

SPIDER RECORDS FROM SERRA DA ESTRELA NATURAL PARK (PORTUGAL): FAMILIES ARANEIDAE AND TETRAGNATHIDAE (ARACHNIDA, ARANEAE)

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Abstract: This paper presents records of 19 species of Araneidae and eight species of Tetragnathidae new for Serra da Estrela Natural Park (northern central Portugal). The presence of two additional species of Araneidae in the Park is confirmed. *Araniella inconspicua* (Simon, 1874) is recorded from Portugal for the first time and *Tetragnatha nigrita* Lendl, 1886 for the second time.

Key words: Araneae, Araneidae, Tetragnathidae, faunistics, new records, Portugal, Serra da Estrela Natural Park.

Registros de Arañas del Parque Natural de la Sierra de la Estrella (Portugal): familias Araneidae e Tetragnathidae (Arachnida, Araneae)

Resumen: Se presentan registros de 19 especies de Araneidae y ocho de Tetragnathidae nuevas para el Parque Natural de la Sierra de la Estrella (centro-norte de Portugal), y se confirma la presencia de dos especies más de Araneidae. *Araniella inconspicua* (Simon, 1874) se registra por primera vez para Portugal y *Tetragnatha nigrita* Lendl, 1886 por segunda vez.

Palabras clave: Araneae, Araneidae, Tetragnathidae, faunística, nuevos registros, Portugal, Parque Natural de la Sierra de la Estrella.

Introduction

Serra da Estrela Natural Park (PNSE) was the first Natural Park created in Portugal, in 1976. It is located in northern central Portugal (fig. 1), and occupies an area of approximately 100.000 ha, which makes it the largest protected area in Portugal. Altitude ranges in the Park from 300 m to 1993 m above sea level (a. s. l.), the highest in Continental Portugal. The Natural Park is under the influence of both Temperate and Mediterranean climates. With deep valleys, an abundance of water courses in the northern-facing slopes, warmer, drier south-facing slopes and a very characteristic high plateau (about 1500 m a. s. l.), PNSE presents a great variety of habitats that are occupied by a very diverse flora and fauna (cf. Jansen, 2002 and Grosso-Silva, 2005).

The present contribution derives from a study of the invertebrate fauna of PNSE whose main goals were the inventory, cartography and ecological characterization of the species that occur in the protected area (for further details see Grosso-Silva, 2005).

The bulk of the data presented here was collected between April 2003 and August 2005, and two specimens collected in October 1998 and July 2006 were also studied. Specimens were captured directly by means of active search, or indirectly using a beating net, a tray and beating stick and pitfall traps. Coordinates and altitude of each locality were obtained with a Garmin “ETrex Venture” GPS and/or with military maps with a 1:25,000 scale.

The identification of the material to genus level was made with the criteria adopted in Barrientos (2004, unpublished). Identification to species level was made with Blanke (1982), Morano & Ferrández (1985), Nentwig *et al.* (2005), Roberts (1995), Senglet (1972) and Simon (1929). Taxonomy follows Platnick (2005), except for the genus *Zygiella* F. O. Pickard-Cambridge, 1902 which follows the taxonomic concept used before Wunderlich (2004).

Fig. 1. Location of the PNSE in continental Portugal. →



Despite the large area and wide altitudinal range of Serra da Estrela Natural Park, until now no work has been specifically devoted to its arachnological fauna. Furthermore, the bibliographic data available is scattered through 15 works. Simon (1875 and 1914) made the first two additions to the Park's arachnofauna. With the works of Bacelar (1927, 1928, 1933 and 1940) and Machado (1949) the number of known spider species was raised to 18. Recently Ferrández (1985 and 1990), Alderweireldt & Bosmans (2001) and Pekár *et al.* (2003) added three new species to the Park's catalogue. Very recently Cardoso (2006) has made available online part of the information contained in the collection of António de Barros Machado, which added a significant number of species for PNSE (24 in total). Fernández (1910), Urones (1995) and Morano (2005) also have references to the Park's arachnofauna, but no new data is supplied.

All these contributions raised the number of spider species known from the PNSE to 45. Although this is already a reasonable number of recorded species, their distribution data is very poor, with most species being known

just from “Serra da Estrela”. Only 15 species were referred to a precise location, and *Rhode scutiventris* Simon, 1882 is the only species recorded from more than one place in the Park.

List format

The records are presented in a list with the species arranged alphabetically within each family. All the material was collected by the author unless stated otherwise. The specimens are deposited in CIBIO’s collection (not signaled in the text), the author’s collection (signaled as “PS col.”) and Sérgio Henriques’ collection (“SH col.”). Specimens not collected by the author are indicated with “JGS *leg.*” (José Grosso-Silva *leg.*) and “SF *leg.*” (Sónia Ferreira *leg.*).

