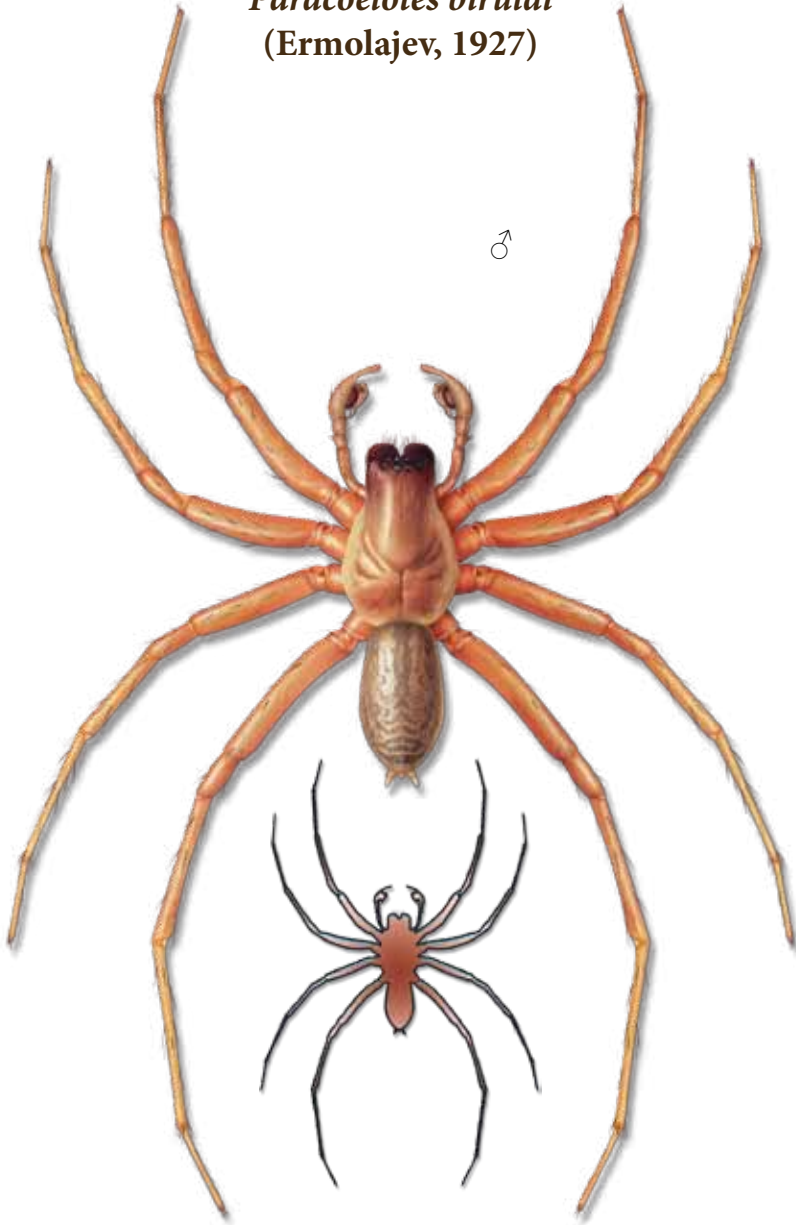
Habitat: Steppe habitats.

Maturity: February to November.

Body length: 10–12.5 mm.



Paracoelotes birulai
(Ermolajev, 1927)



Distribution: East Palaearctic range.

Distribution in Kazakhstan: The Altai and Tian Shan Mts.

Habitat: Common from the forest to alpine belts, makes webs under stones and loose tree bark, and also inside fallen branches and rotten logs.

Maturity: June to August.

Body length: 11–16 mm.



Tegenaria domestica
(Clerck, 1757)



♀

Distribution: Cosmopolitan range.

Distribution in Kazakhstan: Southern and south-eastern regions, particularly the west Tian Shan Mts.

Habitat: Common around (on fences and walls) and inside human dwellings.

Natural history: Makes a typical sheet-web with a tubular retreat. The male and female live together even after mating; when the male dies the female consumes it. The female deposits a white egg sac containing 50–60 yellowish eggs and guards it until the spiderlings emerge and disperse.

Maturity: All year round.

Body length: 6–9 mm.



Family ARGYRONETIDAE – water spiders

A single species of water spider – *Argyroneta aquatica* – is known worldwide. Unlike many other spider groups, the males of this species are larger than females. Some researchers classify this spider within the family Cybaeidae.

Composition: In Kazakhstan, there is one species in the genus *Argyroneta* Latreille, 1804.

Argyroneta aquatica (Clerck, 1757) – Water Spider



Distribution: Palearctic range.

Distribution in Kazakhstan: Balkhash Lake, but it is likely to occur in other water bodies of western, northern and north-eastern regions.

Natural history: The water spider lives its entire life under freshwater. Females construct underwater dome-shaped webs – the ‘diving bells’ – which they fill with air carried from the surface (see figure on p. 4). The ‘diving bell’ acts as a ‘physical gill’ obtaining oxygen from the water and is used by the spider for digesting prey, molting, mating and raising offspring. The prey of water spiders consists of various aquatic insects and crustaceans. The biology of the water spider was studied in detail by Wagner (1900) and many subsequent authors.

Maturity: All year round.

Body length: Male 10–15 mm, female 8–9 mm.



Family CYBAEIDAE – soft spiders

A small and poorly known family of medium-sized spiders, with 176 species described worldwide. This family is practically restricted to the Holarctic region. In Central Asia, six species in two genera have been recorded to date. Very little is known about the natural history of soft spiders. Most of them build simple funnel-webs, which are primarily used as retreats. Soft spiders can be collected from forest leaf litter, crevices in the ground and also from caves.

Composition: In Kazakhstan, there is a single species of the genus *Cedicoides* Charitonov, 1946, although some researchers also classify the water spider (*Argyrozetidae*) in this family.

Cedicoides parthus (Fet, 1993)



Distribution: Turan range.

Distribution in Kazakhstan:

Desert mountains of Khantau.

Maturity: April to September.

Body length: 8–8.5 mm.

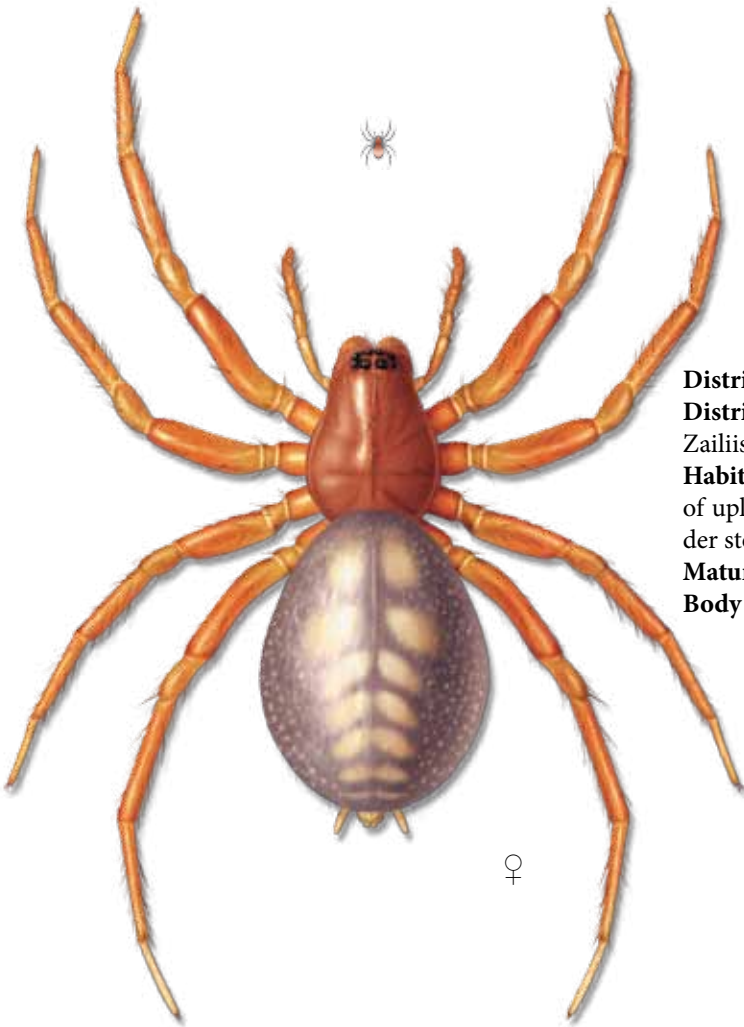


Family HAHNIIDAE – dwarf sheet spiders

A relatively small group of small-sized spiders numbering some 250 species described worldwide. In Central Asia, nine species in three genera have been recorded to date. These spiders are easily recognized by their spinnerets, which are arranged in a single transverse row, with the posterior (outermost) spinnerets the longest. Dwarf sheet spiders are typical dwellers of forest leaf litter where they construct small sheet webs without retreats close to the ground.

Composition: In Kazakhstan, there are six species in three genera (see p. 214).

Asiohahnia alata Ovtchinnikov, 1992



Distribution: Turkestan range.
Distribution in Kazakhstan: Zailiisky Alatau Mt. Range only.
Habitat: Schrenk spruce forests of uplands: in needle litter, under stones/pieces of bark.
Maturity: April to September.
Body length: 2.5–3 mm.



Cryphoeca silvicola
(C.L. Koch, 1834)



Distribution: Palearctic range.

Distribution in Kazakhstan: The Altai and Saur Mts.

Habitat: Leaf litter or under loose tree bark, where spiders make small, flimsy webs usually restricted to a tubular retreat only.

Maturity: July.

Body length: 2.5–3.5 mm.



Hahnia nava
(Blackwall, 1841)



Distribution: Palearctic range.

Distribution in Kazakhstan: Chu river valley (southern foothills of Chu-Ili Mts).

Habitat: Leaf litter.

Maturity: March to April.

Body length: 1.5–2.5 mm.



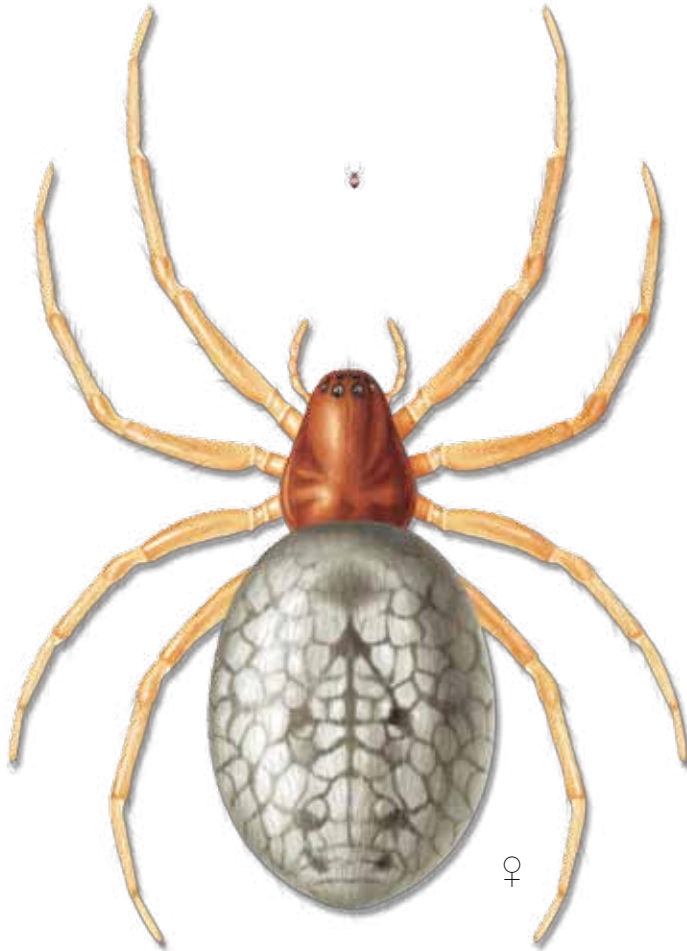
SPIDERS OF KAZAKHSTAN

Family DICTYNIDAE – hackled-web spiders

A group of small cribellate spiders, consisting of some 570 species described worldwide. In Central Asia, 31 species in 14 genera have been recorded to date. Hackled-web spiders have an ovoid compact body, six or eight eyes; they can be cribellate or the cribellum may be reduced. The family includes both plant- and ground-dwelling spiders, and even troglobionts (cave-dwellers). Plant-dwelling species construct irregular webs with a retreat at the top of dried plants; ground-dwelling species make simple mesh-like webs functioning primarily as retreats.

Composition: In Kazakhstan, there are 24 species in 12 genera (see p. 211).

Archaeodictyna sp.



Comment: Three *Archaeodictyna* species are known from Kazakhstan (see p. 211).

Habitat: Dry steppes and (semi)deserts, where it constructs webs on bushes.

Maturity: April to May.

Body length: ca. 2 mm.



Arctella subnivalis
Ovtchinnikov, 1989



Distribution: Turkestan range.

Distribution in Kazakhstan: Northern Tian Shan Mts.

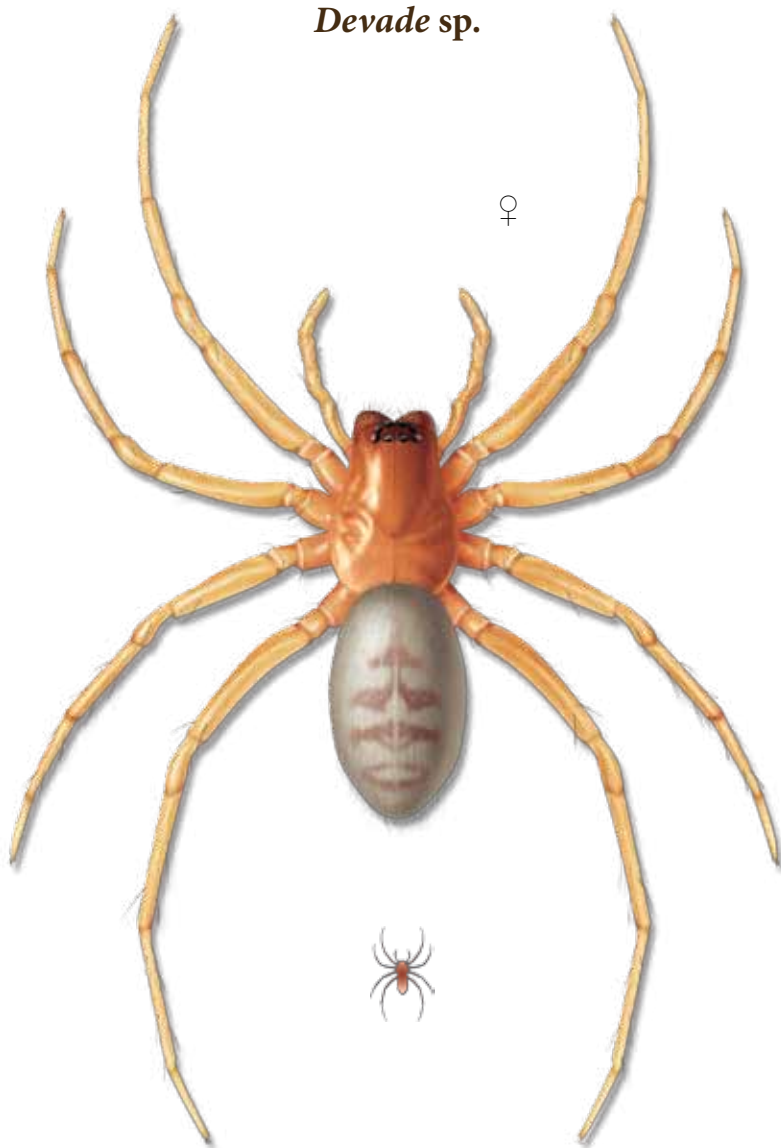
Habitat: The alpine belt, most often above 3200 m a.s.l.

Maturity: June to August.

Body length: ca. 3.5 mm.



Devade sp.



Comment: Four *Devade* species are known from Kazakhstan. It is likely that all of them should be assigned to *Devade indistincta* (O. Pickard-Cambridge, 1872), which has an Ancient Mediterranean range.

Distribution in Kazakhstan: Everywhere.

Habitat: Saline marshes along water bodies in steppe and (semi)desert habitats, where it constructs mesh-like retreats on the ground.

Natural history: Unlike other hacketed-web spiders, this is a quick running diurnal species.

Maturity: May to November.

Body length: 2.5–4 mm.



Dictyna arundinacea (Linnaeus, 1758) –
Common Mesh-Weaver



♂

Distribution: Holarctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: On bushes in steppe and forest habitats, up to 2000 m a.s.l. in the mountains.

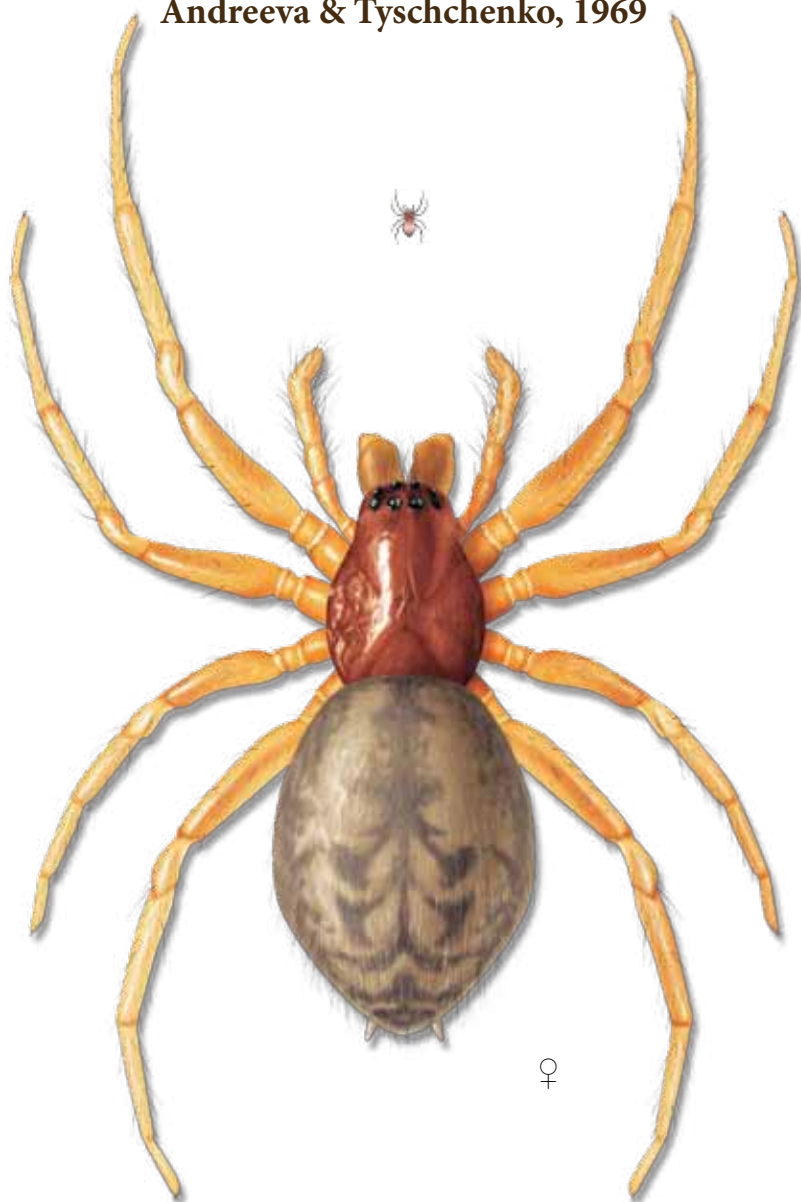
Natural history: The commonest species in the genus, constructing irregular webs with a retreat at the top of the whorls of dried plants such as yarrow or chicory. The female deposits 2–3 white egg sacs and protects them; each sac contains about 15 yellow eggs.

Maturity: April to July.

Body length: 2–4 mm.



Lathys spasskyi
Andreeva & Tyschchenko, 1969



Distribution: Turan range.

Distribution in Kazakhstan: Western, southern and south-eastern regions.

Habitat: Under stones in (semi)desert low-mountain relief.

Maturity: March to October.

Body length: 2.5–3.5 mm.



Family AMAUROBIIDAE – window spiders

A small family of medium-sized spiders numbering almost 290 species described worldwide. In Central Asia, four species in two genera have been recorded to date and all of them were found in Kazakhstan. These nocturnal, ground-dwelling spiders can be found in dark, secluded locations, such as leaf litter, under stones, in bark cavities of standing trees, wall cavities and similar. These spiders construct small funnel-like retreats with a radiating tangle of cribellate silk.

Composition: In Kazakhstan, there are four species in two genera (see p. 209).

Arctobius agelenoides (Emerton, 1919)

Distribution: Holarctic range.

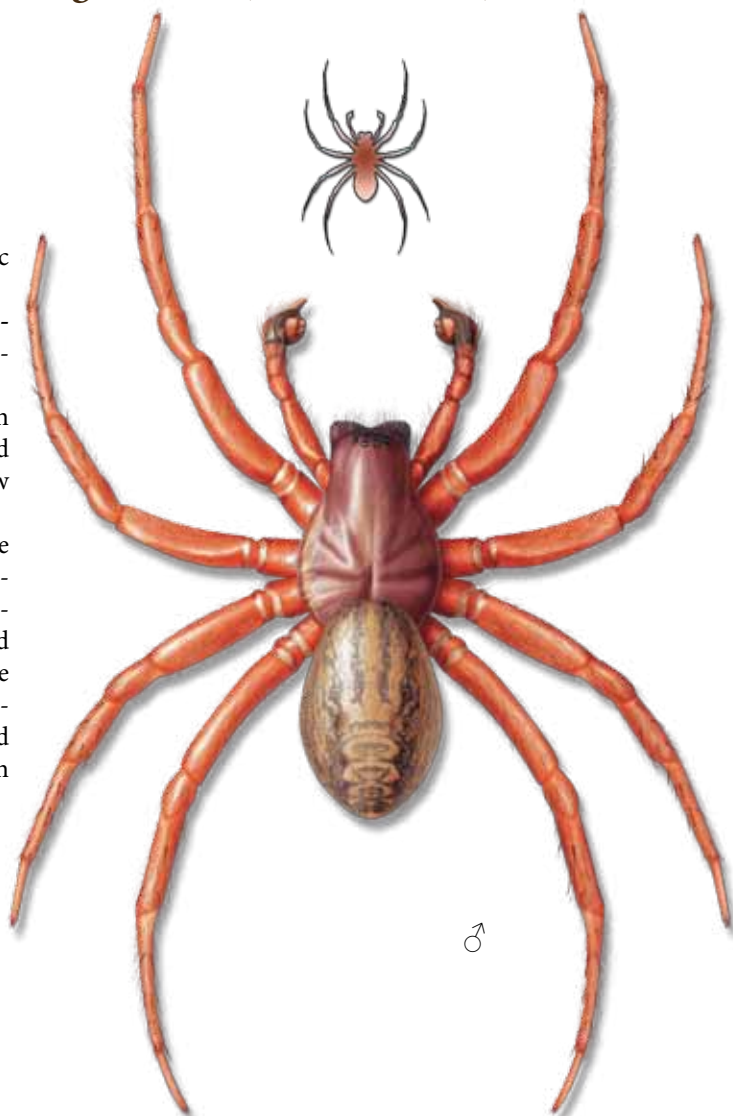
Distribution in Kazakhstan: Eastern and south-eastern regions.

Habitat: The alpine belt in the mountains: in moss and leaf litter, and amongst low bushes.

Natural history: These spiders construct funnel-shaped webs and feed predominantly on ants and other spiders. The female deposits an egg sac containing about 15 eggs and guards it; during one season it can deposit two egg sacs.

Maturity: August.

Body length: 8.5–9.5 mm.





A small family of medium-sized cribellate spiders numbering some 50 species described worldwide. In Central Asia, ten species in two genera have been recorded to date. These are typically dark-coloured, ground-dwelling spiders found in xeric habitats. They make flimsy webs and retreats under stones. Females usually remain with the egg sacs in their retreats.

Composition: In Kazakhstan, there are ten species in two genera (see p. 227).

Nurscia albosignata

Simon, 1874



Distribution: East Mediterranean range.

Distribution in Kazakhstan: Foothills and uplands of the north Tian Shan Mts.

Habitat: Under stones and in crevices of steppe slopes of southern exposure.

Natural history: These spiders produce flimsy webs resembling incomplete orb-webs from which 3–4 radial segments are removed. Males have very long palps (longer than the carapace).

Maturity: July.

Body length: 8–9 mm.



Titanoeca schineri
L. Koch, 1872



Distribution: Palearctic range.

Distribution in Kazakhstan: Forest-steppe and steppe zones, including the Altai and Tian Shan Mts.

Habitat: Steppe low-mountain relief and uplands: under stones and in leaf litter.

Maturity: May to October.

Body length: 6–9 mm.



