

THE CONOPIDAE (DIPTERA) OF MAINLAND PORTUGAL

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Abstract: Records of 22 species of Conopidae from mainland Portugal are presented. 11 species are new for Portugal. The theca of the only known European specimen of *Leopoldius anatolii* ZIMINA is illustrated. A list of the 25 species of Conopidae recorded so far from mainland Portugal is provided, together with a complete bibliography.

Key words: Diptera, Conopidae, faunistics, mainland Portugal, bibliography.

Los Conopidae (Diptera) de Portugal peninsular

Resumen: Se presentan citas de 22 especies de Conopidae de Portugal peninsular. 11 especies son nuevas para Portugal. Se muestra la teca del único ejemplar conocido de Europa de *Leopoldius anatolii* Zimina. Se listan las 25 especies de Conopidae citadas hasta ahora de Portugal peninsular, así como una bibliografía completa.

Palabras clave: Diptera, Conopidae, faunística, Portugal peninsular, bibliografía.

Introduction

The conopid fauna of Portuguese mainland has hardly been investigated. Only eight recent publications with faunistic information from Portugal are known, and there are only 14 Conopidae species recorded so far (Table I). The fauna of Madeira has recently been revised by Stuke *et al.* (2007), however. Three of the authors have had the opportunity to collect in Portugal and although this has only resulted in a small collection of Conopidae there are several first records. Therefore we decided to present these data and give an overview of the published records of Conopidae known so far from mainland Portugal.

Material and Methods

The studied material consists of a total of 85 specimens. All of these were collected by hand-netting (a) by Gerard Pennards during 5-21.ix.2011, (b) by André van Eck 13-24.iv.2006, 14-17.iv.2007, 13.viii.2007, 7.vii.2008, 27.ii.2009, 17.vii-1.viii.2010, 12-18.v.2011, 16-27.iv.2012, (c) by Jorge Mota Almeida and (d) by Rui Andrade. Supplementary photos of Conopidae taken recently in Portugal are also identified (Figures 1-7). The identified specimens are deposited in the private collections of Jorge Mota Almeida, Gerard Pennards, André van Eck and Jens-Hermann Stuke respectively. The identifications are based on the works of Clements (2000), Chvála (1961, 1965), Mei & Stuke (2008), Stuke (2002, 2006) and Stuke & Clements (2008). Males of the *Thecophora atra* group cannot be identified to species level at the present time.

Results

We found some 22 different Conopidae species in mainland Portugal. A total of 25 species are therefore known from mainland Portugal to date. 11 species are reported from Portugal for the first time: *Dalmannia dorsalis* (Fabricius, 1794),

Dalmannia punctata (Fabricius, 1794), *Myopa buccata* (Linnaeus, 1758), *Myopa fasciata* Meigen, 1804, *Myopa morio* Meigen, 1804, *Myopa occulta* Wiedemann, 1824, *Myopa palliceps* (Bigot, 1887), *Physocephala rufipes* (Fabricius, 1781), *Physocephala vittata* (Fabricius, 1794), *Thecophora fulvipes* (Robineau-Desvoidy, 1830) and *Zodion cinereum* (Fabricius, 1794).

• *Conops silaceus* Wiedemann, 1824

1 ♂ Póvoa Dão, Silgueiros, Viseu, 21.viii.2008, photographed by Mota Almeida (Figure 1); 1 ♀ Póvoa Dão Silgueiros, Viseu, 5.-21.viii.2009, leg. et coll. Mota Almeida.

• *Conops vesicularis* Linnaeus, 1761

1 ♀ Gouveia, SE of town, UTM 29T 620 4483, 680 m, 12.v.2011, leg. et coll. Van Eck; 1 ♂ Guarda, Chãos, UTM 29T 642 4489, 800 m, 17.iv.2007, leg. et coll. Van Eck.

• *Dalmannia aculeata* (Linnaeus, 1761)

1 ♂ Seixezelo (V. N. de Gaia), UTM 29T 537 4542, 26.iv.2012, 200 m, leg. et coll. Van Eck.

• *Dalmannia dorsalis* (Fabricius, 1794)

1 ♂ Figueira de Castelo Rodrigo, UTM 29T 671 4529, 640 m, 19.iv.2006, leg. et coll. Van Eck; 1 ♀ ditto, 20.iv.2006.