The “MATERIAL EXAMINED” section includes the collecting data for each record: site name, 1x1 Km UTM square, altitude, date and specimen(s) information. The data is arranged by municipality, and within each one by date. Specimen information includes number of specimens and state of development: ♂ - adult male, ♀ - adult female, ♂ juv. - immature male, ♀ juv. - immature female and juv. - juvenile. All specimens identified in the field and not collected are signalled with “obs.”.

The “BIBLIOGRAPHIC LOCALITIES” section contains all the bibliographic records found for the Park.

The “COMMENTS” section provides information on the status of the species within the PNSE, its known distribution in the world, Portugal and/or the Iberian Peninsula and some additional information.

Species list

Araneidae Latreille, 1806

Aculepeira ceropegia (Walckenaer, 1802)

MATERIAL EXAMINED: **Celorico da Beira**: Linhares stream banks (29TPE2992; 495 m), 13-06-2005, 1 ♂ and 1 ♀ (SF *leg.*). **Manteigas**: Argenteira (29TPE2064; 1545 m), 10-06-2005, 2 ♂ and 1 ♀. COMMENTS: First record for the Park. Palaeartic species (Platnick, 2005) whose distribution is very poorly known in Portugal, with only half a dozen localities.

Agalenatea redii (Scopoli, 1763)

MATERIAL EXAMINED: **Celorico da Beira**: Near Tapada das Rasas (29TPE2890; 580 m), 13-05-2004, 1 ♀. **Guarda**: Near Moinho do Bufo (29TPE3885; 709 m), 27-05-2004, 2 ♀♀.

COMMENTS: First record for the Park. Palaeartic species (Platnick, 2005) distributed throughout continental Portugal.

Araneus angulatus Clerck, 1758

MATERIAL EXAMINED: **Celorico da Beira**: Reservoir near Salgueirais (29TPE3391; 942 m), 29-07-2004, 1 ♂. **Covilhã**: Near the road tunnel, below Cântaro Raso (29TPE1964; 1715 m), 13-07-2004, 1 ♀. **Manteigas**: Malhada do Carvalho (29TPE2366; 1490 m), 26-07-2004, 1 ♀. **Seia**: Covão do Forno (29TPE1569; 1570 m), 31-07-2003, 1 ♀; Senhora do Espinheiro (29TPE1274; 1019 m), 14-07-2004, 1 ♀.

BIBLIOGRAPHIC LOCALITIES: Gouveia (Bacelar, 1927 and Morano, 2005).

COMMENTS: Species already known from the Park, its area of occurrence was significantly extended. Palaeartic species (Platnick, 2005) with a wide distribution in Portugal. The majority of the known localities are positioned near the coast.

Araneus diadematus Clerck, 1758

MATERIAL EXAMINED: **Manteigas**: River Zêzere banks (below

Costa Limpo) (29TPE2267; 1100 m), 13-08-2003, 1 ♀; Fonte Santa (29TPE2371; 849 m), 05-11-2003, 1 ♀.

COMMENTS: First record for the Park. Holarctic species (Platnick, 2005) whose distribution is very poorly known in Portugal. All known records are from the north of the Tejo river, except for a record from Setúbal.

Araneus quadratus Clerck, 1758

MATERIAL EXAMINED: **Covilhã**: Quinta do Vale de Águas (29TPE2255; 650 m), 15-08-2005, 1 ♂. **Seia**: Lomba, near the water canal (29TPE1571; 1427 m), 12-08-2003, 1 ♂; Pragueira stream banks (29TPE1468; 1587 m), 27-07-2004, 1 ♂.

COMMENTS: Fourth record for Portugal and first record for the Park. Palaeartic species (Platnick, 2005) rarely uncommon in the country, it seems to be under-collected in Portugal and in the Iberian Peninsula (Morano, 2005).

Araneus triguttatus (Fabricius, 1793)

MATERIAL EXAMINED: **Celorico da Beira**: Oak woodland near Linhares (29TPE3189; 701 m), 24-03-2004, 1 ♂.

COMMENTS: Fourth record for the country and first record for the Park. Palaeartic species (Platnick, 2005) with only a few records in the Iberian Peninsula (Morano, 2005). It seems to be a rare species.

Araniella cucurbitina (Clerck, 1758)

MATERIAL EXAMINED: **Celorico da Beira**: Reservoir near Salgueirais (29TPE3391; 942 m), 13-06-2005, 1 ♀. **Covilhã**: Covão do Boi (29TPE1864; 1867 m), 22-06-2004, 1 ♂; Near Fraga do Rodeio (29TPE2263; 1560 m), 12-07-2004, 1 ♂ and 1 ♀. **Gouveia**: Salgueiro stream banks (29TPE2175; 1278 m), 12-06-2005, 1 ♂. **Manteigas**: Near Poio de Oliveira (29TPE2369; 1000 m), 24-04-2003, 1 ♂; Near Vale da Adega (29TPE2470; 1314 m), 21-06-2004, 1 ♂ and 1 ♀; Near Fonte da Jonja (29TPE2064; 1451 m), 12-07-2004, 1 ♀; Near Pedrão (29TPE2275; 1357 m), 13-07-2004, 2 ♀♀; Above Vale Andinho (29TPE2569; 1329 m), 15-07-2004, 1 ♀; Lagoa Seca (south) (29TPE2266; 1425 m), 15-07-2004, 1 ♂; Above Covão Caldeira (29TPE2269; 1270 m), 30-07-2004, 1 ♀. **Seia**: Vidual stream banks (29TPE1872; 1445 m), 12-06-2005, 1 ♀.

