

Contributions to the Genus *Clubiona* (Araneae: Clubionidae) in Türkiye, with a New Record and Additional Notes

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Abstract: The family Clubionidae, referred to as sac spiders, comprises numerous genera and species. These spiders are widely distributed worldwide. *Clubiona* Latreille, 1804 is the largest genus in the family Clubionidae, with 528 species. The genus has 47 species distributed in Europe. The genus, which has many species worldwide, has only 14 species in Türkiye. The detailed study of these species contributes significantly to our understanding of the biodiversity in the region. To make new contributions to the genus *Clubiona*, specimens were collected and systematically studied in Bayburt province. Samples were collected from bushes, between the plant roots and under the stone. The species were examined and measured using an Olympus SZX-16 stereomicroscope. This study reports some members of the genus *Clubiona* from Bayburt province. *C. diversa* O. Pickard-Cambridge, 1862 is recorded for the first time from Türkiye. Together with the new record, *C. brevipes* Blackwall, 1841, *C. neglecta* O. Pickard-Cambridge, 1862 and *C. pseudoneglecta* Wunderlich, 1994 are given as new locality records from Bayburt province. Morphological characters and photos of the species are presented with a detailed description of the new record. In addition, the world distribution of the new record is shown with a map.

Keywords: Bayburt, biodiversity, *Clubiona diversa*, sac spiders.

Yeni Bir Kayıt ve İlave Notlar ile Türkiye'deki *Clubiona* (Araneae: Clubionidae) Cinsine Katkılar

Öz: Kese örümcekleri olarak adlandırılan Clubionidae ailesi, çok sayıda cins ve tür içerir. Bu örümcekler dünya çapında geniş bir dağılıma sahiptir. *Clubiona* Latreille, 1804, 528 tür ile Clubionidae familyasının en fazla tür sahibi cinsidir. Bu cinsin Avrupa'da dağılım gösteren 47 türü vardır. Dünyada çok sayıda türü bulunan cinsin, Türkiye'de yalnızca 14 türü bulunmaktadır. Bu türlerin detaylı bir şekilde incelenmesi bölgedeki biyoçeşitliliği anlamamızı önemli katkılar sağlayacaktır. *Clubiona* cinsine yeni katkılar sağlamak amacıyla Bayburt ilinden örnekler toplanmış ve sistematik açıdan incelenmiştir. Örnekler çalınlıklardan, bitki köklerinin arasından ve taş altından toplanmıştır. Türler Olympus SZX-16 stereomikroskop kullanılarak incelenmiş ve ölçümleri yapılmıştır. Bu çalışmada, Bayburt ilinden *Clubiona* cinsinin bazı üyeleri rapor edilmiştir. *C. diversa* O. Pickard-Cambridge, 1862 Türkiye'den ilk kez kaydedilmiştir. Yeni kayıtla birlikte *C. brevipes* Blackwall, 1841, *C. neglecta* O. Pickard-Cambridge, 1862 ve *C. pseudoneglecta* Wunderlich, 1994 Bayburt ilinden yeni lokalite kaydı olarak verilmiştir. Türlerin morfolojik karakterleri ve fotoğrafları, yeni kaydın detaylı tanımıyla birlikte sunulmuştur. Ayrıca yeni kaydın dünya dağılımı harita ile gösterilmiştir.

Anahtar kelimeler: Bayburt, biyoçeşitlilik, *Clubiona diversa*, kese örümcekleri.

INTRODUCTION

The family Clubionidae, known as sac spiders, comprises 665 species of 18 genera (World Spider Catalog, 2025). In Türkiye, 15 species of this family are recognised, 14 belonging to the genus *Clubiona* (Danışman et al., 2024; Nentwig et al., 2025). These species are: *C. brevipes* Blackwall, 1841, *C. caucasica* Mikhalov & Otto, 2017, *C. comta* C. L. Koch, 1839, *C. corticalis* (Walckenaer, 1802),

