

ARTIGO / ARTÍCULO / ARTICLE

The genus *Astenus* Dejean, 1833 in the Portuguese fauna (Coleoptera: Staphylinidae: Paederinae)

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Abstract: New data that expands the geographic distribution of the genus *Astenus* Dejean, 1833 (Coleoptera: Staphylinidae: Paederinae) for the Portuguese fauna are presented, including new records of six species already known and a new species for the country, *Astenus (Eurysunius) setiger* (Vauloger, 1897). Two species, *Astenus (Eurysunius) colasi* Coiffait, 1960 and *Astenus (Eurysunius) platypthalmus* Coiffait, 1971, are removed from the Portuguese catalogue of the genus.

Key words: Coleoptera, Staphylinidae, Paederinae, *Astenus*, ecology, faunistics, Portugal.

Resumo: O género *Astenus* Dejean, 1833 na fauna portuguesa (Coleoptera: Staphylinidae: Paederinae). Apresentam-se novos dados que alargam a distribuição geográfica do género *Astenus* Dejean, 1833 (Coleoptera: Staphylinidae: Paederinae) para a fauna portuguesa, incluindo novos registos de seis espécies já conhecidas e uma espécie nova para o país, *Astenus (Eurysunius) setiger* (Vauloger, 1897). Duas espécies, *Astenus (Eurysunius) colasi* Coiffait, 1960 and *Astenus (Eurysunius) platypthalmus* Coiffait, 1971, são removidas do catálogo português do género.

Palavras chave: Coleoptera, Staphylinidae, Paederinae, *Astenus*, ecologia, faunística, Portugal.

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Introduction

The genus *Astenus* Dejean, 1833 belongs to the subtribe *Astenina* Hatch, 1957 within the tribe *Paederini* Fleming, 1821 (Schülke & Smetana, 2015). Members of the genus occur in many places, mainly in dry and semidry biotopes, most often under stones and in the nests of ants of the genus *Tetramorium* Mayr, 1855 (Assing, 2003) at a wide range of altitudes from near sea level to almost 3000 m. They are also found, sometimes, in wet areas and on the banks of rivers and lakes. The genus contains more than 200 species in the Palaearctic Region and is divided into four subgenera: the nominate subgenus *Astenus* Dejean, 1833, *Astenopleuritus* Coiffait, 1982, *Eurysunius* Reitter, 1909, and *Mecognathus* Wollaston, 1854, the latter not present in the Iberian Peninsula. In the Catalogue of the Palaearctic Staphylinidae only 12 species are referred to Portugal (Schülke & Smetana, 2015), although there were really reported 21 species in the previous literature.

Considering the data in this article, based in records from literature and new material obtained during collecting trips to the country, 20 species are now confirmed, after removing two species and adding a new one for the Portuguese fauna.

Material and methods

This study is based on the material collected by the author during visits to the country and on literature surveyed with data related to the Portuguese fauna. All material was obtained by hand

collecting and pitfall traps close to ant nests and rocks. The last segments of the abdomen were removed, when applicable, and the aedeagus and spermatheca were extracted and glued to small plastic strips with Euparal and attached to the same pin as the specimen. The nomenclature of the species follows Schülke & Smetana (2015). All specimens were identified by the author using a Wild M5 stereomicroscope and the keys by Coiffait (1960, 1984) and are deposited in the author's collection (RNFC). New data includes: Province, District, Town, Village and Place.

In order to help to find the sources for original descriptions, their references are also included.

Results

Family STAPHYLINIDAE Latreille, 1802

Subfamily PAEDERINAE Fleming, 1821

Tribe PAEDERINI Fleming, 1821

Subtribe ASTENINA Hatch, 1957

Genus *Astenus* Dejean, 1833

Astenus (Astenopleuritus) melanurus (Küster, 1853)

Sunius melanurus Küster, 1853: 76

Oliveira (1893) records this species from Bragança. Oliveira (1899) mentions the species as *Sunius melanurus* Kuster. Fuente (1922) and Seabra (1943) quotes Oliveira. Ferreira (1962) mentions this species from Portugal without locality. Gamarra & Outerelo (2020) record this species from Trás-os-Montes e Alto Douro and also from Beira Litoral, but it needs confirmation, as we couldn't find any other source supporting the occurrence of this species in this district.