• *Dalmannia punctata* (Fabricius, 1794)

1 ♂ Póvoa Dão, Silgueiros, Viseu, 5.iv.2008, photographed by Mota Almeida (Figure 2); 1 ♂ Seixezelo (V. N. de Gaia), UTM 29T 537 4542, 200 m, 26.iv.2012, leg. et coll. Van Eck.

• *Leopoldius anatolii* Zimina, 1963

The only European record of this extremely rare species was caught in an emergence trap at Évora (Carles-Tolrà & Rosado 2009). The theca of this remarkable specimen is illustrated at Figure 3.

• *Myopa buccata* (Linnaeus, 1758)

1 ♂ Batalha, Casal da Amieira, Vale de Calvaria, UTM 29S 513 4389, 120 m, 27.ii.2009, leg. et coll. Van Eck; 1 ♂ Famalicão, Carapita, UTM 29T 637 4476, 660 m, 13.v.2011, leg. et coll. Van Eck; 1 ♂ Figueira de Castelo Rodrigo, UTM 29T 671 4529, 640 m,

19.iv.2006, leg. et coll. Van Eck; 1 ♂ ditto, 20.iv.2006; 1 ♂ Guarda, Chãos, UTM 29T 642 4489, 800 m, 17.iv.2007, leg. et coll. Van Eck; 1 ♀ Medas, UTM 29T 546 4545, 40 m, 17.iv.2006, leg. et coll. Van Eck; 1 ♂ Mindelo Reserva Ornitológico, UTM 29T 522 4574, 0 m, leg. et coll. Van Eck.

● ***Myopa fasciata* Meigen, 1804**

1 ♂ Serra de Estrela, Nave de St. António, 07.viii.2010, photographed by Mota Almeida (Figure 4); 1 ♂ 2 ♀♀ ditto, 30.vii.2011, leg. Mota Almeida, coll. Pennards; 2 ♀♀ ditto, 8.viii.2011, leg. et coll. Mota Almeida.

● ***Myopa morio* Meigen, 1804**

1 ♂ Cabeceiras de Basto, Tarrado, Tomé, UTM 29T 586.2 4594.4, 200 m, 21.iv.2012, leg. et coll. Van Eck.

● ***Myopa occulta* Wiedemann, 1824**

1 ♂ Póvoa Dão, Silgueiros, Viseu, 2.vi.2007, photographed by Mota Almeida (Figure 5); 2 ♂♂ Figueira de Castelo Rodrigo, E of town, UTM 29T 671 4529, 640 m, 16.v.2011, leg. Van Eck, coll. Van Eck & Stuke.

● ***Myopa palliceps* (Bigot, 1887)**

1 ♂ Casal Jusão, Silgueiros, Viseu, 19.iii.2011, leg. Mota Almeida, coll. Pennards; 2 ♀♀ Medas, UTM 29T 546 4545, 40 m, 17.iv.2006, leg. Van Eck, coll. Van Eck & Stuke; 3 ♂♂ 1 ♀ Casal Jusão, Silgueiros, Viseu, 19.iii.2011, leg. Mota Almeida, coll. Mota Almeida & Stuke; 1 ♀ ditto, coll. Stuke; 1 ♀ Póvoa Dão, leg. et coll. Mota Almeida; 1 ♂ Seixezelo (V. N. de Gaia), UTM 29T 537 4542, 200 m, 26.iv.2012, leg. et coll. Van Eck.

● ***Myopa pellucida* Robineau-Desvoidy, 1830**

1 ♀ Rio Cávado, Frades, Montalegre, UTM 29T 594 4630, 940 m, 23.iv.2006, leg. et coll. Van Eck; 1 ♀ Nave de Santo António, UTM 29T 621.0 4463.9, 1600 m, 13.v.2011, leg. et coll. Van Eck; 1 ♂ Seia, Aldeias, UTM 29T 619 4481, 800 m, 14.iv.2007, leg. et coll. Van Eck; 1 ♀ Nave Santo António, Serra da Estrela, 13.v.2011, leg. et coll. Mota Almeida; 1 ♀ Casal Jusão, Silgueiros, Viseu, 5.-21.viii.2009, leg. et coll. Mota Almeida; 1 ♂ Aveiro, São João de Loure, UTM 29T 538.0 4498.5, 0 m, 18.iv.2012, leg. et coll. Van Eck; 1 ♂ 1 ♀ Aveiro, Argoncilhe, UTM 29T 538.0 4541.8, 200 m, 26.iv.2012, leg. et coll. Van Eck; 1 ♂ Cabeceiras de Basto, Soalheira, Rio de Ouro, UTM 29T 585.7 4595.0, 200 m, 24.iv.2012, leg. et coll. Van Eck.

