
New records for crown wasps in Europe (Hymenoptera, Stephanidae)

F. Ceccolini

Ceccolini, F., 2021. New records for crown wasps in Europe (Hymenoptera, Stephanidae) *Arxius de Miscel·lània Zoològica*, 19: 249–259, Doi: <https://doi.org/10.32800/amz.2021.19.0249>

Abstract

New records for crown wasps in Europe (Hymenoptera, Stephanidae). New occurrence records for two species of Hymenoptera Stephanidae are provided from several states of Europe. *Stephanus serrator* (Fabricius, 1798) is recorded for the first time for Portugal and with precise locality for Switzerland. Moreover, it is recorded for the first time in the following regions: Navarre (Spain), Wallonia (Belgium), Hesse, Berlin and Bavaria (Germany), Aosta Valley, Lombardy, Veneto, Abruzzo, Campania and Calabria (Italy), and Attica (Greece). *Megischus anomalipes* (Foerster, 1855) is recorded for the first time in mainland Portugal and Campania (Italy).

Checklist dataset published through [GBIF](#) (Doi: [10.15470/baost7](https://doi.org/10.15470/baost7))

Key words: Faunistics, New records, *Megischus anomalipes*, *Stephanus serrator*

Resumen

Nuevos registros de avispas de corona en Europa (Hymenoptera, Stephanidae). Nuevos registros de presencia de dos especies de Hymenoptera Stephanidae en varios estados de Europa. *Stephanus serrator* (Fabricius, 1798) se registra por primera vez en Portugal y con localización precisa en Suiza; por otra parte, se registra por primera vez en las siguientes regiones: Navarra (España), Valonia (Bélgica), Hesse, Berlín y Baviera (Alemania), Valle de Aosta, Lombardía, Véneto, Abruzzos, Campania y Calabria (Italia) y Ática (Grecia). *Megischus anomalipes* (Foerster, 1855) se registra por primera vez en Portugal continental y Campania (Italia).

Lista de datos publicada en [GBIF](#) (Doi [10.15470/baost7](https://doi.org/10.15470/baost7))

Palabras clave: Faunística, Nuevos registros, *Megischus anomalipes*, *Stephanus serrator*

Resum

Nous registres de vespes de corona a Europa (Hymenoptera, Stephanidae). Nous registres de presència de dues espècies d'Hymenoptera Stephanidae en diversos estats d'Europa. *Stephanus serrator* (Fabricius, 1798) es registra per primera vegada a Portugal i amb

localització precisa a Suïssa; d'altra banda, es registra per primera vegada a les regions següents: Navarra (Espanya), Valònia (Bèlgica), Hesse, Berlín i Baviera (Alemanya), la Vall d'Aosta, la Llombardia, el Vènet, els Abruços, la Campània i Calàbria (Itàlia) i l'Àtica (Grècia). *Megischus anomalipes* (Foerster, 1855) es registra per primera vegada a Portugal continental i la Campània (Itàlia).

Llista de dades publicada a [GBIF \(Doi 10.15470/baost7\)](https://doi.org/10.15470/baost7)

Paraules clau: Faunística, Nous registres, *Megischus anomalipes*, *Stephanus serrator*

Received: 20/08/2021; Conditional acceptance: 24/10/2021; Final acceptance: 26/10/2021

Filippo Ceccolini, Zoology, 'La Specola', Natural History Museum, University of Florence, Via Romana 17, I-50125 Florence, Italy.

E-mail: ceccolinif@virgilio.it

ORCID ID: Filippo Ceccolini: 0000-0002-1476-914X

Introduction

Stephanidae Leach, 1815 is rather small family of Hymenoptera that includes more than 360 extant species (Aguar, 2004, 2006; van Achterberg and Yang, 2004; Aguair and Jennings, 2005; van Achterberg and Quicke, 2006; Aguair et al., 2010; Hong et al., 2010, 2011; Watanabe and van Achterberg, 2014; Tan et al., 2015; Hua-yan et al., 2016; Chen et al., 2016; Moghaddam et al., 2018; Binoy et al., 2020; Gupta and Gawas, 2020; Ge et al., 2021). Although the biology of many species is unknown, stephanids seem to be solitary idiobiont ectoparasitoids of wood boring insect larvae, mainly of Buprestidae and Cerambycidae, but also of Curculionidae, Siricidae, and solitary Apoidea (Aguair, 2004).

Most such species are in subtropical and tropical areas (Benoit, 1984a, 1984b; Vilhelmsen, 1997; van Achterberg, 2002). Only four species occur in Europe (Hilszczański, 2011): of these, *Foenatopus turcomanorum* (Semenov, 1891) and *Afromegischus gigas* (Schletterer, 1889) are known in Europe only on the island of Crete (Hilszczański, 2011). *Stephanus serrator* (Fabricius, 1798) and *Megischus anomalipes* (Foerster, 1855) are more widespread on the continent (Madl, 2013) but records are scarce. These latter species can be well-differentiated by photograph because *S. serrator* has a ventral margin of hind femur with 3 tooth-like processes, while *M. anomalipes* has two tooth-like processes (Dal Pos and Turrisi, 2017). This note provides several new records of these two species in Europe, increasing faunistic knowledge of this little investigated group of insects.

Material and methods

The examined material originated from photographed specimens retrieved on the web (see the checklist dataset published through [GBIF: Doi 10.15470/baost7](https://doi.org/10.15470/baost7)). For each site, the following information is given: locality, geographical coordinates, date, number and sex of specimens, and author of the photo. For each locality, geographical coordinates are in decimal degrees (datum WGS84). The number of decimals varies according to the accuracy of the data. Uncertainty of the data (in metres or kilometres) was indicated according to the point-radius method (Wieczorek et al., 2004). Each record was identified or confirmed by the author.