New data: Trás-os-Montes e Alto Douro, Vila Real, Sabrosa, S. Martinho de Anta, 2/07/1971, 1 ex., leg. R.N. Ferreira (RNFC).

Distribution: This species is known from southern Europe, North Africa, Cyprus, Iran, Syria, and Turkey in the Palearctic Region, and also from the Oriental and Afrotropical Regions (Schülke & Smetana, 2015).

Astenus (Astenus) algarvensis Coiffait, 1969

Astenus algarvensis Coiffait, 1969: 72

This species was described from Portugal, Algarve, Loulé, 1 ♂ (Type) and 19 specimens ♂ and ♀ (Paratypes) (col. Coiffait) (Coiffait, 1969). The var. *virgo* Coiffait, 1969 was also described, from Alportel. Gama *et al.* (2000a, b) mention the same records. Gamarra & Outerelo (2020) also recorded this species from Algarve.

Distribution: Known only from Portugal (Schülke & Smetana, 2015).

Astenus (Astenus) anguinus oblongicollis Koch, 1940

Sunius anguinus Baudi, 1848: 137

Sunius oblongicollis Koch, 1940: 383

Fuente (1922) cites Heyden (1870) as having recorded *anguinus* Baudi, 1848 as a variety of *Astenus filiformis* Latreille, 1806 from Serra do Gerês and Serra da Estrela, but there's no trace of those Portuguese records in that Heyden's book. Drugmand & Outerelo (1997) also mention this reference. Koch (1940) described this subspecies from Lisbon. Gamarra & Outerelo (2020) report the species from Estremadura.

New data: Minho, Braga, Vieira do Minho, Serra do Gerês, 2/07/1969, 2 ex., leg. R.N. Ferreira (RNFC). Beira Alta, Viseu, Viseu, Santos Evos, 18/04/1967, 1 ex., leg. R.N. Ferreira (RNFC).

Distribution: Known only from Portugal (Schülke & Smetana, 2015).

***Astenus (Astenus) bimaculatus bimaculatus* (Erichson, 1840)**

Sunius bimaculatus Erichson, 1840: 641

Boieiro *et al.* (2001) record this species from Serra da Arrábida, 19/03/1982, 3 ex. Not listed for Portugal by Schülke & Smetana (2015). Gamarra & Outerelo (2020) report it from Estremadura.

Distribution: Widespread in Europe, North Africa, Afghanistan, Cyprus, Iran, Israel, Pakistan, Syria, Tajikistan, Turkey, and Uzbekistan (Schülke & Smetana, 2015).

***Astenus (Astenus) estrellensis* Coiffait, 1969**

Astenus estrellensis Coiffait, 1969: 70

Species described from Portugal, Beira Alta, Serra da Estrela, 1 ♂ (Type) and 2 ♂♂ and 5 ♀♀ (Paratypes) (col. Coiffait) (Coiffait, 1969). Gamarra & Outerelo (2020) report the species from Beira Alta and also from Algarve, but this last province needs confirmation, as we couldn't find any other source supporting the occurrence of this species there.

Distribution: Known only from Portugal (Schülke & Smetana, 2015).

***Astenus (Astenus) fageli fageli* Coiffait, 1960**

Astenus fageli Coiffait, 1960: 97

Species described from Portugal, Beira Litoral, Luso, 1 ♂ (Type) (col. Fagel) (Coiffait, 1960). Gamarra & Outerelo (2020) report this species from Beira Litoral.

Distribution: Known only from Portugal (Schülke & Smetana, 2015).

***Astenus (Astenus) fageli luteomarginatus* Coiffait, 1969**

Astenus fageli Coiffait, 1960: 97

Astenus fageli luteomarginatus Coiffait, 1969: 74

Subspecies described from Portugal, Algarve, Alportel, 1 ♂ (Type) and 30 ♂♂ and ♀♀ (Paratypes) (Col. Coiffait). Gama *et al.* (2000a, b) and Gamarra & Outerelo (2020) report it also from Algarve.