● ***Myopa testacea* Linnaeus, 1767**

1 ♀ Montalegre, Mourilhe, UTM 29T 595 4632, 960 m, 24.iv.2006, leg. et coll. Van Eck.

● ***Physocephala pusilla* (Meigen, 1804)**

2 ♀♀ 2 km E of Tavira, Faro, 17.ix.2011, leg. Pennards, coll. Pennards & Stuke; 1 ♂ Póvoa Dão Silgueiros, Viseu, 13.vi.2011, leg. et coll. Mota Almeida; 1 ♀ ditto, vii.2011.

● ***Physocephala rufipes* (Fabricius, 1781)**

1 ♂ Guarda, Vila Soeiro, UTM 29T 640 4488, 520 m, 14.v.2011, leg. Van Eck, coll. Stuke; 1 ♂ Canelas, Estarreja, Aveiro, Portugal, 4.viii.2010, 40°43'26.2"N 8°33'55.4"W, leg. et coll. Andrade; 1 ♂, Campo, Valongo, Porto, 6.v.2010, 41°10'20.8"N 8°28'46.4"W, leg. et coll. Andrade.

● ***Physocephala vittata* (Fabricius, 1794)**

1 ♀ Sintra, Parque industrial de Lourel, Lourel, Sintra, Lisboa, 10.ix.2011, leg. et coll. Pennards; 1 ♀ Arzila, Paul de Arzila, UTM 29T 538 4448, 20 m, 17.vii.2010, leg. et coll. Van Eck; 1 ♂ Alameda, Castelo Branco, 350 m, UTM 29T 614.26 4429.52, 8.-10.ix.2009, leg. Almeida, Pires & Rodrigues, coll. Van Eck; 1 ♂ Arco de Baulhe, NW of village, UTM 29T 586 4593, 22.iv.2012, leg. et coll. Van Eck.

● ***Sicus ferrugineus* (Linnaeus, 1761)**

1 ♂ Aveiro, São Jacinto, UTM 29T 523 4502, 5m, 13.iv.2006, leg. et coll. Van Eck; 1 ♀ ditto, 19.iv.2012; 1 ♂ Aveiro, Veiros, UTM 29T 534 4511, 0 m, 15.iv.2007, leg. et coll. Van Eck; 1 ♂ Póvoa Dão, Silgueiros, Viseu, vii.2008, photographed by Mota Almeida (Figure 6); 1 ♀ Manteigas, UTM 29T 622.9 4474.6, 1240 m, 19.vii.2010, leg. et coll. Van Eck; 2 ♂♂ 1 ♀ Marco de Canaveses, along Rio Tâmega, UTM 29T 569 4560, 160 m, 18.v.2011, leg. et coll. Van Eck.

● ***Thecophora atra* (Fabricius, 1775)**

1 ♀ Alameda, Castelo Branco, 350 m, UTM 29T 614.26 4429.52, 10.-20.ix.2009, leg. Almeida, Pires & Rodrigues, coll. Van Eck.

● ***Thecophora cinerascens* (Meigen, 1804)**

1 ♀ Alameda, Castelo Branco, 350 m, UTM 29T 614.26 4429.52, 10.-20.ix.2009, leg. Almeida, Pires & Rodrigues, coll. Van Eck; 1 ♀ Canelas, Estarreja, Aveiro, 12.viii.2010, 40°43'26.2"N 8°33'55.4"W, leg. et coll. Andrade.

● ***Thecophora distincta* (Wiedemann, 1824)**

1 ♂ Algarve, 2 km E of Tavira, 17.ix.2011, leg. et coll. Pennards.

● ***Thecophora fulvipes* (Robineau-Desvoidy, 1830)**

1 ♂, 1 ♀ Sendim, southeast of town, UTM 29T 714 4585, 720 m, 1.viii.2010, leg. Van Eck, coll. Van Eck & Stuke.

● ***Thecophora* sp.**

1 ♂ Batalha, Corga, UTM 29S 513 4390, 120 m, 7.vii.2008, leg. et coll. Van Eck; 1 ♂ Porto de Mós, Alcária, UTM 29S 519 4379, 280 m, 13.viii.2007, leg. et coll. Van Eck; 3 ♂♂ Sendim, southeast of town, UTM 29T 714 4585, 720 m, 1.viii.2010, leg. et coll. Van Eck; 1 ♂ Alameda, Castelo Branco, 350 m, UTM 29T 614.26 4429.52, 8.-10.ix.2009, leg. Almeida, Pires & Rodrigues, coll. Van Eck; 2 ♂♂ ditto; 1 ♂ Póvoa Dão, Silgueiros, Viseu, 23.viii.2007, photographed by Mota Almeida (Figure 7); 1 ♂ Cabeceiras de Basto, Soalheira, Rio de Ouro, UTM 29T 585 4595, 250 m, 21.iv.2012, leg. et coll. Van Eck.

