

Zeitschrift: Mitteilungen der Schweizerischen Entomologischen Gesellschaft =
Bulletin de la Société Entomologique Suisse = Journal of the Swiss
Entomological Society

Band: 89 (2016)

Heft: 1-2

Artikel: The Alysiinae collection (Hymenoptera : Braconidae) of the
Naturhistorisches Museum Basel, Switzerland

Autor: Peris-Felipo, Francisco Javier

DOI: <https://doi.org/10.5169/seals-696959>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. [Siehe Rechtliche Hinweise.](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. [Voir Informations légales.](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. [See Legal notice.](#)

Download PDF: 07.10.2024

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

The Alysiiinae collection (Hymenoptera: Braconidae) of the Naturhistorisches Museum Basel, Switzerland

FRANCISCO JAVIER PERIS-FELIPO

Bleichestrasse 15, CH-4058 Basel, Switzerland; peris.felipo@gmail.com

The Alysiiinae (Hymenoptera: Braconidae) collection at the Naturhistorisches Museum Basel (Switzerland) is summarized. In total 20 species are deposited. Eight species are recorded for the first time from Switzerland: *Chorebus (Stiphocera) spenceri* Griffiths, 1964, *Dinotrema concinnum* (Haliday, 1838), *D. perlustrandum* (Fischer, 1973), *D. pratense* van Achterberg, 1988, *D. propodeale* (Tobias, 1962), *D. puliciforme* (Fischer, 1973), *D. spitzzickense* (Fischer, 1976), and *Eucoelinidea compressa* Tobias, 1979.

Keywords: parasitoids, faunistics, new records, entomological collections, Switzerland.

INTRODUCTION

Entomological collections in Natural History Museums house millions of specimens representing the huge biological diversity of the World. Unfortunately, a large part of these insects has not yet been identified and catalogued, resulting in a big loss of information. Continuous work carried out by curatorial staff and voluntary research associates helps improving this situation. With this aim, I am currently revising the Braconidae (Hymenoptera) material deposited in the NMBA.

Alysiiinae is a conspicuously diverse subfamily within the Braconidae (Dolphin & Quicke 2001) with 2,000 described species (Yu *et al.* 2012) separated into two large, polymorphic tribes Alysiiini and Dacnusiini (Shenefelt 1974). Species of Alysiiini are parasitoids of a wide range of cyclorrhaphous Diptera, mainly in humid habitats and ephemeral strata (Wharton 2002). In contrast, Dacnusiini are almost exclusively specialised on leaf- and stem-mining hosts, predominantly of the dipterous families Agromyzidae, Ephydriidae and Chloropidae (Griffiths 1964, Wharton 2002).

Several studies have been conducted on Alysiiinae from countries in Central Europe, mainly carried out by M. Fischer (1962, 1970, 1972, 1973a-d, 1974a, b, 1975, 1976, 1985, 1994, among others). Only one survey focused on Switzerland has been published until now by van Achterberg (2014) who recorded 158 species of Alysiiinae. Recently, Peris-Felipo *et al.* (2014) added two new Swiss records of *Dinotrema* species. However, the knowledge on the faunae of neighbouring countries such as Germany or Austria with 337 and 278 species may serve as a starting point for estimates on the Swiss Alysiiinae diversity (Yu *et al.* 2012).

The present work provides a faunistic list of the Alysiiinae collection deposited in the NMBA.

MATERIALS AND METHODS

The specimens are conserved in the collection of the Naturhistorisches Museum Basel, Switzerland (NMBA). This collection is rich in entomological groups such as Coleoptera or Psyllidae. However, the Hymenoptera collection is not very rich in Braconidae material. Only few dozens of specimens are present. This situation is comparable with other Swiss Natural History Museums because of the lack of any Braconidae specialists who sampled and worked in Switzerland.

Specimens were identified using the keys by Tobias *et al.* (1986) for the genera and those of Tobias *et al.* (1986) and Peris-Felipo *et al.* (2014) for the species. Classification, nomenclature and the distributional data of Alysinae follow Yu *et al.* (2012).

