

Notas / Notes

Two additions to the portuguese and iberian spider (Arachnida, Araneae) fauna

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The knowledge of the Portuguese spider fauna was poor until the beginning of the present decade. Early works by Bacelar (1927a, b, 1928, 1933, 1935, 1936, 1940) and Machado (1939, 1941, 1949) contained practically all the published records until the beginning of the century. By now, the current number of spider species in Portugal is over 800 and records of these species are close to 20000 (Cardoso, 2008). Such an increase in records and descriptions of new species from this country was mainly due to the doctoral and post-doctoral work of Cardoso (2004, Cardoso *et al.*, 2008a, 2008b, 2009), who tested and developed an optimized sampling protocol for mediterranean spiders. Not only ecologists found themselves a tool for standardized sampling but taxonomists from many families turned their attention to the Portuguese spider fauna, with a reasonable amount of newly described species coming up recently, as well as new records of known species. The present paper cites 2 species new to Portugal and to the Iberian Peninsula.

Thanatus fabricii (Audouin, 1826)

MATERIAL EXAMINED: 29SPC17 – Montoito, Redondo, Alto Alentejo (Fig. 1); 02-vi-2008 to 16-vi-2008, 11 males and 1 female (Sara Mendes col., Luís Crespo det.); the habitat was

cork oak (*Quercus ilex* L.) woodland with disperse shrubs. Pitfall trapping. Deposited at the IMAR-MERC spider collection.

29SPC16 – Monte Novo, Évora, Alto Alentejo; 02-vi-2008 to 16-vi-2008, 1 male (Sara Mendes col., Luís Crespo det.); the habitat was cork oak (*Quercus ilex* L.) woodland with disperse shrubs. Pitfall trapping. Deposited at the IMAR-MERC spider collection.

29SPD41 – Boudanha, Monforte, Alto Alentejo; 02-vi-2008 to 16-vi-2008, 2 males (Sara Mendes col., Luís Crespo det.); the habitat was cork oak (*Quercus suber* L.) woodland with disperse shrubs. Pitfall trapping. Deposited at the IMAR-MERC spider collection.

REMARKS: *Thanatus fabricii* is a well known spider throughout the southern Mediterranean (Denis, 1947; Levy, 1977), it reaches the Canary Islands (Wunderlich, 1987) and was recently reported from Central Asia (Lyakhov, 2000). This species can be diagnosed by the copulatory organs of both sexes: in males by the hooked tibial apophysis and a short embolus, in females by the shape of the epigynal plate and the spermathecae (Fig. 2).

Coscinida tibialis Simon, 1895

MATERIAL EXAMINED: 29SMC88 – Tapada da Ajuda, Lisbon, Estremadura (Fig. 1); 17-v-2007, 1 male (Catarina Prado e Castro col., Luís Crespo det.); the habitat was mixed woodland

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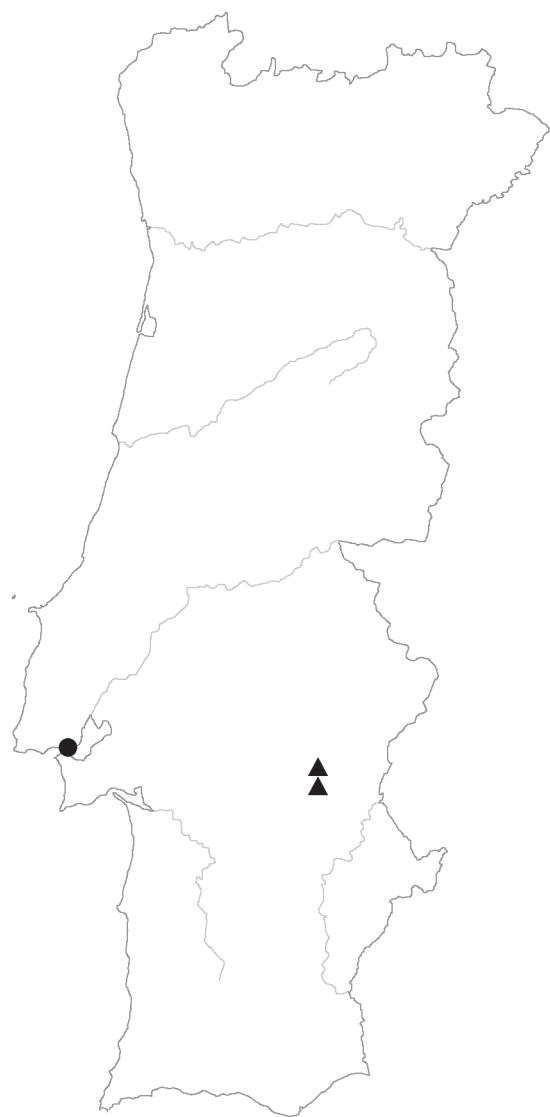


Fig. 1.– Map of Portugal with the localities where the species were collected. Circle - *Coscinida tibialis*, triangles - *Thanatus fabricii*.

