



BV news

Publicaciones Científicas

***Tenthredo sulphuripes* (Kriechbaumer, 1869) in Spain (Hymenoptera: Tenthredinidae)**

Tenthredo sulphuripes (Kriechbaumer, 1869) en España (Hymenoptera: Tenthredinidae)

Andreas Taeger ¹, Juan Carlos Campos Casabón ²

1. Senckenberg Deutsches Entomologisches Institut (SDEI), Eberswalder Str. 90, D-15374 Müncheberg (Germany) – ataeger@senckenberg.de
2. Calle Hacienda de Pavones 110, E-28030 Madrid (Spain) – jucalactarius@gmail.com

ABSTRACT: The first record of *Tenthredo sulphuripes* (Kriechbaumer, 1869) from the Iberian Peninsula (Pyrenees of Huesca, Spain) is given. Its differences from the group of *Tenthredo arcuata*, and of the subgenus *Elinora* are explained. *Bupleurum angulosum* is suggested to be a second hostplant of the species.

KEY WORDS: Hymenoptera, Symphyta, sawflies, *Tenthredo sulphuripes* (Kriechbaumer, 1869), new record, new host plant, Spain.

RESUMEN: Se cita por primera vez para la Península Ibérica *Tenthredo sulphuripes* (Kriechbaumer, 1869), en el Pirineo de Huesca (España). Se explican sus diferencias con el grupo *arcuata* del subgénero *Tenthredo*, y con el subgénero *Elinora*. Asimismo, se constata como nueva planta hospedante para esta especie la umbelífera *Bupleurum angulosum*.

PALABRAS CLAVE: Hymenoptera, Symphyta, moscas de sierra, moscas portasierra, *Tenthredo sulphuripes* (Kriechbaumer, 1869), primera cita, nueva planta hospedante, España.

Introduction

In the course of the identification of Iberian sawflies (Hymenoptera: Symphyta) presented in photos at www.biodiversidadvirtual.org, a specimen of *Tenthredo sulphuripes* (Kriechbaumer, 1869) (Fig. 1) was recognized.

Record

1 ♀. **ESPAÑA:** HUESCA: Benasque, Refugio de la Renclusa-Barranco del Alba (N 42°40'9,2", E 0°38'56,6", 2160 m altitude), on *Bupleurum angulosum* L., 24-VII-2011; photo by Juan Carlos Campos Casabón. This is the westernmost record of the nominotypical subspecies.