Distribution: Known from Portugal and Morocco (Schülke & Smetana, 2015).

***Astenus (Astenus) gracilis* (Paykull, 1789)**

Staphylinus gracilis Paykull, 1789: 38

= *Staphylinus angustatus* Paykull, 1789: 36

Oliveira (1885) refer this species from Coimbra and later (Oliveira, 1893) from Bragança, Caldas da Felgueira and Coimbra. Oliveira (1899) records this species as *Sunius angustatus* Paykull. Barros (1913, 1924) records this species as *Astenus angustatus* Paykull from S. Martinho de Anta. Fuente (1922) quotes Oliveira. Ferreira (1962) records this species as *Astenus angustatus* Paykull without locality. Gamarra & Outerelo (2020) report this species from Trás-os-Montes e Alto Douro, Douro Litoral, Beira Litoral, and also from Estremadura, but this last province needs confirmation as no previous record was found. Ferreira (2021) mentions 9 specimens from the Ramiro Neves collection: 1 from Monte Córdova, 1 from Penamaior, and 7 with the Nr. 44.

Distribution: Known from Europe, North Africa, west and east Siberia, Iran, Uzbekistan, and Turkey (Schülke & Smetana, 2015).

***Astenus (Astenus) immaculatus* Stephens, 1833**

Astenus immaculatus Stephens, 1833: 276

Barros (1913) recorded this species from Anta. Fuente (1922) quotes Barros. Not listed for Portugal by Schülke & Smetana (2015). Gamarra & Outerelo (2020) misreport the species from Douro Litoral,

as the locality cited by Barros (1913) belongs to Trás-os-Montes e Alto Douro.

Distribution: This species is known from Europe, Algeria, Iran, and Turkey (Schülke & Smetana, 2015).

***Astenus (Astenus) lyonessius* (Joy, 1908)**

Sunius lyonessius Joy, 1908: 177

= *Astenus longelytratus* Palm, 1936: 79

Boieiro *et al.* (2001) record this species as *Astenus longelytratus* Palm, 1936 from Ribatejo, Santarém, Ourém, Alburitel, 21/09/1969, 1 ex.; Algarve, Faro, Castro Marim, 11/06/1981, 1 ex., 24/02/1983, 1 ex., and 9/12/1985, 1 ex. Estremadura, Setúbal, Serra da Arrábida, 19/03/1982, 1 ex.; Setúbal, Sines, 21/01/1978, 1 ex. Not listed for Portugal by Schülke & Smetana (2015). Gamarra & Outerelo (2020) report the species from Estremadura, Baixo Alentejo, Algarve and, also, Beira Litoral, but this province needs confirmation, as we couldn't find any other source supporting the occurrence there of this species.

New data: **Minho**, Braga, Vieira do Minho, Serra do Gerês, 15/07/1969, 2 ex., leg. R.N. Ferreira (RNFC); Serra do Gerês, 17/11/1969, 1 ex., leg. R.N. Ferreira (RNFC). **Beira Litoral**, Coimbra, Coimbra, Tovim de Cima, 7/06/1967, 1 ex., leg. R.N. Ferreira (RNFC).

Distribution: This species is known from Europe, North Africa, Israel, and Turkey (Schülke & Smetana, 2015).

***Astenus (Astenus) procerus* (Gravenhorst, 1806)**

Sunius procerus Gravenhorst, 1806: 141

= *Paederus filiformis* Latreille, 1806: 293

This species was reported from Coimbra by Oliveira (1885), who later mentions this species as *Sunius filiformis* Latreille (Oliveira, 1899). Fuente (1922) cites Oliveira's collection. Barros (1926) records this species from Leça da Palmeira. As *Astenus filiformis* Latr., it was also reported by Seabra (1942), from Santos Evos, Serra da Estrela, and Ferreira (1962), with no locality. Gamarra & Outerelo (2020) report the species from Beira Alta and, by mistake, also Minho, instead of Douro Litoral. Ferreira (2021) mentions 2 specimens from the Ramiro Neves collection, with Nrs. 18 and 27.