TAXONOMIC PART

Hymenoptera: Braconidae: Alysinae

Alysiini

***Alysia manducator* (Panzer, 1799)**

Material examined: Germany: 2 ♀♀, 2 ♂♂, Würzburg, 5.ix.1941 and 20.vi.1943 (M. Zwecker leg.). Switzerland: 1 ♂, Bern, Biel, 29.vii.1883 (Marshall leg.); 1 ♂, Bern, Lyss, 24.vi.1888 (Dr Th. Steck leg.); 2 ♂♂, Bern, 1.vii.1894 and 1.viii.1894 (Dr Th. Steck leg.); 1 ♀, Hofwil, 11.viii.1895 (Marshall leg.); 1 ♂, Jura, St. Blaise, 18.viii.1912 (Dr Th. Steck leg.); 1 ♀, Bern, Kirchenfeld, 16.x.1912 (Dr Th. Steck leg.).

Distribution: Palaearctic region.

***Alysia (Anarcha) sophia* Haliday, 1838**

Material examined: Switzerland: 1 ♀, Bern, Kirchenfeld, 15.vii.1921 (Dr Th. Steck leg.).

Distribution: Palaearctic region.

***Dinotrema concinnum* (Haliday, 1838) (Fig. 1A)**

Material examined: Switzerland: 1 ♀, Bern, Dählhölzli, 16.ix.1916 (Dr Th. Steck leg.).

Distribution: Western Palaearctic region. Switzerland (new record).

***Dinotrema perlustrandum* (Fischer, 1973) (Fig. 1B)**

Material examined: Switzerland: 1 ♀, Jura, 11.v.1899 (Dr Th. Steck leg.).

Distribution: Western Palaearctic region. Switzerland (new record).

***Dinotrema pratense* van Achterberg, 1988 (Fig. 1C)**

Material examined: Switzerland: 1 ♀, Bern, Kirchenfeld, 6.vii.1916 (Dr Th. Steck leg.).

Distribution: Palaearctic region. Switzerland (new record).