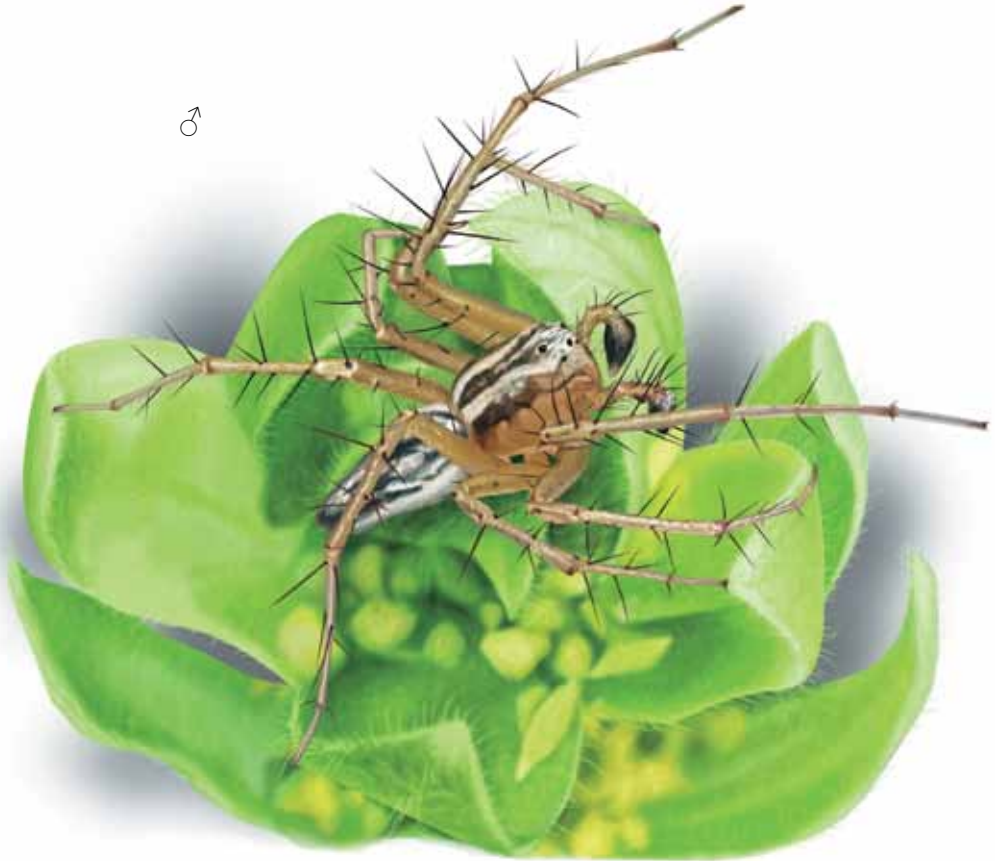
SPIDERS OF KAZAKHSTAN

Family OXYOPIDAE – lynx spiders

A relatively small family of spiders numbering about 430 species described worldwide. In Central Asia, eight species in one genus have been recorded to date. Lynx spiders are free-living plant-dwellers that can be recognized by the high and convex carapace (anteriorly) and the abdomen markedly tapering posteriorly. Their body usually has a contrasting pattern of dark stripes and all legs have prominent, erect spines; their 'hexagonal' eye arrangement is also characteristic. Lynx spiders are 'sit-and-wait' predators, but they are capable of jumping and even of catching flying prey in midair.

Composition: In Kazakhstan, there are eight species in one genus (see p. 220).

Oxyopes heterophthalmus (Latreille, 1804)



Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: Southern half of the Republic.

Habitat: In grass along the shores of water bodies.

Maturity: April to June.

Body length: Male 4–6 mm, female 5–7 mm.



Family CHEIRACANTHIIDAE – prowling spiders

A relatively small family of medium-sized spiders numbering about 360 species described worldwide. In Central Asia, 12 species of the single genus *Cheiracanthium* C.L. Koch, 1839 have been recorded to date. The Central Asian species can be easily recognized by their rather long, stout chelicerae (especially in males) and yellow body coloration. These spiders live on grasses and bushes, making sac-shaped retreats in rolled leaves or grass panicles, where they spend the daytime or where females guard their egg sacs. Mating takes place within the female's retreat. After finding a subadult female, the male usually makes its retreat nearby and waits until she matures, then mates with her immediately. Some researchers classify this family and genus within Miturgidae.

Composition: In Kazakhstan, there are nine species in one genus (see p. 210).

Cheiracanthium pennyi O. Pickard-Cambridge, 1873



Distribution: West Palaearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Steppe habitats: in grass.

Maturity: May to September.

Body length: 4–6 mm.





SPIDERS OF KAZAKHSTAN

Family LIOCRANIDAE – foliage-running spiders

A family of small to medium-sized spiders numbering some 180 species described worldwide. In Central Asia, 11 species in five genera have been recorded to date. These spiders can be recognized by the tibiae and metatarsi of the first two pairs of legs, which are armed with two rows of numerous, long spines. These are wandering spiders occurring mostly in forest leaf litter and under stones; several groups are associated with ants. Females produce stalked egg sacs (usually camouflaged with earth particles) attached to vegetation.

Composition: In Kazakhstan, there are eight species in three genera (see p. 218).

Agroeca cuprea Menge, 1873



Distribution: Palaearctic range.

Distribution in Kazakhstan: Everywhere, apart from the northern regions.

Habitat: Forest litter.

Maturity: All year round.

Body length: 3–5 mm.

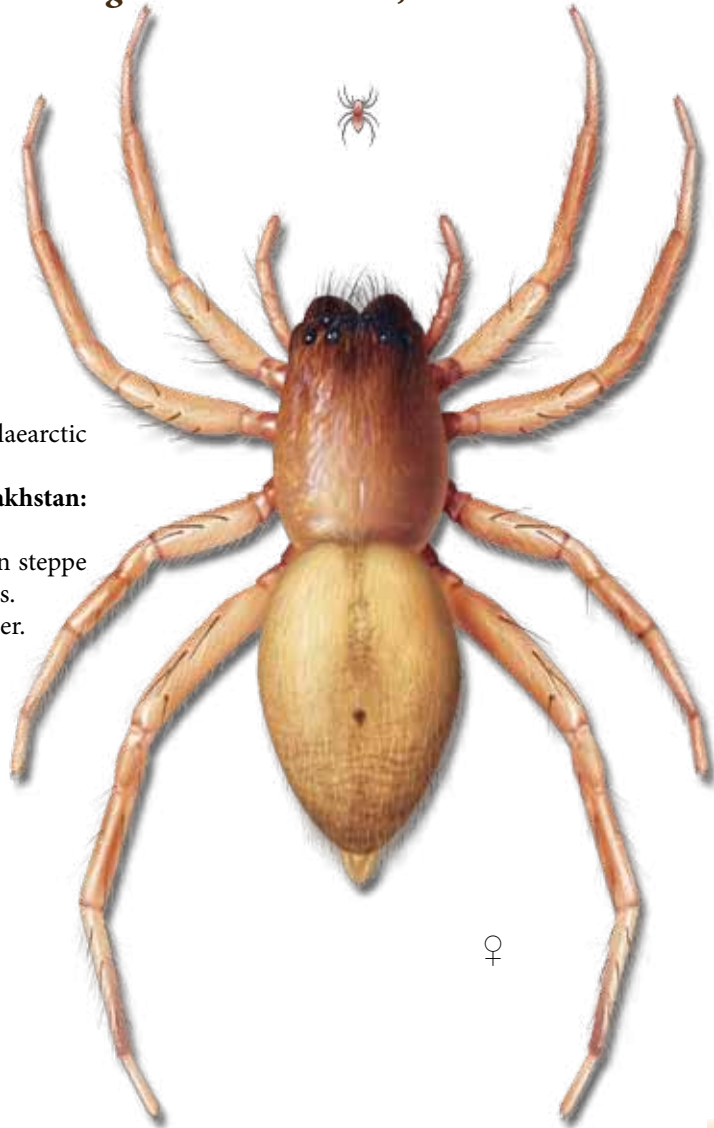


Family CLUBIONIDAE – sac spiders

A family of small to medium-sized spiders numbering some 580 species described worldwide. In Central Asia, 20 species of the genus *Clubiona* Latreille, 1804 have been recorded to date. All Central Asian species have an oval body of yellowish white to pale brownish, with the chelicerae and anterior region of the eyes usually darker. Sac spiders are wandering nocturnal hunters that make sac-shaped silken retreats under stones or in rolled leaves, hence their common name.

Composition: In Kazakhstan, there are 19 species in one genus (see p. 210).

Clubiona genevensis L. Koch, 1866



Distribution: West Palearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Under stones in steppe and (semi)desert habitats.

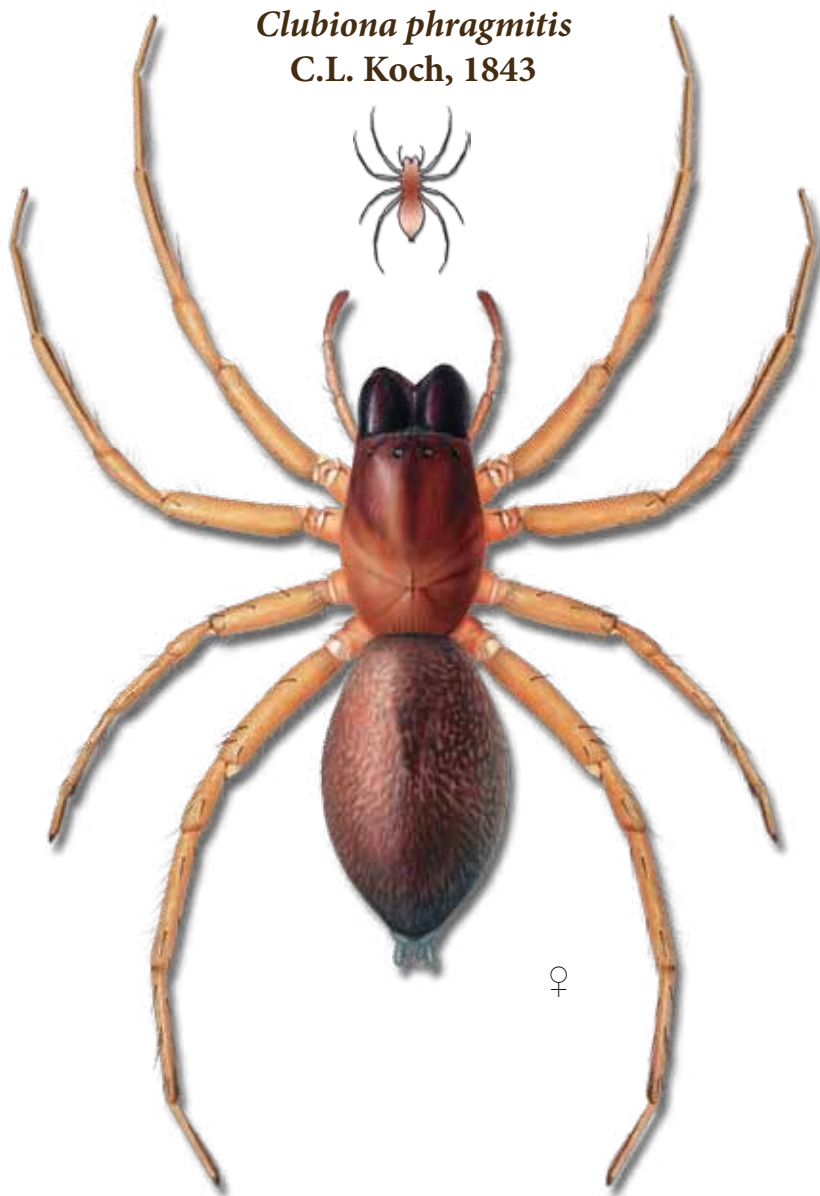
Maturity: May to October.

Body length: 3–4 mm.



Clubiona phragmitis

C.L. Koch, 1843



Distribution: Palaearctic range.

Distribution in Kazakhstan: Eastern, south-eastern and southern regions.

Habitat: Damp meadows and reed-beds near water bodies.

Natural history: These spiders weave tubular silken retreats, which they use for several purposes including resting during daytime, moulting, guarding the egg sac (of 45–60 eggs) and newly hatched spiderlings.

Maturity: All year round, the species has a biennial life cycle.

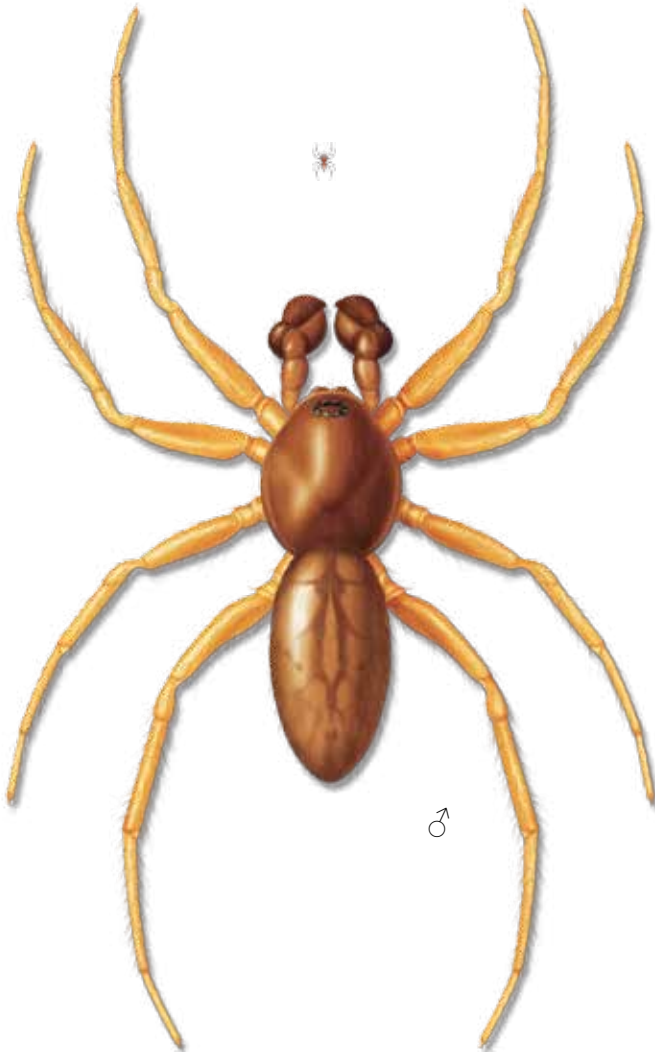
Body length: 5–11 mm.



Family CORINNIDAE – ant-like sac spiders

A family of small to medium-sized spiders numbering some 180 species described worldwide. In Central Asia, five species in three genera have been recorded to date. These are free-living ground-dwellers, common in forest leaf litter.

Composition: In Kazakhstan, there are three species in one genus (see p. 211).

Phrurolithus pullatus Kulczyński, 1897

Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: Foothills and uplands of Tian Shan Mts.

Habitat: Under stones and in leaf litter, usually collected amongst ants.

Maturity: May to August.

Body length: ca. 2 mm.



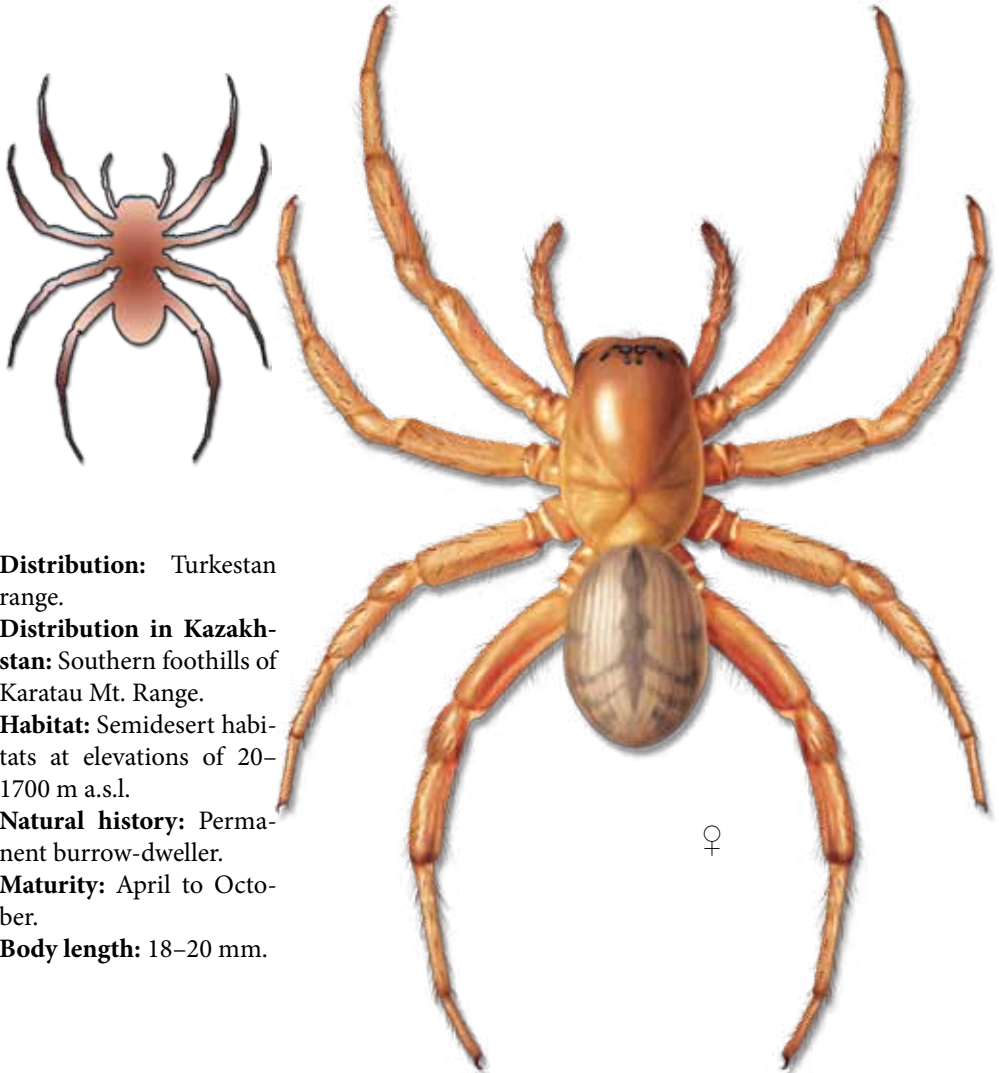
SPIDERS OF KAZAKHSTAN

Family ZODARIIDAE – burrowing spiders

A family of small to large spiders of highly variable morphology. This family consists of about 970 species described worldwide and distributed primarily in (sub)tropical regions. In Central Asia, 18 species in four genera have been recorded to date. All Central Asian species are free-living ground-dwellers, many of which (*Zodarion* species) can be collected from rodent burrows and some (*Lachesana* species) live permanently in their own underground silk-lined burrows. Many zodariids (e.g. *Zodariellum asiaticum*) are specialized ant-hunters.

Composition: In Kazakhstan, there are nine species in four genera (see p. 227).

Lachesana tarabaevi Zonstein & Ovtchinnikov, 1999



Distribution: Turkestan range.

Distribution in Kazakhstan: Southern foothills of Karatau Mt. Range.

Habitat: Semidesert habitats at elevations of 20–1700 m a.s.l.

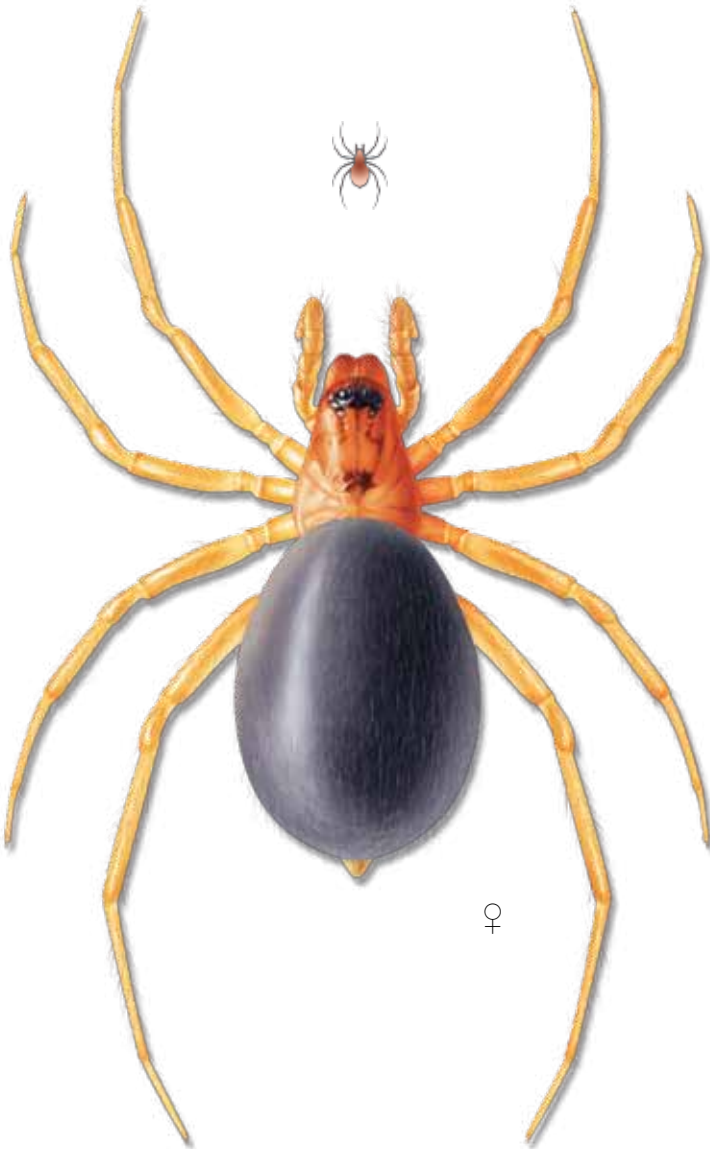
Natural history: Permanent burrow-dweller.

Maturity: April to October.

Body length: 18–20 mm.



Zodariellum asiaticum (Tyschchenko, 1970)



Distribution: Turkestan range.

Distribution in Kazakhstan: South-eastern regions.

Habitat: From the clayey desert to spruce forest belts of the Zailiiski Alatau Mt. Range.

Natural history: Myrmecophagous species (i.e. feeds on ants).

Maturity: April to June.

Body length: 4.5–5 mm.

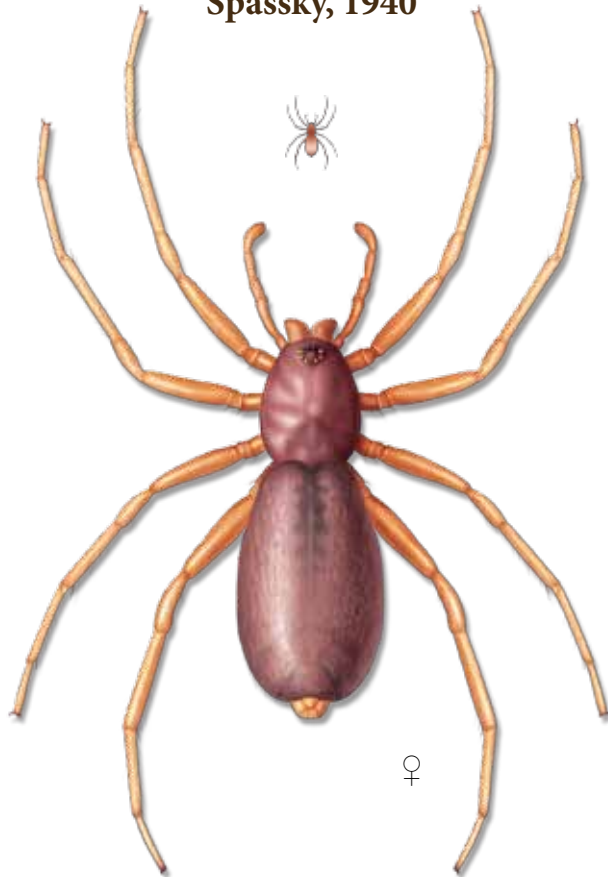


Family PRODIDOMIDAE – prodidomid ground spiders

A family of small spiders numbering about 300 species described worldwide and distributed primarily in (sub)tropical regions. In Central Asia, two species in two genera have been reported to date. These spiders are very similar to the ground spiders (Gnaphosidae, see later), but can be distinguished from them by having their anterior spinnerets positioned more anteriorly; their eye arrangement is also different. Prodidomids are wandering ground-dwellers, preferring relatively arid regions, where they can be found under stones.

Composition: In Kazakhstan, there is a single species of the genus *Prodidomus* Hentz, 1847.

Prodidomus redikorzevi
Spassky, 1940



Distribution: Turan range.

Distribution in Kazakhstan: South-western and south-eastern regions.

Habitat: Clayey deserts: under stones and in crevices of clayey scarps.

Maturity: April to June.

Body length: Male 2.5–3 mm, female 3.5–4.5 mm.



Family GNAPHOSIDAE – ground spiders

A large family of small to medium-sized spiders consisting of more than 2100 species described worldwide. They are particularly diverse in (semi)arid habitats and regions. In Central Asia, 194 species in 28 genera have been recorded to date. Ground spiders can be recognized by their enlarged, cylindrical and widely separated anterior lateral spinnerets. The majority of gnaphosids are wandering ground-dwellers, hence their common name. Ground spiders include both nocturnal and diurnal spiders, which can be collected from leaf litter, under stones, and within and under decomposing wood. Although ground spiders are primarily generalized predators, some of them (*Micaria* and *Callilepis* species) are ant-mimics and specialize on ants. Females of ground spiders make silken nests under stones or loose tree bark for themselves and for their egg sacs.

Composition: In Kazakhstan, there are 147 species in 27 genera (see p. 212).

Aphantaulax trifasciata (O. Pickard-Cambridge, 1872)

Distribution: West Palaearctic range.

Distribution in Kazakhstan: Eastern and south-eastern regions.

Habitat: Low mountain reliefs and river valleys: under stones, in grass and on bushes.

Maturity: April to August.

Body length: Male 4–7 mm, female 6–10 mm.





Berlandina cinerea
(Menge, 1872)



♀

Distribution: West Palearctic range.

Distribution in Kazakhstan: Western regions.

Habitat: Steppe and semidesert habitats: under stones and in leaf litter.

Maturity: May to October.

Body length: Male 6–7 mm, female 6–8 mm.



Callilepis nocturna
(Linnaeus, 1758)



♀

Distribution: Palearctic range.

Distribution in Kazakhstan: Northern and eastern regions.

Habitat: Shores of steppe water bodies.