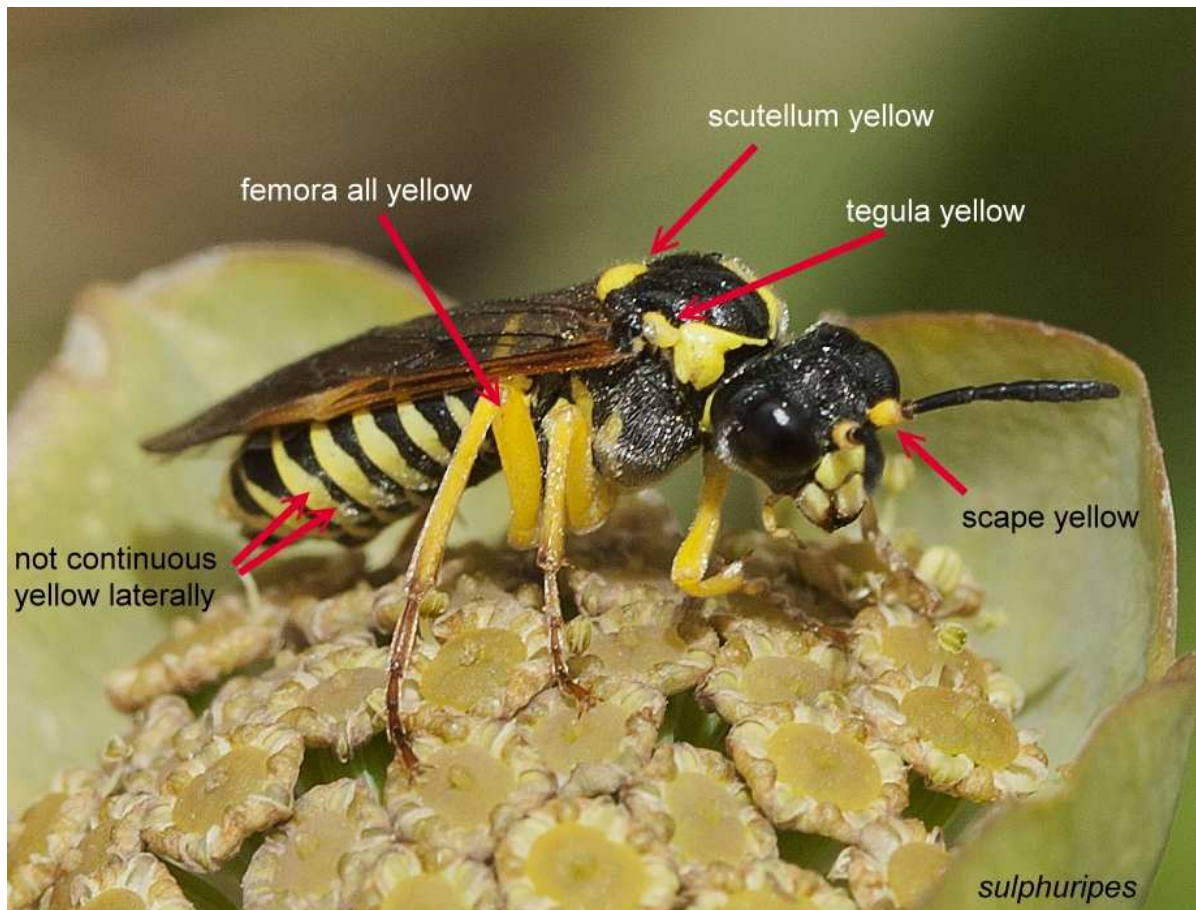


Fig. 1: *Tenthredo sulphuripes* (Kriechbaumer, 1869), Refugio de la Renclusa-Barranco del Alba, Huesca, 24-VII-2011, (CAMPOS, 2011).

<http://www.biodiversidadvirtual.org/insectarium/Tenthredo-%28Tenthredo%29-sulphuripes-%28Kriechbaumer-1869%29.-img252588.html>

Identification

The species is currently placed in the subgenus *Tenthredo* s.str. It is similar to the group of *T. (Tenthredo) arcuata* Forster, 1771, and to several species of the subgenus *Elinora* Benson, 1946. In the past, *sulphuripes* was frequently mixed up with or misidentified for these taxa. The species of the *arcuata* complex are hard to distinguish by external morphological characters (a slightly different shape of the interantennal region), but clear differences in the structure of the saw of the female (flat serrulae in *sulphuripes*), and a rather distant (about 10% difference) COI barcode¹ support the placement of *sulphuripes* outside the *arcuata* complex. Similar *Elinora* species differ in the shape of the labrum (apically emarginated), and by having less punctation on the head, and their barcodes differ also distinctly.

The photographed specimen (Fig. 1) is a typically coloured individual. Therefore, it is possible to identify the specimen from the picture. The nearly completely yellow legs with darkened tarsi, yellow scape, mesoscutellum and tegula, in combination with the yellow margined tergites not forming a complete yellow lateral stripe on the abdomen, are identification characters of *T. sulphuripes* females. Similar species (e.g. *T. brevicornis* (Konow, 1886), *T. schaefferi* Klug, 1817, *T.*

¹ *sulphuripes*: http://v3.boldsystems.org/index.php/Public_BarcodeCluster?clusterid=BOLD:AAV5350,
arcuata complex: http://v3.boldsystems.org/index.php/Public_BarcodeCluster?clusterid=BOLD:AAD3089

notha Klug, 1817, *Elinora* ssp., Fig. 2) either have partly black legs (especially the posterior sides of the femora), or/and the tergites of the abdomen are laterally completely yellow.