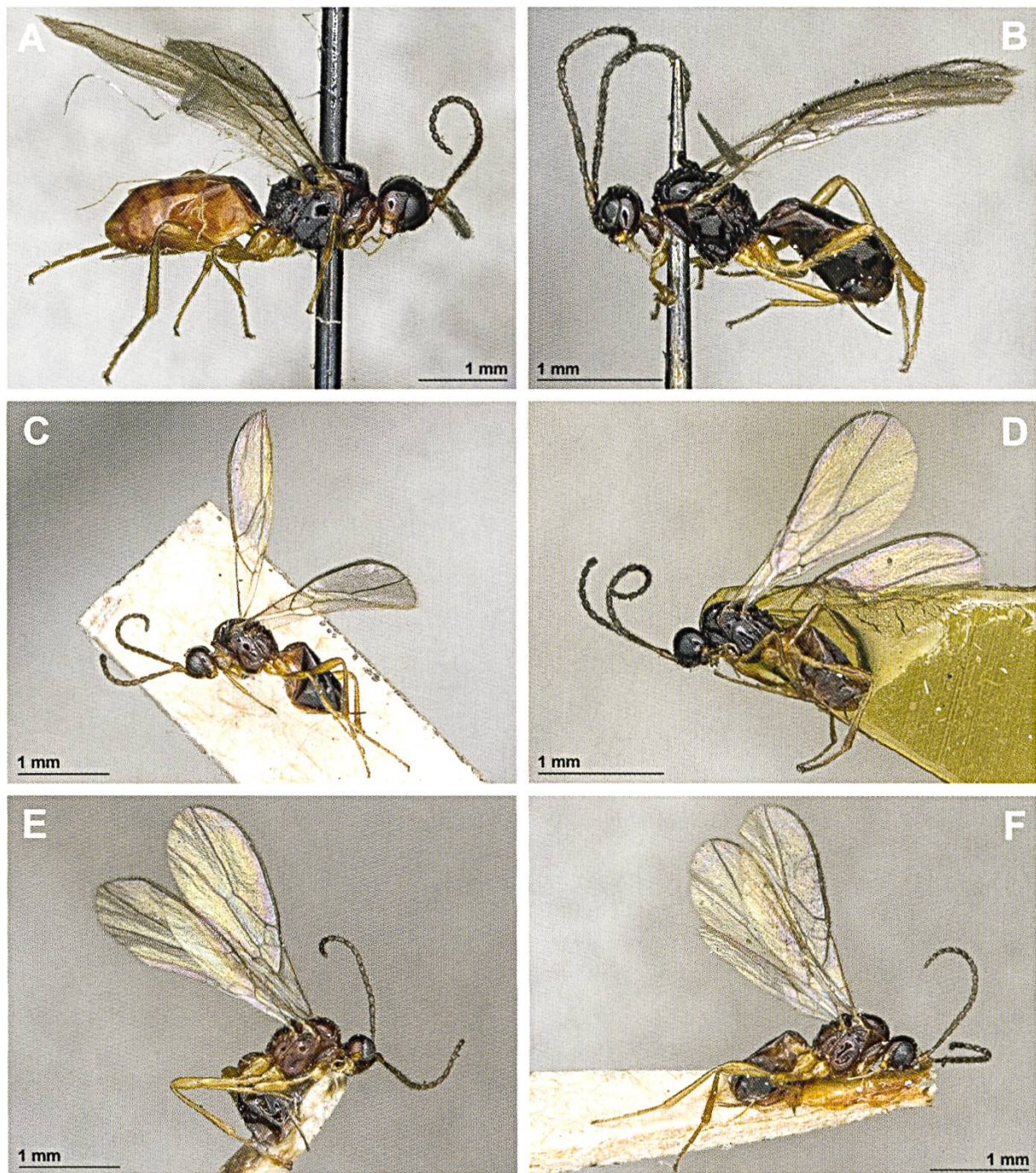


Fig. 1. Habitus lateral view of new Swiss *Dinotrema* records. — A. *Dinotrema concinnum* (Haliday, 1838). — B. *Dinotrema perlustrandum* (Fischer, 1973). — C. *Dinotrema pratense* van Achterberg, 1988. — D. *Dinotrema propodeale* (Tobias, 1962). — E. *Dinotrema puliciforme* (Fischer, 1973). — F. *Dinotrema spitzzickense* (Fischer, 1976).

***Dinotrema propodeale* (Tobias, 1962) (Fig. 1D)**

Material examined: Switzerland: 1 ♀, Bern, Kirchenfeld, 5.vi.1916 (Dr Th. Steck leg.).

Distribution: Palearctic region. Switzerland (new record).

***Dinotrema puliciforme* (Fischer, 1973)** (Fig. 1E)

Material examined: Switzerland: 1 ♀, Bern, Dählhölzli, 8.x.1902 (Dr Th. Steck leg.).

Distribution: Western Palaearctic region. Switzerland (new record).

***Dinotrema spitzzickense* (Fischer, 1976)** (Fig. 1F)

Material examined: Switzerland: 1 ♀, Bern, Kirchenfeld, 7.vii.1915 (Dr Th. Steck leg.).

Distribution: Western Palaearctic region. Switzerland (new record).

***Mesocrina indagatrix* Foerster, 1862**

Material examined: Switzerland: 1 ♀, Freiburg [Fribourg], 6.x.1915 (Dr Th. Steck leg.).

Distribution: Palaearctic region.

***Phaenocarpa livida* (Haliday, 1838)**

Material examined: Switzerland: 1 ♀, Bern, Lyss, 19.v.1914 (Dr Th. Steck leg.).

Distribution: Western Palaearctic region.

***Phaenocarpa ruficeps* (Nees, 1812)**

Material examined: Switzerland: 1 ♀, 2 ♂♂, Bern, Kirchenfeld, 31.viii.1918, 9.ix.1914 and 3.viii.1926 (Dr Th. Steck leg.); 1 ♀, 1 ♂, Bern, 12.v.1901 and 17.v.1915 (Dr Th. Steck leg.); 1 ♂, Bern, Rüfenacht, 23.ix.1915 (Dr Th. Steck leg.).

Distribution: Afrotropical, Nearctic, Oriental and Palaearctic regions.

Dacnusiini

***Chorebus (Phaenolexis) petiolatus* (Nees, 1834)**

Material examined: Switzerland: 1 ♀, Bern, Dählhölzli, 15.vi.1903 (Dr Th. Steck leg.); 1 ♀, Neuchâtel, La Tourne, 20.vii.1977; 1 ♂, Vaud, Château-d'Oex, 3.vii.1916 (Dr Th. Steck leg.).

Distribution: Palaearctic region.

***Chorebus (Stiphocera) spenceri* Griffiths, 1964** (Fig. 2A, 2B)

Material examined: Switzerland: 3 ♀♀, Bern, 31.v.1899 (Dr Th. Steck leg.); 1 ♀, 1 ♂, Bern, 18.vi.1899 (Dr Th. Steck leg.); 1 ♂, Bern, 28.v.1900 (Dr Th. Steck leg.).

Distribution: Palaearctic region. Switzerland (new record).