Natural history: This species feeds on ants, attacking them near ant nests.

Maturity: May to September.

Body length: Male 4–5 mm, female 4–6 mm.



Drassodes lapidosus
(Walckenaer, 1802)



♀

Distribution: Palaearctic range.

Distribution in Kazakhstan: Southern and south-eastern regions.

Habitat: Dry steppe slopes: under stones.

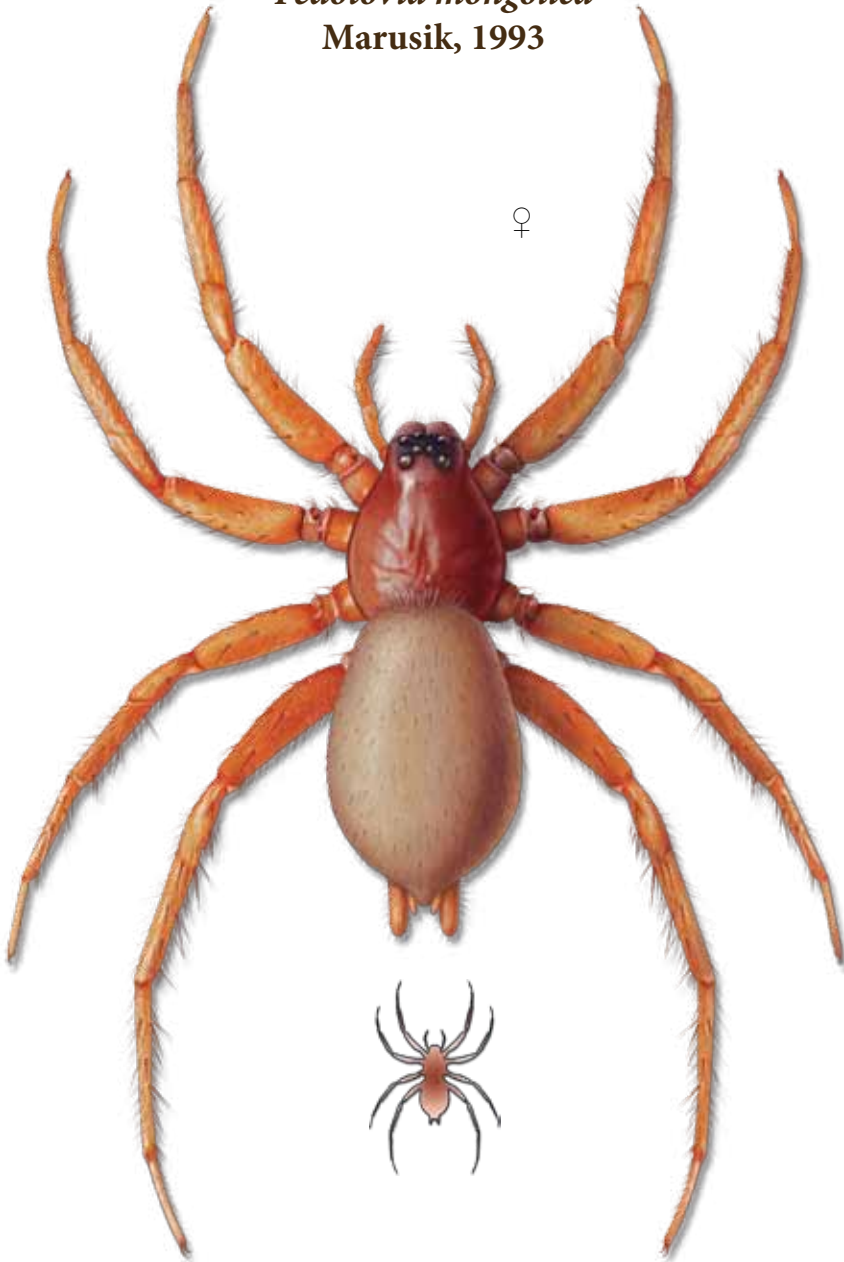
Natural history: A nocturnal predator, spending the daytime in a sac-like silk nest under stones, in which either single specimens or couples (male and female) can be found; females with egg sacs also hide in such nests. The body length is highly variable, especially in males, with some individuals twice the size of others. Males are usually larger than females and have longer and stronger chelicerae.

Maturity: April to October.

Body length: 6–13 mm.



Fedotovia mongolica
Marusik, 1993



Distribution: Turkestan range.

Distribution in Kazakhstan: South-eastern regions.

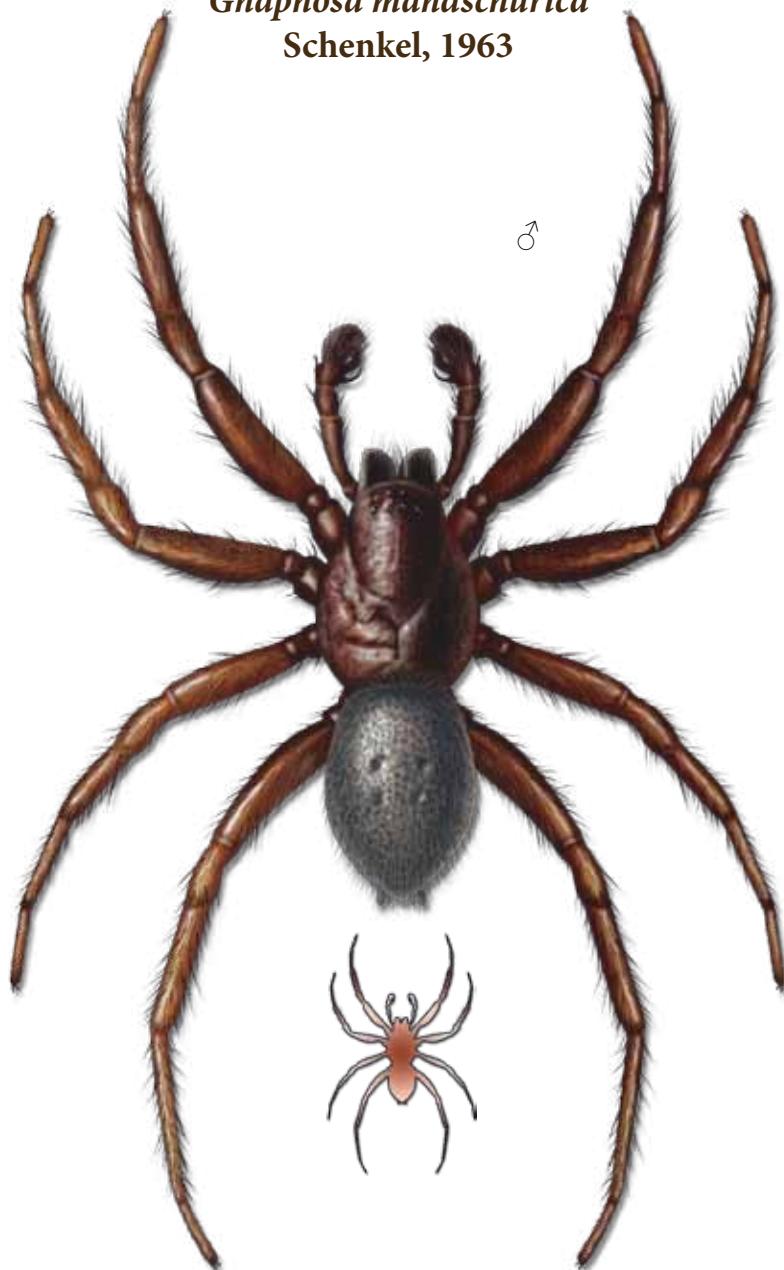
Habitat: Clayey deserts: scarps and dry shores of water bodies.

Maturity: June to July.

Body length: Male ca. 6 mm, female ca. 9.5 mm.



Gnaphosa mandschurica
Schenkel, 1963



Distribution: East Palaearctic range.

Distribution in Kazakhstan: Known only from Kokchetav upland (northern region).

Habitat: Steppe habitats.

Maturity: March to August.

Body length: 7–11 mm.



Haplodrassus cognatus
(Westring, 1861)



Distribution: Palearctic range.

Distribution in Kazakhstan: Northern regions.

Habitat: Herb bunchgrass steppes.

Maturity: March to October.

Body length: 5–8 mm.



Micaria pulicaria
(Sundevall, 1831)



Distribution: Holarctic range.

Distribution in Kazakhstan: South-eastern regions.

Habitat: Steppe habitats.

Natural history: A diurnal predator that can be found running rapidly in sunny conditions, resembling an ant. A silken retreat is constructed under stones, where the female deposits her egg sac (containing 9–10 yellowish eggs) and guards it for some time (not permanently). Often, several spiders make their retreats under the same stone in close proximity to each other.

Maturity: May to September.

Body length: 3–4 mm.



Nomisia aussereri (L. Koch, 1872)



♀

Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: Everywhere, apart from the northern regions.

Habitat: Dry steppe, (semi)deserts and steppe low mountain relief.

Maturity: August to October.

Body length: Male 6–9 mm, female 6–12 mm.



Phaeocephalus braccatus
(L. Koch, 1866)



Distribution: Palearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Steppe and (semi)desert habitats.

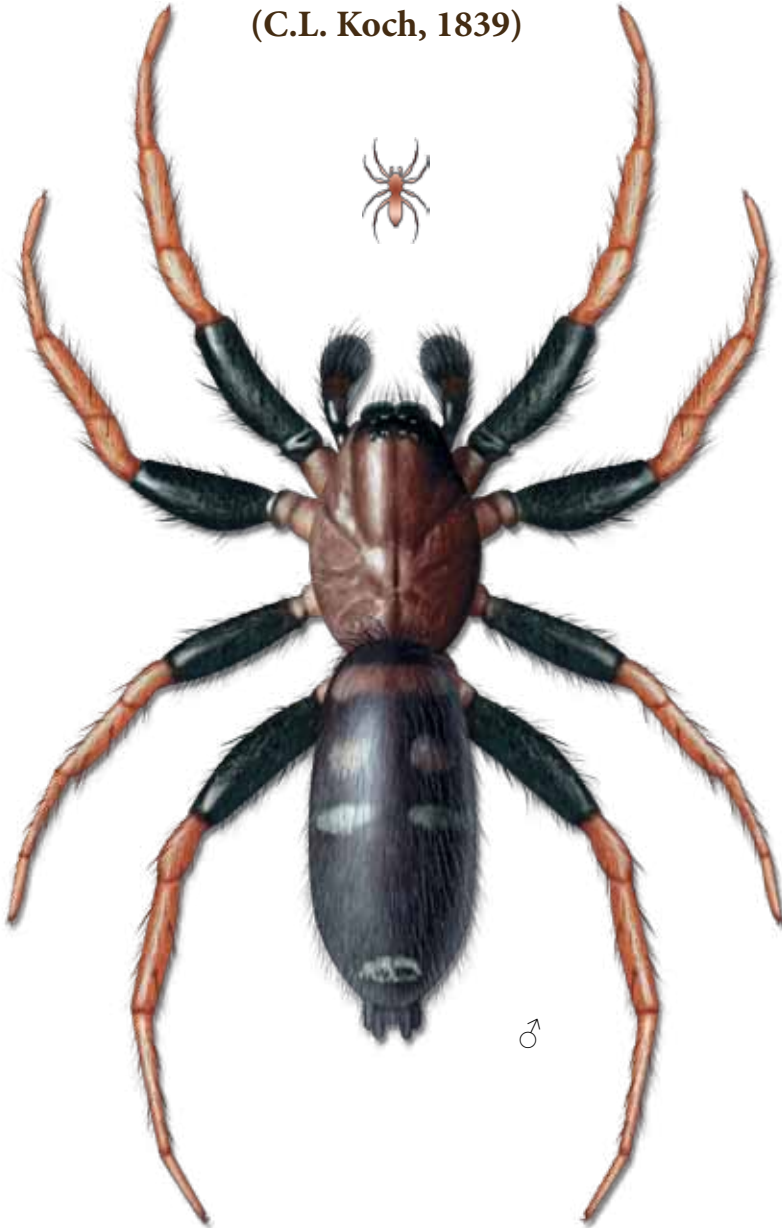
Natural history: The female produces a white egg sac containing about 45 yellowish eggs.

Maturity: May to October.

Body length: Male 4–5 mm, female 4–7 mm.



Poecilochroa variana
(C.L. Koch, 1839)



Distribution: West Palaearctic range.

Distribution in Kazakhstan: Eastern half of the Republic: from the north to south-east.

Habitat: Steppe and forest habitats: under stones and in litter.

Maturity: May to August.

Body length: Male 4–7 mm, female 7–9 mm.



Synaphosus palearcticus Ovtsharenko,
Levy & Platnick, 1994



Distribution: Ancient Mediterranean range.
Distribution in Kazakhstan: Southern regions.
Habitat: Sandy and clayey deserts.
Maturity: March to August.
Body length: 3–4 mm.



Zelotes subterraneus
(C.L. Koch, 1833)



♂

Distribution: European–Siberian range, eastward to Yenisei River.

Distribution in Kazakhstan: Everywhere.

Habitat: Forb steppes, meadows near water bodies and forest glades.

Maturity: March to October.

Body length: 5–8 mm.



SPIDERS OF KAZAKHSTAN

Family ZORIDAE – spiny-legged spiders

A small family of small to medium-sized spiders consisting of some 80 species described worldwide. In Central Asia, five species of the single genus *Zora* C.L. Koch, 1847 have been recorded to date. Spiny-legged spiders can be recognized by the distinctive series of paired long tibial spines (4–8 pairs) and by their body coloration: yellowish to orange-brown body with dark longitudinal stripes on the carapace and heavily spotted legs and abdomen. These are wandering ground-dwellers and diurnal predators. Females deposit a single white, flat egg sac, which is attached to a stone and guarded by the female standing over it.

Composition: In Kazakhstan, there are two species of the genus *Zora* C.L. Koch, 1847 (see p. 227).

Zora pardalis Simon, 1878



♀

Distribution: West Palearctic range.

Distribution in Kazakhstan: Southern half of the Republic.

Habitat: Dry steppes: under stones and in grass.

Maturity: June to August.

Body length: Male 3–4 mm, female 3.5–5.5 mm.

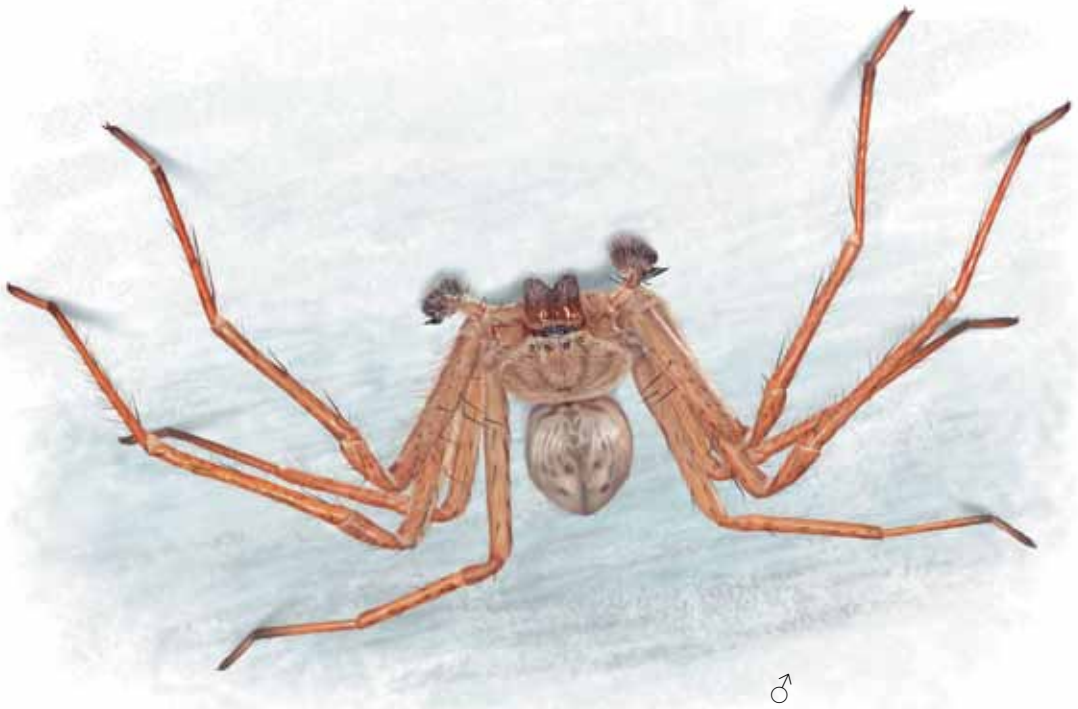


Family SPARASSIDAE – giant crab spiders

A family of medium-sized to very large spiders consisting of some 1114 species described worldwide. In Central Asia, six species in five genera have been recorded to date. Central Asian species can be easily recognized by their large, dorso-ventrally flattened body and long walking legs directed laterally. These are nocturnal, cursorial spiders, which can be found on plants, the soil/rock surface, inside human dwellings and even in caves.

Composition: In Kazakhstan, there are three species in three genera (see p. 224).

Olios sericeus
(Kroneberg, 1875)



Distribution: Caucasian–Central Asian range.

Distribution in Kazakhstan: Ili River valley and northern foothills of the Zailiiski Alatau Mt. Range only.

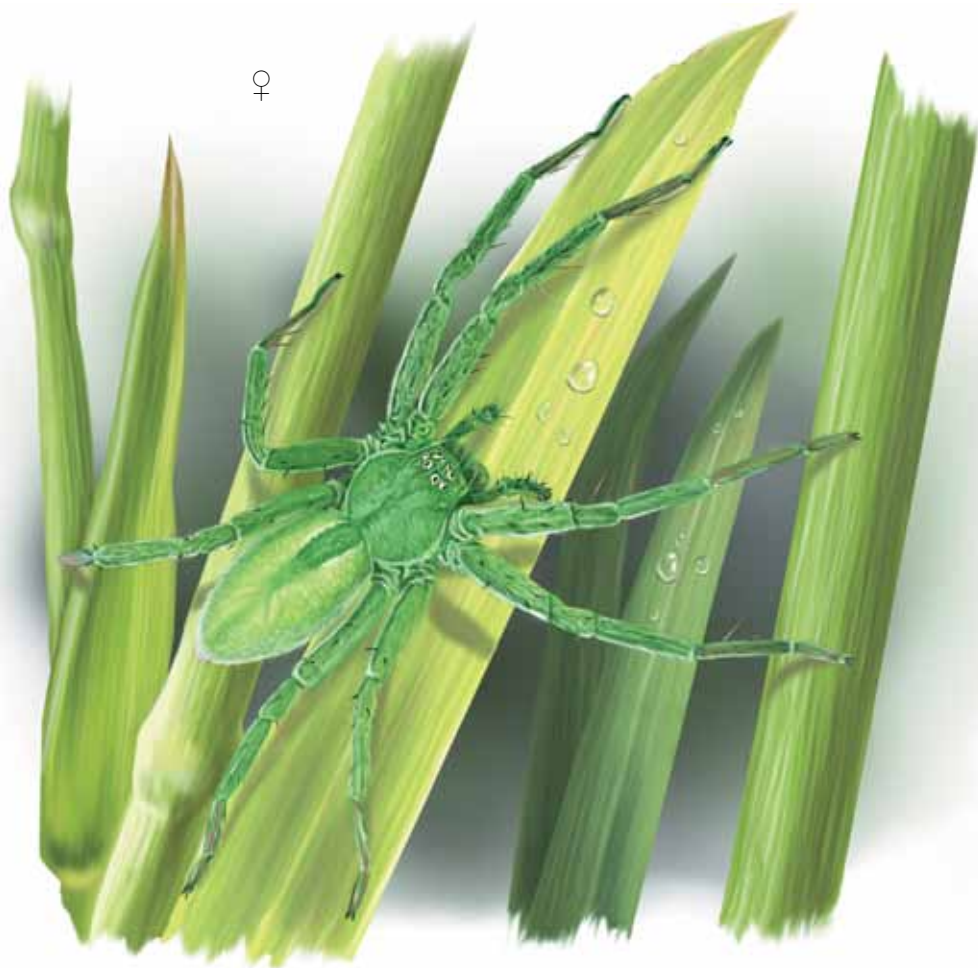
Habitat: Tugai valley forests and the woodland belt: on tree trunks; also a synanthropic species.

Maturity: April to October.

Body length: 8–11 mm.



Micrommata virescens (Clerck, 1757)



Distribution: Palaearctic range.

Distribution in Kazakhstan: Eastern half of the Republic.

Habitat: Meadow vegetation along mountain and plain water bodies.

Natural history: This species is distinct from other spiders for having rather violent and traumatic mating behaviour, as described by Wagner (1901: sub *Sparassus viridissimus*). The male, which is markedly smaller and more brightly coloured than the female, bites into the female's abdomen with its chelicerae (sometimes several times) and holds on to the top of her abdomen until the female submits to copulation. The female cares for its brood, putting its egg sac with green eggs between leaves and protecting it, and then guarding the newly hatched spiderlings.

Maturity: May to October.

Body length: Male 7–10 mm, female 12–15 mm.

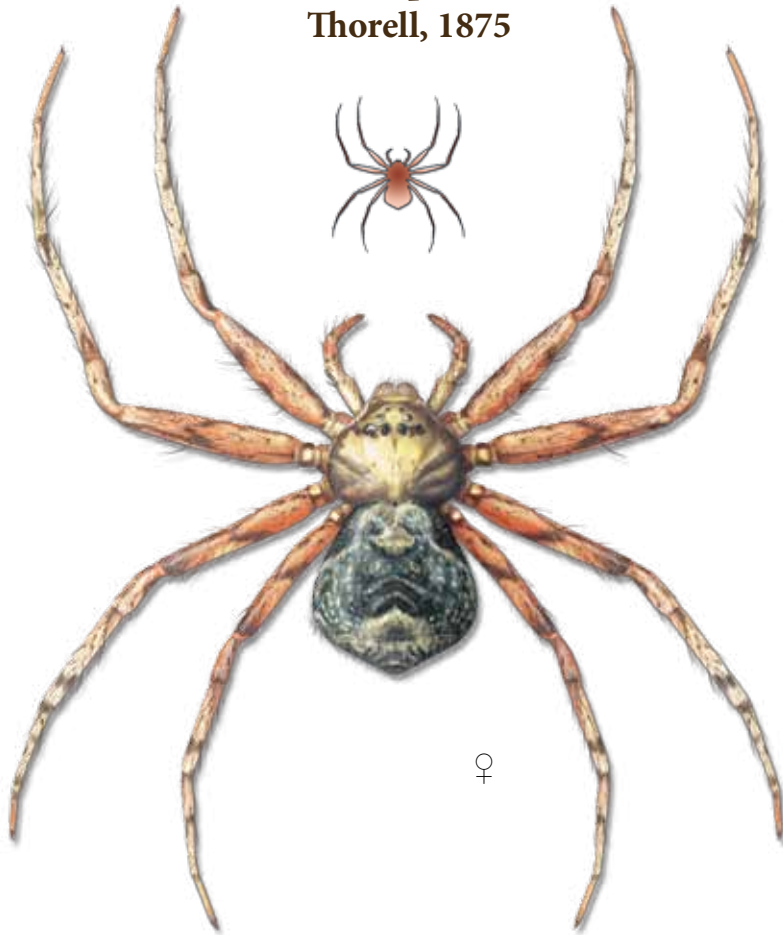


Family PHILODROMIDAE – running crab spiders

A family of small to medium-sized spiders numbering some 540 species described worldwide. In Central Asia, 44 species in five genera have been recorded to date. Philodromids can be recognized by their markedly flattened body, long legs directed laterally and their somewhat crab-like appearance. These spiders are very agile and fast runners. They are active predators and can be found on plants, standing tree trunks, vertical rock/scarp surfaces, on the ground and in human dwellings.

Composition: In Kazakhstan, there are 40 species in five genera (see p. 220).

Artanes poecilus
Thorell, 1875



Distribution: West Palearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Birch and poplar trunks; the spiders are well camouflaged.

Maturity: May to June.

Body length: 4–6.5 mm.



Philodromus histrio
(Latreille, 1819)



♀

Distribution: Holarctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Plain steppes and meadows; in grass.