The abbreviations used in the material examined are:

- BOLD, barcode of Life Data System (www.barcodinglife.org).
- FEI, Forum Entomologi Italiani (www.entomologiitaliani.net).
- FNM, Forum Natura Mediterraneo (<https://www.naturamediterraneo.com>).
- IN, Inaturalist (www.inaturalist.org).
- IBER, Institute of Biodiversity and Ecosystem Research, Sofia, Bulgaria.
- GMI, Galerie du Monde des insectes (<https://www.galerie-insecte.org/galerie/fichier.php>).
- OB, observation.org (<https://observation.org>).
- SBSN, Zoologische Staatssammlung Muenchen, Munich, Germany.
- WN, Waarneming.nl (<https://waarneming.nl>).
- un., uncertainty.

Results

Results are published through [GBIF](https://doi.org/10.15470/baost7) (Doi [10.15470/baost7](https://doi.org/10.15470/baost7))

Stephanus serrator (Fabricius, 1798)

Examined material

Portugal: Porto: Marco de Canaveses, 41.185373° N–8.149853° E (un. not recorded), 28.VIII.2021, 1♀, photo by 'ratogijo007' (IN).

Spain: Navarre: Larraun, 42.9349° N–1.8808° E (un. = 10 m), 20.VII.2019, 1♀, photo by Ana Andueza (OB). Catalonia: near Girona, 41.983781° N 2.667047° E (un. = 27.72 km), X.2018, 1♀, photo by Orlando Ferguson (IN).

France: Île-de-France: Frépillon, 49.051213° N 2.205767° E (un. = 4.21 km), 5.VII.2020, 1♀, photo by 'ftvienne' (IN); Cergy, 49.0364° N 2.0761° E, 18.V.2019, 1♂, photo by 'Bobabar' (GMI); Montreuil, 48.8562093° N 2.4566782° E, 7.V.2011, 1♂, photo by 'Raphael' (GMI). Nouvelle-Aquitaine: Sainte-Soulle, 46.1833° N–1.0167° E, 28.VI.2007, 1♂, photo by 'bob-gaia' (GMI); Courbiac, 44.3760000° N 1.0185062° E, 2.IX.2016, 1♀, photo by Brigitte Ulmer (GMI). Centre-Val de Loire: Sainte-Gemme, 46.8524° N 1.34° E, 8.VI.2008, 1♂, photo by Pierre Duhem (GMI). Occitanie: Marsillargues, 43.637557° N 4.136526° E (un. = 15 m), 3.VIII.2021, 1♀, photo by Bastien Louboutin (IN); Jonquières-Saint-Vincent, 43.8333° N 4.5667° E, 27.IV.2012, 1♀, photo by Christophe Germain (GMI); Avignonet-Lauragais, 43.3647500° N 1.7915480° E, 23.VII.2017, 1♂, photo by Catherine Reymonet (GMI); Saint-Julien-de-Peyrolas, 44.2833° N 4.5833° E, 17.VIII.2016, 2♀♀, photo by Françoise Vaselli (GMI); Sieuras, 43.1927° N 1.3515° E (un. = 10 m), 7.VI.2018, 1♂, photo by Hein Nouwens (OB). Grand Est: Lérouville, 48.7833° N 5.55° E, 26.VII.2006, 1♀, photo by Jean-Claude Henrion (GMI); Favières, 48.4667° N 5.95° E, 28.VI.2014, 1♀, photo by Sylvie Serrière (GMI); idem, 2.VII.2014, 1♀, photo by Sylvie Serrière (GMI); Ungersheim, 47.8785° N 7.308° E, 3.VI.2014, 1♂, photo by Andre Astric (GMI). Auvergne-Rhône-Alpes: Saint-Pierre-de-Chartreuse, 45.3333° N 5.8167° E, 18.VII.2019, 1♀, photo by Bernard Mallet (GMI); Sauvat, 45.30209° N 2.457359° E (un. = 104 m), 27.VI.2021, 1♀, photo by Benoît Segerer (IN). Provence-Alpes-Côte d'Azur: Solliès-Toucas, 43.194066° N 6.009239° E (un. = 2 m), 13.VIII.2020, 1♀, photo by 'berzou' (IN); Bouc-Bel-Air, 43.45° N 5.4167° E, 13.VIII.2012, 1♀, photo by 'Fabricius' (GMI); Cagnes-sur-Mer, 43.6639470° N 7.1371475° E, 15.V.2016, 1♂, photo by Pierre Gros (GMI); idem, 17.VII.2019, 1♂, photo by Pierre Gros (GMI); Clavières, 43.6046° N 6.5625° E (un. = 1000 m), 19.VI.2010, 1♀, at light, photo by Harm Alberts (OB).

Netherlands: Limburg: De Hamert-Stalberg, 51.5101° N 6.1661° E (un. = 25 m), 24.V.2019, 1♂, photo by Henny Martens (WN); idem, 51.5107° N 6.1653° E (un. = 5 m), 31.V.2019, 1♀, photo by Henny Martens (WN); idem, 51.5108° N 6.1653° E (un. = 15 m), 20.VI.2019, 1♀, photo by Henny Martens (WN); Nationaal Park de Meinweg, 51.1703° N 6.1337° E (un. = 10 m), 22.VI.2019, 1♀, photo by Willem Vergoossen (WN); Mount Saint Peter, 50.8159° N 5.6815° E (un. = 10 m), 11.V.2018, 1♂, photo by Gerwin van de Maat (WN);



Fig. 1. Female of *Stephanus serrator* from Namur, Belgium (photo by Gilles San Martin).