Fig. 1.– Mapa de Portugal con las localidades donde se han recogido las especies. Círculo - *Coscinida tibialis*, triángulos - *Thanatus fabricii*.

inside an urban perimeter with the predominant tree species being *Ailanthus altissima* Swingle, *Fraxinus angustifolia* Vahl and *Ulmus minor* Miller. The single male specimen was captured using a modified Schoenly trap (Prado e Castro *et al.*, 2009) during the course of a sarcosaprophagous insect succession study, in which the trap was baited with a piglet carcass. Deposited in the first author's personal collection.

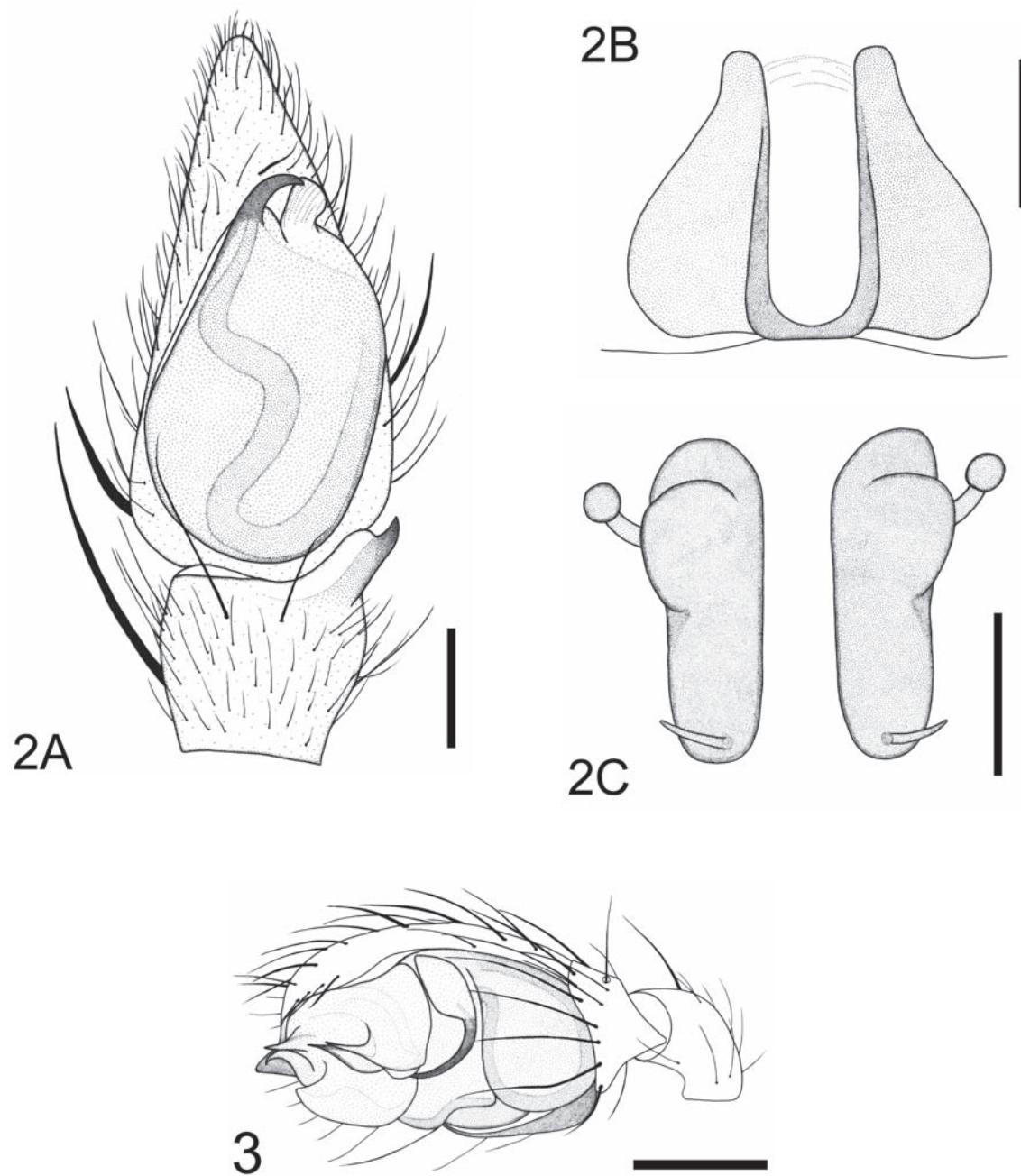
REMARKS: *Coscinida tibialis* is a widespread theridiid, with a distribution ranging from Africa to southeast Asia, including the southern Macaronesian archipelagos (Knoflach *et al.*, 2005). Its presence in the Iberian Peninsula, therefore, comes as no surprise. This is one of the most northern records of this species. The species can be diagnosed by the distinctive male palp, which bears a characteristic morphology of the embolus, conductor and median apophysis as well as a cymbial hook distally (Fig. 3). Females were not captured but a good description of the distinctive female genitalia is available in Knoflach *et al.*, 2005).