C. frutetorum L. Koch, 1867, *C. golovatchi* Mikhalov, 1990, *C. lutescens* Westring, 1851, *C. marmorata* L. Koch, 1866, *C. neglecta* O. Pickard-Cambridge, 1862, *C. pseudoneglecta* Wunderlich, 1994, *C. pseudosimilis* Mikhalov, 1990, *C. reclusa* O. Pickard-Cambridge, 1863, *C. similis* L. Koch, 1867 and *C. terrestris* Westring, 1851 (Avezbayeva & Türkş, 2022; Coşar et al., 2022; Danışman et al., 2012; Danışman et al., 2018; Danışman et al., 2024; Helsdingen, 2013; Marusik & Kunt, 2010;

Russell-Smith, 2009; Türkeş & Atlı, 2022). In this study, four species of the genus *Clubiona* were identified as the first locality records for Bayburt province, with one species being a new record for the araneofauna of Türkiye.

MATERIAL AND METHOD

Samples were collected from the bushes, through the plant roots and under the stone using a hand aspirator and stored in 70% ethanol. The samples were examined and measured using an Olympus SZX-16 stereomicroscope. The female genitalia were removed and cleared with 10% KOH before illustration. The examined specimens were deposited in the Arachnology Museum of the Bayburt University (BUAM). All measurements are given in millimetres (mm). The world distribution of the species is based on the World Spider Catalog (2025). Habitus and copulatory organs were taken by means of an Olympus SP-810UZ digital camera and compared mainly with Almquist (2007), Azheganova (1968), Bosmans et al. (2017), Brænregaard (1966), Gajdoš et al. (2020), Gaymard and Lecigne (2018), Locket and Millidge (1951), Merrett (2001), Pozzi and Hänggi (1998), Reimoser (1937), Roberts (1998), Sterghiu (1985) and Wiegle (1965). Leg measurements of *Clubiona diversa* O. Pickard-Cambridge, 1862 are given in Table 1.

The following abbreviations are used in the text: Fe, femur; Pt, patella; Ti, tibia; Mt, metatarsus; Ta, tarsus; E, embolus; Ta, tibial apophysis; Co, copulatory opening; Re, receptacles.

RESULTS

Family: Clubionidae Simon, 1878

Genus: *Clubiona* Latreille, 1804

Clubiona brevipes Blackwall, 1841

Material Examined: 1♀, (BUAM CLU-01/01), Bayburt Province, Akşar Town, around Korgan Bridge, 40°20'8.6"N 40°00'5.0"E, 1636 m., 02.11.2024, among the bushes, leg. N. Demircan Aksan.

Description: Female (Figure 1A-C) Total length 5.0. Carapace length 2.2, width 1.3. Abdomen length 2.8, width 2.0. Carapace and chelicerae dark brown. Legs yellowish. Abdomen brownish with dark median pattern. Epigyne and vulva are shown in Figure 1B, C.

Distribution: Europe, Caucasus, Japan (World Spider Catalog, 2025).

The first record of the species in Türkiye was reported from the Marmara region (Helsdingen, 2013). In this study, *C. brevipes* Blackwall, 1841 is identified as the first locality record for Bayburt province (Eastern Black Sea).

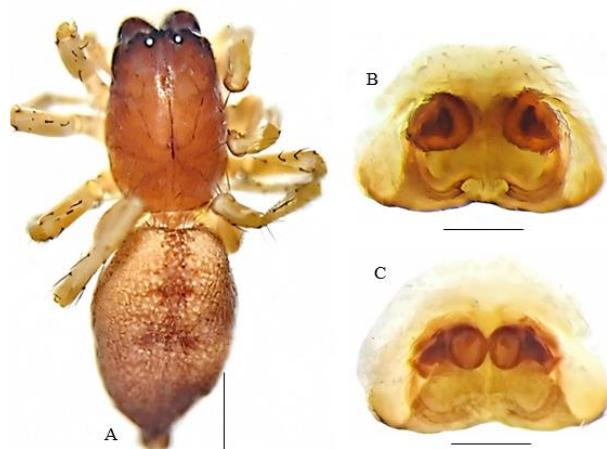


Figure 1. *Clubiona brevipes* (♀). A. Habitus, dorsal view B. Epigyne, ventral view C. Vulva, dorsal view (Scale: A. 1.0, B-C 0.2).