Fig. 1. Hembra de *Stephanus serrator* de Namur, Bèlgica (fotografia de Gilles San Martin).

idem, 50.8160° N 5.6818° E (un. = 10 m), 1♂, photo by Jan Ligtenberg (WN); Stalberg, 51.5135° N 6.1613° E (un. = 100 m), 18.VII.2015, 1♀, photo by Lo Troisfontaine (WN); idem, 51.5082° N 6.1683° E (un. = 100 m), 5.VI.2016, 1♂, photo by Lo Troisfontaine (WN).

Belgium: Wallonia: Namur province, Namur, 50.433181° N 4.866647° E (un. not recorded), 26.VI.2020, 1♀, photo by Gilles San Martin (IN) (fig. 1); Hainaut, surroundings Amougies, 50.740803° N 3.513859° E (un. = 4.15 km), 17.VI.2021, 1♀, photo by Valerie Van Herck (IN); Hainaut, Seneffe, 50.556448° N 4.253135° E (un. not recorded), 12.VII.2021, 1♀, photo by 'gregsphotographie' (IN).

Germany: Baden–Württemberg: Friesenheim, 48.393136° N 7.91604° E (un. = 296 m), 16.VI.2019, 1♂, photo by Corinna Herr (IN); idem, 48.392111° N 7.923784° E (un. = 8 m), 22.V.2020, 1♂, photo by Corinna Herr (IN); idem, 48.390541° N 7.92195° E (un. = 35 m), 27.VI.2020, 1♂, photo by Corinna Herr (IN); idem, 48.390313° N 7.921003° E (un. = 42 m), 27.VI.2020, 1♂, photo by Corinna Herr (IN); Oppenau, 48.457028° N 8.175081° E (un. = 31 m), 21.VI.2021, 1♂, photo by Corinna Herr (IN); Hartheim am Rhein, 47.93083° N 7.60543° E (un. not recorded), 8.V.2020, 1♂, photo by Ralph Martin (IN); Bahlingen am Kaiserstuhl, 48.107907° N 7.700798° E (un. = 750 m), 21.V.2020, 1♀, photo by Ralph Martin (IN); Welzheim, 48.876857° N 9.640583° E (un. = 20 m), 27.VI.2020, 1♂, photo by Micha Baum (IN); Neuenburg am Rhein, 47.875804° N 7.568298° E (un. = 124 m), 3.VII.2021, 1♀, photo by Joachim Wimmer (IN); Blumberg, 47.800395° N 8.496491° E (un. = 31 m), 26.VIII.2020, 1♀, photo by Gabriele Uhl (IN); Vogtsburg im Kaiserstuhl, 48.096676° N 7.683123° E (un. 533 m), 20.VII.2020, 1♀, photo by Joachim Wimmer (IN). Saxony: Haselberg–Straßenteich, 51.29615° N 12.650835° E (un. not recorded), 12.VI.2020, 1♀, photo by Martin Grimm (IN). Hesse: Stockstadt am Rhein, 49.805542° N 8.468787° E (un. = 32 m), 21.VI.2021, 1♂, photo by 'mi_wa' (IN). Brandenburg: Stahnsdorf, Güterfelde, 52.368976° N 13.184098° E (un. = 296 m), 2 specimens (1♂), 15.VI.2021, photo by 'anduxi' (IN). Berlin state: Treptow–Köpenick, 52.409612° N 13.528825° E (un. = 61 m), 15.VI.2021, 1♂, photo by 'glandarius' (IN). Bavaria: Jochenstein, 48.517° N 13.717° E, 15.VII.2008, 1♀, leg. G. Merkel–Wallner, SBSN, photo on BOLD; Wenzelbach, 49.093° N 12.157° E, 1.VII.2012, 1♀, D. Doczkal and A. Segerer leg., SBSN, photo on BOLD.

Italy: Aosta Valley: Aosta, Verrayes, 45.748302° N 7.529074° E (un. = 35 m), 6.VI.2020, 1♂, photo by Thomas Auffray (IN). Piedmont: Alessandria, Gavi, 44.709742° N 8.833328° E (un. = 5 m), 27.IV.2019, 1♂, photo by Sara Viale (IN); Verbano–Cusio–Ossola, Albagnano, 45.966531° N, 8.58792° E (un. = 17 m), 21.IV.2019, 1♀, photo by Mattia Buratti (IN). Lombardy: Milano, Peschiera Borromeo, San Bovio, 45.46009° N 9.31562° E (un. = 3 m),



Fig. 2. Male of *Stephanus serrator* from St-Cergue, Switzerland (photo by Olivier Richardet).

Fig. 2. Macho de Stephanus serrator de St-Cergue, Suiza (fotografia de Olivier Richardet).