New data: **Beira Litoral**, Aveiro, Bussaco, 12/06/1966, 1 ex., leg. R.N. Ferreira (RNFC).

Distribution: Widespread in Europe, North Africa, Cyprus, Iran, Lebanon, Tajikistan, Turkey, Uzbekistan, and West Siberia (Schülke & Smetana, 2015).

***Astenus (Astenus) pulchellus* (Heer, 1839)**

Sunius pulchellus Heer, 1839: 230

Boieiro *et al.* (2001) record this species from Alto Alentejo, Évora, Mora, 15/09/1976, 1 ex. Not listed for Portugal by Schülke & Smetana (2015). Gamarra & Outerelo (2020) report this species from Alto Alentejo.

Distribution: According to Schülke & Smetana (2015), this species is known from Europe, Kyrgyzstan, and Uzbekistan.

***Astenus (Astenus) tristis* (Erichson, 1840)**

Sunius tristis Erichson, 1840: 644

Heyden (1870) records this species from the mountains around Seia, in Serra da Estrela, and from Borrageiro, in Serra do Gerês. Barros (1913) cites the species from S. Martinho de Anta. Fuente (1922) quotes both Heyden and Barros. Ferreira (1962) mentions this species from Portugal without locality. Not listed for Portugal by Schülke & Smetana (2015). Gamarra & Outerelo (2020) report this species from Trás-os-Montes e Alto Douro and, also, Estremadura, probably by mistake instead of Beira Alta. Ferreira (2021) mentions 1 ex. from Padre Ramiro's collection, with the Nr. 46.

Distribution: This species is known from Italy (Sardinia and Sicily) (Schülke & Smetana, 2015), but also from Spain and Portugal (Gamarra & Outerelo, 2020).

Astenus (Astenus) uniformis (Jacquelin du Val, 1853)

Sunius uniformis Jacquelin du Val, 1853: 700

Boieiro *et al.* (2001) record this species from Estremadura, Lisboa, Alenquer, Serra de Montejunto, 1/03/1975, 1 ex. Gamarra & Outerelo (2020) report this species from Estremadura.

New data: Beira Litoral, Aveiro, Bussaco, 1 ex., leg. R.N. Ferreira (RNFC).

Distribution: Known from Europe, North Africa, Cyprus, and Syria (Schülke & Smetana, 2015).

Astenus (Eurysunius) beirensis Coiffait, 1973

Astenus beirensis Coiffait, 1973: 114

This species was described from Portugal, Beira Alta, Guarda, 1 ♂ (Type) (Col. Coiffait) and 1 ♀ (Paratype) (col. G. Frey) (Coiffait, 1973). Assing (2003) records this species from Beira Alta, Serra da Estrela, S Manteigas, 1450 m, 16/04/1960, 2 ♂♂, leg. Besuchet; Serra da Estrela, S. Manteigas, 40°20'24"N 07°34'13"W, 1234 m, under stone, 18/03/2002, 1 ♀, leg. Lompe; Guarda, Nabainhos, 8-16/11/1997, 1 ♂, leg. Poot. Gamarra & Outerelo (2020) report the species from Beira Alta.

Distribution: Known only from Portugal (Schülke & Smetana, 2015).

Astenus (Eurysunius) carinatus Coiffait, 1969

Astenus carinatus Coiffait, 1969: 69

Species described from Beira Alta, Serra da Estrela (Coiffait, 1969). Assing (2003) records it from Serra da Estrela, NW Manteigas, 40°25'23"N, 07°31'24"W, 1207 m, arable land, under stones, 19/03/2002, 3 ♀♀, leg. Lompe & Meybohm; same data but 40°26'13"N, 07°34'55"W, 1420 m, 20/03/2002, 2 ♂♂ and 3 ♀♀, leg. Lompe & Meybohm. Gamarra & Outerelo (2020) report the species from Beira Alta.

Distribution: Species endemic to the Serra da Estrela (Coiffait, 1984), known only from Portugal (Schülke & Smetana, 2015).