***Coelinidea gracilis* (Curtis, 1829)**

Material examined: Switzerland: 1 ♀, Bern, 9.vi.1901 (Dr Th. Steck); 1 ♀, Bern, Kirchenfeld, 1.vii.1913 (Dr Th. Steck leg.).

Distribution: Palaearctic region.

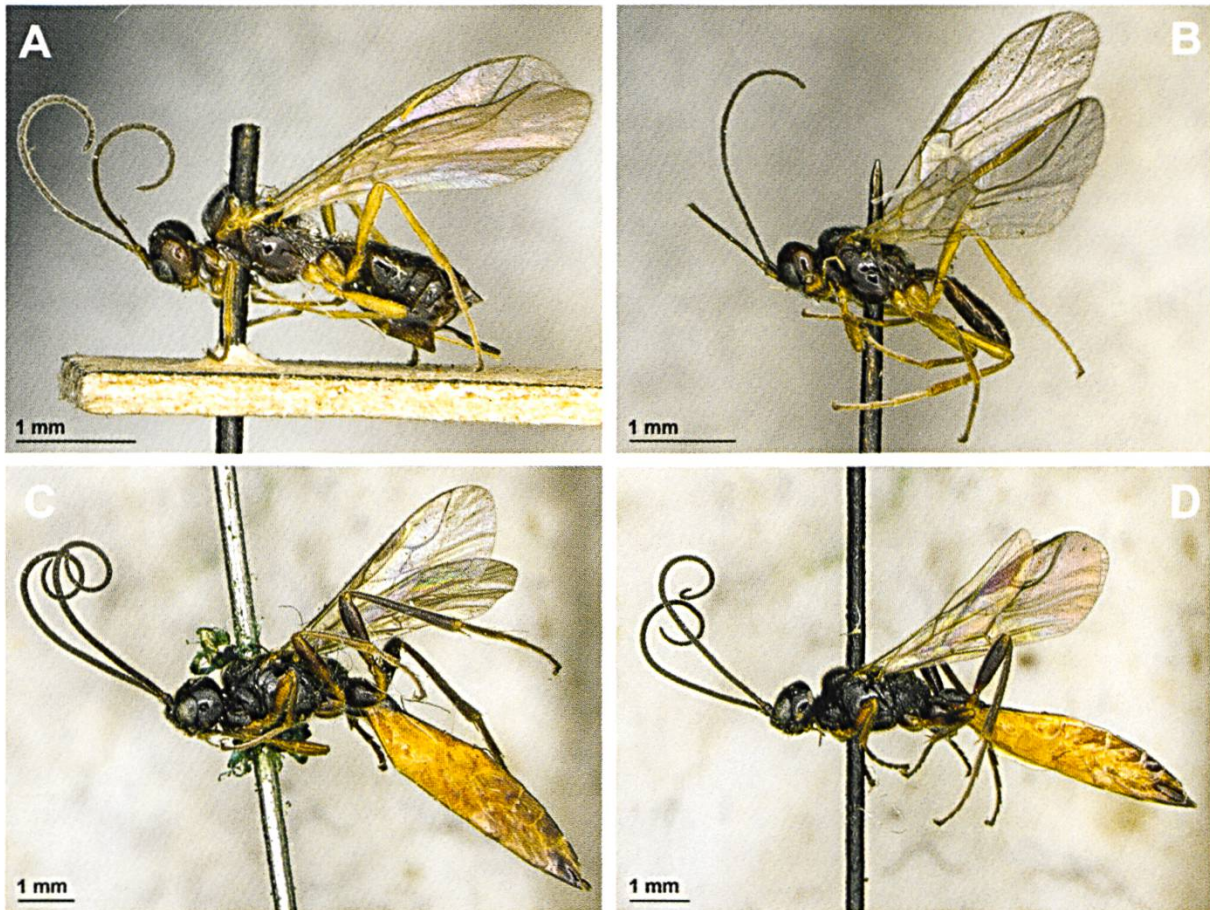


Fig. 2. Habitus lateral view of new Swiss Dacnusiini records. — A, B. *Chorebus (Stiphocera) spenceri* Griffiths, 1964 (A: female, B: male). — C, D. *Eucoelinidea compressa* Tobias, 1979 (C: female, D: male).

***Coelinidea ruficollis* (Herrich-Schäffer, 1838)**

Material examined: Germany: 2 ♂♂, Würzburg, 10.v.1943 (M. Zwecker leg.).