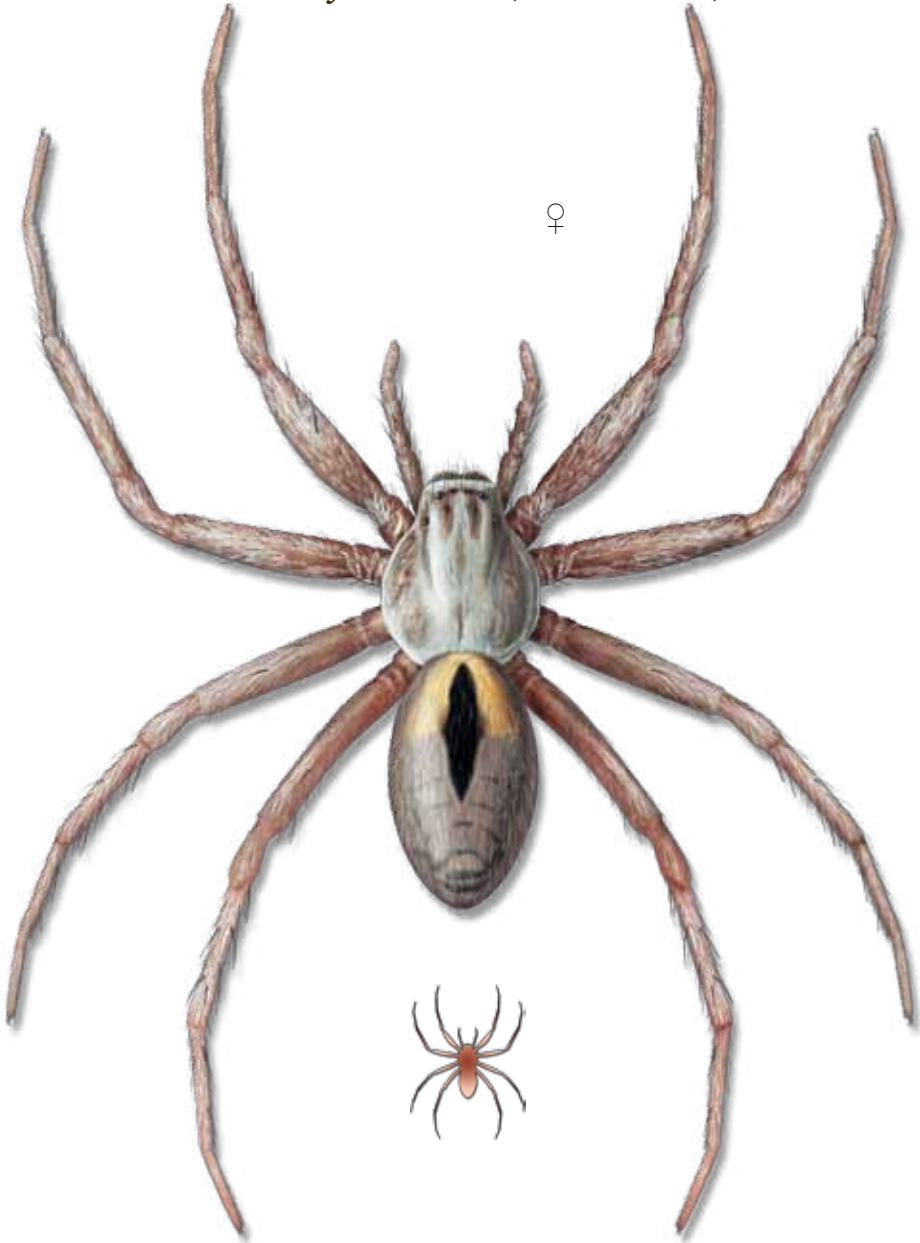
Natural history: The female disguises her egg sac by covering it with an extra layer of silk and dried bits of vegetation.

Maturity: May to July.

Body length: 4–7.5 mm.



Thanatus formicinus (Clerck, 1758)



Distribution: Holarctic range.

Distribution in Kazakhstan: Northern regions.

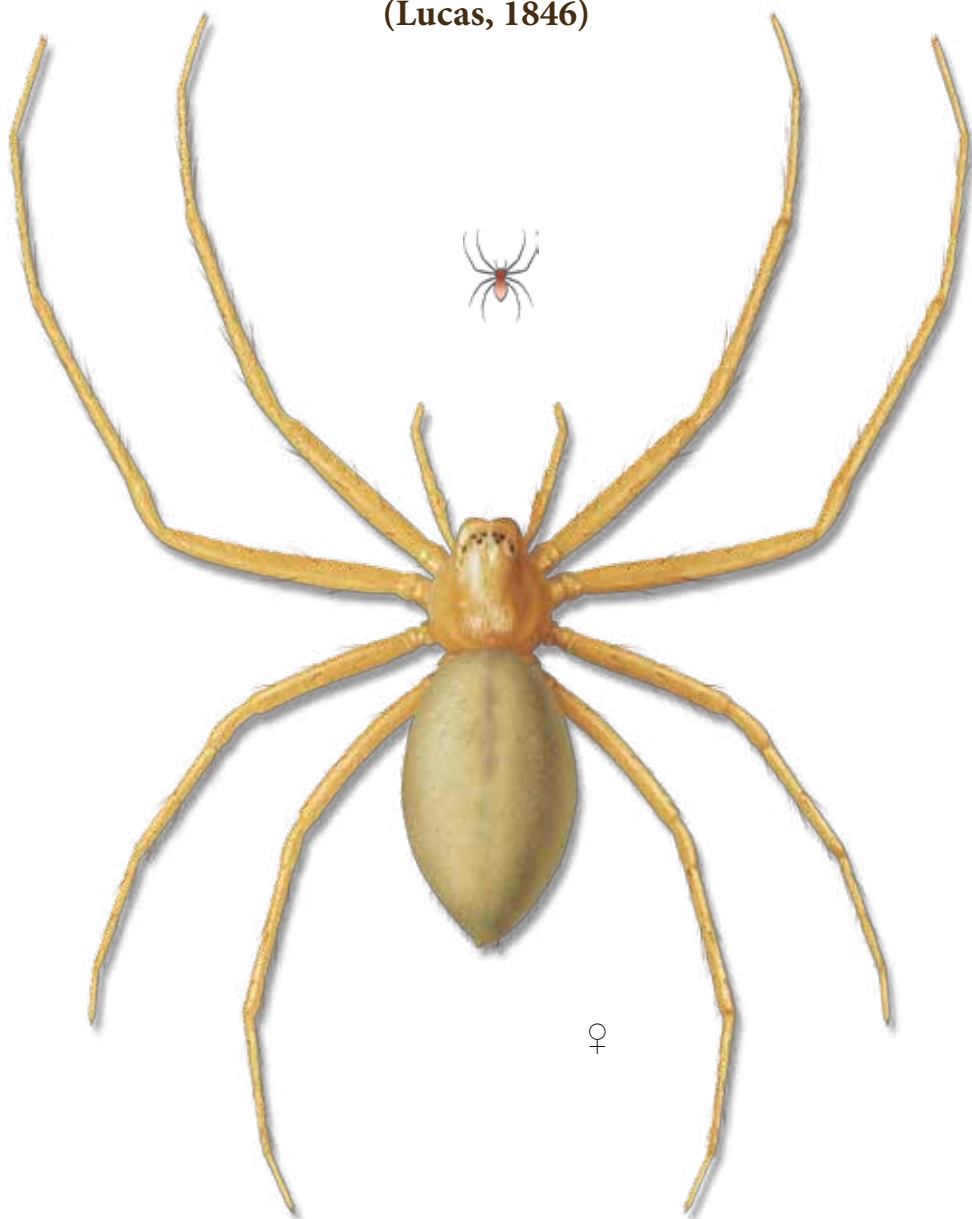
Habitat: Meadows and meadow glades of deciduous and mixed forests.

Maturity: May to August.

Body length: 6–7.5 mm.



Thanatus oblongiusculus
(Lucas, 1846)



Distribution: West Palaearctic range.

Distribution in Kazakhstan: Everywhere, but rare.

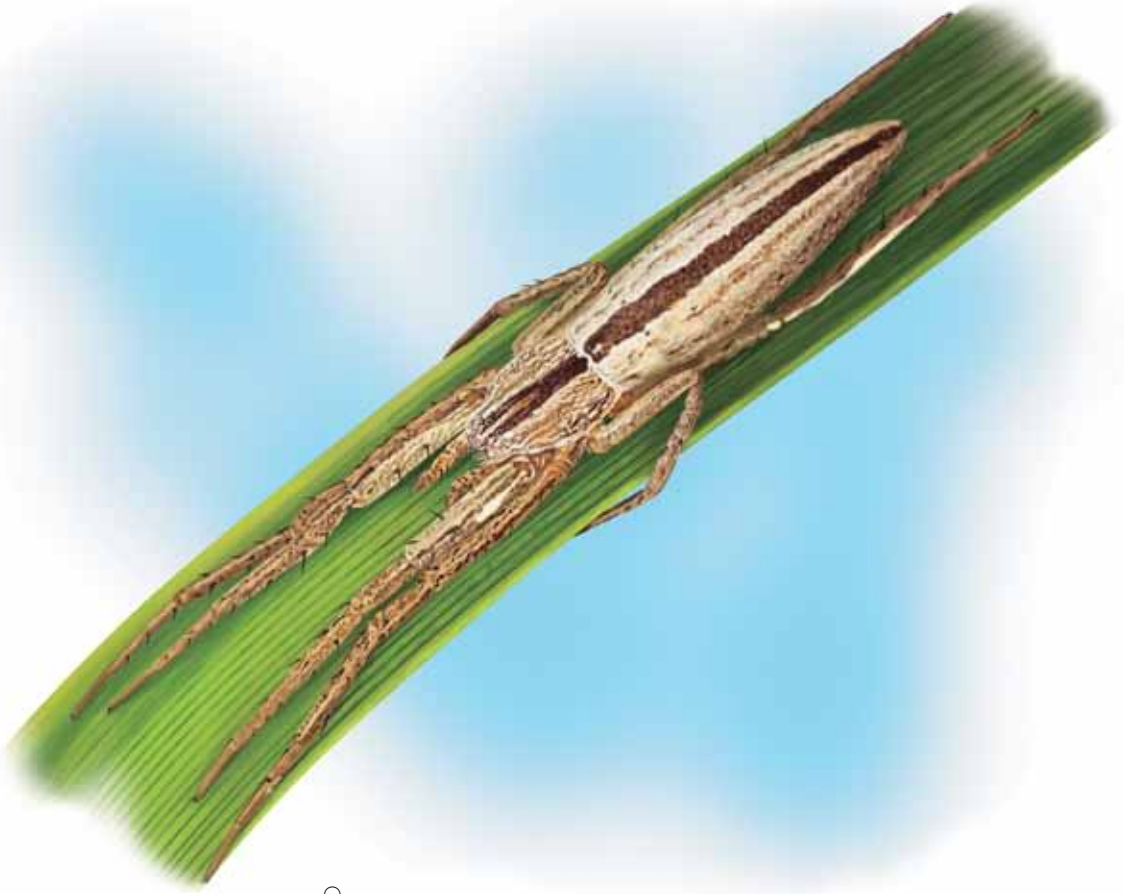
Habitat: Steppe meadows and plain steppes: in grass.

Maturity: June to July.

Body length: 3–4.5 mm.



Tibellus oblongus
(Walckenaer, 1802)



♀

Distribution: Holarctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Meadow glades of mixed forests, wet meadows and vegetation near water bodies: in grass.

Natural history: An ambush predator. These spiders are well camouflaged in long, dry grass due to their elongated body, straw coloration and their resting posture with their legs stretched out and held flat along plant stems. The female attaches her egg sac near the top of grasses, where she protects it by standing over it.

Maturity: June to August.

Body length: 7–12 mm.



A large family of small to medium-sized spiders numbering some 2150 species described worldwide. In Central Asia, 91 species in 16 genera have been recorded to date. Crab spiders can be recognized by their markedly crab-like appearance, with a round or ovoid body and strong legs directed laterally, the first two pairs of which are distinctly longer and stronger than third and fourth pairs. These spiders are ambush predators found on plants (both foliage and flowers), in crevices of and beneath loose tree bark, in leaf litter and under stones.

Composition: In Kazakhstan, there are 75 species in 14 genera (see p. 226).

Coriarachne depressa (C.L. Koch, 1837)



Distribution: Palaearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Mixed and deciduous forests: on tree trunks (in crevices and under loose bark).

Maturity: June.

Body length: 4–5 mm.



Diaea suspiciosa
O. Pickard-Cambridge, 1885



Distribution: Central Asian range.

Distribution in Kazakhstan: Eastern and south-eastern regions.

Habitat: Mesic low mountain relief and uplands with meadow vegetation, also apple orchards.

Natural history: This species has a two-year life cycle: spiderlings of instars I–III overwinter for the first time, and then subadults overwinter for a second time. The biology of this species and its ecological role in apple orchards in south-east Kazakhstan were studied in detail by Tarabaev (1979, 1989: sub *Diaea dorsata*).

Maturity: May to June.

Body length: 3–6 mm.



Ebrechtella tricuspidata
(Fabricius, 1775)



♀

Distribution: Palaearctic range.

Distribution in Kazakhstan: Northern regions.

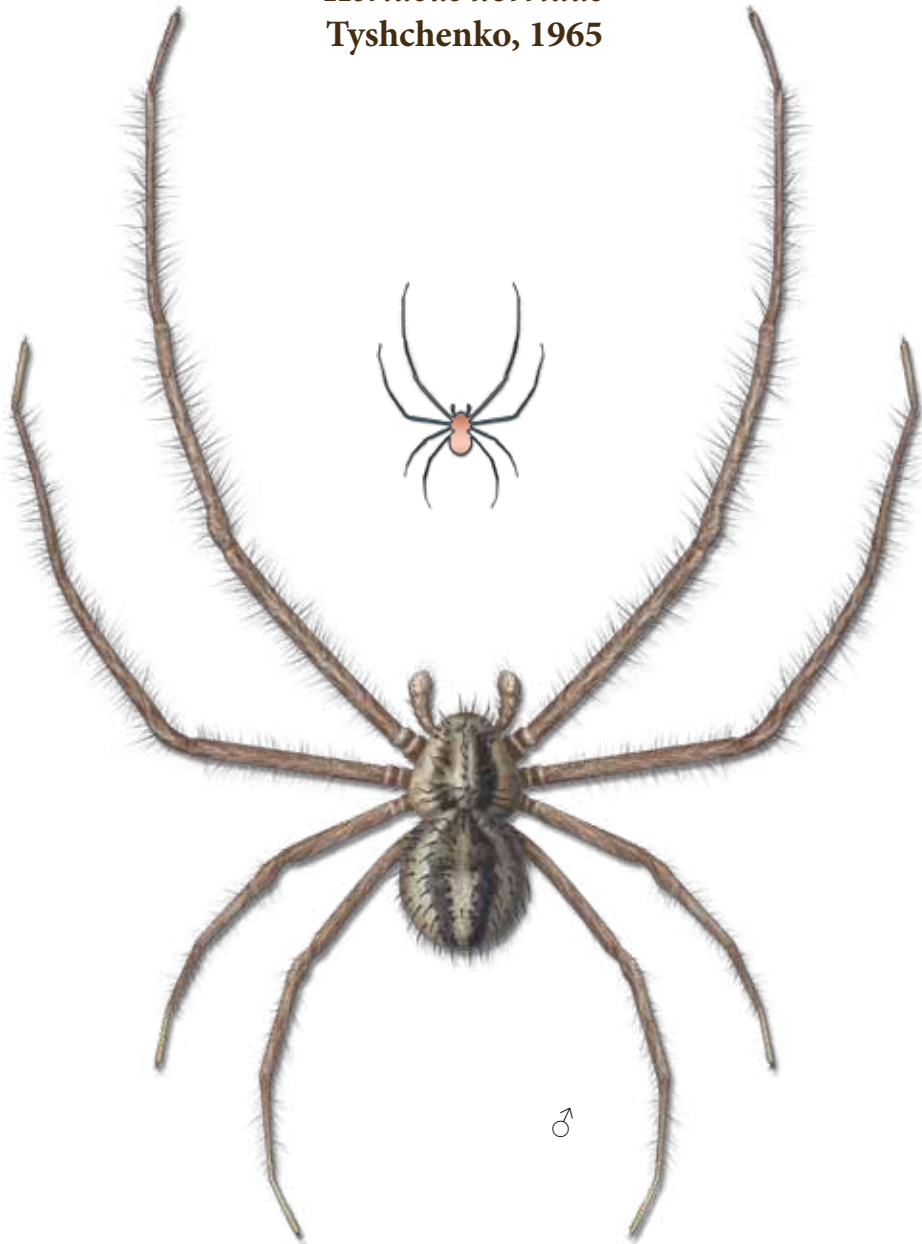
Habitat: Meadows, meadow steppes, grassy forest undergrowth and glades.

Maturity: June to August.

Body length: Male 2.5–5 mm, female 5–7 mm.



Heriaeus horridus
Tyshchenko, 1965



Distribution: Kazakhstan range.

Distribution in Kazakhstan: Northern and eastern regions.

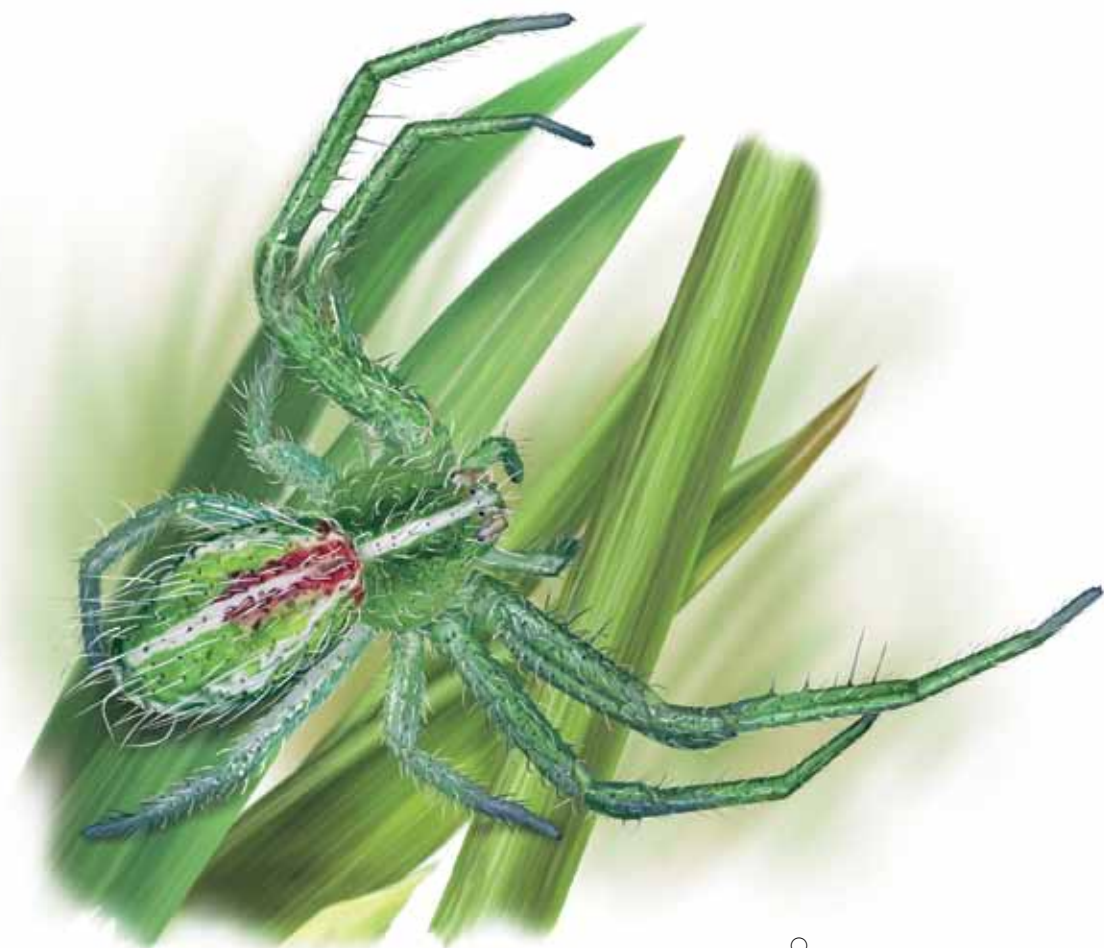
Habitat: Herbage of plain and mountain steppes.

Maturity: May to August.

Body length: 3–6 mm.



Heriaeus melloteei
Simon, 1886



Distribution: Palearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Meadows and meadow steppes: in grass.

Maturity: June to July.

Body length: Male *ca.* 5 mm, female 6–8 mm.



Misumena vatia (Clerck, 1757)

♀



Distribution: Holarctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Herbage of meadows and forest glades.

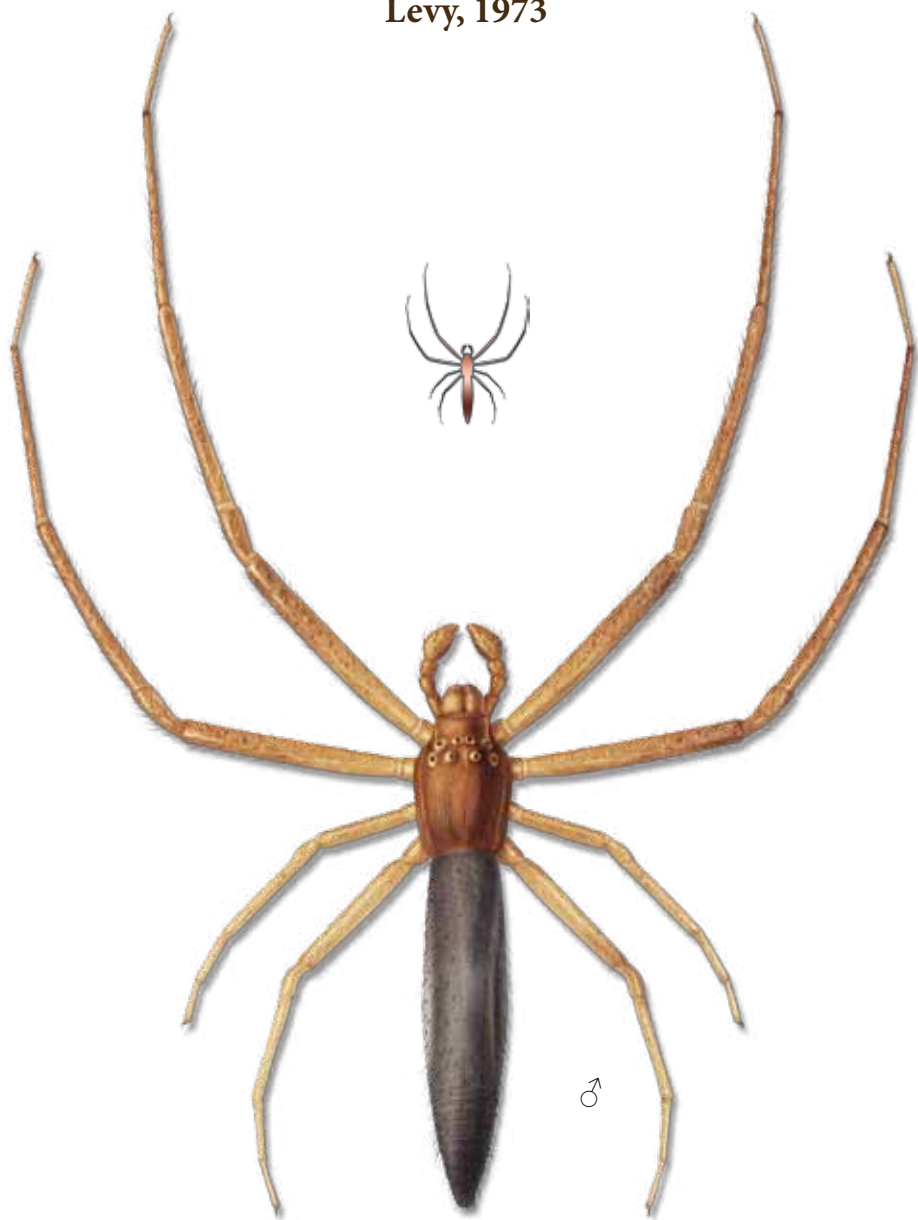
Natural history: These spiders can be seen on flower heads where they ambush pollinating insects (bees and hoverflies in particular). Mature females can slowly change their colour (white, yellow, pink or green) to match the background coloration of the flower or inflorescence they inhabit. The colour change is induced by visual feedback and takes 3–4 days. The gravid female constructs a nest made of a rolled and sealed leaf in which she lays a single egg mass suspended in flocculent silk; she guards the nest, standing on its underside for most of her time.

Maturity: June to July.

Body length: Male 3–4 mm, female 5–11 mm.



Monaeses israeliensis
Levy, 1973



Distribution: East Ancient Mediterranean range.

Distribution in Kazakhstan: Mangyshlak peninsula.

Habitat: No data.

Maturity: May.

Body length: 4–9 mm.



Ozyptila praticola
(C.L. Koch, 1837)



♂

Distribution: West Palearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

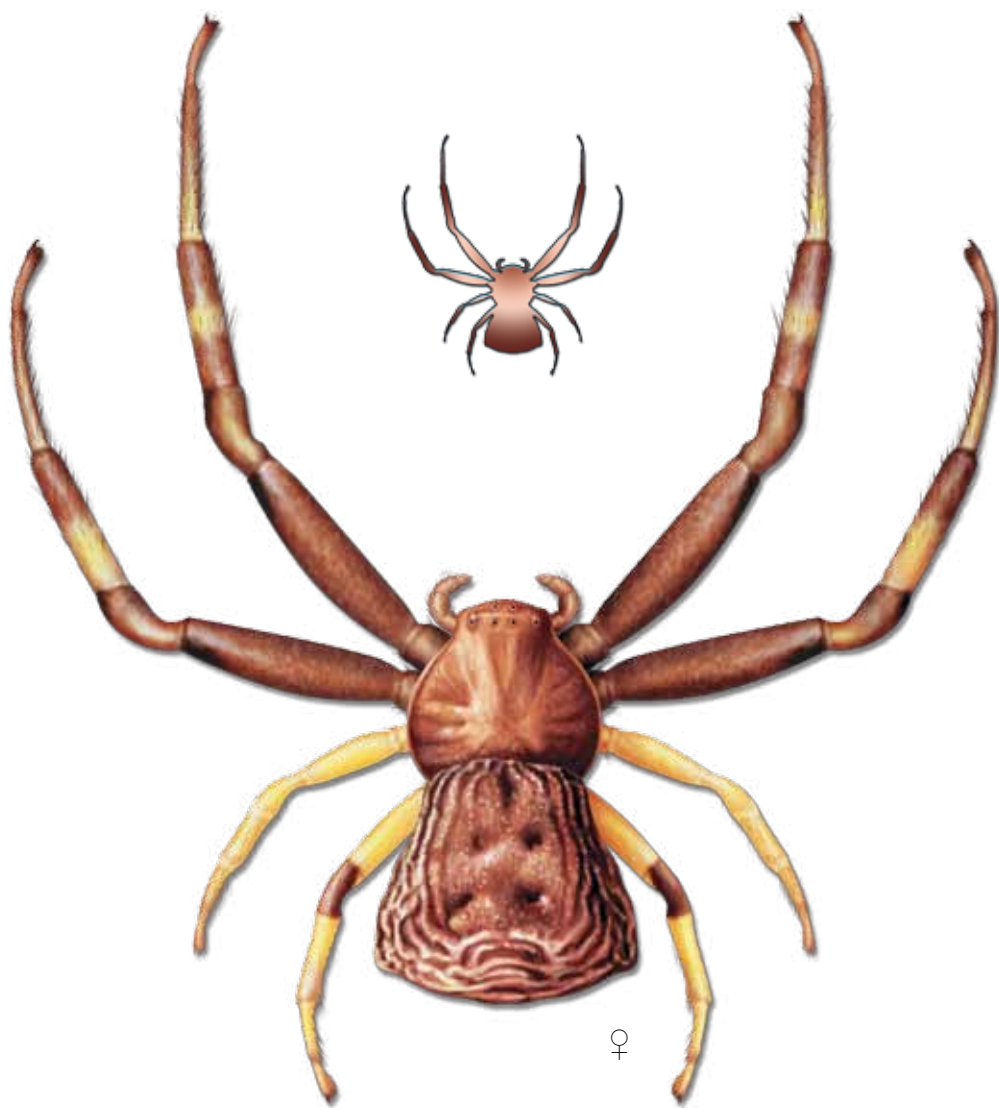
Habitat: Forest litter, but can also be collected from herbage of forest glades.