Astenus (Eurysunius) colasi Coiffait, 1960

Astenus colasi Coiffait, 1960: 76

This species should be removed from the Portuguese fauna because, by mistake, Gamarra & Outerelo (2020) reported it from Baixo Alentejo with data belonging to *Leptobium colasi* Coiffait, 1954.

Astenus (Eurysunius) contestanus Coiffait, 1980

Astenus contestanus Coiffait, 1980: 46

Coiffait (1984) cites this species from Portugal, with no locality. Gamarra & Outerelo (2020) report the species from Portugal with a question mark.

Distribution: Known from Portugal and Spain (Schülke & Smetana, 2015).

Astenus (Eurysunius) latus (Rosenhauer, 1856)

Sunius latus Rosenhauer, 1856: 72

Heyden (1870) records the species from the vicinity of Guarda. Oliveira (1893) records the species from Bragança and Coimbra. Oliveira (1899) mentions the species as *Sunius latus* Rosenhauer. Fuente (1922) quotes Oliveira for the same localities and Heyden (1870) regarding Serra da Estrela (actually Guarda, as already mentioned). Ferreira (1962) reports the species from Portugal, without locality. Not listed for Portugal by Schülke & Smetana (2015). Gamarra & Outerelo (2020) report the species from Trás-os-Montes e Alto Douro, Beira Alta, and Beira Litoral. Ferreira (2021) mentions 1 ex. from the Ramiro Neves collection, with the No. 26.

Distribution: Known from Spain (Schülke & Smetana, 2015) and Portugal (Gamarra & Outerelo, 2020).

Astenus (Eurysunius) martinezii martinezii (Uhagón, 1876)

Sunius martinezii Uhagón, 1876: 73

Recorded from Portugal for the first time by Assing (2003) from Beja, Alvito, 22-30/11/1997, 1 ♂, leg. Poot. Not listed for Portugal by Schülke & Smetana (2015). Gamarra & Outerelo (2020) misreport this species from Beira Alta, as the known locality belongs to Baixo Alentejo.

Distribution: Known from France and Spain (Schülke & Smetana, 2015), as well as from Portugal (Gamarra & Outerelo, 2020).

Astenus (Eurysunius) platypthalmus Coiffait, 1971

Astenus platypthalmus Coiffait, 1971: 182

This species should be removed from the Portuguese fauna because its type locality, first mentioned as "Bejar, Portugal" (sic) by Coiffait (1971), was later corrected to "Espagne, Vieille Castille, Bejar" (Coiffait, 1984). Thus, it's not listed for Portugal by Schülke & Smetana (2015). Gamarra & Outerelo (2020) probably misreport the species from Beira Alta, as we couldn't find any other source supporting the occurrence there.

Astenus (Eurysunius) setiger (Vauloger, 1897)

Sunius setiger Vauloger, 1897: 368

New data: Minho, Braga, Vieira do Minho, Serra do Gerês, 2/07/1969, 1 ex., leg. R.N. Ferreira (RNFC).

Distribution: Previously known only from Spain (Schülke & Smetana, 2015; Gamarra & Outerelo, 2020). First record from Portugal.

Astenus (Eurysunius) truncatus Coiffait, 1971

Astenus truncatus Coiffait, 1971: 179

Boeiro *et al.* (2001) mention the species from Algarve, Faro, Castro Marim, 02/04/1981, 1 ex. and Minho, Braga, Terras do Bouro, Leonte (Gerês), 15/05/1981, 1 ex. Assing (2003) records the species from Trás-os-Montes e Alto Douro, Serra de Montesinho, Montesinho, 41°56'13"N, 06°45'31"W, 1070 m, under stones with *Tetramorium* sp. (Hymenoptera, Formicidae), 21/03/2002, 4 ♂♂ and 9 ♀♀, leg. Lompe & Meybohm. Gamarra & Outerelo (2020) report the species from Trás-os-Montes e Alto Douro and Algarve.

Distribution: Known from Portugal and Spain (Schülke & Smetana, 2015).

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