Distribution: Palearctic region.

***Coelinus parvulus* (Nees, 1811)**

Material examined: Germany: 1 ♂, Würzburg, 18.viii.1943 (M. Zwecker leg.); 2 ♂♂, Zeubelrieder Moor, 15.vi.1943 and 10.viii.1943 (M. Zwecker leg.). Switzerland: 2 ♂♂, Bern, Bätterkinden, 25.viii.1894 (Dr Th. Steck leg.); 1 ♂, Bern, Biel, 2.vi.1889 (Dr Th. Steck leg.); 1 ♂, Bern, Dählhölzli, 1.ix.1910 (Dr Th. Steck leg.).

Distribution: Western Palearctic region.

***Dacnusa confinis* Ruthe, 1859**

Material examined: Switzerland: 1 ♂, Graubünden, Davos, Wiesen, 1.ix.1987 (D. Haefelfinger leg.).

Distribution: Western Palearctic region.

***Eucoelinidea compressa* Tobias, 1979** (Fig. 2C, 2D)

Material examined: Switzerland: 1 ♀, Bern, Bätterkinden, 25.viii.1894 (Dr Th. Steck leg.); 1 ♂, Bern, Dählhölzli, 10.viii.1909 (Dr Th. Steck leg.).

Distribution: Western Palaearctic region. Switzerland (new record).

***Polemochartus lipare* (Giraud, 1863)**

Material examined: Switzerland: 5 ♀♀, 4 ♂♂, Bern, 17.v.1906, 30.v.1906, 16.vi.1906, 18.v.1911, 1.v.1912, 8.v.1914, 20.v.1914, 23.v.1914, 2.vi.1914 (Dr Th. Steck leg.); 1 ♀, Bern, swept on Schilfgalle, 20.v.1914 (Dr Th. Steck leg.); 1 ♂, Bodmark, 12.vi.1926 (Dr Th. Steck leg.).

Distribution: Western Palaearctic region.

***Polemochartus melas* (Giraud, 1863)**

Material examined: Switzerland: 1 ♂, Bern, 18.v.1935 (Dr Th. Steck leg.).

Distribution: Palaearctic region.

DISCUSSION

Based on the revision of the Alysiniinae material deposited in the Naturhistorisches Museum Basel, eight species are recorded here for the first time from Switzerland: *Chorebus (Stiphocera) spenceri* Griffiths, 1964, *Dinotrema concinnum* (Haliday, 1838), *D. perlustrandum* (Fischer, 1973), *D. pratense* van Achterberg, 1988, *D. propodeale* (Tobias, 1962), *D. puliciforme* (Fischer, 1973), *D. spitzzickense* (Fischer, 1976), and *Eucoelinidea compressa* Tobias, 1979.

With the present work, the number of Alysiniinae known from Switzerland is increased to 168 species (Yu *et al.* 2012; van Achterberg 2014). This number is higher compared to that known from Italy (137) and France (73) but distinctly lower than that known from Germany (337 species) and Austria (278), suggesting that the Swiss Alysiniinae fauna is still insufficiently known.

The limited number of the known Alysiniinae from Switzerland reflects the paucity of research on this group, as well as their relative rarity. Further investigations both on the fauna and host associations of the Swiss Alysiniinae are necessary to provide the basis for biological control of the dipterous pests in agricultural and urban landscapes.

ACKNOWLEDGEMENTS

The author is very grateful to Isabelle Zürcher, Daniel Burckhardt and Matthias Borer (all NMBA) for their kindness and help during my work in the Museum.

REFERENCES

- Achterberg, C. van 2014. Notes on the checklist of Braconidae (Hymenoptera) from Switzerland. — *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 87: 191–213.
- Dolphin, K. & Quicke, D.L.J. 2001. Estimating the global species richness of an incompletely described taxon: an example using parasitoid wasps (Hymenoptera: Braconidae). — *Biological Journal of the Linnean Society* 73: 279–286.
- Fischer, M. 1962. Das Genus *Synaldis* Foerster. — *Mitteilungen aus dem Zoologischen Museum in Berlin* 38: 1–21. <http://dx.doi.org/10.1002/mmzn.4830380102>