Maturity: May to June, but females until October.

Body length: 2.5–4 mm.



Pistius undulatus
Karsch, 1879



Distribution: East Palearctic range.

Distribution in Kazakhstan: North-eastern regions.

Habitat: Meadows and forest glades.

Maturity: June to July.

Body length: Male 3.5–5.5 mm, female 8.5–12 mm.



Runcinia grammica
(C.L. Koch, 1837)



Distribution: Ancient Mediterranean range.

Habitat: Bushes and herbage in meadows and meadow steppes.

Maturity: April to June.

Body length: Male 2.5–3.5, female 4–7.5 mm.



Synema globosum
(Fabricius, 1775)



Female with its prey.

Distribution: Palearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Herbage in meadows and meadow steppes.

Maturity: June to July.

Body length: 4–7.5 mm.



Thomisus albus
(Gmelin, 1789)



♀

Distribution: European–Siberian range, eastward to Mongolia.

Distribution in Kazakhstan: Northern, north-eastern and eastern regions.

Habitat: Bushes and herbage of forest glades, steppe associations and vegetation near water bodies.

Natural history: Spiders occur on flower heads where they ambush pollinating insects; 94% of their prey consist of Diptera (true flies) and Hymenoptera (parasitic wasps and bees); see Huseynov (2007: sub *Thomisus onustus*) for further details. Spiders can slowly change their colour (white, yellow and various shades of pink) to match the background coloration of the flower or inflorescence they inhabit.

Maturity: May to August.

Body length: Male 2–3.5 mm, female 7–10 mm.



Tmarus piger
(Walckenaer, 1802)



Female with its egg sac wrapped in a leaf.

Distribution: Palearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Forest grassy undergrowth and forest glades.

Maturity: May to June.

Body length: 3.5–6 mm.



Xysticus robustus
(Hahn, 1832)

♂



Distribution: West Palaearctic range.

Distribution in Kazakhstan: Pavlodar Region only.

Habitat: Under stones and in leaf litter.

Maturity: June to July.

Body length: 5–10 mm.



SPIDERS OF KAZAKHSTAN

Family SALTICIDAE – jumping spiders

This is the largest (= most speciose) spider family in the world, consisting of small to medium-sized spiders and numbering some 5420 species described worldwide. In Central Asia, 199 species in 32 genera have been recorded to date. Jumping spiders are diurnal predators, easily recognized by their very large, forwardly directed anterior median eyes and often by their brightly, species-specific coloration, with males being particularly ornate. They also have an easily recognizable, jerky way of moving. Jumping spiders have well developed colour vision, both acute and binocular, and have consequently developed complex hunting, courtship and agonistic behaviours. Salticids usually hunt like cats, first stalking their prey before finally jumping on it – they are occasionally referred to as ‘eight-legged cats’.

Composition: In Kazakhstan, there are 161 species in 32 genera (see p. 221).

Aelurillus v-insignitus (Clerck, 1757)



♀

Distribution: Palaearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Ground-dweller, common on south-facing slopes of stony steppes, stony debris and pebble riverbanks.

Maturity: May to June.

Body length: 4–7 mm.



Asianellus festivus
(C.L. Koch, 1834)



♀

Distribution: Palearctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: Ground-dweller, common on south-facing slopes of stony steppes and stony debris.

Maturity: May to July.

Body length: 6–8.5 mm.



Ballus chalybeius (Walckenaer, 1802)



♀



♂

Distribution: West Palearctic range.

Distribution in Kazakhstan: Ustyurt Plateau and Kostanai region only.

Habitat: Litter of deciduous forests and wormwood-bunchgrass steppes.

Maturity: April to June.

Body length: 3–5 mm.



Bianor albobimaculatus
(Lucas, 1846)



♀

Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: Southern regions.

Habitat: Wormwood-bunchgrass steppes, where it occurs on wormwood bushes.

Maturity: May to June, but females until August.

Body length: 5–7 mm.



Chalcoscirtus infimus
(Simon, 1868)



Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: Southern regions.

Habitat: Ground-dweller, common on south-facing slopes of stony steppes.

Maturity: May to June.

Body length: 2–2.5 mm.



Cyrba ocellata
(Kroneberg, 1875)

♀



Distribution: Subtropical and tropical regions of the Old World.

Distribution in Kazakhstan: Barsakelmes Island and southern regions.

Habitat: Ground-dweller, common among and under stones in sandy deserts.

Maturity: April to June.

Body length: 4–5 mm.



Euophrys frontalis
(Walckenaer, 1825)



♀



♂

Distribution: Palearctic range.

Distribution in Kazakhstan: South-eastern regions.

Habitat: In leaf litter of deciduous and mixed forests.

Natural history: This species is known for sound production in the courting male, which strikes the substrate with its abdomen, which is ventrally sclerotized and hairless. The male's courtship behaviour also includes waving its first pair of legs in front of the female. The female deposits a white egg sac containing about 16 yellow eggs.

Maturity: May to June, but females until August.

Body length: 2.5–4 mm.



Evarcha falcata
(Clerck, 1757)



♂

Distribution: West Palaearctic range.

Distribution in Kazakhstan: Northern, north-eastern and eastern regions.

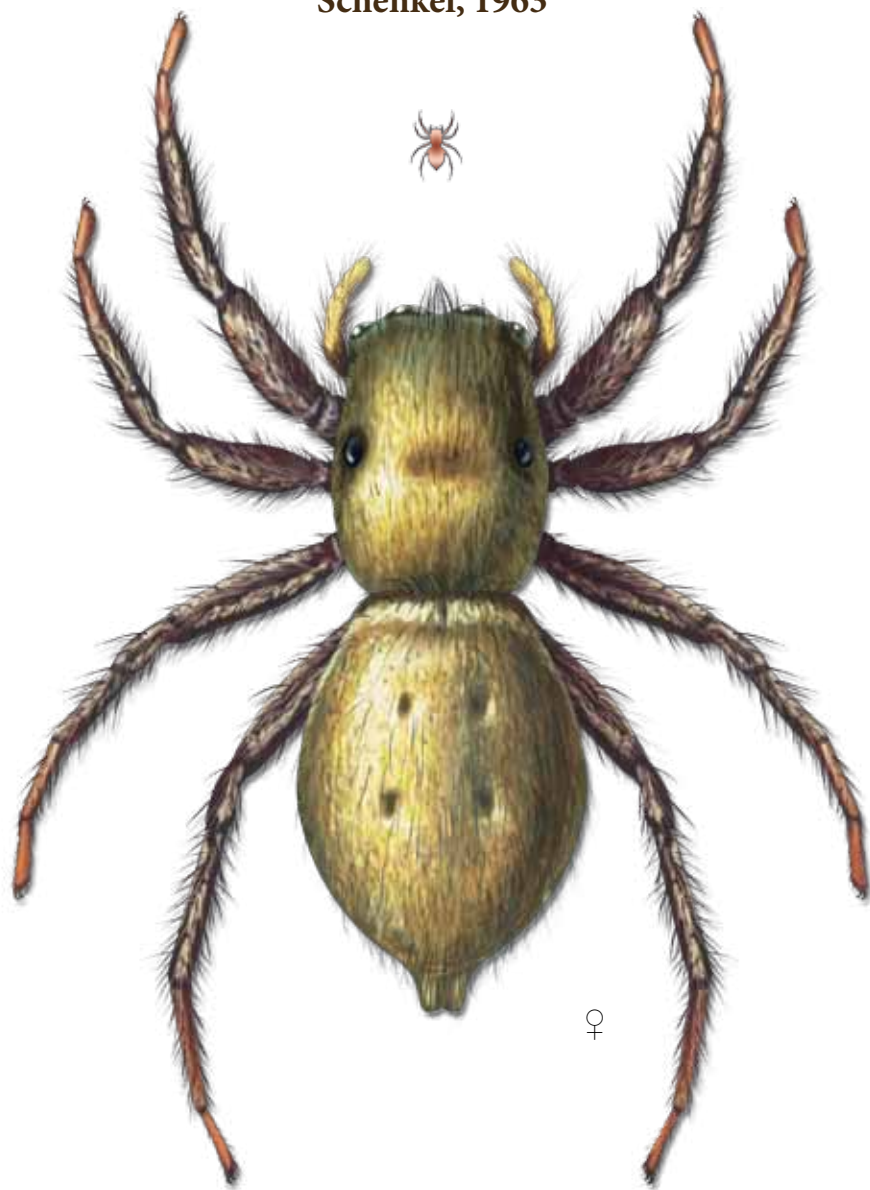
Habitat: Common dweller of grass and bushes of forest glades, and agricultural croplands (wheat, lucerne, etc.).

Maturity: May to July.

Body length: 5–8 mm.



Heliophanus potanini
Schenkel, 1963



Distribution: Central Asian range.

Distribution in Kazakhstan: Eastern, south-eastern and southern regions.

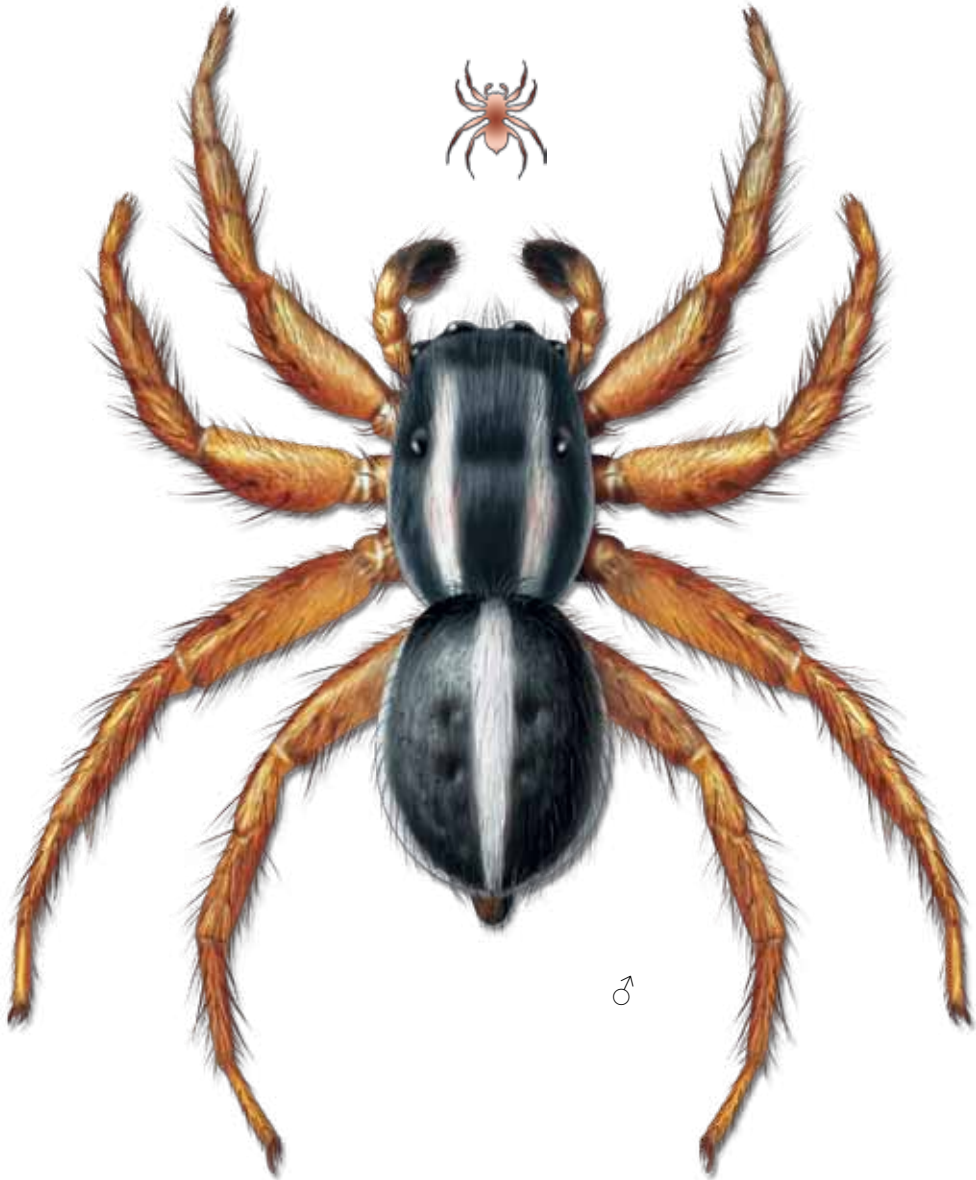
Habitat: No data.

Maturity: April to September.

Body length: 2.5–5.5 mm.



Langona tartarica
(Charitonov, 1946)



Distribution: Turan range.

Distribution in Kazakhstan: Southernmost regions only.

Habitat: No data.

Maturity: April to June.

Body length: 5.5–8 mm.



Marpissa nivoyi
(Lucas, 1846)



♀

Distribution: European–Central Asian range, rare elsewhere.

Distribution in Kazakhstan: South Kazakhstan region only.

Habitat: No data.

Maturity: April to May.

Body length: 2.5–6 mm.



Mendoza canetsrinii (Ninni in
Canestrini & Pavesi, 1868)



Distribution: Palearctic range.

Distribution in Kazakhstan: Northern, north-eastern and eastern regions.

Habitat: Wet meadows and vegetation (reed and scirpus) near water bodies.

Maturity: May to August.

Body length: 7.5–10 mm.



Mogrus neglectus
(Simon, 1868)



Distribution: Ancient Mediterranean range.

Distribution in Kazakhstan: Known from Almaty only.

Habitat: Wormwood bushes in wormwood-bunchgrass steppes and semideserts.

Maturity: May to June.

Body length: 5.5–8 mm.



Neon levis
(Simon, 1871)



♂

Distribution: European–Central Asian range, rare elsewhere.

Distribution in Kazakhstan: Known from the vicinity of Almaty only.

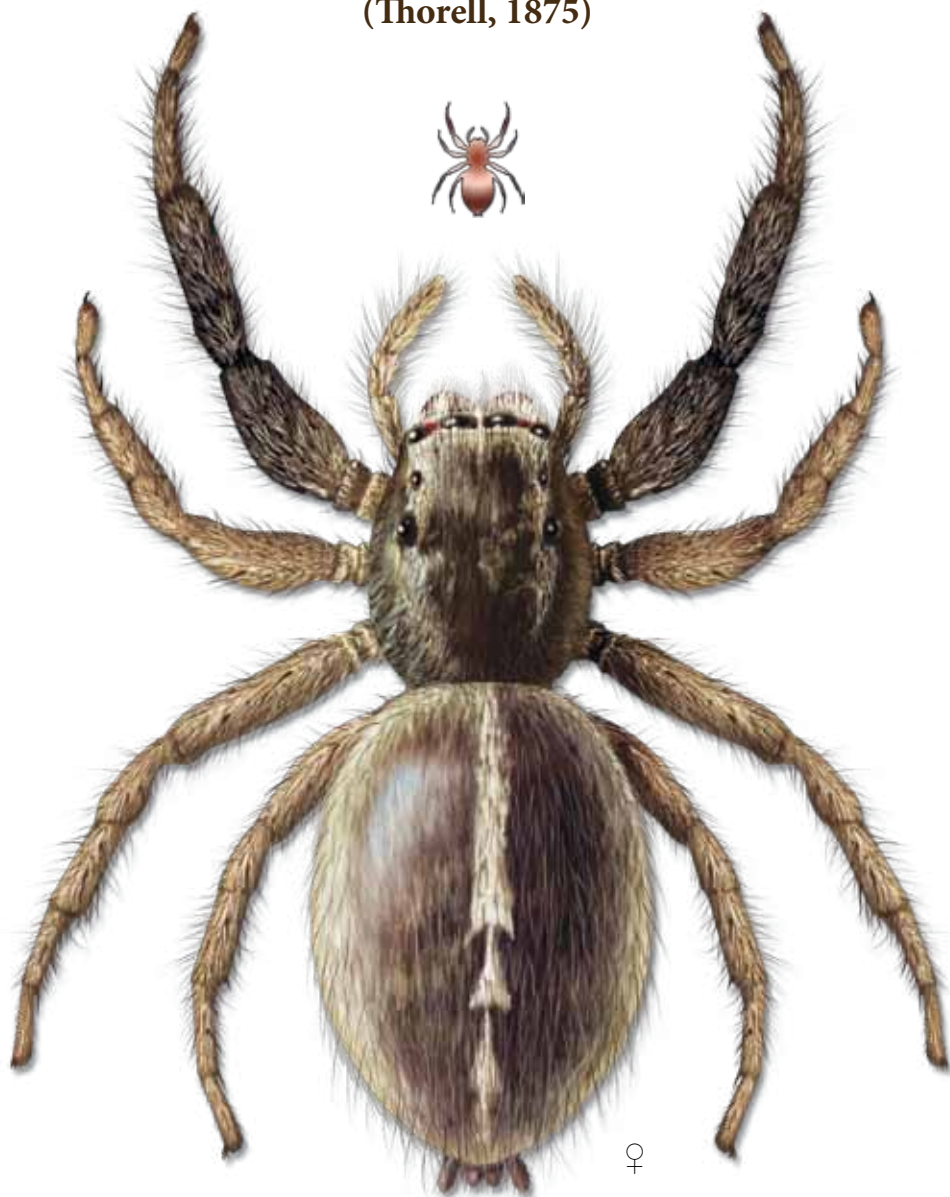
Habitat: Ground-dweller, in leaf litter and on stony debris.

Maturity: May to August.

Body length: 2.5–3 mm.



Pellenes seriatus
(Thorell, 1875)



Distribution: West Palaearctic range.

Distribution in Kazakhstan: Everywhere, but rare.

Habitat: Forest glades and along forest edges: on tall grass, where it makes thick silken nests on top of the grass stems.

Maturity: May to June.

Body length: 5.5–10 mm.



Philaeus chrysops (Poda, 1761)



Female of *Philaeus chrysops* on stone.



♂

Distribution: Palearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Common dweller of south-facing stony slopes and pebble riverbanks.

Natural history: Males differ from females by their smaller size and much brighter coloration. The primary prey of this jumping spider consists of true flies (Diptera), accounting for more than 50% of its diet, but the spider also feeds on small beetles and parasitic wasps (see Huseynov, 2008 for further details).

Maturity: May to June, but females until August.

Body length: 5.5–10 mm.



Phlegra fasciata
(Hahn, 1826)



♂

Distribution: Palearctic range.

Distribution in Kazakhstan: Everywhere.

Habitat: Ground-dweller, occurring in grass, under stones, on pebble riverbanks and stony lakeshores.

Maturity: May to June.

Body length: 5.5–8 mm.



Pseudeuophrys obsoleta
(Simon, 1868)



♂

Distribution: West Palearctic range.

Distribution in Kazakhstan: Everywhere.

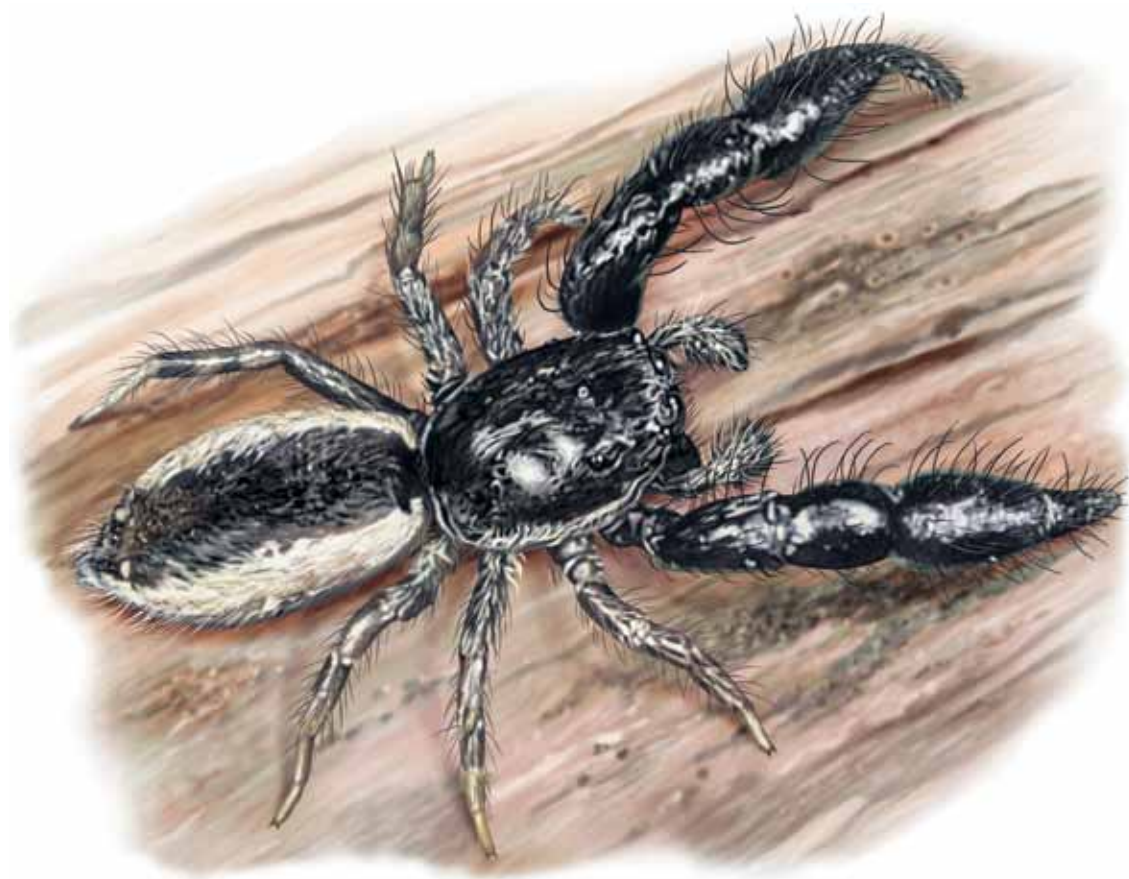
Habitat: Mixed forests, on lower parts of tree trunks and also on south-facing stony slopes.

Maturity: May to June, but females until August.

Body length: 2.5–5 mm.



Pseudicius courtauldi
Bristowe, 1935



♂

Distribution: East Ancient Mediterranean range.

Distribution in Kazakhstan: Almaty region only.

Habitat: A dweller of standing tree trunks, under loose bark and in bark crevices.

Maturity: June to August, but overwintering specimens can be collected in November to January.

Body length: 4.5–5.5 mm.



Rafalus variegatus (Kroneberg, 1875)



♂

Distribution: Turan range.

Distribution in Kazakhstan: Southern and south-eastern regions.

Habitat: Ground-dweller, common among stones and bushes of wormwood-bunchgrass steppes and semideserts, up to 800 m a.s.l. in the mountains.

Maturity: April to June.

Body length: 5–9 mm.



Salticus scenicus
(Clerck, 1757)



♀

Distribution: Holarctic range.

Distribution in Kazakhstan: Northern and north-eastern regions.

Habitat: A dweller of vertical surfaces: standing tree trunks, clayey scarps or outer walls of buildings.

Natural history: The female deposits a single egg sac containing about 30 eggs in a retreat.

Maturity: May to June.

Body length: 5–7 mm.



Sitticus talgarensis Logunov &
Wesołowska, 1993



Distribution: Turkestan range: endemic to the mountains of south-eastern regions of Kazakhstan (Almaty regions) and the Kyrgyz Republic.

Habitat: A ground-dweller of meadow associations, recorded from elevations of 1800–3500 m a.s.l.

Maturity: July to August.

Body length: 4–7 mm.



Synageles ramitus
Andreeva, 1976



Distribution: Central Asian range.

Distribution in Kazakhstan: The southern half of the Republic, rare elsewhere.

Habitat: A ground-dweller of dry and desert steppes, sandy deserts, pistachio stands and cotton croplands.

Maturity: June to July.

Body length: 2.5–3 mm.



Talavera petrensis
C.L. Koch, 1837



♂

Distribution: European–Siberian range.

Distribution in Kazakhstan: Everywhere.

Habitat: A ground-dweller of wormwood-bunchgrass steppes, stony-steppe south-facing slopes and pebble riverbanks.

Maturity: May to June.

Body length: 3–3.5 mm.



Yllenus kalkamanicus
Logunov & Marusik, 2000



♀

Distribution: Kazakhstan range (Pavlodar and east Kazakhstan regions only).

Habitat: A ground-dweller of dry stone steppes.

Maturity: May to June.

Body length: 6–6.5 mm.