COMMENTS: First record for the Park. Palaeartic species (Platnick, 2005) that occurs in all continental Portugal. Most records are from the north of the Tejo river, although older ones may require confirmation, due to the presence of *Araniella opisthographa* (Kulczynski, 1905) in the country, which apparently forms with *A cucurbitina* a pair of sibling species (Levy, 1987).

Araniella inconspicua (Simon, 1874)

MATERIAL EXAMINED: **Manteigas**: Road to Mata do Fragusto (29TPE3176; 807 m), 25-05-2004, 1 ♀.

COMMENTS: First record for Portugal. Palaeartic species (Platnick, 2005). This species was captured in a mixed forest of *Pinus* and *Quercus* with predominance of *Pinus pinaster* Aiton.

Argiope bruennichi (Scopoli, 1772)

MATERIAL EXAMINED: **Celorico da Beira**: Quinta dos Corgãos (29TPE4297; 447 m), 07-07-2005, 1 obs. **Covilhã**: Reservoir in Beijames stream (29TPE2868; 599 m), 27-07-2004, 1 ♂. **Guarda**: Quinta do Manel Tomaz (29TPE3579; 950 m), 07-10-1998, 1 ♀ (JGS *leg.*; PS col.); Quinta do Fragusto (29TPE3377; 983 m), 14-08-2003, 2 ♀♀; 29-07-2004, 1 ♂. **Manteigas**: S. Gabriel (Manteigas) (29TPE2573; 652 m), 04-07-2005, 1 obs. **Seia**: East of Sabugueiro (29TPE1673; 1145 m), 13-07-2004, 1 ♂ (SH col.) and 1 ♂ juv.; Near Vasco Esteves de Cima (29TPE1059; 675 m), 14-07-2004, 1 ♂; Above Aldeia da Serra (29TPE1275; 885 m), 28-07-2004, 1 ♀ juv. obs.; Santo Estêvão (29TPE1575; 1339 m), 28-07-2004, 1 ♀ obs.

COMMENTS: First record for the Park. Palaeartic species (Platnick, 2005) that occurs throughout the country (Cardoso, 2006 and personal observations).

Argiope lobata (Pallas, 1772)

MATERIAL EXAMINED: **Covilhã**: Cabeço dos Coucinhos (29TPE 1858; 994 m), 15-08-2005, 1 ♀ obs.; Near Espinhaço de Cão (29TPE2665; 1402 m), 12-07-2006, 1 juv. obs.

COMMENTS: First record for the Park. Cosmopolitan species (Platnick, 2005) which occurs in all continental Portugal. Nevertheless this species is known from fewer localities than *A. bruennichi* and seems to become more abundant in the south (personal observations), which suggests that it may require warmer habitats (*A. lobata* was only recorded from the southern slopes of PNSE).

Cyclosa algerica Simon, 1885

MATERIAL EXAMINED: **Manteigas**: Near Vale da Adega (29TPE 2470; 1314 m), 21-06-2004, 2 ♀♀; Near Pedrão (29TPE2275; 1357 m), 13-07-2004, 1 ♀; Above Vale Andinho (29TPE2569; 1329 m), 15-07-2004, 1 ♀ and 1 juv.; Lagoa Seca (south) (29TPE2266; 1425 m), 15-07-2004, 1 ♀; Above Covão Caldeira (29TPE2269; 1270 m), 30-07-2004, 2 ♀♀. **Seia**: Lomba, near the water canal (29TPE1571; 1427 m), 31-07-2003, 1 ♀; Safra (29TPE0655; 664 m), 12-05-2004, 1 ♂; Portela do Arão (29TPE0966; 989 m), 14-07-2004, 1 ♀.

COMMENTS: First record for the Park. Mediterranean species (Platnick, 2005) which occurs in all continental Portugal.

Cyclosa conica (Pallas, 1772)

MATERIAL EXAMINED: **Manteigas**: Fonte Santa (29TPE2371; 849 m), 21-04-2003, 1 ♀; Poço do Inferno (29TPE2570; 1080 m), 10-05-2004, 1 ♂; Birch woodland below Nave de Santo António (29TPE2165; 1512 m), 25-05-2004, 1 ♀; Road to Mata do Fragusto (near Barroca do Carrascal) (29TPE3276; 912 m), 02-05-2005, 1 ♀ (SF leg.); Serra de Baixo (south of Vale Longo) (29TPE2467; 1420 m), 03-05-2005, 1 ♂. **Seia**: Near Sabugueiro (29TPE1573; 1080 m), 22-06-2004, 1 ♀.