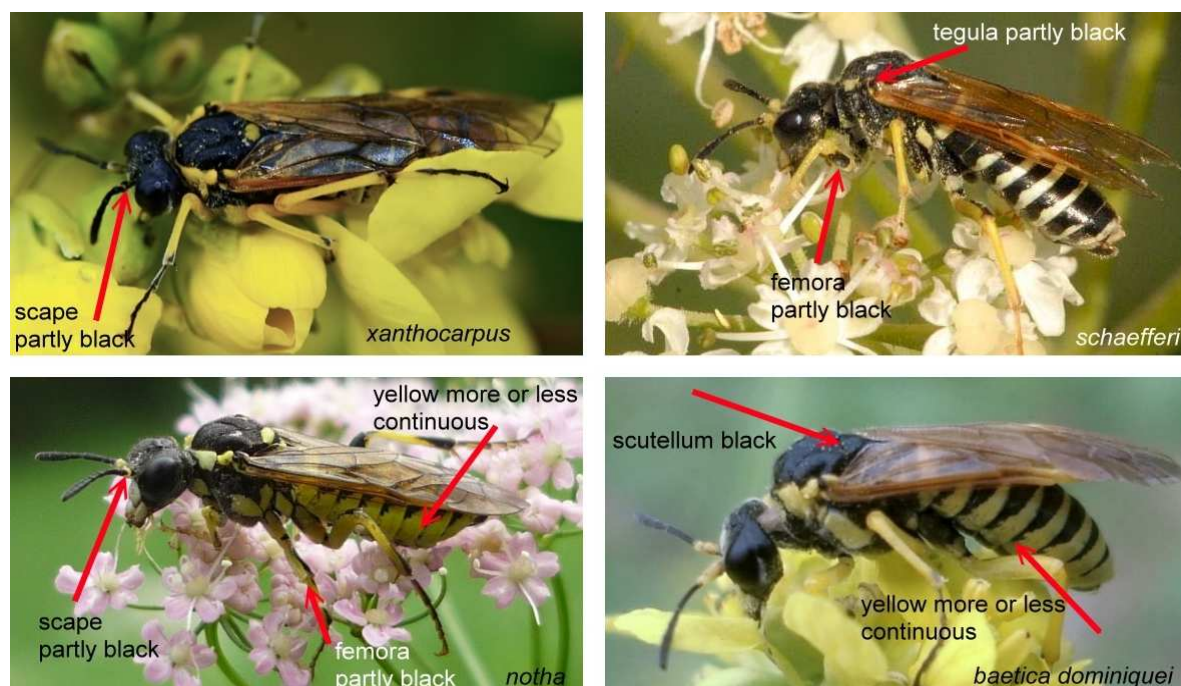


Fig. 2: *Tenthredo (Elinora) varicarpus* cf. (André, 1881), Madrid, 1-IV-2013, (VENTURA, 2013).
<http://www.biodiversidadvirtual.org/insectarium/Tenthredo-%28Elinora%29-cf.-varicarpus-%28Andre-1881%29.-img446394.html>

Tenthredo (Tenthredo) schaefferi Klug, 1817, Commanster, Belgium, 8-VII-2007, (LINDSEY, 2007).
<http://www.commanster.eu/commanster/Insects/Bees/Tenthredinidae4.html>

Tenthredo notha Klug, 1817, Dachstein, Austria, 25-VII-2010, (photo © A. Taeger).

Tenthredo (Elinora) baetica dominiquei cf. (Konow, 1894), Almenara, 16-IV-2011, (CERDÀ, 2011).
<http://www.biodiversidadvirtual.org/insectarium/Tenthredo-%28Elinora%29-cf.-baetica-dominiquei-%28Konow-1894%29.-img207698.html>

Apart from the typical form (lectotype), paler forms are known. Specimens with partly black femora are known from France and the central Caucasus (see figures of these forms at TAEGER, 2013).

The species is keyed by TAEGER (1985, 1992). TAEGER (1992) treated *sulphuripes* as comprising two subspecies: the nominotypical subspecies from Europe, and the much darker *T. sulphuripes muchei* Koch, 1986 (holotype, figures see also at TAEGER, 2013) from Mongolia and Tibet.