GLOSSARY

Araneomorph – refers to spiders having the chelicerae with the fangs moving across each other (as opposed to mygalomorph).

Cribellate – refers to spiders having a cribellum (see p. 20).

Endemic – being unique to a particular geographic region.

Haplogyne – refers to spiders lacking an epigyne.

Mygalomorph – refers to spiders having the chelicerae with the fangs moving straight down (as opposed to araneomorph).

Range – a part of the Earth's surface within which populations of the species are consistently found.

Ancient Mediterranean range – from North Africa throughout the Mediterranean, Asia Minor and the Caucasus, eastward to the mountains of Central Asia and western China.

Central Asian range – throughout the Turan plain, eastward to Inner Mongolia (China) and north-eastward to central Mongolia.

East Ancient Mediterranean range – from the eastern Mediterranean and the Near East throughout Asia Minor and the Caucasus, eastward to the mountains of Central Asia.

East Palearctic range – from the South Urals, eastward to the Russian Far East, north-west China and Japan.

Holarctic range – widespread and occurring in the temperate zones of both Eurasia and North America.

Kazakhstan range – northern Kazakhstan, sometimes reaching west Mongolia and northwest China (Xinjiang).

Palearctic range – occurring across most of the temperate zone of Eurasia.

Turan range – throughout the Turan plain, including northern Iran and sometimes the east Caucasus.

Turan-Turkestan range – occurring in both the plain and mountain regions of Central Asia, eastward to northwest China.

Turkestan range – occurring in the mountain regions of Central Asia.

West Palearctic range – from Europe throughout the southern half of west Siberia eastward to approximately 105°E (mountains of S. Siberia), and also widely distributed in Central Asia.

Synanthropic – (from the Greek syn-, “together with” + anthro, “man”), meaning wild species of various kinds that live near or in an association with humans.



Tegenaria agrestis (male), a member of the group known colloquially as funnel web spiders (Agelenidae; see p. 113) that can occasionally enter human habitations.



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APPENDIX

Checklist of Arachnida of Kazakhstan

The following species list, given in alphabetical order, reflects the current state of knowledge of each group in Kazakhstan and is based on the latest available publications mentioned in the introductory sections (see pages 11–24). In the case of spiders, some unpublished data are also used. The nomenclature of arachnid orders follows: Solifugae – Harvey (2003); Pseudoscorpiones – Harvey (1990); Scorpiones – Stockmann & Ythier (2010) and V. Fet (pers. comm.); Opiliones – Kury (2012); Araneae [families] – Marusik & Kovblyuk (2011); Araneae [genera and species] – Platnick (2012).

Abbreviations used in the following list: * – unpublished records by S.L. Esyunin (Perm, Russia) from East Kazakhstan; ** – unpublished records by A.V. Gromov (Almaty, Kazakhstan); *** – unpublished record by A.N. Fomichev (Novosibirsk, Russia) from East Kazakhstan; (?) – doubtful record.

SOLIFUGAE – CAMEL SPIDERS

Daesiidae

Biton Karsch, 1880

1. *B. rossicus* (Birula, 1905)

Galeodidae

Galeodes Olivier, 1791

2. *G. araneoides* (Pallas, 1772)
3. *G. bactrianus* Birula, 1937
4. *G. caspius caspius* Birula, 1890
G. c. fuscus Birula, 1890
G. c. pallasii Birula, 1912
G. c. subfuscus Birula, 1937
5. *G. turcmenicus* Birula, 1937
6. *G. turkestanus* Kraepelin, 1899
7. *G. zarudnyi* Birula, 1937

Paragaleodes Kraepelin, 1899

8. *Paragaleodes pallidus* (Birula 1890)

Gylippidae

Gylippus Simon, 1879

9. *G. (Anoplogylippus) dsungaricus* (Roewer, 1933)
10. *G. (Anoplogylippus) ferganensis* Birula, 1893
11. *G. (Hemigylippus) lamelliger* Birula, 1906

Karschiidae

Eusimonia Kraepelin, 1899

12. *E. divina* (Birula, 1935)

13. *E. turkestanica* Kraepelin, 1899

Karschia Walter, 1889

14. *K. (Karschia) mangistauensis* Gromov, 1993
15. *K. (Rhinokarschia) pedaschenkoi* Birula, 1922
16. *K. (Rhinokarschia) zarudnyi* Birula, 1922

PSEUDOSCORPIONES – FALSE-SCORPIONS

Atemnidae

Atemnus Canestrini, 1883

1. (?) *A. politus* (Simon, 1878)

Diplotemnus Chamberlin, 1933

2. *D. insolitus* Chamberlin, 1933

Cheliferidae

Chelifer Geoffroy, 1762

3. *C. cancroides* (Linnaeus, 1758)
- Dactylochelifer* Beier, 1932
4. *D. kussariensis* (Daday, 1889)
 5. *D. latreillii* (Leach, 1817)
 6. *D. minor* Dashdamirov & Schawaller, 1995
 7. *D. popovi* Redikorzev, 1949
 8. *D. redikorzevi* (Beier, 1929)
 9. *D. spasskyi* Redikorzev, 1949



- Gobichelifer* Krumpál, 1979
10. *Gobichelifer chelanops* (Redikorzev, 1922)

- Hysterochelifer* Chamberlin, 1932
11. *H. meridianus* (L. Koch, 1873)

- Mesochelifer* Vachon, 1940
12. *M. ressl* Mahnert, 1981

- Rhacochelifer* Beier, 1932
13. *Rhacochelifer melanopygus* (Redikorzev, 1949)

Chernetidae

- Allochernes* Beier, 1932
14. *A. turanicus* (Redikorzev, 1934)

- Chernes* Menge, 1856
15. *C. cimicoides* (Fabricius, 1793)
16. *C. hahnii* (C.L. Koch, 1839)

- Dendrochernes* Beier, 1932
17. *D. cyrneus* (L. Koch, 1873)

- Dinocheirus* Chamberlin, 1931
18. *D. transcaspicus* (Redikorzev, 1922)

- Lamprochernes* Tömösváry, 1892
19. *L. chyzeri* (Tömösváry, 1882)

Geogarypidae

- Geogarypus* Chamberlin, 1930
20. *Geogarypus continentalis* (Redikorzev, 1934)

Neobisiidae

- Bisetocreagris* Čurčuč, 1983
21. *B. nuratiensis* Dashdamirov & Schawaller, 1992

- Neobisium* Chamberlin, 1931
22. *N. (Neobisium) carcinoides* (Hermann, 1804)

Olpiidae

- Calocheirus* Chamberlin, 1930
23. *C. asiaticus* Dashdamirov, 1991

- Minniza* Simon, 1881
24. *M. babylonica* Beier, 1931

- Olpium* L. Koch, 1873
25. *O. lindbergi* Beier, 1959

SCORPIONES – SCORPIONS

Buthidae

- Anomalobuthus* Kraepelin, 1900
1. *A. rickmersi* Kraepelin, 1900

- Liobuthus* Birula, 1898
2. *L. kessleri* Birula, 1898

- Mesobuthus* Vachon, 1950
3. *M. eupeus eupeus* (C.L. Koch, 1839)
M. e. bogdoensis (Birula, 1896)
4. *M. caucasicus* (Nordmann, 1840)
M. c. intermedius (Birula, 1897)

- Orthochirus* Karsch, 1891
5. *O. scrobiculosus scrobiculosus* (Grube, 1873)
O. s. melanurus (Kessler, 1874)

OPILIONES – HARVESTMEN

Phalangiidae

- Egaenus* C.L. Koch in Hahn & Koch, 1839
1. *E. charitonovi* (Gritsenko, 1972)

- Homolophus* Banks, 1893
2. *H. betpakdalensis* (Gritsenko, 1976)
3. *H. nordenskiöldi* (C.L. Koch, 1879)
4. *H. pallens* (Kulczyński, 1901)
5. *H. potanini* (Simon, 1895)
6. *H. przewalskii* (Staręga, 1978)
7. *H. silhavyi* Staręga & Snegovaya, 2008
8. *H. thianschanense* (Silhavy, 1967)
9. *H. vladimirae* (Silhavy, 1967)

- Liropilio* Gritsenko, 1979
10. *L. przhevalskii* Gritsenko, 1979
11. *L. stukanovi* Gritsenko, 1979

Mitopus Thorell, 1876



12. *M. morio* (Fabricius, 1779)
Opilio Herbst, 1798
13. *O. parietinus* (De Geer, 1778)
Pamiropilio Snegovaya & Starega, 2008
14. *P. suzukii* (Silhavý, 1972)
Phalangium Linnaeus, 1758
15. *P. ghissaricum* (Gritsenko, 1976)
16. *P. opilio* Linnaeus, 1761
Redikorcevia Snegovaya & Starega, 2008
17. *R. platybunoides* Snegovaya & Starega, 2008
Scleropilio Roewer, 1911
18. *S. armatus* (Roewer, 1911)
19. *S. coriaceus* Roewer, 1911
20. *S. elenae* Gritsenko, 1975
21. *S. insolens* (Simon, 1895)
22. *S. tibialis* (Roewer, 1956)
- ARANEAE – SPIDERS**
- Agelenidae**
Agelena Walckenaer, 1805
1. *A. labyrinthica* (Clerck, 1757)
2. *A. maracandensis* (Charitonov, 1946)
3. *A. orientalis* C.L. Koch, 1837
4. *A. tadzhika* Andreeva, 1976
Allagelena Zhang, Zhu & Song, 2006
5. *A. gracilens* (C.L. Koch, 1841)
Coelotes Blackwall, 1841
6. *C. (Coelotes) curvilamnis* Ovtchinnikov, 2000
7. *C. (Coelotes) pastoralis* Ovtchinnikov, 2000
8. *C. (Coelotes) sordidus* Ovtchinnikov, 2000
9. *C. (Coelotes) striatitamnis* Ovtchinnikov, 2000
10. *C. (Coelotes) transiliensis* Ovtchinnikov, 2000
11. *C. (Brignoliolus) turkestanicus* Ovtchinnikov, 1999
Iwogumoa Kishida, 1955
12. (?) *I. songminjiae* (Paik & Yaginuma, 1969)
Paracoelotes Brignoli, 1982
13. *P. birulai* (Ermolaev, 1926)
Tegenaria Latreille, 1804
14. *T. agrestis* (Walckenaer, 1802)
15. *T. domestica* (Clerck, 1757)
- Amaurobiidae**
Amaurobius C.L. Koch, 1837
16. (?) *A. claustrarius* (Hahn, 1833)
17. (?) *A. fenestralis* (Strom, 1768)
18. (?) *A. similis* (Blackwall, 1859)
Arctobius Lehtinen, 1967
19. *A. agelenoides* (Emerton, 1919)**
- Araneidae**
Aculepeira Chamberlin & Ivie, 1942
20. *A. armida* (Savigny & Audouin, 1826)
21. *A. carbonaria* (L. Koch, 1869)
22. (?) *A. ceropegia* (Walckenaer, 1802)
23. *A. packardi* (Thorell, 1875)
24. *A. talishia* (Zawadzky, 1902)*
Agalenatea Archer, 1951
25. *A. redii* (Scopoli, 1763)
Araneus Clerck, 1757
26. *A. alsine* (Walckenaer, 1802)
27. *A. angulatus* Clerck, 1757
28. *A. diadematus* Clerck, 1757
29. *A. grossus* (C.L. Koch, 1844)
30. *A. marmoreus* Clerck, 1757
31. *A. nordmanni* (Thorell, 1870)
32. *A. pallasi* (Thorell, 1875)
33. *A. quadratus* Clerck, 1757
34. *A. strandiellus* Charitonov, 1951
35. *A. sturmi* (Hahn, 1831)
36. *A. tartaricus* (Kroneberg, 1875)
Araniella Chamberlin & Ivie, 1942



SPIDERS OF KAZAKHSTAN

37. *A. cucurbitina* (Clerck, 1757)
38. *A. displicata* (Hentz, 1847)
39. *A. inconspicua* (Simon, 1874)
40. *A. opisthographa* (Kulczyński, 1905)
41. *A. proxima* (Kulczyński, 1885)*
- Argiope* Savigny & Audouin, 1826¹
42. *A. bruennichii* (Scopoli, 1772)
43. *A. lobata* (Pallas, 1772)
- Cercidia* Thorell, 1869
44. *C. levii* Marusik, 1985
45. *C. prominens* (Westring, 1851)
- Cyclosa* Menge, 1866
46. *C. conica* (Pallas, 1772)
47. *C. oculata* (Walckenaer, 1802)
- Gibbaranea* Archer, 1951
48. *G. bituberculata* (Walckenaer, 1802)
49. *G. ullrichi* (Hahn, 1835)
- Hypsosinga* Ausserer, 1871
50. *H. albovittata* (Westring, 1851)
51. *H. kazachstanica* Ponomarev, 2007
52. *H. pygmaea* (Sundevall, 1831)
53. *H. sanguinea* (C.L. Koch, 1844)
- Larinia* Simon, 1874
54. *L. elegans* Spassky, 1939
55. *L. pubiventris* Simon, 1889
- Larinioides* Caporiacco, 1934
56. *L. cornutus* Clerck, 1757
57. *L. ixobolus* (Thorell, 1873)
58. *L. patagiatus* (Clerck, 1757)
59. *L. suspicax* (O. Pickard-Cambridge, 1876)
- Leviellus* Wunderlich, 2004
60. *L. caspicus* (Simon, 1889)
- Mangora* O. Pickard-Cambridge, 1889
61. *M. acalypha* (Walckenaer, 1802)
- Neoscona* Simon, 1864
62. *N. adianta* (Walckenaer, 1802)
63. *N. tedgenica* (Bachwalow, 1978)
- Nuctenea* Simon, 1864
64. *N. silvicultrix* (C.L. Koch, 1844)
- Singa* C.L. Koch, 1836
65. (?) *S. aussereri* Thorell, 1873
66. *S. hamata* (Clerck, 1757)
67. *S. nitidula* C.L. Koch, 1844
- Stroemiellus* Wunderlich, 2004
68. *S. stroemi* (Thorell, 1875)
- Argyronetidae**
Argyroneta Latreille, 1804
69. *A. aquatica* (Clerck, 1757)
- Cheiracanthiidae**
Cheiracanthium C.L. Koch, 1839
70. *C. elegans* Thorell, 1875
71. *C. erraticum* (Walckenaer, 1802)
72. *C. gratum* Kulczyński, 1897
73. *C. kazachstanicum* Ponomarev, 2007
74. *C. mildei* L. Koch, 1864
75. *C. pennyi* O. Pickard-Cambridge, 1873
76. *C. punctorium* (Villers, 1789)
77. *C. seidlitzii* L. Koch, 1864
78. *C. zebrinum* Saveljeva, 1972
- Clubionidae**
Clubiona Latreille, 1804
79. *C. caerulea* L. Koch, 1867
80. *C. congenilis* Kulczyński, 1913
81. *C. diversa* O. Pickard-Cambridge, 1862
82. *C. frisia* Wunderlich & Schuett, 1995
83. *C. frutetorum* L. Koch, 1867
84. *C. genevensis* L. Koch, 1866
85. *C. germanica* Thorell, 1870
86. *C. kulczynskii* Lessert, 1905
87. *C. lutescens* Westring, 1851
88. *C. maracandica* Kroneberg, 1875
89. *C. neglecta* O. Pickard-Cambridge, 1862
90. *C. pallidula* (Clerck, 1757)
91. *C. phragmitis* C.L. Koch, 1843
92. *C. pseudosaxatilis* Michailov, 1992



93. *C. reclusa* O. Pickard-Cambridge, 1863
 94. *C. rybini* Michailov, 1992
 95. *C. saurica* Michailov, 1992
 96. *C. stagnatilis* Kulczyński in Chyzer & Kulczyński, 1897
 97. *C. subsultans* Thorell, 1875
- Corinnidae**
Phrurolithus C.L. Koch, 1839
 98. *P. festivus* (C.L. Koch, 1835)
 99. (?) *P. pullatus* Kulczyński in Chyzer & Kulczyński, 1897
 100. *P. sordidus* Saveljeva, 1972
- Ctenizidae**
Sterrhochrotus Simon, 1892
 101. *S. ferghanensis* (Kroneberg, 1875)
- Cybaeidae**
Cedicoides Charitonov, 1946
 102. *C. parthus* (Fet, 1993)**
- Dictynidae**
Ajmonia Caporiacco, 1934
 103. *A. aurita* Song & Lu, 1985
- Altella* Simon, 1884
 104. *A. caspia* Ponomarev, 2008
- Archaeodictyna* Caporiacco, 1928
 105. *A. ammophila* (Menge, 1871)
 106. *A. conducta* (O. Pickard-Cambridge, 1876)
 107. *A. consecuta* (O. Pickard-Cambridge, 1872)
- Arctella* Holm, 1945
 108. *A. subnivalis* Ovtchinnikov, 1989**
- Argenna* Thorell, 1869
 109. *A. patula* (Simon, 1874)
- Cicurina* Menge, 1871
 110. *C. cicur* (Fabricius, 1793)
- Devade* Simon, 1884
 111. *D. kazakhstanica* Esyunin & Efimik, 2000
112. *D. lehtineni* Esyunin & Efimik, 2000
 113. *D. miranda* Ponomarev, 2007
 114. *D. tenella* (Tystshenko, 1965)
- Dictyna* Sundevall, 1833
 115. *D. arundinacea* (Linnaeus, 1758)
 116. *D. innocens* O. Pickard-Cambridge, 1872
 117. *D. latens* (Fabricius, 1775)
 118. *D. pusilla* Thorell, 1856
 119. *D. szaboii* Chyzer, 1891
 120. *D. uncinata* Thorell, 1856
 121. *D. vicina* Simon, 1873
- Dictynomorpha* Spassky, 1939
 122. *D. strandi* Spassky, 1939
- Emblyna* Chamberlin, 1948
 123. *E. wangi* (Song & Zhou, 1996)
- Lathys* Simon, 1884
 124. *L. spasskyi* Andreeva & Tyschchenko, 1969
 125. *L. truncatus* Danilov, 1994*
- Marilynia* Lehtinen, 1967
 126. *M. bicolor* (Simon, 1870)
- Dipluridae**
Phyxioschema Simon, 1889
 127. *P. raddei* Simon, 1889
- Dysderidae**
Dysdera Latreille, 1804
 128. *D. aculeata* Kroneberg, 1875
 129. *D. arnoldii* Charitonov, 1956**
 130. (?) *D. crocata* C.L. Koch, 1838
 131. *D. nenilini* Dunin, 1989**
 132. *D. tartarica* Kroneberg, 1875
- Dysderella* Dunin, 1992
 133. *D. transcaspica* (Dunin & Fet, 1985)**
- Eresidae**
Eresus Walckenaer, 1805
 134. *E. kollari* F.W. Rossi, 1846
- Stegodyphus* Simon, 1873



135. *S. lineatus* (Latreille, 1817)

Filistatidae

Pritha Lehtinen, 1967

136. *P. crosbyi* (Spassky, 1938)

Zaitunia Lehtinen, 1967

137. *Z. inderensis* Ponomarev, 2005

138. *Zaitunia* sp.

Gnaphosidae

Aphantaulax Simon, 1878

139. *A. trifasciata* (O. Pickard-Cambridge, 1872)

Berinda Roewer, 1928

140. *B. amabilis* Roewer, 1928

Berlandina Dalmas, 1922

141. *B. apscheronica* Dunin, 1984

142. *B. caspica* Ponomarev, 1979*

143. *B. charitonovi* Ponomarev, 1979

144. *B. cinerea* (Menge, 1868)

145. *B. drassodea* (Caporiacco, 1934)**

146. *B. hui* Song, Zhu & Zhang, 2004**

147. *B. nabozhenkoi* Ponomarev & Tsvetkov, 2006**

148. *B. nenilini* Ponomarev & Tsvetkov, 2006

149. *B. plumalis* (O. Pickard-Cambridge, 1872)

150. *B. propinqua* Roewer, 1961**

151. *B. spasskyi* Ponomarev, 1979

Callilepis Westring, 1874

152. *C. nocturna* (Linnaeus, 1758)

Coreodrassus Paik, 1984

153. *C. coreanus* Paik, 1984

154. *C. lancearius* (Simon, 1893)

155. *C. semidesertus* Ponomarev & Tsvetkov, 2006

Drassodes Westring, 1851

156. *D. caspius* Ponomarev & Tsvetkov, 2006

157. *D. charitonovi* Tuneva, 2004

158. *D. chybyndensis* Esyunin & Tuneva, 2002

159. *D. cupa* Tuneva, 2004

160. *D. hypocrita* (Simon, 1878)

161. *D. lapidosus* (Walckenaer, 1802)

162. *D. lutescens* (C.L. Koch, 1839)

163. *D. monticola* (Kroneberg, 1875)

164. *D. pseudolesserti* Loksa, 1965

165. *D. pubescens* (Thorell, 1856)

166. *D. rostratus* Esyunin & Tuneva, 2002

167. *D. villosus* (Thorell, 1856)

Drassyllus Chamberlin, 1922

168. *D. fragilis* Ponomarev, 2008

169. *D. lutetianus* (L. Koch, 1866)

170. *D. praefficus* (L. Koch, 1866)

171. *D. pusillus* (C.L. Koch, 1833)

172. *D. sur* Tuneva & Esyunin, 2003

173. *D. vinealis* (Kulczyński in Chyzer & Kulczyński, 1897)

Fedotovia Charitonov, 1946

174. *F. mongolica* Marusik, 1993**

175. *F. uzbekistanica* Charitonov, 1946

Gnaphosa Latreille, 1804

176. *G. aborigena* Tystshenko, 1965

177. *G. betpaki* Ovtsharenko, Platnick & Song, 1992

178. (?) *G. bithynica* Kulczyński, 1903

179. *G. dolosa* Herman, 1879

180. *G. fagei* Schenkel, 1963

181. *G. haarlovi* Denis, 1958

182. *G. ilika* Ovtsharenko, Platnick & Song, 1992

183. *G. keimer* Tuneva, 2004

184. *G. lapponum* (L. Koch, 1866)

185. *G. leporina* (L. Koch, 1866)

186. *G. licenti* Schenkel, 1953

187. *G. lucifuga* (Walckenaer, 1802)

188. *G. lugubris* (C.L. Koch, 1839)

189. *G. mandshurica* Schenkel, 1963

190. *G. mongolica* Simon, 1895

191. *G. muscorum* (L. Koch, 1866)

192. *G. pilosa* Saveljeva, 1972

193. *G. reikhardi* Ovtsharenko, Platnick & Song, 1992

194. *G. rufula* (L. Koch, 1866)

195. *G. saurica* Ovtsharenko, Platnick & Song, 1992



196. *G. steppica* Ovtsharenko, Platnick & Song, 1992
197. (?) *G. stoliczkai* O. Pickard-Cambridge, 1885
198. *G. tarabaevi* Ovtsharenko, Platnick & Song, 1992
199. *G. taurica* Thorell, 1875
200. *G. zyuzini* Ovtsharenko, Platnick & Song, 1992
- Haplodrassus* Chamberlin, 1922
201. *H. caspius* Ponomarev & Belosludtsev in Ponomarev *et al.*, 2008
202. *H. cognatus* (Westring, 1861)
203. *H. dalmatensis* (L. Koch, 1866)
204. *H. isaevi* Ponomarev & Tsvetkov, 2006
205. *H. kulczynskii* Lohmander, 1942
206. *H. ovtchinnikovi* Ponomarev, 2008
207. *H. rufus* (Saveljeva, 1972)
208. *H. rugosus* Tuneva, 2004
209. *H. signifer* (C.L. Koch, 1839)
210. *H. soerenseni* (Strand, 1900)
211. *H. umbratilis* (L. Koch, 1866)
- Heser* Tuneva, 2004
212. *H. malefactor* Tuneva, 2004
- Kishidaia* Yaginuma, 1960
213. *K. conspiciua* (L. Koch, 1866)
- Leptodrassex* Murphy, 2007
214. *L. memorialis* (Spassky, 1940)
- Micaria* Westring, 1851
215. *M. aenea* Thorell, 1871**
216. *M. bonneti* Schenkel, 1963**
217. *M. charitonovi* Michailov & Ponomarev in Ponomarev, 2008
218. *M. coarctata* (Lucas, 1846)
219. *M. dives* (Lucas, 1846)
220. *M. forM.* (Sundevall, 1831)
221. *M. fulgens* (Walckenaer, 1802)
222. *M. gulliae* Tuneva & Esyunin, 2003
223. *M. guttulata* (C.L. Koch, 1839)
224. *M. kopetdaghensis* Mikhailov, 1986**
225. *M. lenzi* Bosenberg, 1899
226. *M. nivosa* L. Koch, 1866
227. *M. pallipes* (Lucas, 1846)
228. *M. pulicaria* (Sundevall, 1831)
229. *M. rossica* Thorell, 1875
230. *M. seymuria* Tuneva, 2004
231. *M. tarabaevi* Michailov, 1987
232. *M. tuvensis* Danilov, 1993
- Minosiella* Dalmas, 1921
233. *M. intermedia* Denis, 1958
- Nomisia* Dalmas, 1921
234. *N. aussereri* (L. Koch, 1872)
235. *N. exornata* (C.L. Koch, 1839)*
236. *N. conigera* (Spassky, 1941)
- Parasyrisca* Schenkel, 1963
237. *P. altaica* Ovtsharenko, Platnick & Marusik, 1995
238. *P. schenkeli* Ovtsharenko & Marusik, 1988
- Phaeoedus* Simon, 1893
239. *P. braccatus* (L. Koch, 1866)
- Poecilochroa* Westring, 1874
240. *P. variana* (C.L. Koch, 1839)
- Pterotricha* Kulczyński, 1903
241. '*P. shnitnikovi* Spassky, 1934
- Scotophaeus* Simon, 1893
242. *S. rufescens* (Kroneberg, 1875)
243. *S. scutulatus* (L. Koch, 1866)
- Sidydrassus* Esyunin & Tuneva, 2002
244. *S. rogue* Tuneva, 2004
245. *S. shumakovi* (Spassky, 1934)
246. *S. tianschanicus* (Hu & Wu, 1989)**
- Sosticus* Chamberlin, 1922
247. *S. loricatus* (L. Koch, 1866)
- Synaphosus* Platnick & Shadab, 1980
248. *S. makhambetensis* Ponomarev, 2008
249. *S. palearticus* Ovtsharenko, Levy & Platnick, 1994
250. *S. taukum* Ovtsharenko, Levy & Platnick, 1994