20.V.2017, 1♀, photo by 'sanbovio1g_2017' (IN); Bergamo, Endine Gaiano, 45.789264° N 9.9809° E (un. = 40 m), 20.II.2021, 1♀, photo by 'mikymaf' (IN); Brescia, Caino, 45.606114° N 10.314558° E (un. = 357 m), 17.VII.2020, 1♀, photo by Giuliano Parpaglioni (IN); Varese, Cardano al Campo, 45.637997° N 8.771329° E (un. not recorded), 26.VII.2020, 1♂, photo by Mattia Falaschi (IN). Trentino–Alto Adige: Bolzano, Marleno, 46.662693° N 11.134248° E (un. = 6 m), 22.VII.2020, 1♀, photo by Felix Ladurner (IN); Trento, Mattarello, 46.00625° N 11.136673° E (un. = 1.4 km), 28.V.2018, 1♂, photo by Cristiano Marcolla, posted on IN by Karol Tabarelli de Fatis. Veneto: Treviso, Villorba, Lancenigo, 45.712738° N 12.277205° E (un. not recorded), 22.IV.2017, 1♀, photo by Marcello Consolo (IN); Vicenza, Castelgom-berto, 45.565449° N 11.421553° E (un. not recorded), 22.VI.2019, 1♀, photo by Marco Vicariotto (IN). Friuli–Venezia Giulia: Gorizia, Ronchi dei Legionari, 1.X.2017, 1♀, photo by Lucio Morin (FEI). Emilia–Romagna: Piacenza, Bobbio, San Cristoforo, 44.74814° N 9.345253° E (un. = 4 m), 24.III.2019, 1♂, photo by Luciano Arcorace (IN); Ferrara, Terre del Reno, Mirabello, 44.833475° N 11.461499° E (un. = 4 m), 19.VI.2020, 1♂, photo by Andrea Grossi (IN); idem, 44.833578° N 11.461734° E (un. = 2 m), 21.VI.2020, 1♀, photo by Andrea Grossi (IN); idem, 44.833333° N 11.461944° E (un. not recorded), 26.VI.2021, 1♀, photo by Andrea Grossi (IN); Reggio Emilia, Cavriago, 44.715267° N 10.569526° E (un. not recorded), 23.VII.2020, 1♀, photo by 'fre_nk' (IN); Bologna, Castel d'Aiano, Monte Spe, 800 a.s.l., 21.V.2016, 1♂, photo by Loris Colacurcio (FEI); Ravenna, surroundings Alfonsine, 44.493273° N 12.064128° E (un. not recorded), 21.VII.2020, 1♀, photo by Enrico Gabrielli (IN). Tuscany: Firenze, Firenzuola, near Cascate di Moraduccio, 44.171753° N 11.482047° E (un. = 349 m), 10.VI.2018, 1♀, photo by Lorenzo 'lorenzoco' (IN); Prato, 43.865744° N 11.037564° E (un. = 177 m), 30.VIII.2020, 1♀, photo by Marco Huang (IN); Livorno, Campiglia Marittima, 43.082006° N 10.587528° E (un. not recorded), 30.VI.2021, 1♂, photo by Yannic Talarico (IN). Marche: Ancona, 22.V.2021, 1♀, photo by Giacomo Giovagnoli (FEI); Macerata, Camerino, 25.VII.2018, 1♀, photo by 'mbondini' (FNM). Latium: Roma, Nettuno, 41.470689° N 12.700879° E (un. = 5 m), 11.IX.2018, photo by Valerio Moretti (IN). Abruzzo: Barrea, 41.7611° N 13.9604° E, 20.VI.2011, 1♀, leg. T. Ljubomirov, IBER, photo on BOLD. Campania: Benevento, Sant'Agata de' Goti, 41.080654° N 14.470882° E (un. = 65 m), 25.VII.2020, 1♀, photo by Gianluca De Rosa (IN); Caserta, Teano, 41.246611° N 14.069329° E (un. = 96 m), 6.VIII.2019, 1♂, photo by Ugo Raimondi (IN). Apulia: Foggia,

San Marco in Lamis, Bosco San Matteo Gargano, 800 m a.s.l., 8.VII.2017, 1♀, photo by 'michele21' (FNM). Calabria: Catanzaro, Sant'Elia, 38.959118° N 16.580706° E (un. = 1.4 km), 30.VII.2020, 1♀, photo by Stefano Lazzaretti (IN).

Switzerland: Vaud: St-Cergue, 46.446617° N 6.120783° E (un. = 357 m), 6.VI.2020, 1♂, photo by Olivier Richardet (IN) (fig. 2).

Austria: Wien: Wien, Gregor–Mendel–Straße, 48.234503° N 16.337268° E (un. = 132 m), 26.VI.2020, 1♀, photo by 'Joplo' (IN); Wien, Währing, 48.232617° N 16.334421° E (un. = 7 m), 17.VI.2021, 1♂, photo by Lorin Timaeus (IN). Lower Austria: Hollabrunn, 48.716923° N 16.094379° E (un. not recorded), 4.VII.2020, 1♀, photo by Norbert Böck (IN). Styria: Straß in Steiermark, 46.727714° N 15.620664° E (un. = 133 m), 16.V.2021, photo by Karim Strohrig (IN). Carinthia: Reißeck, 46.9133° N 13.268962° E (un. = 7 m), 11.VIII.2021, 1♀, photo by 'ktafke' (IN).

Czech Republic: South Moravian Region: Morkůvky, 48.961666° N 16.861053° E (un. not recorded), 6.VI.2020, 1♀, photo by Sarka Masova (IN).

Slovakia: Bratislava Region: Bratislava IV, Devín, 48.18258° N 16.989907° E (un. = 15 m), 3.VII.2021, 1♀, photo by Valerii Darmostuk (IN).

Hungary: Pest: Gödöllő, 47.553174° N 19.243762° E (un. not recorded), 23.V.2021, 2♂♂, 6♀♀, photo by Gábor Keresztes (IN).

Bulgaria: Sofia City Province: Stoliczna, Sofia, 42.662542° N 23.304109° E (un. = 4 m), 4.VII.2021, 1♀, photo Kalin Radkov (IN).

Greece: Attica: Salamis Island, near Selinia, 37.929079° N 23.513327° E (un. = 10.07 km), 31.X.2013, 1♀, photo by Vaggelis Koutsoukos (IN).