COMMENTS: First record for the Park. Holarctic species (Platnick, 2005) that occurs in all continental Portugal, although the number of known localities is lower than for *C. algerica*.

Gibbaranea bituberculata (Walckenaer, 1802)

MATERIAL EXAMINED: **Guarda**: Near Tapadão (29TPE3879; 860 m), 22-03-2004, 1 ♂; Near Corujeira (29TPE4085; 820 m), 26-03-2004, 1 ♀. **Manteigas**: Near Poio de Oliveira (29TPE2369; 1000 m), 24-04-2003, 1 ♀; Mata do Fragusto (29TPE3175; 697 m), 12-04-2005, 1 ♀; Near Pracota (29TPE2273; 1058 m), 13-04-2005, 1 ♂; 03-05-2005, 1 ♀.

COMMENTS: First record for the Park. Holarctic species (Platnick, 2005) which occurs in all continental Portugal.

Gibbaranea gibbosa (Walckenaer, 1802)

MATERIAL EXAMINED: **Manteigas**: Road to Mata do Fragusto (near Barroca do Carrascal) (29TPE3276; 912 m), 02-05-2005, 1 ♀.

COMMENTS: First record for the Park. Species with a distribution that ranges from across Europe to Azerbaijan (Platnick, 2005), it has a wide distribution in Portugal, with the majority of the known localities near the coast.

Larinioides sclopetarius (Clerck, 1758)

MATERIAL EXAMINED: **Celorico da Beira**: Reservoir near Salgueirais (29TPE3391; 942 m), 24-03-2004, 1 juv.; 06-07-2005, 1 ♀; Linhares stream banks (29TPE2992; 495 m), 13-06-2005, 1 ♂ (SF leg.). **Covilhã**: Road to Unhais, in the water canal (29TPE1960; 1319 m), 15-08-2005, 5 ♀♀ obs. **Guarda**: Quinta do Fragusto (29TPE3377; 983 m), 14-08-2003, 1 juv.; Rio Mondego banks, near Quinta da Taberna (29TPE3482; 835 m), 14-08-2003, 1 ♀; River Mondego banks (near the bridge between Videmonte and Trinta) (29TPE3785; 737 m), 26-05-2004, 1 juv.; River Mondego banks (near the bridge between Vila Soeiro and Pêro Soares) (29TPE4089; 587 m), 07-07-2005, 1 ♀. **Manteigas**: Fonte Paulo Luís Martins (29TPE2165; 1318 m), 21-04-2003, 1 juv.; 31-07-2003, 1 ♂ juv.; 26-05-2004, 1 ♂ and 1 ♀; 12-07-2004, 1 ♀; Albarcãs (River Zêzere banks) (29TPE2268; 1079 m), 31-07-2003, 2 ♀♀; 13-07-2004, 1 ♂; Alto da Portela (Serra de Baixo) (29TPE

2568; 1370 m), 12-08-2003, 1 ♀; Serra de Baixo (29TPE2567; 1346 m), 15-07-2004, 1 ♂; Beijames stream banks (Beijames) (29TPE2466; 1330 m), 26-07-2004, 1 ♂ and 1 ♀. **Seia**: Covão do Forno (29TPE1569; 1570 m), 31-07-2003, 1 ♀ juv.; Câmara de Carga do Desterro (Sabugueiro) (29TPE1172; 974 m), 14-07-2004, 1 ♀; Ponte de Cabaços (29TPE1875; 1352 m), 14-06-2005, 1 obs.

COMMENTS: First record for the Park, it is an abundant species in the PNSE, occurring in the majority of the surveyed water courses. Holarctic species (Platnick, 2005) with a wide distribution in Portugal.

Mangora acalypha (Walckenaer, 1802)

MATERIAL EXAMINED: **Celorico da Beira**: Near Quinta da Requeixada (29TPE3892; 822 m), 26-05-2004, 1 ♀; Near Tapada das Rasas (29TPE2890; 580 m), 13-05-2004, 1 ♂. **Covilhã**: Near Muro Novo (29TPE1455; 682 m), 12-05-2004, 1 ♂ and 1 ♀. **Gouveia**: Salgueiro stream banks (29TPE2175; 1278 m), 12-06-2005, 1 obs. **Guarda**: Quinta do Fragusto (29TPE3377; 983 m), 25-05-2004, 2 ♂♂ and 2 ♀♀; River Mondego banks (near the bridge between Videmonte and Trinta) (29TPE3785; 737 m), 26-05-2004, 1 ♀; Near Aldeia Viçosa (29TPE4292; 497 m), 26-05-2004, 1 ♀; Near Moinho do Bufo (29TPE3885; 709 m), 27-05-2004, 1 ♀; Ramalhosa (29TPE4392; 482 m), 19-05-2005, 1 obs.; Near the reservoir in River Mondego (west of Fojo) (29TPE3886; 736 m), 19-05-2005, 1 ♂. **Manteigas**: Near Fonte da Jonja (29TPE2064; 1451 m), 12-07-2004, 1 juv.; Curral da Nave (29TPE2469; 1328 m), 09-06-2005, 1 obs. **Seia**: Southwest of Sabugueiro (29TPE1472; 1100 m), 04-11-2003, 1 juv.; 18-05-2005, 1 obs.; 14-06-2005, 2 obs.; Near Fraga do Alvoço (29TPE1367; 1661 m), 13-07-2004, 1 ♀; Near Cabeço do Talão (29TPE1666; 1861 m), 18-05-2005, 1 ♂; Pragueira stream banks (29TPE1468; 1587 m), 10-06-2005, 1 obs.; Northeast of Sabugueiro (29TPE1674; 1197 m), 14-06-2005, 2 obs.