251. *S. turanicus* Ovtsharenko, Levy & Platnick, 1994

Talanites Simon, 1893

252. *T. fagei* Spassky, 1938

253. *T. mikhailovi* Platnick & Ovtsharenko, 1991

254. *T. strandi* Spassky, 1940

Trachyzelotes Lohmander, 1944

255. *T. adriaticus* (Caporiacco, 1953)

256. *T. chybyndensis* Esyunin & Tuneva, 2002

257. *T. cumensis* (Ponomarev, 1979)**

258. *T. fuscipes* (L. Koch, 1866)**

259. *T. jaxartensis* (Kroneberg, 1875)

260. *T. lyonneti* (Savigny & Audouin, 1826)

261. *T. malkini* Platnick & Murphy, 1984

262. (?) *T. manytchensis* Ponomarev & Tsvetkov, 2006**

Zelotes Gistel, 1848

263. *Z. apricorum* (L. Koch, 1876)

264. *Z. atrocaeruleus* (Simon, 1878)

265. *Z. azsheganovae* Esyunin & Efimik, 1992

266. *Z. caspius* Ponomarev & Tsvetkov, 2006

267. *Z. caucasius* (L. Koch, 1866)

268. *Z. electus* (C.L. Koch, 1839)

269. *Z. fallax* Tuneva & Esyunin, 2003

270. *Z. gallicus* Simon, 1814

271. *Z. hui* Platnick & Song, 1986

272. *Z. hummeli* Schenkel, 1936

273. *Z. inderensis* Ponomarev & Tsvetkov, 2006

274. *Z. kazachstanicus* Ponomarev & Tsvetkov, 2006

275. *Z. latreillei* (Simon, 1878)

276. *Z. longipes* (L. Koch, 1866)

277. *Z. mikhailovi* Marusik in Eskov & Marusik, 1995

278. *Z. mundus* (Kulczyński, 1897)

279. *Z. orenburgensis* Tuneva & Esyunin, 2003

280. *Z. petrensis* (C.L. Koch, 1839)

281. *Z. potanini* Schenkel, 1963

282. *Z. pseudoapricorum* Schenkel, 1963

283. *Z. puritanus* Chamberlin,

284. *Z. pygmaeus* Miller, 1943

285. *Z. rufi* Efimik in Esyunin & Efimik, 1997

286. *Z. segrex* (Simon, 1878)

287. *Z. subterraneus* (C.L. Koch, 1833)

Hahniidae

Asiohahnia Ovchinnikov, 1992

288. *A. alataavica* Ovchinnikov, 1992

289. *A. ketmenica* Ovchinnikov, 1992

290. *A. xinjiangensis* (Wang & Liang, 1989)*

Cryphoea Thorell, 1870

291. *C. silvicola* (C.L. Koch, 1834)**

Hahnia C.L. Koch, 1841

292. *H. nava* (Blackwall, 1841)**

293. *H. ononidum* Simon, 1875

Hersiliidae

Deltshevia Marusik & Fet, 2009

294. *D. danovi* Marusik & Fet, 2009

295. *D. gromovi* Marusik & Fet, 2009

Ovtsharenkoia Marusik & Fet, 2009

296. *O. pallida* (Kroneberg, 1875)

Linyphiidae

Acartauchenius Simon, 1884

297. *A. desertus* (Tanasevitch, 1993)

298. *A. scurrilis* (O. Pickard-Cambridge, 1872)

Agyneta Hull, 1911

299. *A. conigera* (O. Pickard-Cambridge, 1863)

300. *A. fuscipalpa* (C.L. Koch, 1836)

301. *A. kaszabi* (Loksa, 1965)

302. *A. kopetdaghensis* Tanasevitch, 1989

303. *A. pseudosaxatilis* Tanasevitch, 1984

304. *A. rurestris* (C.L. Koch, 1836)

305. *A. saaristoi* Tanasevitch, 2000

306. *A. similis* (Kulczyński, 1926)

307. *A. simplicatarsis* (Simon, 1884)

308. *A. subtilis* (O. Pickard-Cambridge, 1863)



309. *A. tianschanica* Tanasevitch, 1989*
Allomengea Strand, 1912
310. *A. scopigera* (Grube, 1859)
Anguliphantes Saaristo & Tanasevitch, 1997
311. *A. cerinus* (L. Koch, 1879)
Agyphantes Hull, 1932
312. *A. expunctus* (O. Pickard-Cambridge, 1875)*
Aphileta Hull, 1920
313. *A. centrasiatica* Eskov in Eskov & Marusik, 1995
Arachosinella Denis, 1958
314. *A. oeroegensis* Wunderlich, 1995
315. *A. strepens* Denis, 1958
Araeoncus Simon, 1884
316. *A. caucasicus* Tanasevitch, 1987
Asthenargus Simon & Fage, 1922
317. *A. edentulus* Tanasevitch, 1989
Bathyphantes Menge, 1866
318. *B. gracilis* (Blackwall, 1841)
Bolephthyphantes Strand, 1901
319. *B. index* (Thorell, 1856)
320. *B. indexoides* (Tanasevitch, 1989)
Bolyphantes C.L. Koch, 1837
321. *B. alticeps* (Sundevall, 1832)
322. *B. severtzovi* Tanasevitch, 1989
Centromerus Dahl, 1886
323. *C. brevivulvatus* Dahl, 1912
324. *C. clarus* (L. Koch, 1879)**
Ceratinella Emerton, 1882
325. *C. brevis* (Wider, 1834)
326. *C. wideri* (Thorell, 1871)
Collinsia O. Pickard-Cambridge, 1913
327. *C. caliginosa* (L. Koch, 1879)
328. *C. inerrans* (O. Pickard-Cambridge, 1885)
Cornuphantes Saaristo & Tanasevitch, 2004
329. *C. cornutus* (Schenkel, 1927)
Dactylopiastes Simon, 1884
330. *D. mirificus* (Georgesco, 1976)
Deciphantes Saaristo & Tanasevitch, 1996
331. *D. decipiens* (L. Koch, 1879)**
Dicymbium Menge, 1868
332. *D. nigrum* (Blackwall, 1834)
Diplocephalus Bertkau in Forster & Bertkau, 1883
333. *D. connatus* Bertkau, 1889
334. *D. cristatus* (Blackwall, 1833)
Diplostyla Emerton, 1882
335. *D. concolor* (Wider, 1834)**
Drapetisca Menge, 1866
336. *D. socialis* (Sundevall, 1832)
Entelecara Simon, 1884
337. *E. acuminata* (Wider, 1834)
338. *E. erythropus* (Westring, 1851)
Erigone Savigny & Audouin, 1826
339. *E. atra* Blackwall, 1833
340. *E. changchunensis* Zhu & Wen, 1980
341. *E. dentipalpis* (Wider, 1834)
342. *E. sinensis* Schenkel, 1936
Erigonoplus Simon, 1884
343. *E. kirghizicus* Tanasevitch, 1989
Frontinellina Helsdingen, 1969
344. *F. frutetorum* (C.L. Koch, 1834)
Gnathonarium Karsch, 1881
345. *G. dentatum* (Wider, 1834)**
346. *G. taczanowskii* (O. Pickard-Cambridge, 1873)



SPIDERS OF KAZAKHSTAN

- Gonatium* Menge, 1868
347. *G. rubens* (Blackwall, 1833)
- Gongylidium* Menge, 1868
348. *G. rufipes* (Linnaeus, 1758)
- Halorates* Hull, 1911
349. *H. caliginosus* (L. Koch, 1879)
350. *H. submissus* (L. Koch, 1879)
- Hypomma* Dahl, 1886
351. *H. bituberculatum* (Wider, 1834)
- Hypselistes* Simon, 1894
352. *H. jacksoni* (O. Pickard-Cambridge, 1902)
- Improphantes* Saaristo & Tanasevitch, 1997
353. *I. complicatus* (Emerton, 1882)
354. *I. contus* Tanasevitch & Piterkina, 2007
355. *I. improbulus* (Simon, 1929)
- Incestophantes* Tanasevitch, 1992
356. *I. amotus* (Tanasevitch, 1990)
- Ipa* Saaristo, 2007
357. *I. pepticus* (Tanasevitch, 1988)
358. *I. spasskyi* (Tanasevitch, 1986)
359. *I. terrenus* (L. Koch, 1879)**
- Lepthyphantes* Menge, 1866
360. *L. kuhitangensis* Tanasevitch, 1989
361. *L. leprosus* (Ohlert, 1867)
362. *L. luteipes* (L. Koch, 1879)
363. *L. palaeformis* Tanasevitch, 1989
364. *L. saurensis* Eskov in Eskov & Marusik, 1995
- Lidia* Saaristo & Marusik, 2006
365. *L. tarabaevi* Saaristo & Marusik, 2006
- Linyphia* Latreille, 1804
366. *L. hortensis* Sundevall, 1830
367. *L. triangularis* (Clerck, 1757)
- Maso* Simon, 1884
368. *M. sundevalli* (Westring, 1851)
- Megalephyphantes* Wunderlich, 1993
369. *M. kronebergi* (Tanasevitch, 1989)
370. *M. nebulosus* (Sundevall, 1830)
- Mesasigone* Tanasevitch, 1989
371. *M. mira* Tanasevitch, 1989
- Metopobactrus* Simon, 1884
372. *M. prominulus* (O. Pickard-Cambridge, 1872)
- Micrargus* Dahl, 1886
373. *M. herbigradus* (Blackwall, 1854)
374. *M. subaequalis* (Westring, 1851)
- Microlinyphia* Gerhardt, 1928
375. *M. impigra* (O. Pickard-Cambridge, 1871)
376. *M. pusilla* (Sundevall, 1830)
- Microneta* Menge, 1869
377. *M. viaria* (Blackwall, 1841)
- Minicia* Thorell, 1875
378. *M. kirghizica* Tanasevitch, 1985
379. *M. marginella* (Wider, 1834)
380. *M. pallida* Eskov in Eskov & Marusik, 1995
- Minyrioloides* Schenkel, 1930
381. *M. trifrons* (O. Pickard-Cambridge, 1863)*
- Mughiphantes* Saaristo & Tanasevitch, 1999
382. *M. (Aurantiphantes) tienshangensis* (Tanasevitch, 1986)
- Neriene* Blackwall, 1833
383. *N. clathrata* (Sundevall, 1830)
384. *N. emphana* (Walckenaer, 1841)
385. *N. montana* (Clerck, 1757)
386. *N. radiata* (Walckenaer, 1841)
- Obscuriphantes* Saaristo & Tanasevitch, 2000



387. *O. pseudoobscurus* (Marusik, Hippa & Koponen, 1996)
- Oedothorax* Bertkau in Forster & Bertkau, 1883
388. *O. apicatus* (Blackwall, 1850)
389. *O. retusus* (Westring, 1851)
- Oreoneta* Kulczyński, 1894
390. *O. tienshangensis* Saaristo & Marusik, 2004
- Palliduphantes* Saaristo & Tanasevitch, 2001
391. *P. alius* (Tanasevitch, 1986)
- Panamomops* Simon, 1884
392. *P. depilis* Eskov & Marusik, 1994
393. *P. menzei* Simon, 1926
- Pelecopsis* Simon, 1864
394. *P. dorniana* Heimer, 1987**
395. *P. laptevi* Tanasevitch & Fet, 1986
396. *P. menzei* (Simon, 1884)
397. *P. palmgreni* Marusik & Eshyunin, 1998
398. *P. parallela* (Wider, 1834)
399. *P. paralleloides* Tanasevitch & Fet, 1986
- Pityohyphantes* Simon, 1929
400. *P. phrygianus* (C.L. Koch, 1836)
- Pocadicnemis* Simon, 1884
401. *P. pumila* (Blackwall, 1841)
- Poecilonea* Kulczyński in Chyzer & Kulczyński, 1894
402. *P. variegata* (Blackwall, 1841)
- Porrhomma* Simon, 1884
403. *P. convexum* (Westring, 1851)
404. *P. pallidum* Jackson, 1913
405. *P. pygmaeum* (Blackwall, 1834)
- Prinerigone* Millidge, 1988
406. *P. vagans* (Savigny & Audouin, 1826)
- Pseudocyba* Tanasevitch, 1984
407. *P. miracula* Tanasevitch, 1984
- Sauron* Eskov in Eskov & Marusik, 1995
408. *S. fissicornis* Eskov in Eskov & Marusik, 1995
- Savignya* Blackwall, 1833
409. *S. frontata* Blackwall, 1833
- Scotargus* Simon, 1913
410. *S. pilosus* Simon, 1913
- Scotinotylus* Simon, 1884
411. *S. alpigenuus* (L. Koch, 1869)
412. *S. tianschanicus* Tanasevitch, 1989
- Semljicola* Strand, 1906
413. *S. barbiger* (L. Koch, 1879)
414. *S. latus* (Holm, 1939)**
415. *S. thaleri* (Eskov, 1981)
- Silometopoides* Eskov, 1990
416. *S. asiaticus* (Eskov in Eskov & Marusik, 1995)
- Silometopus* Simon, 1926
417. *S. crassipedis* Tanasevitch & Piterkina, 2007
418. *S. incurvatus* (O. Pickard-Cambridge, 1873)
- Stemonyphantes* Menge, 1866
419. *S. conspersus* (L. Koch, 1879)
420. *S. lineatus* (Linnaeus, 1758)
- Styloctetor* Simon, 1884,
421. *S. romanus* (O. Pickard-Cambridge, 1872)
422. *S. stativus* (Simon, 1881)
- Tallusia* Lehtinen & Saaristo, 1972
423. *T. experta* (O. Pickard-Cambridge, 1871)
- Tchatkalophantes* Tanasevitch, 2001
424. *T. karatau* Tanasevitch, 2001



425. *T. rupeus* (Tanasevitch, 1986)
426. *T. tarabaevi* Tanasevitch, 2001
427. *T. thatkalensis* (Tanasevitch, 1983)
- Tenuiphantes* Saaristo & Tanasevitch, 1997
428. *T. mengei* (Kulczyński, 1887)
429. *T. nigriventris* (L. Koch, 1879)
430. *T. tenuis* (Blackwall, 1852)
- Tibiaster* Tanasevitch, 1987
431. *T. djanybekensis* Tanasevitch, 1987
432. *T. wunderlichi* Eskov in Eskov & Marusik, 1995
- Trichoncoides* Denis, 1950
433. *T. piscator* (Simon, 1884)
434. *T. striganovae* Tanasevitch & Piterkina, 2012
- Trichoncus* Simon, 1884
435. *T. steppensis* Eskov in Eskov & Marusik, 1995
436. *T. vasconicus* Denis, 1944
437. *T. villius* Tanasevitch & Piterkina, 2007
- Trichopterna* Kulczyński in Chyzer & Kulczyński, 1894
438. *T. cito* (O. Pickard-Cambridge, 1872)
439. *T. grummi* Tanasevitch, 1989
- Vagiphantes* Saaristo & Tanasevitch, 2004
440. *V. vaginatus* (Tanasevitch, 1983)
- Walckenaeria* Blackwall, 1833
441. *W. alticeps* (Denis, 1952)
442. *W. atrotibialis* O. Pickard-Cambridge, 1878
443. *W. erythrina* (Simon, 1874)
444. *W. kazakhstanica* Eskov in Eskov & Marusik, 1995
445. *W. kochi* (O. Pickard-Cambridge, 1872)
446. *W. stepposa* Tanasevitch & Piterkina, 2007
447. *W. unicornis* O. Pickard-Cambridge, 1861
448. *W. wunderlichi* Tanasevitch, 1983
- Zornella* Jackson, 1932
449. *Z. cultrigera* (L. Koch, 1879)
- Liocranidae**
- Agraecina* Simon, 1932
450. *A. lineata* (Simon, 1878)
- Agroeca* Westring, 1861
451. *A. agrestis* Ponomarev, 2007
452. *A. cuprea* Menge, 1873
453. *A. guttulata* Simon, 1897
454. *A. lusatica* (L. Koch, 1875)
455. *A. maculata* L. Koch, 1879
- Mesiotelus* Simon, 1897
456. *M. lubricus* (Simon, 1880)*
457. *M. zonsteini* Michailov, 1986
- Lycosidae**
- Acantholycosa* Dahl, 1908
458. *A. kurchumensis* Marusik, Azarkina & Koponen, 2004
459. *A. norvegica* (Thorell, 1872)
460. *A. tarbagataica* Marusik & Logunov, 2007
461. *A. zinchenkoi* Marusik, Azarkina & Koponen, 2004
- Allohogna* Roewer, 1955
462. *A. singoriensis* (Laxmann, 1770)
- Alopecosa* Simon, 1885
463. *A. accentuata* (Latreille, 1817)
464. *A. aculeata* (Clerck, 1757)
465. *A. akkolka* Marusik in Eskov & Marusik, 1995
466. *A. albofasciata* (Brulle, 1832)
467. *A. alpicola* (Simon, 1876)
468. *A. atypica* Ponomarev, 2008
469. *A. cronebergi* (Thorell, 1875)
470. *A. cuneata* (Clerck, 1757)
471. *A. cursor* (Hahn, 1831)
472. *A. deserta* Ponomarev, 2008
473. *A. ermolaevi* Saveljeva, 1972
474. *A. fabrilis* (Clerck, 1757)
475. *A. inderensis* Ponomarev, 2007



476. *A. inquilina* (Clerck, 1757)
 477. *A. kasakhstanica* Saveljeva, 1972
 478. *A. kronebergi* Andreeva, 1976
 479. *A. kulczynskii* Šternbergs, 1979
 480. *A. latifasciata* (Kroneberg, 1875)
 481. *A. longicymbia* Saveljeva, 1972
 482. *A. medvedevi* Ponomarev, 2009
 483. *A. notabilis* (Schmidt, 1895)
 484. *A. pulverulenta* (Clerck, 1757)
 485. *A. raddei* (Simon, 1889)
 486. *A. saurica* Marusik in Eskov & Marusik, 1995
 487. *A. schmidtii* (Hahn, 1835)
 488. *A. sciophila* Ponomarev, 2008
 489. *A. solitaria* (Herman, 1879)
 490. *A. spasskyi* Ponomarev, 2008
 491. *A. sulzeri* (Pavesi, 1873)
 492. *A. taeniopus* (Kulczyński, 1895)
 493. *A. trabalis* (Clerck, 1757)
 494. *A. turanica* Saveljeva, 1972
- Arctosa* C.L. Koch, 1847
 495. *A. cinerea* (Fabricius, 1777)
 496. *A. leopardus* (Sundevall, 1832)
 497. *A. ravida* Ponomarev, 2007
 498. *A. stigmata* (Thorell, 1875)
 499. *A. subamylacea* (Bösenberg & Strand, 1906)
- Caspicosa* Ponomarev, 2007
 500. *C. kulsaryensis* Ponomarev, 2007
- Evipa* Simon, 1882
 501. (?) *E. apsheronica* Marusik, Guseinov & Koponen, 2003
 502. *E. eltonica* Dunin, 1994
 503. *E. kazachstanica* Ponomarev, 2007
 504. *E. praelongipes* (O. Pickard-Cambridge, 1870)
 505. *E. sibirica* Marusik in Eskov & Marusik, 1995
 506. *E. sjostedti* Schenkel, 1936
 507. *E. turkmenica* Šternbergs, 1979
- Hogna* Simon, 1885
 508. *H. radiata* (Latreille, 1817)
- Lycosa* Latreille, 1804
509. *L. alticeps* (Kroneberg, 1875)
 510. *L. praegrandis* C.L. Koch, 1836
- Mustelicosa* Roewer, 1960
 511. *M. dimidiata* (Thorell, 1875)**
- Oculicosa* Zyuzin, 1993
 512. *O. supermirabilis* Zyuzin, 1993
- Pardosa* C.L. Koch, 1847
 513. *P. agrestis* (Westring, 1861)
 514. *P. agricola* (Thorell, 1856)
 515. *P. amentata* (Clerck, 1757)
 516. *P. alacris* (C.L. Koch, 1833)
 517. *P. atrata* (Thorell, 1873)
 518. '*P. beijiangensis* Hu & Wu, 1989**
 519. *P. calida* (Blackwall, 1852)
 520. *P. dzheminey* Marusik in Eskov & Marusik, 1995
 521. *P. fulvipes* (Collett, 1875)
 522. *P. gromovi* Ballarin, Marusik, Omelko & Koponen, 2012
 523. *P. italica* Tongiorgi, 1966
 524. *P. jaikensis* Ponomarev, 2007
 525. *P. jenseica* Marusik in Eskov & Marusik, 1995
 526. *P. jergeniensis* Ponomarev, 1979
 527. *P. lapponica* (Thorell, 1872)
 528. *P. luctinosa* Simon, 1876
 529. *P. lugubris* (Walckenaer, 1802)
 530. *P. mikhailovi* Ballarin, Marusik, Omelko & Koponen, 2012
 531. *P. narymica* Saveljeva, 1972
 532. *P. nebulosa* (Thorell, 1872)
 533. *P. nenilini* Marusik in Eskov & Marusik, 1995
 534. *P. oksalai* Marusik, Hippa & Koponen, 1996*
 535. *P. paludicola* (Clerck, 1757)
 536. *P. palustris* (Linnaeus, 1758)
 537. *P. paralapponica* Schenkel, 1963**
 538. *P. plumipes* (Thorell, 1875)
 539. *P. prativaga* (L. Koch, 1870)
 540. *P. proxima* (C.L. Koch, 1847)
 541. *P. pseudochionophila* Schenkel, 1963**
 542. *P. pseudolapponica* Marusik in Eskov & Marusik, 1995
 543. *P. pullata* (Clerck, 1757)



544. *P. riparia* (C.L. Koch, 1847)
545. (?) *P. saltuaria* (L. Koch, 1870)
546. *P. schenkeli* Lessert, 1904*
547. *P. thaleri* Buchar, 1976
548. *P. turkestanica* Roewer, 1951
549. *P. wagleri* (Hahn, 1822)
550. *P. xinjiangensis* Hu & Wu, 1989
551. *P. zonsteini* Ballarin, Marusik,
Omelko & Koponen, 2012

Pirata Sundevall, 1832

552. *P. cereipes* (L. Koch, 1878)
553. *P. piraticus* (Clerck, 1757)
554. *P. tenuitarsis* Simon, 1876

Piratula Roewer, 1960

555. *P. hygrophilus* (Thorell, 1872)

Sibirocosa Marusik, Azarkina &
Koponen, 2004

556. *S. alpina* Marusik, Azarkina &
Koponen, 2004

Trochosa C.L. Koch, 1847

557. *T. immaculata* Saveljeva, 1972
558. *T. ruricola* (De Geer, 1778)
559. *T. terricola* Thorell, 1856

Xerolycosa Dahl, 1908

560. *X. miniata* (C.L. Koch, 1834)
561. *X. nemoralis* (Westring, 1861)

Mimetidae

- Ermetus* Ponomarev, 2008
562. *E. inopinabilis* Ponomarev, 2008**

Ero C.L. Koch, 1837

563. *E. aphana* (Walckenaer, 1802)

Mimetus Hentz, 1832

564. *M. laevigatus* (Keyserling, 1863)

Nemesiidae

- Raveniola* Zonstein, 1987
565. *R. ferghanensis* (Zonstein, 1984)
566. *R. virgata* (Simon, 1891)**

Oecobiidae

- Ambika* Lehtinen, 1967
567. *A. nadiae* (Spassky, 1936)
Oecobius Lucas, 1846
568. *O. tadjhikus* Andreeva & Tystshenko,
1969*
Uroctea Dufour, 1820
569. *U. limbata* (C.L. Koch, 1843)

Oonopidae

- Silhouettella* Benoit, 1979
570. *S. cf. loricator* (Roewer, 1942)

Oxyopidae

- Oxyopes* Latreille, 1804
571. *O. globifer* Simon, 1876
572. *O. heterophthalmus* (Latreille, 1804)
573. *O. lineatus* Latreille, 1806
574. *O. maracandensis* Charitonov, 1946*
575. *O. nenilini* Esyunin & Tuneva, 2009**
576. *O. ramosus* (Martini & Goeze, 1778)
577. *O. takobius* Andreeva & Tystshenko,
1969
578. *O. xinjiangensis* Hu & Wu, 1989

Palpimanidae

- Palpimanus* Dufour, 1820
579. *P. sogdianus* Charitonov, 1946

Philodromidae

- Artanes* Thorell, 1870
580. *A. margaritatus* (Clerck, 1757)
581. *A. poecilus* Thorell, 1872

Ebo Keyserling, 1884

582. *E. distinctivus* Lyakhov, 1992

Philodromus Walckenaer, 1826

583. *P. ablegminus* Szita & Logunov, 2008
584. *P. aureolus* (Clerck, 1757)
585. *P. buxi* Simon, 1884
586. *P. caspius* Ponomarev, 2008
587. *P. cespitum* (Walckenaer, 1802)
588. *P. emarginatus* (Schrank, 1803)
589. *P. fallax* Sundevall, 1832
590. *P. histrio* (Latreille, 1819)