● ***Zodion cinereum* (Fabricius, 1794)**

1 ♂ Batalha, Casal da Amieira, Vale de Calvaria, UTM 29S 513 4389, 120 m, 21.vii.2010, leg. et coll. Van Eck.

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Fig. 1a-b: *Conops silaceus* Wiedemann, 1824 ♂ [Póvoa Dão, Silgueiros]. **Fig. 2:** *Dalmannia punctata* (Fabricius, 1794) ♂ [Póvoa Dão, Silgueiros]. **Fig. 3:** Theca of *Leopoldius anatolii* Zimina, 1963 ♀ [Évora, arroyo Pardiela]. **Fig. 4:** *Myopa fasciata* Meigen, 1804 ♂ [Nave de Santo António]. **Fig. 5:** *Myopa occulta* Wiedemann, 1824 ♂ [Póvoa Dão, Silgueiros]. **Fig. 6:** *Sicus ferrugineus* (Linnaeus, 1761) ♂ [Póvoa Dão, Silgueiros]. **Fig. 7:** *Thecophora* sp. ♂ [Póvoa Dão, Silgueiros]

Table I: List of the Conopidae species reported from mainland Portugal. ● = This paper.

<i>Conops silaceus</i> Wiedemann, 1824	● Mota Almeida & Clements (2010)
<i>Conops vesicularis</i> Linnaeus, 1761	● Carles-Tolrá (2001a), Carles-Tolrá & Báez (2002)
<i>Dalmannia aculeata</i> (Linnaeus, 1761)	● Arias Encobet (1912), Carles-Tolrá & Báez (2002)
<i>Dalmannia dorsalis</i> (Fabricius, 1794)	●
<i>Dalmannia punctata</i> (Fabricius, 1794)	●
<i>Leopoldius anatolii</i> Zimina, 1963	Carles-Tolrá & Rosado (2009)
<i>Leopoldius coronatus</i> (Rondani, 1857)	Carles-Tolrá (2001b), Carles-Tolrá & Báez (2002)
<i>Myopa buccata</i> (Linnaeus, 1758)	●
<i>Myopa fasciata</i> Meigen, 1804	●
<i>Myopa morio</i> Meigen, 1804	●
<i>Myopa occulta</i> Wiedemann, 1824	●
<i>Myopa palliceps</i> (Bigot, 1887)	●
<i>Myopa pellucida</i> Robineau-Desvoidy, 1830	● Stuke & Clements (2008)
<i>Myopa stigma</i> Meigen, 1824	Arias Encobet (1912), Carles-Tolrá & Báez (2002)
<i>Myopa testacea</i> Linnaeus, 1767	● Arias Encobet (1912), Carles-Tolrá (2009), Carles-Tolrá & Báez (2002), Kröber (1939)
<i>Physocephala pusilla</i> (Meigen, 1804)	● Carles-Tolrá (2001b, 2009), Carles-Tolrá & Báez (2002)
<i>Physocephala rufipes</i> (Fabricius, 1781)	●
<i>Physocephala vittata</i> (Fabricius, 1794)	●
<i>Sicus ferrugineus</i> (Linnaeus, 1761)	● Carles-Tolrá (2001a, 2001b, 2009), Carles-Tolrá & Báez (2002)
<i>Thecophora atra</i> (Fabricius, 1775)	● Carles-Tolrá (2001b), Carles-Tolrá & Báez (2002)
<i>Thecophora cinerascens</i> (Meigen, 1804)	● Carles-Tolrá & Rosado (2009)
<i>Thecophora distincta</i> (Wiedemann, 1824)	● Carles-Tolrá (2001b), Carles-Tolrá & Báez (2002)
<i>Thecophora fulvipes</i> (Robineau-Desvoidy, 1830)	●
<i>Thecophora melanopa</i> Rondani, 1857	Carles-Tolrá (2001b), Carles-Tolrá & Báez (2002)
<i>Zodion cinereum</i> (Fabricius, 1794)	●

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