COMMENTS: First record for the Park, it is an abundant species in the PNSE, occurring in a wide range of habitats, from humanized areas to prairies and forest margins. Palaeartic species (Platnick, 2005) which occurs in all continental Portugal.

Neoscona adianta (Walckenaer, 1802)

MATERIAL EXAMINED: **Celorico da Beira**: Near Assanhas (29TPE3190; 750 m), 30-07-2003, 1 ♀. **Covilhã**: Near Fraga do Rodeio (29TPE2263; 1560 m), 12-07-2004, 1 ♀. **Gouveia**: Quinta da Fazenda (29TPE2787; 605 m), 29-07-2004, 1 ♂. **Guarda**: 500 m N of Quinta das Lameiras (29TPE3688; 1080 m), 30-07-2003, 1 ♀; Quinta do Fragusto (29TPE3377; 983 m), 14-08-2003, 1 ♀. **Manteigas**: Malhada Alta (29TPE2367; 1397 m), 22-06-2004, 1 ♂; Near Fonte da Jonja (29TPE2064; 1451 m), 12-07-2004, 1 ♂; Near Pedrão (29TPE2275; 1357 m), 13-07-2004, 1 ♀; Serra de Baixo (29TPE2567; 1346 m), 15-07-2004, 1 ♂; Malhada do Carvalho (29TPE2366; 1490 m), 26-07-2004, 1 ♀; Beijames stream banks (Beijames) (29TPE2466; 1330 m), 26-07-2004, 2 ♂♂ and 1 ♀. **Seia**: Southwest of Sabugueiro (29TPE1472; 1100 m), 31-07-2003, 1 ♂, 1 ♀ and 1 juv.; 14-06-2005 1 ♂; Lomba, near the water canal (29TPE1571; 1427 m), 31-07-2003, 1 ♂; Near Cabeço do Talão (29TPE1666; 1861 m), 12-08-2003, 1 ♀; Below Penedo Gordo (29TPE1473; 1113 m), 13-07-2004, 1 ♀; Barrocas (29TPE1371; 1315 m), 14-07-2004, 1 ♂ and 1 ♀; Portela do Arão (29TPE0966; 989 m), 14-07-2004, 1 ♀; Vidual stream banks (29TPE1872; 1445 m), 12-06-2005, 1 ♂ and 1 ♀ juv. .

COMMENTS: First record for the Park, this species is one of the most abundant of those recorded in the PNSE, occurring in a wide range of habitats. Palaeartic species (Platnick, 2005) whose distribution is very poorly known in Portugal, with only a small number of localities.

Nuctenea umbratica (Clerck, 1758)

MATERIAL EXAMINED: **Manteigas**: Fonte Santa (29TPE2371; 849 m), 28-07-2004, 1 ♀ juv.; **Seia**: Vila Cova à Coelheira hydroelectric power station (29TPE0871; 584 m), 27-10-2004, 1 juv.; Ponte

de Jugais (29TPE0970; 563 m), 27-10-2004, 1 ♂ and 1 ♀ (SF leg.); Alvoco da Serra (29TPE1361; 759 m), 28-10-2004, 1 juv. obs.

COMMENTS: First record for the Park. Species with a distribution that ranges from across Europe to Azerbaijan (Platnick, 2005). It has a scattered distribution in Portugal, probably due to under-recording as a result of its nocturnal habits.

Zilla diodia (Walckenaer, 1802)

MATERIAL EXAMINED: **Gouveia**: Near Fonte do Lagarto (29TPE1981; 823 m), 13-05-2004, 1 ♀; Near Quinta do Pinheiro (29TPE2586; 646 m), 13-05-2004, 1 ♀; Melo (29TPE2486; 569 m), 13-06-2005, 1 obs. **Guarda**: Near Moinho do Bufo (29TPE3885; 709 m), 27-05-2004, 1 ♀; Quinta do Fragusto (29TPE3377; 983 m), 12-04-2005, 1 ♂ juv. **Manteigas**: Road to Mata do Fragusto (29TPE3176; 807 m), 25-05-2004, 2 ♀♀; Near Vale da Adega (29TPE2470; 1314 m), 21-06-2004, 1 ♀; Southwest of Quinta do Fragusto (29TPE3277; 947 m), 02-05-2005, 1 ♀.