Clubiona diversa O. Pickard-Cambridge, 1862

Material Examined: 2♀♀, 2♂♂ (BUAM CLU-01/02), Bayburt Province, Akşar Town, around Korgan Bridge, 40°20'8.6"N 40°00'5.0"E, 1636 m., 23.11.2024, between the plant roots around the rocks, leg. N. Demircan Aksan.

Description: Female (♀) (Figure 3A-D). Total length 3.7. Carapace length 1.4, width 0.8. Abdomen length 2.3, width 1.0. Carapace brown, darker anteriorly with dense fine hairs. Chelicerae dark brown. Sternum light brown. Legs brown. Abdomen yellowish-white with dense fine hairs. Epigyne with single copulatory opening (Co). Each pair of receptacles (Re) close to each other.

Male (♂) (Figure 3E-I). Total length 3.1. Carapace length 1.3, width 1.0, brown. Abdomen length 1.8, width 0.8. Carapace brown, darker anteriorly with dense fine hairs. Chelicerae dark brown. Sternum light brown. Legs brown. Abdomen yellowish-white with dense fine hairs. Palp pale brown with dark cymbium. Tibial apophysis (Ta) pointed towards the tip. Embolus (E) long with curved distally.

Distribution: Europe, the Caucasus, Russia (from Europe to the Far East), Kazakhstan, Pakistan, Korea and Japan (World Spider Catalog, 2025).

In this study, *C. diversa* is recorded for the first time from Türkiye.



Figure 2. Worldwide distribution map of *C. diversa* (GBIF, 2025)

Table 1. *Clubiona diversa*, total body length and leg measurements (♂/♀)

| Male / Female | Total body length | Leg | Fe | Pt | Ti | Mt | Ta | Total |
|---------------|-------------------|-----|-----|-----|-----|-----|-----|-------|
| ♂ | 3.1 | I | 0.9 | 0.2 | 0.9 | 0.5 | 0.4 | 2.9 |
| | | II | 0.9 | 0.3 | 0.9 | 0.5 | 0.4 | 3.0 |
| | | III | 0.9 | 0.2 | 0.5 | 0.7 | 0.2 | 2.5 |
| | | IV | 1.1 | 0.2 | 0.9 | 1.0 | 0.2 | 3.4 |
| ♀ | 3.7 | I | 0.9 | 0.3 | 0.8 | 0.7 | 0.3 | 3.0 |
| | | II | 0.9 | 0.3 | 0.9 | 0.7 | 0.3 | 3.1 |
| | | III | 0.8 | 0.2 | 1.0 | 0.6 | 0.2 | 2.8 |
| | | IV | 1.2 | 0.3 | 1.0 | 1.2 | 0.3 | 4.0 |