Bionomy

The first record of a hostplant of *T. sulphuripes* was published by KALTENBACH (1874): “*Allantus dispar*, Klg. Diese hier seltene Blattwespe erzog F. Eppelsheim Anfangs Juni aus der Raupe. Sie nährt sich bis Ende September von den gelben Blümchen des Hasenohrs (*Bupleurum falcatum*), doch verschmäht sie auch die obern zarten Blätter nicht”. [Translated from German: *Allantus dispar*, Klg. This sawfly, which is rare here, was reared by F. Eppelsheim from the larva at the beginning of June. It feeds on the yellow flowers of Sickle-leaf hare's ear (*Bupleurum falcatum*) until the end of September, but also does not disdain the tender upper leaves.] *Allantus dispar* is a synonym of *Tenthredo (Elinora) flaveola* Gmelin, 1790. The larvae of the latter species live on

Brassicaceae (*Brassica*, *Sinapis*, *Isatis*, *Raphanus*) (TAEGER *et al.*, 1998; LACOURT, 1999). The misidentification by Eppelsheim (or Kaltenbach) caused frequent subsequent mentions of *Bupleurum* as a food plant of *T. flaveola*. CARPENTIER (1907) correctly associated *B. falcatum* with *Allantus sulphuripes*. Because of the taxonomic difficulties and confusion within the *Tenthredo arcuata* group, *sulphuripes* was later mistaken frequently as a synonym of *arcuata*, or the name *sulphuripes* was applied to a species today usually called *brevicornis*. As a result, *B. falcatum* was later wrongly mentioned as a food plant also for the *arcuata* group.

The species of the *arcuata* group seem to be restricted to Fabaceae (*Trifolium*, *Vicia*, *Lotus*, *Astragalus*). According to current knowledge, *T. sulphuripes* is the only sawfly species that develops on *Bupleurum*. It should be noted that the imagines of *T. sulphuripes* are usually to be found on their hostplants, whereas the members of the *T. arcuata* group frequently visit the inflorescences of various umbellifers. *Tenthredo (Elinora)* species can often be found on flowering Brassicaceae (their hostplants), but also on umbellifers. The Spanish record of *T. sulphuripes* on *Bupleurum angulosum* implies that this plant species is the host of *sulphuripes* at this locality.

Distribution

Described from Austria (type locality: Vienna, Grinzing) and known also from the Czech Republic, France, Germany, Hungary, Italy, Macedonia, Romania, Slovakia, Spain, Switzerland and Ukraine (TAEGER *et al.*, 2006). Specimens with black marked femora are known from the Elbrus Mountains (Russia, central Caucasus) (TAEGER, 1992). Older published records (i.e., earlier than 1960) are not reliable because of the taxonomic confusion as explained above. BYGEBJERG (2012) gives a record of *sulphuripes* from Spain. This record refers to a specimen identified by Benson in 1950, and does not belong to *sulphuripes*, but most likely to *T. brevicornis* (Bygebjerg, pers. comm., 2013).

Acknowledgements

Thanks to Rune Bygebjerg (Lund), who provided additional information about material housed in the University of Lund (Sweden). Andrew D. Liston (SDEI, Müncheberg) kindly corrected the English.

References

- BYGEBJERG, R. (2012). Hymenoptera. Tenthredinidae. Present in the Entomological Museum of Lund University. Updated 18-IX-2012. Available from: <http://130.235.11.35/pdf/Tenthredinidae.pdf>. [Accessed 6-IX-2013].
- CAMPOS, J. C. (2011). *Tenthredo (Tenthredo) sulphuripes* (Kriechbaumer 1869). Photograph to be found on BiodiversidadVirtual.org [Online database]. Available from: [http://www.biodiversidadvirtual.org/insectarium/Tenthredo-\(Tenthredo\)-sulphuripes-\(Kriechbaumer-1869\).-img252588.html](http://www.biodiversidadvirtual.org/insectarium/Tenthredo-(Tenthredo)-sulphuripes-(Kriechbaumer-1869).-img252588.html). [Accessed 7-X-2013].
- CARPENTIER, L. (1907). Sur quelques Larves de Chalastogastra. (Hym.). *Zeitschrift für systematische Hymenopterologie und Dipterologie*, 7 (2): 134-135.
- CERDÀ, J. (2011). *Tenthredo (Elinora) cf. baetica dominiquei* (Konow 1894). Photograph to be found on BiodiversidadVirtual.org [Online database]. Available from: <http://www.biodiversidadvirtual.org/insectarium/Tenthredo-%28Elinora%29-cf.-baetica-dominiquei-%28Konow-1894%29.-img207698.html>. [Accessed 7-X-2013].
- KALTENBACH, J. H. (1874). Die deutschen Phytophagen aus der Klasse der Insekten, oder Versuch einer Zusammenstellung der auf Deutschlands Pflanzen beobachteten Bewohner und deren