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References

- Bacelar, A., 1927a. Aracnídios Portuguêses I. *Bulletin de la Société Portugaise de Sciences Naturelles*, 10: 87-97.
- Bacelar, A., 1927b. Aracnídios Portuguêses II. *Bulletin de la Société Portugaise de Sciences Naturelles*, 10: 129-138.
- Bacelar, A., 1928. Aracnídios Portuguêses III. *Bulletin de la Société Portugaise de Sciences Naturelles*, 10: 169-203.
- Bacelar, A., 1933. Aracnídios Portuguêses IV. Continuação do inventário dos Aracnídios. *Bulletin de la Société Portugaise de Sciences Naturelles*, 11: 295-302.
- Bacelar, A., 1935. Aracnídios Portuguêses V. *Bulletin de la Société Portugaise de Sciences Naturelles*, 12: 33-39.
- Bacelar, A., 1936. Aracnídios Portuguêses III. Continuação do inventário dos Aracnídios. *Bulletin de la Société Portugaise de Sciences Naturelles*, 12: 179-183.
- Bacelar, A., 1940. Aracnídeos Portuguêses VI (continuação do inventário dos Aracnídeos). *Bulletin de la Société Portugaise de Sciences Naturelles*, 13: 99-110.
- Cardoso, P., 2004. *The use of arachnids (class Arachnida) in biodiversity assessment and monitoring of natural areas*. PhD thesis. University of Lisbon. Lisbon. 160 pp.



Figs. 2 y 3.- 2) *Thanatus fabricii*, from Montoito: A, male pedipalp, ventral; B, epigynum; C, vulva (scale bars = 0,1 mm).
3) *Coscinida tibialis*, from Tapada da Ajuda: male pedipalp, retrolateral (scale bar = 0,1 mm).

Figs. 2 y 3.- 2) *Thanatus fabricii*, de Montoito: A, palpo del macho, ventral; B, epigino; C, vulva (escala = 0,1 mm). 3)
Coscinida tibialis, de la Tapada da Ajuda: palpo del macho, retrolateral (escala = 0,1 mm).

- Cardoso, P., 2008. Biodiversity and conservation of Iberian spiders: past, present and future. *Boletín de la Sociedad Entomológica Aragonesa*, 42: 487-492.
- Cardoso, P., 2009. Portugal spider catalogue (v1.5). Available online at <http://www.ennor.org/catalogue.php>
- Cardoso, P., Gaspar, C., Pereira, L. C., Silva, I., Henriques, S. S., Silva, R. R. & Sousa, P., 2008a. Assessing spider species richness and composition in Mediterranean cork oak forests. *Acta Oecologica*, 33: 114-127.
- Cardoso, P., Henriques, S. S., Gaspar, C., Crespo, L. C., Carvalho, R., Schmidt, J. B., Sousa, P. & Szuts, T., 2009. Species richness and composition assessment of spiders in a Mediterranean scrubland. *Journal of Insect Conservation*, 13: 45-55.
- Cardoso, P., Scharff, N., Gaspar, C., Henriques, S. S., Carvalho, R., Castro, P. H., Schmidt, J. B., Silva, I., Szüts, T., Castro, A. & Crespo, L. C., 2008b. Rapid biodiversity assessment of spiders (Araneae) using semi-quantitative sampling: a case study in a Mediterranean forest. *Insect Conservation and Diversity*, 1: 71-84.
- Denis, J., 1947. Spiders. In Results of the Armstrong College expedition to the Siwa Oasis (Libyan desert), 1935. *Bulletin de la Société Fouad Ier d'Entomologie*, 31: 17-103.
- Levy, G., 1977. The philodromid spiders of Israel (Araneae: Philodromidae). *Israel Journal of Zoology*, 26: 193-229.
- Lyakhov, O. V., 2000. Contribution to the Middle Asian fauna of the spider genus *Thanatus* C.L. Koch, 1837 (Aranei: Philodromidae). *Arthropoda Selecta*, 8(4): 221-230.
- Knoflach, B., Bosmans, R., Van Harten, A. & Van Keer, J., 2005. On *Coscinida tibialis* Simon, 1895 (Araneae, Theridiidae): genital morphology, distribution, web building and a new synonym. *Bulletin of the British Arachnological Society*, 13(6): 202-206.
- Machado, A. de B., 1937. Aranhas novas para a fauna portuguesa. *Memórias e Estudos do Museu Zoológico da Universidade de Coimbra*, 107: 1-7.
- Machado, A. de B., 1941. Araignées nouvelles pour la faune portugaise, II. *Memórias e Estudos do Museu Zoológico da Universidade de Coimbra*, 117: 1-60.
- Machado, A. de B., 1949. Araignées nouvelles pour la faune portugaise, III. *Memórias e Estudos do museu Zoológico da Universidade de Coimbra*, 191: 1-69.
- Prado e Castro, C., Chichorro, D., Serrano, A. & Garcia, M. D., 2009. A modified version of Schoenly trap for collecting sarcosaprophagous arthropods. Detailed plans and construction. *Anales de Biología*, 31: 1-6.
- Wunderlich, J., 1987. *Die Spinnen der Kanarischen Inseln und Madeiras: Adaptive Radiation, Biogeographie, Revisionen und Neubeschreibungen*. Triops Verlag, Langen, West Germany.

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