COMMENTS: First record for the Park. Species with a distribution that ranges from across Europe to Azerbaijan (Platnick, 2005), it has a wide distribution in Portugal, but only a few localities are known in the south and in the interior of the country.

Zygiella kochi (Thorell, 1870)

MATERIAL EXAMINED: **Manteigas**: Poço do Inferno (29TPE2570; 1080 m), 21-04-2003, 1 ♀; Fonte Santa (29TPE2371; 849 m), 05-11-2003, 1 ♀; 23-06-2004, 1 ♂; 12-07-2004, 2 ♂♂ and 1 ♀; Senhora dos Verdes (29TPE2372; 770 m), 22-06-2004, 1 ♀. **Seia**: Ponte de Jugais (29TPE0970; 563 m), 27-10-2004, 1 ♂.

BIBLIOGRAPHIC LOCALITIES: Gouveia (Bacelar, 1940 and Morano, 2005).

COMMENTS: Spider already known from the Park, its area of occurrence was significantly extended. Palaearctic species (Platnick, 2005) with a wide distribution in Portugal.

Zygiella x-notata (Clerck, 1758)

MATERIAL EXAMINED: **Seia**: Ponte de Jugais (29TPE0970; 563 m), 27-10-2004, 2 ♀♀.

COMMENTS: First record for the Park. Holarctic and Neotropical species (Platnick, 2005) with a wide distribution in Portugal.

Tetragnathidae Menge, 1866

Meta bourneti Simon, 1922

MATERIAL EXAMINED: **Guarda**: Mato Grosso convent (29TPE3777; 590 m), 22-03-2004, 1 ♀.

COMMENTS: First record for the Park, it was found in the interior of an old conduit. Species with a distribution that ranges from across Europe to Georgia and also in North Africa (Platnick, 2005), it has an apparently discontinuous distribution in Portugal, as it seems to occur more in places with porous rocks.

Metellina menzei (Blackwall, 1870)

MATERIAL EXAMINED: **Celorico da Beira**: Oak woodland near Linhares (29TPE3189; 701 m), 24-03-2004, 1 ♀. **Covilhã**: Near Malhada stream (29TPE1456; 680 m), 28-01-2004, 1 ♂; Near Muro Novo (29TPE1455; 682 m), 12-05-2004, 1 ♀ and 1 juv. **Gouveia**: Near Vale Borrão (29TPE1583; 530 m), 04-11-2003, 1 ♂; Burrachota (CERVAS) (29TPE2084; 708 m), 29-01-2004, 1 ♀. **Guarda**: Near Moinho do Bufo (29TPE3885; 709 m), 27-05-2004, 2 ♂♂ and 2 ♀♀; Quinta do Fragusto (29TPE3377; 983 m), 02-05-2005, 1 ♂; Near Barroca do Nascente Grande (29TPE3379; 1002 m), 04-05-2005, 1 ♂; **Manteigas**: Poço do Inferno (29TPE2570; 1080 m), 21-04-2003, 1 ♀ and 2 juv.; 10-05-2004, 1 ♂; Fonte Santa (29TPE2371; 849 m), 26-05-2004, 1 ♂; Near Pracota (29TPE2273; 1058 m), 13-04-2005, 1 ♂. **Seia**: Above Outeiro da Vinha (29TPE1260; 675 m), 28-01-2004, 2 ♀♀; Ponte de Jugais (29TPE0970; 563 m), 27-10-2004, 1 ♀; Northeast of Sabugueiro (29TPE1674; 1197 m), 14-06-2005, 1 ♀.

COMMENTS: First record for the Park, it is an abundant species near damp places. Species with a distribution that ranges from across Europe to Georgia (Platnick, 2005) whose distribution is very poorly known in Portugal, with less than half a dozen localities.

Metellina merianae (Scopoli, 1763)

MATERIAL EXAMINED: **Covilhã**: Quinta do Vale de Águas (29TPE2255; 650 m), 15-08-2005, 1 ♂ and 2 ♀♀ juv. obs. **Guarda**: Mato Grosso convent (29TPE3777; 590 m), 22-03-2004, 1 ♀; Near Moinho do Bufo (29TPE3885; 709 m), 27-05-2004, 1 ♂ and 2 ♀♀. **Manteigas**: Fonte Santa (29TPE2371; 849 m), 24-04-2003, 1 ♂, 1 ♀ and 1 juv.; 28-07-2004, 1 ♂; Birch woodland below Nave de Santo António (29TPE2165; 1512 m), 25-05-2004, 1 ♂ and 1 ♀, Fonte Paulo Luís Martins (29TPE2165; 1318 m), 12-07-2004, 1 ♂; Near Fonte da Jonja (29TPE2064; 1451 m), 12-07-2004, 1 ♂ and 1 ♀; Mata do Fragusto (29TPE3175; 697 m), 12-04-2005, 2 ♂♂ and 2 ♀♀. **Seia**: Paradás (29TPE0971; 600 m), 14-07-2004, 2 ♂♂ and 3 ♀♀; Ponte de Jugais (29TPE0970; 563 m), 14-07-2004, 2 ♂♂, 2 ♀♀ and 1 juv.; Portela do Arão (29TPE0966; 989 m), 14-07-2004, 1 ♂ and 2 ♀♀; Várzea (29TPE0362; 298 m), 27-10-2004, 1 ♂.