Biology

Polyphagous, its biology is better known than that of other stephanids and it is one of only two species of which more than one host is known with certainty (van Achterberg, 2002; Aguiar, 2004); it attacks coleopterous hosts in both coniferous and angiospermous trees (van Achterberg, 2002). The following cerambycid beetles are listed as its host species: *Callimus abdominalis* (Olivier, 1795) (Grandi, 1951), *Xylotrechus antilope* (Schönherr, 1817) (Hausl–Hofstätter and Bojar, 2016), *X. arvicola* (Olivier, 1795) (Blüthgen, 1953; Lukáš, 1989; Heyrovský, 1995; Selfa et al., 2014), *X. capricornis* (Gebler, 1830) (Šedivý, 1967), *Pogonocherus eugeniae* Ganglbauer, 1891 (Pagliano, 1986), *Ropalopus femoratus* (Linnaeus, 1758), *R. macropus* (Germar, 1824) (Lukáš, 1989), *Clytus arietis* (Linnaeus, 1758) (Hausl–Hofstätter and Bojar, 2016), *C. lama* Mulsant, 1847 (Čapek et al., 1982; Lukáš, 1989), *Pseudosphegasthes cinerea* (Castelnau and Gory, 1835) (Turrisi, 2002), *Saperda similis* Laicharting, 1784 (Georgiev et al., 2004), and, to be confirmed, *Cerambyx scopolii* Fuesly, 1775 (Blüthgen, 1953) and *Stictoleptura rubra* (Linnaeus, 1758) (Hausl–Hofstätter, 2003). Another host is the Curculionidae Scolytinae *Scolytus carpini* (Ratzeburg, 1837) (Belokobylskij, 2019).

General distribution

Known in Austria, Azerbaijan, Bulgaria, Belgium, Corfu, Corsica, Crete, Croatia, Czech Republic, mainland France, Germany, mainland Greece, Hungary, mainland Italy, Iran, Lebanon, Moldova, Montenegro, Netherlands, North Macedonia, Romania, Russia, Sardinia, Serbia, Sicily, Slovakia, Slovenia, mainland Spain, Switzerland, Turkey, Ukraine (Pagliano, 1986; Turrisi, 2002; van Achterberg, 2002; Hilszczański, 2011; Madl, 2013; Lakatos and László, 2015; Ceccolini, 2016; Belokobylskij, 2019); and Portugal (present work).

Remarks

Although *S. serrator* is reported from many countries in Europe, in some states precise localities seem to be lacking and faunistic knowledges of this species seem to be satisfying only for a few countries, e.g. Austria (Madl and Schwarz, 2014).



Fig. 3. Female of *Megischus anomalipes* from Mértola, Portugal (photo by 'crpalma').

Fig. 3. Hembra de *Megischus anomalipes* de Mértola, Portugal (fotografia de "crpalma").

The species was first recorded in Portugal with the specimen from Marco de Canaveses. Many studies have recorded the occurrence of the species in Switzerland (Nees von Esenbeck, 1834; Sichel, 1865; Schletterer, 1889; Kieffer, 1902, 1908; Schmiedeknecht, 1930; van Achterberg, 2002; Aguiar, 2004; Madl, 2013) but localities have not been precise. The aforementioned specimens from St-Cergue is the first precise record for this country.

The species seems to be widespread in Spain, but available data are scattered. It is known from the following regions: Galicia, Asturias, Cantabria, Extremadura, Andalusia, Valencian Community, and Catalonia (Ceballos, 1926; Dusmet, 1935, 1944; Pujade-Villar et al., 2009; Selfa et al., 2014). The specimen from Larraun is the first record for Navarre.

In Belgium the species has been generically recorded by Madl (2013) and Madl and Schwarz (2014), but the only precise locality is provided by Creutzburg and Müller (2019) who reported the species in Beringen. Data from the present note are first records of *S. serrator* for the Wallonia region.

In Germany, where to date *S. serrator* was known in Rhineland-Palatinate, Baden-Württemberg, Thuringia, Brandenburg, and Saxony-Anhalt (Fabricius, 1798; Schmiedeknecht, 1895; Oehlke, 1984; Bathon, 1994; Völlger, 1994; Jansen et al., 1988; Burger, 2006; Jansen, 2009; Stark, 2010; Reder, 2011; Creutzburg and Müller, 2019), records for Hesse, Berlin, and Bavaria regions are quoted.

Many data from Italy are added to the scattered data known in the literature (Biegeleben, 1929; Pagliano, 1986; Madl, 1991; Turrisi, 2002; Contarini, 2010; Ceccolini, 2016): in particular, first records for Aosta Valley, Lombardy, Veneto, Abruzzo, Campania, and Calabria are provided.

In Greece, where *S. serrator* was recorded by Hilszczański (2011), the specimen from Salamina island is the first record for the Attica region.

Megischus anomalipes (Foerster, 1855)

Examined material

Portugal: Alentejo: Beja, Mértola, 37.677387° N 7.837528° E (un. not recorded), 22.VIII.2020, 1♀, photo by 'crpalma' (IN) (fig. 3).

France: Provence-Alpes-Côte d'Azur: Cagnes-sur-Mer, 43.6633392° N 7.1363068° E, 13.VIII.2011, 1♀, photo by Pierre Gros (GMI); idem, 43.6639470° N 7.1371475° E, 22.VI.2016, 1♂, photo by Pierre Gros (GMI).

Italy: Tuscany: Firenze, 43.823903° N 11.2334° E (un. = 12 m), 23.V.2020, 1♀, photo by Francesca Graziani (IN). Campania: Salerno, Castellabate, ante 1980, 1♀, photo by Giuseppe Pace (FEI).

Greece: Attica: Saronikos, Palaia Fokaia, 37.698343° N 23.962509° E (un. = 2.56 km), 11.VI.2021, 1♂, photo by Myrto Pollali (IN).