- Fischer, M. 1970. Über die Alysiini des Tiroler Hochgebirges (Hymenoptera, Braconidae). – Berichte des naturwissenschaftlich-medizinischen Vereins in Innsbruck 58:323–341.
- Fischer, M. 1972. Erste Gliederung der paläarktischen *Aspilota*-Arten (Hym., Braconidae, Alysiinae). – Polskie Pismo entomologiczne 42: 323–459.
- Fischer, M. 1973a. *Aspilota*-Wespen aus der weiteren Umgebung von Admont (Hym., Braconidae, Alysiinae). – Mitteilungen der Abteilung für Zoologie und Botanik am Landesmuseum Joanneum 2: 137–167.
- Fischer, M. 1973b. Einige Proben aus den Ötztaler Alpen als Beispiel für die Formenvielfalt bei der Gattung *Aspilota* Foerster (Hym., Braconidae, Alysiinae). – Berichte des naturwissenschaftlich-medizinischen Vereins in Innsbruck 60: 95–129.
- Fischer, M. 1973c. Alysiini aus dem Land Salzburg, gesammelt von Herrn Dr. Paul Peter Babyi (Hym., Braconidae). – Annali del Museo Civico di Storia Naturale Giacomo Doria 79: 235–270.
- Fischer, M. 1973d. Neue *Aspilota*-Arten aus der Steiermark (Hymenoptera, Braconidae, Alysiinae). – Verhandlungen der Zoologisch-Botanischen Gesellschaft Wien 113: 103–120.
- Fischer, M., 1974a. *Aspilota*-Wespen aus Niederösterreich, insbesondere solche der *signifrons*-Gruppe (Hymenoptera, Braconidae, Alysiinae). – Frustula Entomologica 12 (4): 1–27.
- Fischer, M. 1974b. Einige neue *Aspilota*-Arten aus Niederösterreich (Hymenoptera: Braconidae, Alysiinae). – Folia Entomologica Hungarica 27: 59–71.
- Fischer, M. 1975. Alysiinen-Wespen aus der Umgebung von Huttenberg in Kärnten (Hymenoptera, Braconidae, Alysiinae). – Carinthia 2: 303–342.
- Fischer, M. 1976. Erste Nachweise von *Aspilota*-Wespen im Burgenland (Hymenoptera, Braconidae, Alysiinae). – Annalen des Naturhistorischen Museums in Wien 80: 343–410.
- Fischer, M. 1985. Eine neue *Aspilota*-Art aus Bayern. – Entomofauna 6 (8): 233–238.
- Fischer, M. 1994. Beitrag zur Kenntnis der Kieferwespen der Welt (Hymenoptera, Braconidae, Alysiinae: Alysiini). – Linzer Biologische Beiträge 26 (2): 763–806.
- Griffiths, G.C.D. 1964. The Alysiinae (Hym., Braconidae) parasites of the Agromyzidae (Diptera). I. General questions of taxonomy, biology and evolution. – Beiträge zur Entomologie 14: 823–914.
- Peris-Felipo, F.J., Belokobylskij, S.A. & Jiménez-Peydró, R. 2014. Revision of the Western Palearctic species of the genus *Dinotrema* Foerster, 1862 (Hymenoptera, Braconidae, Alysiinae). – Zootaxa 3885 (1): 1–483. doi: 10.11646/zootaxa.3885.1.1
- Sharkey, M.J. 1993. Family Braconidae. In: Goulet, H. & Huber, J.T. (eds), Hymenoptera of the World: An Identification Guide to Families. – Agriculture Canada, pp. 362–395.
- Shenefelt, R.D. 1974. Braconidae 7. Alysiinae. In: van der Vecht, J. & Shenefelt, R.D. (eds), Hymenopterorum Catalogus (nova editio), pars 11, pp. 937–1113. – Junk, Gravenhage.
- Tobias, V.I. 1986. Subfam. Alysiinae. In: Medvedev G.S. (ed.), Opredelitel nasekomykh Evropeiskoi chasti SSSR [Key to insects of the European part of the USSR], 3 (5), pp. 100–231. – Nauka, Leningrad [in Russian]. <http://dx.doi.org/10.5962/bhl.title.46334>
- Wharton, R.A. 2002. Revision of the Australian Alysiini (Hymenoptera: Braconidae). – Invertebrate Systematics 16: 7–105.
- Yu, D.S., Achterberg, C. van & Horstman, K. 2012. Taxapad 2012, Ichneumonoidea 2011. Database on flash-drive. – Ottawa, Ontario, Canada.

(received February 8, 2016; accepted March 9, 2016; published June 30, 2016)