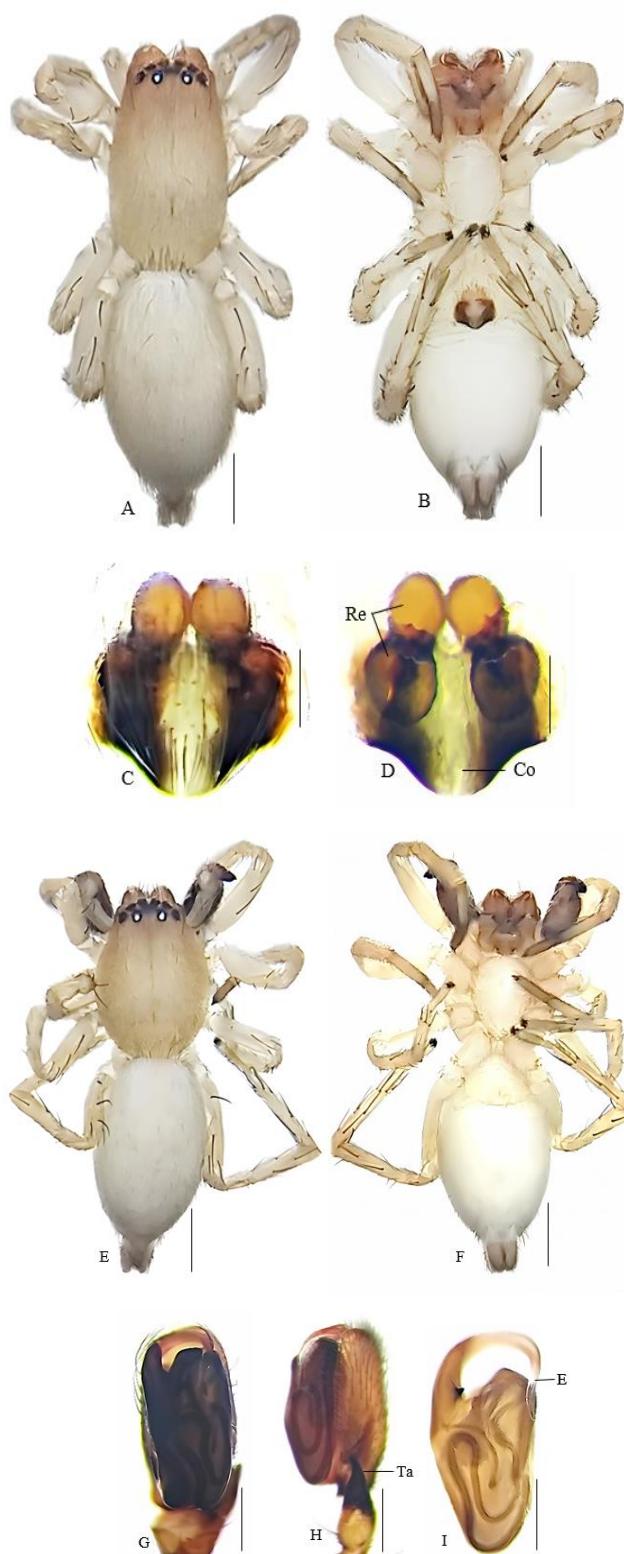


Figure 3. *Clubiona diversa* (♀, ♂), Female, A. Habitus, dorsal view B. Habitus, ventral view C. Epigyne, ventral view D. Vulva, dorsal view (Scale: A, B. 0.5, C, D. 0.1). Male, E. Habitus, dorsal view F. Habitus, ventral view G. Palp, ventral view H. Palp, retrolateral view; I. Bulbus, ventral view (Scale: E, F. 0.5, G-I. 0.2).

Clubiona neglecta O. Pickard-Cambridge, 1862

Material Examined: 1♀, (BUAM CLU-01/03), Bayburt Province, Demirözü District, around Demirözü

Dam, 40°07'46"N 39°53'54"E, 1720 m., 09.11.2024, under the stone, leg. N. Demircan Aksan.

Description: Female (Figure 4A-C), Total length 5.5. Carapace length 2.5, width 1.7. Abdomen length 3.0, width 2.0. Carapace and legs brown. Chelicerae dark brown. Abdomen reddish brown with median dark pattern and light dots. Epigyne and vulva are shown in Figure 4B, C.

Distribution: Europe, Türkiye, the Caucasus, Russia (from Europe to South Siberia), Iran, Central Asia, China and Korea (World Spider Catalog, 2025).

The first record of the species in Türkiye was reported from the Mediterranean coast (Russell-Smith, 2009). In this study, *C. neglecta* is presented as the first locality record for Bayburt province (Eastern Black Sea).