591. *P. molarius* L. Koch, 1879
 592. *P. pictus* Kroneberg, 1875
 593. *P. ruficapillus* Simon, 1885
 594. *P. rufus* Walckenaer, 1826
 595. *P. timidus* Szita & Logunov, 2008
 596. *P. triangulatus* Wu & Song, 1987
 597. *P. tuvinensis* Szita & Logunov, 2008
 598. *P. xerophilus* Szita & Logunov, 2008
 599. *P. xinjiangensis* Tang & Song, 1987

Thanatus C.L. Koch, 1837

600. *T. albini* (Savigny & Audouin, 1826)
 601. *T. arcticus* Thorell, 1872***
 602. *T. arenarius* Thorell, 1872
 603. *T. atratus* Simon, 1875
 604. *T. coloradensis* Keyserling, 1880
 605. *T. fabricii* (Audouin, 1827)*
 606. *T. formicinus* (Clerck, 1757)
 607. *T. jaikensis* Ponomarev, 2007
 608. *T. kitabensis* Charitonov, 1946
 609. *T. mikhailovi* Logunov, 1996
 610. *T. mongolicus* (Schenkel, 1936)
 611. *T. oblongiusculus* (Lucas, 1846)
 612. *T. pictus* L. Koch, 1881
 613. *T. rayi* Simon, 1875
 614. *T. sabulosus* (Menge, 1875)
 615. *T. saraevi* Ponomarev, 2007
 616. *T. striatus* C.L. Koch, 1845
 617. *T. vulgaris* Simon, 1870

Tibellus Simon, 1875

618. *T. macellus* Simon, 1875
 619. *T. maritimus* (Menge, 1875)
 620. *T. oblongus* (Walckenaer, 1802)

Pholcidae

Artema Walckenaer, 1837

621. *A. transcaspica* Spassky, 1934

Ceratopholcus Spassky, 1934

622. *C. maculipes* Spassky, 1934**

Pholcus Walckenaer, 1805

623. *P. arkit* Huber, 2011
 624. *P. crassipalpis* Spassky, 1937
 625. *P. kamkaly* Huber, 2011
 626. *P. opilionoides* (Schrank, 1781)
 627. *P. phalangoides* (Fuesslin, 1775)

628. *P. ponticus* Thorell, 1875
 629. *P. sogdiana* Brignoli, 1978

Pisauridae

Dolomedes Latreille, 1804

630. *D. fimbriatus* (Clerck, 1757)
 631. *D. plantarius* (Clerck, 1757)

Pisaura Simon, 1885

632. *P. mirabilis* (Clerck, 1757)

Prodidomidae

Prodidomus Hentz, 1847

633. *P. redikorzevi* Spassky, 1940

Salticidae

Aelurillus Simon, 1884

634. *A. ater* (Kroneberg, 1875)
 635. *A. brutus* Wesołowska, 1996
 636. *A. concolor* Kulczyński, 1901
 637. *A. laniger* Logunov & Marusik, 2000
 638. *A. lutosus* (Tystshenko, 1965)
 639. *A. m-nigrum* (Kulczyński in Chyzer & Kulczyński, 1891)
 640. *A. muganicus* Dunin, 1984**
 641. *A. nenilini* Azarkina, 2002
 642. *A. v-insignitus* (Clerck, 1757)

Asianellus Logunov & Hęciak, 1996

643. *A. festivus* (C.L. Koch, 1834)
 644. *A. kazakhstanicus* Logunov & Hęciak, 1996

Ballus C.L. Koch, 1851

645. *B. depressus* (Walckenaer, 1802)

Bianor Peckham & Peckham, 1885

646. *B. albobimaculatus* (Lucas, 1846)

Chalcoscirtus Bertkau, 1880

647. *C. brevicymbialis* Wunderlich, 1980
 648. *C. charynensis* Logunov & Marusik, 1999
 649. *C. glacialis* Caporiacco, 1935
 650. *C. infimus* (Simon, 1868)
 651. *C. karakurt* Marusik, 1991
 652. *C. martensi* Zabka, 1980
 653. *C. michailovi* Logunov & Marusik, 1999
 654. *C. minutus* Marusik, 1990



655. *C. nigratus* (Thorell, 1875)
656. *C. paraansobicus* Marusik, 1990
657. *C. parvulus* Marusik, 1991
658. *C. platnicki* Marusik in Eskov & Marusik, 1995
659. *C. tanasevichi* Marusik, 1991
660. *C. zyuzini* Marusik, 1991
- Cyrba* Simon, 1876
661. *C. ocellata* (Kroneberg, 1875)
- Dendryphantes* C.L. Koch, 1837
662. *D. hastatus* (Clerck, 1757)
663. *D. ovchinnikovi* Logunov & Marusik, 1994
664. *D. rudis* (Sundevall, 1832)
665. *D. secretus* Wesołowska, 1995
666. *D. tuvinensis* Logunov, 1991
- Euophrys* C.L. Koch, 1834
667. *E. frontalis* (Walckenaer, 1802)
668. *E. prozyskii* Logunov, Cutler & Marusik, 1993
669. *E. uralensis* Logunov, Cutler & Marusik, 1993
- Evarcha* Simon, 1902
670. *E. arcuata* (Clerck, 1757)
671. *E. falcata* (Clerck, 1757)
672. *E. laetabunda* (C.L. Koch, 1846)
673. *E. michailovi* Logunov, 1992
674. *E. prozyskii* Marusik & Logunov, 1998
- Heliophanus* C.L. Koch, 1833
675. *H. auratus* C.L. Koch, 1835
676. *H. chovdensis* Prószyński, 1982
677. *H. curvidens* (O. Pickard-Cambridge, 1872)
678. *H. dubius* C.L. Koch, 1835
679. *H. dunini* Rakov & Logunov, 1997
680. *H. flavipes* (Hahn, 1832)
681. *H. forcipifer* Kulczyński, 1895
682. *H. kochi* Simon, 1868
683. *H. koktas* Logunov, 1992
684. *H. lineiventris* Simon, 1868
685. *H. melinus* L. Koch, 1867
686. *H. patagiatus* Thorell, 1875
687. *H. potanini* Schenkel, 1963
688. *H. turanicus* Charitonov, 1969
689. *H. wesolowskiae* Rakov & Logunov, 1997
- Langona* Simon, 1901
690. *L. tartarica* (Charitonov, 1946)
- Macaroeris* Wunderlich, 1987
691. *M. asiaticus* Logunov & Rakov, 1998
- Marpissa* C.L. Koch, 1846
692. *M. (Marpissa) pomatia* (Walckenaer, 1802)
693. *M. (Marpissa) radiata* (Grube, 1859)
694. *M. (Hyctia) nivoyi* (Lucas, 1846)
- Mendoza* Peckham & Peckham, 1894
695. *M. canestrinii* (Ninni in Canestrini & Pavesi, 1868)
- Menemerus* Simon, 1868
696. *M. marginatus* (Kroneberg, 1875)
- Mogrus* Simon, 1882
697. *M. antoninus* Andreeva, 1976
698. *M. larisae* Logunov, 1995
699. *M. neglectus* (Simon, 1868)
- Neon* Simon, 1876
700. *N. (Neon) reticulatus* (Blackwall, 1853)
701. *N. (Neon) valentulus* Falconer, 1912
702. *N. (Dicroneon) levis* (Simon, 1871)
703. *N. (Dicroneon) rayi* (Simon, 1875)
- Pellenes* Simon, 1876
704. *P. (Pellenes) seriatus* (Thorell, 1875)
705. *P. (Pellenes) sibiricus* Logunov & Marusik, 1994
706. *P. (Pellenes) tripunctatus* (Walckenaer, 1802)
707. *P. (Pelmirus) dilutus* Logunov, 1995
708. *P. (Pelmirus) pulcher* Logunov, 1995
709. *P. (Pelmultus) allegrii* Caporiacco, 1935
710. *P. (Pelmultus) amazonka* Logunov, Marusik & Rakov, 1999



711. *P. (Pelmultus) borisi* Logunov, Marusik & Rakov, 1999
712. *P. (Pelmultus) epularis* (O. Pickard-Cambridge, 1872)
713. *P. (Pelmultus) geniculates* (Simon, 1868)
714. *P. (Pelmultus) pseudobrevis* Logunov, Marusik & Rakov, 1999
715. *P. (Pelmultus) stepposus* (Logunov, 1991)
716. *P. (Pelpaucus) albopilosus* (Tystshenko, 1965)
717. *P. (Pelpaucus) ignifrons* (Grube, 1861)
718. *P. (Pelpaucus) limbatus* Kulczyński, 1895
- Philaeus* Thorell, 1869
719. *P. chrysops* (Poda, 1761)
- Phlegra* Simon, 1876
720. *P. andreevae* Logunov, 1996
721. *P. bicognata* Azarkina, 2003
722. *P. fasciata* (Hahn, 1826)
723. *P. kulczynskii* Azarkina, 2003
724. *P. logunovi* Azarkina, 2003
725. *P. obscurimagna* Azarkina, 2003
726. *P. profuga* Logunov, 1996
727. *P. sogdiana* Charitonov, 1946
- Plexippus* C.L. Koch, 1846
728. *P. coccineus* Simon, 1902
729. *P. kondarensis* (Charitonov, 1951)
- Proszynskiana* Logunov, 1996
730. *P. deserticola* Logunov, 1996
- Pseudeuophrys* F. Dahl, 1912
731. *P. erratica* (Walckenaer, 1825)
732. *P. obsoleta* (Simon, 1868)
- Pseudicius* Simon, 1885
733. *P. afghanicus* (Andreeva, Hęciak & Prószyński, 1984)
734. *P. cinctus* O. Pickard-Cambridge, 1885
735. *P. courtauldi* Bristowe, 1935
736. *P. encarpatus* (Walckenaer, 1802)
- Ptocasius* Simon, 1885
737. *P. variegatus* Logunov, 1995
- Rafalus* Prószyński, 1999
738. *R. variegatus* (Kroneberg, 1875)
- Salticus* Latreille, 1804
739. *S. cingulatus* (Panzer, 1797)
740. *S. dzhungaricus* Logunov, 1992
741. *S. proszynskii* Logunov, 1992
742. *S. scenicus* (Clerck, 1757)
743. *S. tricinctus* (C.L. Koch, 1846)
- Sibianor* Logunov, 2001
744. *S. aurocinctus* (Ohlert, 1865)
- Sitticus* Simon, 1901
745. *S. ammophilus* (Thorell, 1875)
746. *S. ansobicus* Andreeva, 1976
747. *S. avocator* (O. Pickard-Cambridge, 1885)
748. *S. barsakelmes* Logunov & Rakov, 1998
749. *S. distinguendus* (Simon, 1868)
750. *S. dubatolovi* Logunov & Rakov, 1998
751. *S. floricola* (C.L. Koch, 1837)
752. *S. inexpectus* Logunov & Kronestedt, 1997
753. *S. inopinabilis* Logunov, 1992
754. *S. kazakhstanicus* Logunov, 1992
755. *S. mirandus* Logunov, 1993
756. *S. monstrabilis* Logunov, 1992
757. *S. nenilini* Logunov & Wesółowska, 1993
758. *S. penicillatus* (Simon, 1875)
759. *S. pulchellus* Logunov, 1992
760. *S. saltator* (Simon, 1868)
761. *S. talgarensis* Logunov & Wesółowska, 1993
762. *S. terebratus* (Clerck, 1757)
763. *S. zaisanicus* Logunov, 1998
764. *S. zimmermanni* (Simon, 1877)
- Synageles* Simon, 1876
765. *S. charitonovi* Andreeva, 1976
766. *S. hilarulus* (C.L. Koch, 1846)
767. *S. ramitus* Andreeva, 1976
768. *S. subcingulatus* (Simon, 1878)



769. *S. venator* (Lucas, 1836)

Talavera Peckham & Peckham, 1909

770. *T. aequipes* (O. Pickard-Cambridge, 1871)

771. *T. aperta* (Miller, 1971)

772. *T. petrensis* (C.L. Koch, 1837)

773. *T. thorelli* (Kulczyński in Chyzer & Kulczyński, 1891)

Yllenus Simon, 1868

774. *Y. albocinctus* (Kroneberg, 1875)

775. *Y. aralicus* Logunov & Marusik, 2003

776. *Y. bakanas* Logunov & Marusik, 2003

777. *Y. bucharaensis* Logunov & Marusik, 2003

778. *Y. caspius* Ponomarjov, 1978

779. *Y. charynensis* Logunov & Marusik, 2003

780. *Y. coreanus* Prószyński, 1968

781. *Y. dalaensis* Logunov & Marusik, 2003

782. *Y. dunini* Logunov & Marusik, 2003

783. *Y. flavociliatus* Simon, 1895

784. *Y. kalkamanicus* Logunov & Marusik, 2000

785. *Y. lyachovi* Logunov & Marusik, 2000

786. *Y. pavlenkoae* Logunov & Marusik, 2003

787. *Y. pseudovalidus* Logunov & Marusik, 2003

788. *Y. turkestanicus* Logunov & Marusik, 2003

789. *Y. uiguricus* Logunov & Marusik, 2003

790. *Y. uzbekistanicus* Logunov & Marusik, 2003

791. *Y. validus* (Simon, 1889)

792. *Y. vittatus* Thorell, 1875

793. *Y. zhilgaensis* Logunov & Marusik, 2003

794. *Y. zyzini* Logunov & Marusik, 2003

Scytodidae

Scytodes Latreille, 1804

795. *S. thoracica* (Latreille, 1802)**

Segestriidae

Segestria Latreille, 1804

796. *S. turkestanica* Dunin, 1986**

Sicariidae

Loxosceles Heineken & Lowe in Lowe, 1832

797. *L. rufescens* (Dufour, 1820)

Sparassidae

Eusparassus Simon, 1903

798. *E. walckenaeri* (Audouin, 1826)

Micrommata Latreille, 1804

799. *M. virescens* (Clerck, 1757)

Olios Walckenaer, 1837

800. *O. sericeus* (Kroneberg, 1875)

Tetragnathidae

Metellina Chamberlin & Ivie, 1941

801. (?) *M. orientalis* (Spassky, 1932)

802. *M. segmentata* (Clerck, 1757)

Metleucauge Levi, 1980

803. *M. dentipalpis* (Kroneberg, 1875)

Pachygnatha Sundevall, 1823

804. *P. clercki* Sundevall, 1823

805. *P. degeeri* Sundevall, 1830

806. *P. listeri* Sundevall, 1830

Tetragnatha Latreille, 1804

807. *T. externa* (Linnaeus, 1758)

808. *T. isidis* (Simon, 1880)

809. *T. montana* Simon, 1874

810. *T. nigrita* Lendl, 1886*

811. *T. obtusa* C.L. Koch, 1837

812. *T. pinicola* L. Koch, 1870

813. *T. striata* L. Koch, 1862

Theridiidae

Asagena Sundevall, 1833

814. *A. phalerata* (Panzer, 1801)

Chryso O. Pickard-Cambridge, 1882

815. *C. nordica* (Chamberlin & Ivie, 1947)

Crustulina Menge, 1868



816. *C. guttata* (Wider, 1834)**
 817. *C. sticta* (O. Pickard-Cambridge, 1861)
Cryptachaea Archer, 1946
 818. *C. riparia* (Blackwall, 1834)**
Dipoena Thorell, 1869
 819. (?) *D. torva* (Thorell, 1875)
 820. *D. yutian* Hu & Wu, 1989**
Enoplognatha Pavesi, 1880
 821. *E. gershomi* Bosmans & Van Keer, 1999**
 822. *E. gramineusa* Zhu, 1998**
 823. *E. latimana* Hippa & Oksala, 1982
 824. *E. mandibularis* (Lucas, 1846)
 825. *E. margarita* Yaginuma, 1964
 826. *E. mordax* (Thorell, 1875)**
 827. *E. oelandica* (Thorell, 1875)
 828. *E. ovata* (Clerck, 1757)
 829. *E. serratosignata* (L. Koch, 1879)
 830. *E. submargarita* Yaginuma & Zhu, 1992
 831. *E. thoracica* (Hahn, 1833)**
 832. *E. turkestanica* Charitonov, 1946
Episinus Walckenaer in Latreille, 1809
 833. *E. angulatus* (Blackwall, 1836)**
Euryopsis Menge, 1868
 834. *E. clarus* Ponomarev, 2005 B.
 835. *E. flavomaculata* (C.L. Koch, 1836)
 836. *E. laeta* (Westring, 1861)
 837. *E. saukea* Levi, 1951**
 838. *E. quinqueguttata* Thorell, 1875
Heterotheridion Wunderlich, 2008
 839. *H. nigrovariegatum* (Simon, 1873)
Lasaeola Simon, 1881
 840. *L. prona* (Menge, 1868)**
 841. *L. tristis* (Hahn, 1833)
Latrodectus Walckenaer, 1805
 842. *L. dahli* Levi, 1959
 843. *L. pallidus* O. Pickard-Cambridge, 1872
 844. *L. tredecimguttatus* (P. Rossi, 1790)
Neottiura Menge, 1868
 845. *N. bimaculata* (Linnaeus, 1767)
Ohlertidion Wunderlich, 2008
 846. *O. ohlerti* (Thorell, 1870)**
Paidiscura Archer, 1950
 847. *P. dromedaria* Simon, 1880
Parasteatoda Archer, 1946
 848. *P. lunata* (Clerck, 1757)**
 849. *P. simulans* (Thorell, 1875)**
 850. *P. tabulata* (Levi, 1980)
 851. *P. tepidariorum* (C.L. Koch, 1841)
Phylloneta Archer, 1950
 852. *P. impressa* (L. Koch, 1881)
 853. *P. sisyphia* (Clerck, 1757)
Platnickina Koçak & Kemal, 2008
 854. *P. tincta* (Walckenaer, 1802)
Robertus O. Pickard-Cambridge, 1879
 855. *R. arundineti* (O. Pickard-Cambridge, 1871)
 856. *R. lividus* (Blackwall, 1836)**
 857. *R. neglectus* (O. Pickard-Cambridge, 1871)
Rugathodes Archer, 1950
 858. *R. aurantius* (Emerton, 1915)**
Simithidion Wunderlich, 1991
 859. *S. simile* (C.L. Koch, 1836)
Steatoda Sundevall, 1833
 860. *S. albomaculata* (De Geer, 1778)
 861. *S. bipunctata* (Linnaeus, 1758)
 862. *S. caspia* Ponomarev, 2007
 863. *S. castanea* (Clerck, 1757)
 864. *S. dahli* (Nosek, 1905)
 865. *S. grossa* (C.L. Koch, 1838)
 866. *S. paykulliana* (Walckenaer, 1806)
 867. *S. semideserta* Ponomarev, 2005
 868. *S. triangulosa* (Walckenaer, 1802)



- Theridion* Walckenaer, 1805
869. *T. cinereum* Thorell, 1875
870. *T. desertum* Ponomarev, 2008
871. *T. innocuum* Thorell, 1875
872. *T. karamayensis* Zhu, 1998**
873. *T. melanurum* (Hahn, 1831)**
874. *T. mystaceum* L. Koch, 1870
875. *T. petraeum* L. Koch, 1872
876. *T. pictum* (Walckenaer, 1802)
877. *T. pinastri* L.Koch, 1872**
878. *T. sibiricum* Marusik, 1988*
879. *T. varians* (Hahn, 1833)
880. *T. wiehlei* Schenkel, 1938
- Thomisidae**
Coriarachne Thorell, 1869
881. *C. depressa* (C.L. Koch, 1837)
- Diaea* Thorell, 1869
882. *D. suspiciosa* O. Pickard-Cambridge, 1885
- Ebrechtella* F. Dahl, 1907
883. *E. tricuspadata* (Fabricius, 1775)
- Heriaeus* Simon, 1875
884. *H. buffonopsis* Loerbroks, 1983
885. *H. capillatus* Utotschkin, 1985
886. *H. horridus* Tystshenko, 1965
887. *H. melloteei* Simon, 1886
888. *H. oblongus* Simon, 1918
- Misumena* Latreille, 1804
889. *M. vatia* (Clerck, 1757)
- Misumenops* F. O. Pickard-Cambridge, 1900
890. *M. armata* Spassky, 1952
- Monaeses* Thorell, 1869
891. *M. israeliensis* Levy, 1973
892. *M. paradoxus* (Lucas, 1846)**
- Ozyptila* Simon, 1864
893. *O. atomaria* (Panzer, 1801)
894. *O. inaequalis* (Kulczyński, 1901)
895. *O. lugubris* (Kroneberg, 1875)
896. *O. praticola* (C.L. Koch, 1837)
897. *O. pullata* (Thorell, 1875)
898. *O. rauda* Simon, 1875
899. *O. scabricula* (Westring, 1851)
900. *O. tricoloripes* Strand, 1913
901. *O. trux* (Blackwall, 1846)**
- Pistius* Simon, 1875
902. *P. undulatus* Karsch, 1879
- Runcinia* Simon, 1875
903. *R. grammica* (C.L. Koch, 1837)
904. *R. tarabayevi* Marusik & Logunov, 1990
- Synema* Simon, 1864
905. *S. globosum* (Fabricius, 1775)
906. *S. tadzhikistanicum* Utotschkin, 1960
907. *S. utotchkini* Marusik & Logunov, 1990
- Thomisus* Walckenaer, 1805
908. *T. onustus* Walckenaer, 1805
909. *T. zyzini* Marusik & Logunov, 1990
- Tmarus* Simon, 1875
910. *T. piger* (Walckenaer, 1802)
- Xysticus* C.L. Koch, 1835
911. *X. acerbus* Thorell, 1872
912. *X. aletaiensis* Hu & Wu, 1989*
913. *X. altaicus* Simon, 1895
914. *X. audax* (Schränk, 1803)
915. *X. austrosibiricus* Logunov & Marusik, 1998*
916. *X. bakanas* Marusik & Logunov, 1990
917. *X. baltistanus* (Caporiacco, 1935)
918. *X. bifasciatus* C.L. Koch, 1837
919. *X. bonneti* Denis, 1937
920. *X. caspicus* Utotschkin, 1968
921. *X. concinnus* Kroneberg, 1875
922. *X. cristatus* (Clerck, 1757)
923. *X. dzhungaricus* Tystshenko, 1965
924. *X. emertoni* Keyserling, 1880
925. *X. ehippiatus* Simon, 1880
926. *X. graecus* C.L. Koch, 1837
927. *X. idolothytus* Logunov, 1995
928. *X. kochi* Thorell, 1872
929. *X. kuzgi* Marusik & Logunov, 1990**



930. *X. lapidarius* Utotschkin, 1968
 931. *X. lineatus* (Westring, 1851)
 932. *X. loeffleri* Roewer, 1955
 933. *X. luctator* L. Koch, 1870
 934. *X. luctuosus* (Blackwall, 1836)
 935. *X. marmoratus* Thorell, 1875
 936. *X. minor* Charitonov, 1946
 937. *X. mongolicus* Schenkel, 1963
 938. *X. ninnii* (Thorell, 1872)
 939. *X. pseudobliteus* (Simon, 1880)
 940. *X. pseudocristatus* Azarkina & Logunov, 2001
 941. *X. pygmaeus* Tystshenko, 1965
 942. *X. robustus* (Hahn, 1832)
 943. *X. sjostedti* Schenkel, 1936
 944. *X. striatipes* L. Koch, 1870
 945. *X. taukumkurt* Marusik & Logunov, 1990
 946. *X. tristrami* (O. Pickard-Cambridge, 1872)
 947. *X. turkmenicus* Marusik & Logunov, 1995
 948. *X. turlan* Marusik & Logunov, 1990
 949. *X. tyshchenkoi* Marusik & Logunov, 1995
 950. *X. ulkan* Marusik & Logunov, 1990**
 951. *X. ulmi* (Hahn, 1831)
 952. *X. urgumchak* Marusik & Logunov, 1990
 953. *X. vachoni* Schenkel, 1963
 954. (?) *X. viduus* Kulczyński, 1898
 955. *X. zonshteini* Marusik, 1989**
- Titanoecidae**
Nurscia Simon, 1875
 956. *N. albomaculata* (Lucas, 1846)
 957. *N. albosignata* Simon, 1874
- Titanoeca* Thorell, 1869
 958. *T. asimilis* Song & Zhu, 1985*
 959. *T. eca* Marusik in Eskov & Marusik, 1995
960. *T. lehtineni* Fet, 1986
 961. *T. minuta* Marusik in Eskov & Marusik, 1995
 962. (?) *T. quadriguttata* (Hahn, 1833)
 963. *T. schineri* L. Koch, 1872
 964. *T. turkmenia* Wunderlich, 1995
 965. (?) *T. veteranica* Herman, 1879
- Uloboridae**
Uloborus Latreille, 1806
 966. *U. plumipes* Lucas, 1846
 967. *U. walckenaerius* Latreille, 1806
- Zodariidae**
Lachesana Strand, 1932
 968. *L. tarabaei* Zonstein & Ovtchinnikov, 1999
- Parazodarion* Ovtchinnikov, Ahmad & Gurko, 2009
 969. *P. raddei* (Simon, 1889)
- Zodariellum* Andreeva & Tystshenko, 1968
 970. *Z. asiaticum* (Tystshenko, 1970)
 971. *Z. inderensis* Ponomarev, 2007
 972. *Z. nenilini* (Eskov in Eskov & Marusik, 1995)
 973. *Z. surprisum* Andreeva & Tystshenko, 1968
 974. *Z. volgouralensis* Ponomarev, 2007
- Zodarion* Walckenaer in Savigny & Audouin, 1826
 975. 'Z.' *bactrianum* Kroneberg, 1875
 976. 'Z.' *spasskyi* Charitonov, 1946
- Zoridae**
Zora C.L. Koch, 1847
 977. *Z. pardalis* Simon, 1878
 978. *Z. spinimana* (Sundevall, 1832)





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Female velvet spider
(*Eresus* sp.).