Biology

Its biology is almost unknown; it is probably a parasitoid of some species of Cerambycidae and Buprestidae (Turrisi, 2002; Hilszczański, 2011; Dal Pos and Turrisi, 2017).

General distribution

Known in the Czech Republic, mainland France, Greece, mainland Italy, Lebanon, Madeira, Romania, Sardinia, Serbia, Sicily, Slovakia, Spain, Turkey, Hungary (Schmiedeknecht, 1930; Lukáš, 1989; Madl, 1991; Turrisi, 2002; van Achterberg, 2002; Aguiar, 2004; Hilszczański, 2011; Reder, 2011; Madl, 2013; Dal Pos and Turrisi, 2017).

Remarks

The distribution of *M. anomalipes* is scattered and poorly known. The specimen from Alentejo is the first record for mainland Portugal: to date the only datum for Portugal was the occurrence from Madeira island (Schmiedeknecht, 1930; Madl, 1991, 2013).

In Italy, where the species is known from Trentino–Alto Adige, Veneto, Tuscany, Emilia–Romagna, Basilicata, Sardinia, and Sicily (Sichel, 1860; Biegeleben, 1929; Turrisi, 2002; Dal Pos and Turrisi, 2017), the first record for Campania is reported.

Finally, the specimens from Cagnes–sur–Mer confirm the occurrence of the species in France, where the only known precise locality (also in Provence–Alpes–Côte d'Azur region) was reported by van Achterberg (2002), while the record from Attica is added to the few records for Greece (Hilszczański, 2011; Reder, 2011; Dal Pos and Turrisi, 2017).

Acknowledgements

I would like to thank all the photographers who uploaded observations on the web. In particular, I am very grateful to Thomas Auffray, Mattia Falaschi, Felix Ladurner, Lorenzo 'lorenzoco', Stefano Lazzaretti, Valerio Moretti, Myrto Pollali, Ugo Raimondi, and Yannic Talarico (IN) for allowing me to use their data.

References

- Aguiar, A. P., 2004. World catalog of the Stephanidae (Hymenoptera: Stephanoidea). *Zootaxa*, 753: 1–120.
- 2006. The Stephanidae (Hymenoptera) of Mexico, with description of six new species and key to western *Foenatopus* Smith. *Zootaxa*, 1186(1): 1–56.
- Aguiar, A. P., Jennings, J. T., 2005. First record of Stephanidae (Hymenoptera) from New Caledonia, with descriptions of four new species of *Parastephanellus* Enderlein. *Zootaxa*, 1001(1): 1–16.
- Aguiar, A. P., Jennings, J. T., Turrisi, G. F., 2010. Three new Middle–Eastern species of *Foenatopus* Smith (Hymenoptera: Stephanidae) with a new host record and key to species with two spots on the metasoma. *Zootaxa*, 2714(1): 40–58.
- Bathon, H., 1994. *Stephanus serrator* (Hym. Stephanidae) in Deutschland. *Bembix*, 3: 7–8.
- Belokobylskij, S. A., 2019. Parasitoid wasps of the family Stephanidae (Hymenoptera: Stephanoidea) in the fauna of Russia. *Far Eastern Entomologist*, 393: 18–23.
- Benoit, P. L. G., 1984a. Stephanidae de l'Afrique occidentale et centrale (Hymenoptera). *Revue de zoologie africaine*, 98(1): 215–228.
- 1984b. Stephanidae du Sahara (Hymenoptera). *Revue de zoologie africaine*, 98(2), 434–439.