COMMENTS: First record for the Park, it is an abundant species near damp places. Species with a distribution that ranges from across Europe to Georgia (Platnick, 2005), it has a wide distribution in Portugal, with the majority of the known localities near the coast.

Metellina segmentata (Clerck, 1758)

MATERIAL EXAMINED: **Manteigas**: Fonte Santa (29TPE2371; 849 m), 21-04-2003, 1 ♀.

COMMENTS: First record for the Park. Palaearctic species (Platnick, 2005) whose distribution is very poorly known in Portugal, with only a small number of localities.

Pachygnatha sundevalli Senglet, 1973

MATERIAL EXAMINED: **Manteigas**: Fonte Paulo Luís Martins (29TPE2165; 1318 m), 21-04-2003, 1 ♂.

COMMENTS: Fourth record for Portugal and first record for the Park. This species is only known from the Iberian Peninsula (Platnick, 2005). All records are from the north of Portugal, this being the southernmost record for the species.

Tetragnatha extensa (Linnaeus, 1758)

MATERIAL EXAMINED: **Celorico da Beira**: Cabeça Alta stream banks (near Moinhos da Aldeola) (29TPE3591; 895 m), 30-07-2003, 1 ♂ and 2 ♀♀. **Covilhã**: Covão do Boi (29TPE1864; 1867 m), 09-06-2005, 1 ♂. **Guarda**: River Mondego banks (near the bridge between Videmonte and Trinta) (29TPE3785; 737 m), 30-07-2003, 2 ♂♂, 3 ♀♀ and 1 juv.; Rio Mondego banks, near Quinta da Taberna (29TPE3482; 835 m), 14-08-2003, 1 ♂. **Gouveia**: Near the road to Vale do Rossim (29TPE1974; 1402 m), 13-07-2004, 2 ♂♂ and 1 ♀ (JGS leg.); Burrachota (CERVAS) (29TPE2084; 708 m), 28-07-2004, 1 ♂ (JGS leg.); Melo (29TPE2486; 569 m), 13-06-2005, 1 ♂. **Manteigas**: Albarcãs (River Zêzere banks) (29TPE2268; 1079 m), 31-07-2003, 1 ♀ and 1 ♂ juv. obs. **Seia**: Pragueira stream banks (29TPE1468; 1587 m), 27-07-2004, 3 ♂♂; Vidual stream banks (29TPE1872; 1445 m), 12-06-2005, 1 ♂; Southwest of Sabugueiro (29TPE1472; 1100 m), 14-06-2005, 1 ♂; Near Cabeço do Talão (29TPE1666; 1861 m), 16-08-2005, 1 ♂.

COMMENTS: First record for the Park, it is an abundant species near damp places. Species with a Holarctic distribution including also Madeira (Platnick, 2005). Distributed throughout continental Portugal.

Tetragnatha montana Simon, 1874

MATERIAL EXAMINED: **Guarda**: River Mondego banks (near the bridge between Videmonte and Trinta) (29TPE3785; 737 m), 26-05-2004, 1 ♂; Near Moinho do Bufo (29TPE3885; 709 m), 27-05-2004, 3 ♂♂; River Mondego banks (near the bridge between