- Feinde. *Verhandlungen des naturhistorischen Vereines der preussischen Rheinlande und Westfalens, Neue Folge*, **13** (3): 165-265.
- KRIECHBAUMER, J. (1869). Hymenopterologische Beiträge. *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien, Abhandlungen*, **19**: 587-600.
- LACOURT, J. (1999). Répertoire des Tenthredinidae ouest-paléarctiques (Hymenoptera, Symphyta). *Mémoires de la SEF*, **3**: 1-432.
- LINDSEY, J. K. (2007). *Tenthredo schaefferi*. Photograph available from: <http://www.commanster.eu/commanster/Insects/Bees/Tenthredinidae4.html>. [Accessed 7-X-2013].
- TAEGER, A. (1985). Zur Systematik der Blattwespengattung *Tenthredo* (s. str.) L. (Hymenoptera, Symphyta, Tenthredinidae). *Entomologische Abhandlungen*, **48** [1984] (8): 83-148.
- TAEGER, A. (1992). Fünfter Beitrag zur Systematik der Blattwespengattung *Tenthredo* L. (Hymenoptera, Symphyta). *Beiträge zur Entomologie*, **42** (1): 3-53.
- TAEGER, A. (2013). *Tenthredo sulphuripes* group. figshare. Available from: <http://dx.doi.org/10.6084/m9.figshare.810421>. [Accessed 7-X-2013].
- TAEGER, A., ALTENHOFER, E., BLANK, S. M., JANSEN, E., KRAUS, M., PSCHORN-WALCHER, H. & RITZAU, C. (1998). Kommentare zur Biologie, Verbreitung und Gefährdung der Pflanzenwespen Deutschlands (Hymenoptera, Symphyta). In: TAEGER, A. & BLANK, S. M. (Eds.): *Pflanzenwespen Deutschlands (Hymenoptera, Symphyta). Kommentierte Bestandsaufnahme*. Keltern. Goecke & Evers. 364 + [3] pp.
- TAEGER, A., BLANK, S. M. & LISTON, A. D. (2006). European Sawflies (Hymenoptera: Symphyta) - A Species Checklist for the Countries. In: BLANK, S. M., SCHMIDT, S. & TAEGER, A. (Eds.): *Recent Sawfly Research: Synthesis and Prospects*. Keltern. Goecke & Evers. 704 pp.
- VENTURA, O. (2013). *Tenthredo (Elinora) cf. varicarpus* (André, 1881). Photograph to be found on BiodiversidadVirtual.org [Online database]. Available from: <http://www.biodiversidadvirtual.org/insectarium/Tenthredo-%28Elinora%29-cf.-varicarpus-%28Andre-1881%29.-img446394.html>. [Accessed 7-X-2013].

Comité Editorial

Dirección del Proyecto: Álvaro Izuzquiza, Fani Martínez, Jordi Clavell, José Manuel Sesma, Luis Vivas y Torsten van der Heyden.

Equipo técnico: Torsten van der Heyden, Emilio Herrero y Álvaro G. Gallardo.

Asesores del equipo de invertebrados: Leopoldo Castro.

Fecha de recepción: 9 de septiembre de 2013

Fecha de aceptación: 29 de septiembre de 2013

Fecha de publicación: 9 de octubre de 2013

Una vez impreso quedará depositado en la sede social de la Asociación Fotografía y Biodiversidad.

Volumen 2, páginas 89-93

Todos los textos y fotografías de esta publicación son propiedad de sus autores.

Fotografía y Biodiversidad no es responsable de las opiniones vertidas en los artículos de BV news Publicaciones Científicas.

Si desea enviar un artículo: contacto@biodiversidadvirtual.org

Normas de publicación:

<http://www.biodiversidadvirtual.org/taxofoto/instrucciones-autores-que-deseen-publicar-en-bv-news-publicaciones-cientificas>



FOTOGRAFÍA
Y BIODIVERSIDAD

Artículo nº 29

ISSN 1989-7170