- Biegeleben, F., 1929. Un raro imenottero nuovo nella Venezia Tridentina? *Studi Trentini di Scienze Naturali*, 10: 210–214
- Binoy, C., van Achterberg, C., Girish Kumar, P., Santhosh, S., Sheela, S., 2020. A review of Stephanidae (Hymenoptera: Stephanoidea) from India, with the description of five new species. *Zootaxa*, 4838(1): 1–51.
- Blüthgen, P., 1953. Zur Biologie von *Stephanus serrator* F. (Hym., Stephanidae). *Zoologischer Anzeiger*, 150(9/10): 229–234.
- Burger, F., 2006. Checkliste der Trigonalydae, Evaniidae, Aulacidae, Gasteruptiidae, Stephanidae (Hymenoptera) Thüringens. *Check–Listen Thüringer Insekten und Spinnentiere*, 14: 35–39.
- Čapek, M., Hladil, J., Šediwý, J., 1982. Zoznam blanokridlych parazitov (Hymenoptera) dochovaných z hmyzích hostitelov, část 6. *Entomological Problems*, 17: 325–370.
- Ceballos, G., 1926. Estefánidos del Museo de Madrid. *Eos*, 2: 135–147.
- Ceccolini, F., 2016. Note sulla distribuzione in Italia di *Stephanus serrator* (Fabricius, 1798) con nuovi dati corologici (Insecta Hymenoptera Stephanidae). *Quaderno di Studi e Notizie di Storia Naturale della Romagna*, 44: 163–168.
- Chen, H.–Y., van Achterberg, C., Xu, Z.–F., 2016. Description of a new species of *Foenatopus* Smith from China and the male of *Parastephanus brevicoxalis* (Hymenoptera, Stephanidae). *ZooKeys*, 612: 113–123.
- Contarini, E., 2010. Ulteriori dati sull'entomofauna legata al pino nero (*Pinus nigra* Arnold) sull'Appennino tosco–romagnolo, con particolare riguardo alla val Lamone (Insecta Coleoptera, Neuropteroidea, Hymenoptera). *Quaderno di Studi e Notizie di Storia Naturale della Romagna*, 29(2009): 19–36.
- Creutzburg, F., Müller, J., 2019. *Eucharis adscendens* (Fabricius, 1787) und *Stephanus serrator* (Fabricius, 1798) – selten gefundene Parasitoide (Insecta: Hymenoptera: Chalcidoidea & Stephanoidea). *Thüringer Faunistische Abhandlungen*, 24: 219–229.
- Dal Pos, D., Turrisi, G. F., 2017. Rediscovery and redescription of the holotype of *Stephanus (Distephanus)* [sic!] *athesinus* Biegeleben, 1929, with comments on its identity and new distributional data for *Megischus anomalipes* (Förster, 1855) (Hymenoptera, Stephanidae). *Lavori della Società Veneziana di Scienze Naturali*, 42: 5–14.
- Dusmet, J. M., 1935. Cuarenta y cinco años en busca de himenópteros en España. *Memorias de la Sociedad Entomológica de España*, 4: 1–116.
- 1944. Recuerdos para contribuir en la historia de la entomología de España. *Discurso de recepción en la Real Academia de Ciencias Exactas, Físicas y Naturales*, Madrid, 1–9.
- Fabricius, J. C., 1798. Supplementum Entomologiae Systematicae. Hafniae, Proft & Storch.
- Ge, S.–X., Shi, H.–L., Ren, L.–L., Tan, J.–L., 2021. Description of a new species of *Megischus* Brullé (Hymenoptera, Stephanidae), with a key to the species from China. *Zookeys*, 1022: 65–77.
- Georgiev, G., Sakalian, V., Ivanov, K., Boyadzhiev, P., 2004. Insects reared from stems and branches of goat willow (*Salix caprea* L.) in Bulgaria. *Journal of Pest Science*, 77: 151–153.
- Grandi, G., 1951. *Introduzione allo studio dell'Entomologia. Vol. II. Endopterigoti*. Edizioni Agricole, Bologna.
- Gupta, A., Gawas, S. M., 2020. A new species of the genus *Foenatopus* Smith (Hymenoptera: Stephanoidea: Stephanidae) from India. *Zootaxa*, 4801(2): 389–394.
- Hausl–Hofstätter, U., 2003. *Stephanus serrator* (F.) – ein seltener Hautflügler aus der Steiermark (Hymenoptera, Stephanidae). *Joannea Zoologie*, 5: 29–34.
- Hausl–Hofstätter, U., Bojar, H.–P., 2016. Behaviour, biology and morphology of *Stephanus serrator* (Fabricius, 1798) (Hymenoptera: Stephanidae). *Joannea Zoologie*, 15: 15–38.
- Heyrovský, L., 1995. *Fauna SR, Tesařkovití Coleoptera, Cerambycidae. Vol. 5*. SAV, Praha.
- Hilszczański, J., 2011. New data on the occurrence of stephanids (Hymenoptera: Stephanidae) in Turkey and Greece. *Opole Scientific Society Nature Journal*, 44: 192–196.
- Hong, C.–D., van Achterberg, C., Xu, Z.–F., 2010. A new species of *Megischus* Brullé (Hymenoptera, Stephanidae) from China, with a key to the Chinese species. *ZooKeys*,

- 69: 59–64.
- 2011. A revision of the Chinese Stephanidae (Hymenoptera, Stephanoidea). *ZooKeys*, 110: 1–108.
- Hua–yan, C., Chun–dan, H., van Achterberg, C., Xu, Z. F., 2016. Description of a new species of *Pseudomegischus* van Achterberg from China (Hymenoptera, Stephanidae). *ZooKeys*, 601: 119–125.
- Jansen, E., 2009. *Stephanus serrator* (Fabricius, 1798) (Hymenoptera, Stephanidae), erster Nachweis für Sachsen. *Entomologische Nachrichten und Berichte*, 53: 253–254.
- Jansen, E., Bense, J., Schrameyer, K., 1988. *Stephanus serrator* (Fabricius, 1978) in der Bundesrepublik Deutschland (Hymenoptera, Stephanidae). *Entomofauna*, 9: 421–428.
- Kieffer, J.–J., 1902. Stéphanides. In: *Species des Hyménoptères d'Europe et d'Algérie. Tome Septième bis, Cynipides*: 471–490 (E. André, Ed.). M^{me} Froment–Dubosclard, Paris.
- 1908. Hymenoptera fam. Stephanidae. In: *Genera Insectorum*, 77: 1–10 (P. Wytzman, Ed.). V. Verteneuil and L. Desmet, Bruxelles.
- Lakatos, T. K., László, Z., 2015. *Stephanus serrator* (Fabricius, 1798) in Romania (Hymenoptera: Stephanidae). *Folia Entomologica Hungarica*, 76: 241–249.
- Lukáš, J., 1989. The distribution of the species of the genus *Stephanus* Jur. in Czechoslovakia. *Entomological problems*, 19: 133–139.
- Madl, M., 1991. Zur Kenntnis der paläarktischen Stephanidae (Hymenoptera, Stephanoidea). *Entomofauna*, 12(9): 117–128.
- 2013. *Fauna Europaea: Stephanidae version 2017.06*. (M.–D. Mitroiu, Ed.). Museum für Naturkunde, Berlin. Accessible online at: <https://fauna-eu.org> [Accessed on November 2021].
- Madl, M., Schwarz, M., 2014. *Stephanus serrator* (Fabricius, 1798) in Österreich (Hymenoptera: Stephanidae). *Beiträge zur Entomofaunistik*, 15: 153–175.
- Moghaddam, M. G., Rakhshani, E., Arabzadeh, M. A., Derafshan, H. A., Kavallieratos, N. G., 2018. The Stephanidae (Hymenoptera, Stephanoidea) of Iran with the description of a new species. *Insect Systematics and Evolution*, 50(5): 583–600.
- Nees von Esenbeck, C. G., 1834. *Hymenopterorum ichneumonibus affinium, monographiae, genera Europaea et species illustrantes*, vol. 1. J. G. Cottae, Stuttgart.
- Oehlke, J., 1984. Beiträge zur Insektenfauna der DDR: Hymenoptera – Evanioidea, Stephanoidea, Trigonalioidea (insecta). *Faunistische Abhandlungen, Staatliches Museum für Tierkunde in Dresden*, 11(13): 161–189.
- Pagliano, G., 1986. Aulacidae, Stephanidae ed Evaniidae d'Italia con descrizione di un nuovo Stephanidae del Marocco (Hymenoptera, Ichneumonoidea). *Atti del Museo Civico di Storia naturale di Grosseto*, 9/10: 1–20.
- Pujade–Villar, J., Masó, G., Selfa, J., 2009. Troballa de *Stephanus serrator* (Fabricius, 1798) al Museu de Ciències Naturals de Barcelona (Hymenoptera: Stephanidae). *Orsis*, 24: 169–170.
- Reder, G., 2011. Zur Verbreitung von *Stephanus serrator* (F.) in Rheinland–Pfalz und eine neue Fundstelle von *Megischus anomalipes* (Först.) in Griechenland (Hymenoptera: Stephanidae). *Fauna und Flora von Rheinland–Pfalz*, 12(1): 135–148.
- Schletterer, A., 1889. Monographie der Hymenopteren–Gattung *Stephanus* Jur. *Berliner Entomologische Zeitschrift*, 33: 71–160.
- Schmiedeknecht, O., 1895. Die Ader–oder Hautflügler (Hymenoptera). In: *Thüringen. Ein geographisches Handbuch*, 2: 260–268 (F. Regel, Ed.). G. Fischer, Jena.
- 1930. *Die Hymenopteren Nord– und Mitteleuropas: mit Einschluss von England, Südschweiz, Südtirol und Ungarn, nach ihren Gattungen und zum grossen Teil auch nach ihren Arten analytisch bearbeitet*. G. Fischer, Jena.
- Šedivý, J., 1967. Příspěvek k poznání hostitelů lumku (Hym., Ichneumonidae). II. *Zprávy Československé společnosti entomologické při ČSAV*, 3(1): 5–11.