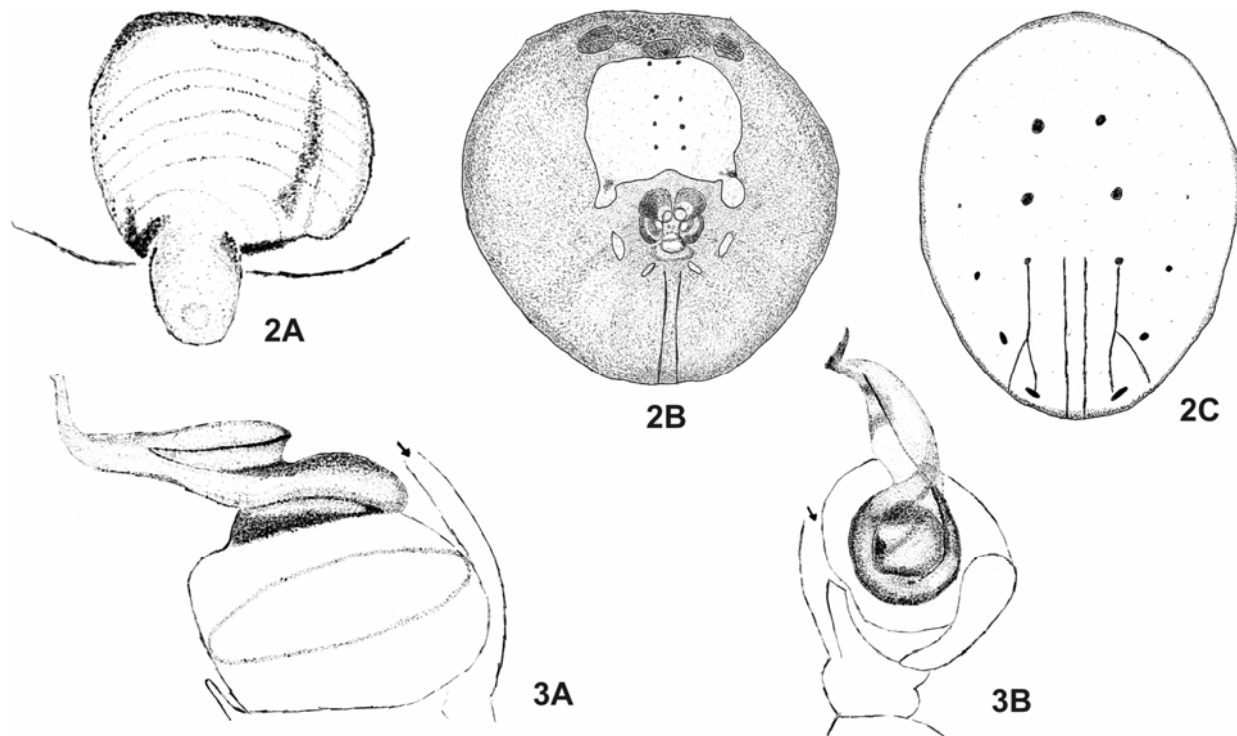


Fig. 2. Female *A. inconspicua*: **a.** epigyne; **b.** ventral view of the opisthosoma; **c.** dorsal view of the opisthosoma. **Fig. 3.** Left pedipalp's conductor of *Tetragnatha nigrita*: **a.** outside view; **b.** ventral view. Only the conductor and embolus are drawn, the rest of the palpal tarsus and other palpal segments are only schematically shown. The arrow points to part of the cymbium which was torn-off for clearer viewing.

Videmonte and Trinta) (29TPE3785; 737 m), 07-07-2005, 1 ♂.
 COMMENTS: First record for the Park. Palearctic species (Platnick, 2005) whose distribution is very poorly known in Portugal, with no more than half a dozen localities.

Tetragnatha nigrita Lendl, 1886

MATERIAL EXAMINED: **Gouveia**: Near Quinta do Pinheiro (29TPE2586; 646 m), 13-05-2004, 1 ♂.

COMMENTS: Second record for Portugal and first record for the Park. Palearctic species (Platnick, 2005) previously only known from Monte Gordo (Algarve, south of Portugal) (Cardoso, 2006).

Discussion

With the data presented here the number of known species for the PNSE is raised to 72, of which 22 are Araneidae and eight are Tetragnathidae. No Tetragnathidae was known from the Park and only three species of Araneidae had been previously recorded. Only *Araneus pallidus* (Olivier, 1789) was not found during this work, so the presence of this species could not be confirmed. This species was recorded from the Park by Cardoso (2006), as part of Barros Machado's personal collection, with no precise location.

The record of *A. inconspicua* from the PNSE can be considered of great interest. This species had not been previously recorded from Portugal and was only known from the Iberian Peninsula by an old Simon's record (Morano, 2005). As had already been stated by Morano & Ferrández (1985) this species is very similar to *A. alpica*, and as we only had a female specimen to identify, some doubts of its correct identification arisen. As can be seen in fig. 2a, the basal plate of the epigyne is entirely covered by the scape,

and no out-standing sklerotised plates are observable (Blanke, 1982). Furthermore, as can be seen in fig. 2b, the ventral side of the opisthosoma has a light central band and no dark spots, as opposite to the description given by Morano & Ferrández (1985) for *A. alpica*, and also, the spinners are surrounded by two pairs of clear spots, as mentioned by Simon (1929). Simon (1929) also mentioned a reddish opisthosoma tip which was not observable in our specimens, possibly because it is preserved in alcohol. The dorsal side of the opisthosoma (fig. 2c) presented a pale green colour with no particular markings apart for some small dark spots also present.

The presence of *T. nigrita* in the Park's area is also very interesting, this being a species with only a few records in the Iberian Peninsula. In figure 3 we present drawings of the left pedipalp's conductor of this species. As can be seen in fig. 3a, when viewed from the outside, the tip of the conductor forms a 90° angle. In fig. 3b, the curving of the tip of the conductor is shown from a ventral position.

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