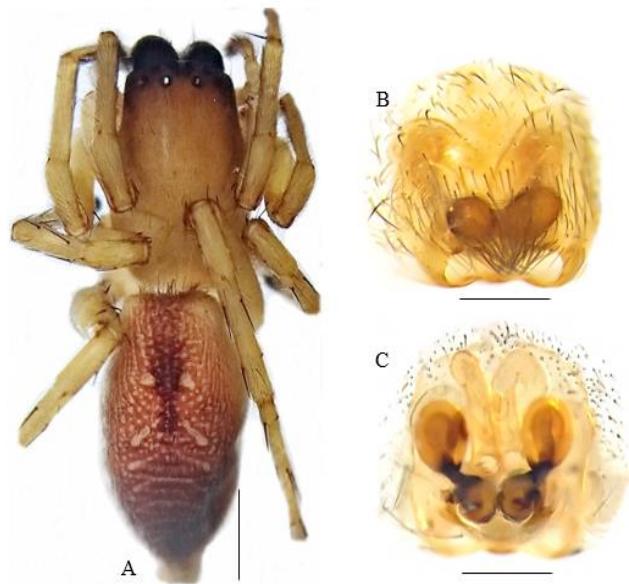


Figure 4. *Clubiona neglecta* (♀), A. Habitus, dorsal view B. Epigyne, ventral view C. Vulva, dorsal view (Scale: A. 1.0, B-C 0.2).

Clubiona pseudoneglecta Wunderlich, 1994

Material Examined 1♀, (BUAM CLU-01/04), Bayburt Province, Akşar Town, 40°20'8.6"N 40°00'5.0"E, 1645 m., 23.11.2024, among the bushes, leg. N. Demircan Aksan.

Description. Female (Figure 5A-C). Total length 5.0. Carapace length 2.0, width 1.2. Abdomen length 3.0, width 1.8. Prosoma brown. Legs yellowish brown. Abdomen brownish with median dark pattern. Epigyne and vulva are shown in Figure 5B, C.

Distribution: Morocco, Algeria, Europe, Caucasus, Iran (World Spider Catalog, 2025).

The first record of *C. pseudoneglecta* in Türkiye was reported from the Marmara region (Helsdingen, 2013). In this study, *C. pseudoneglecta* is given as the first locality record for Bayburt province (Eastern Black Sea).

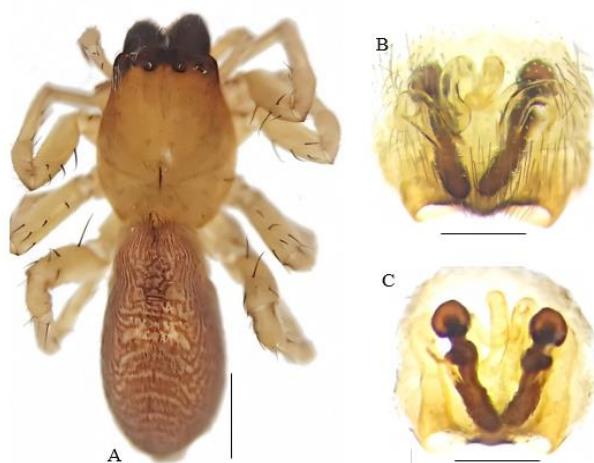


Figure 5. *Clubiona pseudoneglecta* (♀), A. Habitus, dorsal view B. Epigyne, ventral view C. Vulva, dorsal view (Scale: A. 1.0, B-C. 0.2).

DISCUSSION

In this study, a total of 7 specimens belonging to the genus *Clubiona* were examined, and 4 species were identified. Among these species, *C. diversa* is reported from Türkiye for the first time, increasing the number of known *Clubiona* species in the country to 15. Additionally, *C. brevipes*, *C. neglecta*, and *C. pseudoneglecta*, which are widespread in Türkiye, are recorded for the first time from Bayburt province in this study. Thus, the study provides both a regional contribution with species whose distribution is already known in Türkiye and a new record for the country.

C. diversa has a Palearctic distribution, ranging from Europe to the Far East and typically inhabits heathland of dunes, as well as litter and grass on limestone (Almquist, 2007; World Spider Catalog, 2025). The species was found only in one locality, among plant roots, during the survey. It has been observed that *C. diversa* is largely consistent with previously described specimens in terms of its morphological characteristics.

These new records contribute significantly to the expansion of the geographical range of *Clubiona* species in Türkiye. The results highlight the importance of continued field surveys to document the biodiversity of spiders, especially in less-explored areas such as Bayburt province.

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