- Selfa, J., Ventura, D., Carles–Tolrà, M., Ortiz–Sánchez, F. J., Pérez–Fernández, T., Puja–de–Villar, J., 2014. Nuevos datos sobre la distribución de *Stephanus serrator* (Fabricius, 1798) en España (Hymenoptera, Stephanidae). *Boletín de la Asociación española de Entomología*, 38(1–2): 191–195.
- Sichel, J., 1860. Liste des Hyménoptères recueillis en Sicile par M. Bellier de la Chavignerie pendant les mois d'Août à Septembre 1859. *Annales de la Société Entomologique de France*, 3^e série, 8: 749–764.
- 1865. Révision des Genres *Stephanus* Jurine et *Megischus* Brullé (Famille des Évanides). *Annales de la Société Entomologique de France*, 4^e série, 5: 467–487.
- Stark, A., 2010. Zum Titelfoto. *DGaaE–Nachrichten*, 24: 91.
- Tan, Q.–Q., van Achterberg, C., Tan, J.–L., Chen, X.–x., 2015. A new species of *Schletererius* Ashmead from China, with a key to the species (Hymenoptera, Stephanidae). *Journal of Hymenoptera Research*, 45: 75–86.
- Turrisi, G. F., 2002. Gli Stephanidae di Sicilia, con descrizione del maschio di *Megischus anomalipes* (Förster 1855) (Hymenoptera Stephanoidea). *Bollettino dell'Accademia Gioenia di Scienze Naturali*, 35(361): 623–635.
- van Achterberg, C., 2002. A revision of the Old World species of *Megischus* Brullé, *Stephanus* Jurine and *Pseudomegischus* gen. nov., with a key to the genera of the family Stephanidae (Hymenoptera: Stephanoidea). *Zoologische Verhandlungen Leiden*, 339: 1–206.
- van Achterberg, C., Quicke, D. L. J., 2006. Taxonomic notes on Old World Stephanidae (Hymenoptera): description of *Parastephanellus matsumotoi* nov. sp. from Japan, redescription of *Commatopus xanthocephalus* (Cameron) and keys to the genera *Profoenatopus* van Achterberg and *Megischus* Brullé. *Tijdschrift voor Entomologie*, 149(2): 215–225.
- van Achterberg, C., Yang, Z.–Q., 2004. New species of the genera *Megischus* Brullé and *Stephanus* Jurine from China (Hymenoptera: Stephanoidea: Stephanidae), with a key to world species of the genus *Stephanus*. *Zoologische Mededelingen Leiden*, 78(3): 101–117.
- Vilhelmsen, L., 1997. The phylogeny of lower Hymenoptera (Insecta), with a summary of the early evolutionary history of the Order. *Journal of Zoological Systematics and Evolutionary Research*, 35: 49–70.
- Völlger, E., 1994. *Stephanus serrator* (Fabricius, 1798) in Sachsen–Anhalt (Hym., Stephanidae). *Entomologische Nachrichten und Berichte*, 38(4): 276.
- Watanabe, K., van Achterberg, C., 2014. First discovery of *Stephanus* Jurine (Hymenoptera: Stephanidae) in Japan, with description of a new species from Anijima Island of Ogasawara Islands. *Entomological science*, 17(3): 330–335.
- Wieczorek, J., Guo, Q., Hijmans, R. J., 2004. The point–radius method for georeferencing locality descriptions and calculating associated uncertainty. *International Journal of Geographical Information Science*, 18(8), 745–767.