



List of Alysiini of Finland, excluding the genus *Dinotrema* (Hymenoptera, Braconidae, Alysiinae)

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Koponen, M., Vikberg, V. & Peris-Felipo, F. J. 2016. List of Alysiini of Finland, excluding the genus *Dinotrema* (Hymenoptera, Braconidae, Alysiinae). [Suomen Alysiini-tribukseen kuuluvien loispistiäisten luettelo (Hymenoptera, Braconidae, Alysiinae), paitsi *Dinotrema*-suku]. – Sahlbergia 22.2.: 20–31.

Suomesta luetellaan 105 Alysiini-tribukseen kuuluvaa loispistiäislajia (Hymenoptera, Braconidae, Alysiinae). Niistä 20 lajia on Suomelle uusia.

A total of 105 species of Alysiini (Hymenoptera, Braconidae, Alysiinae) are listed from Finland. Of them 24 species are recorded as new to Finnish fauna. A faunistic list with data of distribution and host records is provided.

Key words: Parasitoid wasps, Alysiinae, checklist, new records, Finland.

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Introduction

The subfamily Alysiinae is one of the most peculiar and most diversified subfamilies of endoparasitoids in the family Braconidae (Yu et al. 2012). Morphologically, the two tribes of Alysiinae are mainly separated by the presence (Alysiini) or absence (Dacnusiini) of the fore wing vein cu_{2+3} (r-m or second radiomedial); accordingly Alysiini has two submarginal (radiomedial) cells while Dacnusiini have only one (Shenefelt 1974; Yu et al. 2012; Peris-Felipo et al. 2014).

Alysiini are common parasitoids of Diptera Cyclorrhapha usually found in humid and ephemeral substrates. Dacnusiini are almost exclusively specialized on leaf and stem miners of the families Agromyzidae, Ephydriidae and Chloropidae (Belokobylskij 2005; Berry 2007; Fischer & Beyarslan 2012; Peris-Felipo et al. 2014). Specimens of several genera have been successfully employed to control pests of leaf miners and Tephritidae (Wharton et al. 1997), which makes them valuable from an economic point of view (González et al. 2000; Elpino-Campos et al. 2007).

This subfamily has 104 genera recorded in worldwide (Yu et al. 2012). Of them 65 genera were recorded in the Palaearctic fauna (Shaw & Huddleston 1991). Only a few studies on the diversity of this wasp group have been carried out in Scandinavia (Munk et al. 2013a, 2013b; van Achterberg & Vikberg 2014). Recently, Koponen and Vikberg (2014) recorded 163 Dacnusiini species from Finland. In the present work, the checklist of Alysiini from Finland is provided, with the exclusion of genus *Dinotrema* Foerster, 1862, which was treated earlier in Koponen & Peris-Felipo (2016).

Material and methods

The criteria indicated by Fischer (1990, 1993), van Achterberg (1993), Tobias (1995), Sharkey & Wharton (1997), and Peris-Felipo et al. (2014) was used for identification. Classification and distribution follows Yu et al. (2012). New records of species are marked by an asterisk (*).

All the material examined and types of described species are deposited in the Zoological collection of Finnish Natural History Museum, University of Helsinki (Helsinki, Finland; MZH) and Natural History Museum of Denmark (Copenhagen, Denmark; NHMD).

Results

A total of 105 species belonging to 26 genera, *Adelphenaldis* Fischer, 2003, *Adeluroloa* Strand, 1928, *Alloea* Haliday, 1833, *Alysia* Latreille, 1804, *Anisocyrtia* Foerster, 1862, *Aphaereta* Foerster, 1862, *Asobara* Foerster, 1862, *Aspilota* Foerster, 1862, *Asyntactus* Marshall, 1898, *Atopandrium* Graham, 1952, *Chasmodon* Haliday, 1838, *Cratospila* Foerster, 1862, *Dapsilarthra* Foerster, 1862, *Eudinostigma* Tobias, 1986, *Idiasta* Foerster, 1862, *Mesocrina* Foerster, 1862, *Orthostigma* Ratzeburg, 1844, *Panerema* Foerster, 1862, *Pentapleura* Foerster, 1862, *Phaenocarpa* Foerster, 1862, *Phasmalysia* Tobias, 1971, *Symphanes* Foerster, 1862, *Synaldis* Foerster, 1862, *Syncrasis* Foerster, 1862, *Tanycarpa* Foerster, 1862 and *Trachyusa* Ruthe, 1854 are recorded and catalogued for Finland. Species recorded for the first time from Finland are listed below.

Species recorded for first time for Finland

1. *Adelphenaldis globipes* (Fischer, 1962)

Material examined: 1 ♀, *N*: Espoo, Luukki, 6691:3372, 10.viii.1980, mushroom forest (M. Koponen leg.) (NHMD); 1 ♀, *Obb*: Simo, 7286:3711, 17.vii.1980 (M. Koponen leg.) (NHMD).

Distribution. Oriental and Palaearctic Region (Peris-Felipo *et al.* 2012).

2. *Alloea bonessi* Fischer, 1966

Material examined: *Ab*: 1 ♀, Lohja, Lojo, Lylyinen, 668:333, 24.viii.1950 (W. Hellén leg.) (MZH). *N*: 1 ♂, Helsinki, Kannelmäki, 6682:3383, 26.vii.1980, 25.vi.1981 (M. Koponen leg.) (MZH). *Oba*: 1 ♀, Pudasjärvi, Kongasjärvi, Mäntyniementie, 7245:3498, 7.vii.2000 (M. Koponen leg.) (MZH).

Distribution. Western Palaearctic region.

Hosts. *Lonchoptera lutea* Panzer, 1809 (Diptera: Lonchopteridae).

3. *Alloea lonchopterae* Fischer, 1966

Material examined: *Al*: 1 ♀, Eckerö, 6700:3094, 1.vii.1983 (M. Koponen leg.) (MZH); 1 ♀, Hammarland, Bovik, 670:309, 29.vi.1983 (M. Koponen leg.) (MZH); 1 ♀, Jomala, Möckelö, 668:310, 23.vi.1939, 5.vii.1939 (W. Hellén leg.) (MZH); 1 ♀, Lemland, Flaka, 667:311, 21.vi.1939 (W. Hellén leg.) (MZH). *N*: 1 ♀, Helsinki, Viikki, 6680:3390, 13.ix.1979 (M. Koponen leg.) (MZH); 1 ♀, Nurmijärvi, Kirkonkylä, 6708:3380, 21.vii.1986 (M. Koponen leg.) (MZH); 1 ♀, Rajamäki, 6715:3376, 23.vi.1986 (M. Koponen leg.) (MZH). *Sa*: 1 ♂, Mikkeli, Tiusala, 6832:3517, 2.vii.2010 (M. Koponen leg.) (MZH). *St*: 1 ♀, Pyhäranta, Rauman mlk. Sorkka, 6796:3207, 3.vii.1986 (M. Koponen leg.) (MZH).

Distribution. Oriental and Palaearctic region.

Hosts. *Lonchoptera* sp. (Diptera: Lonchopteridae).

4. *Alysia alticola* (Ashmead, 1890)

Material examined: *Le*: 5 ♀♀, 2 ♂♂, Enontekiö, Kilpisjärvi, 767:325, 29.vi.1939 (1 ♀), 1.7.1942 (4 ♀) on dead rats, 7.vii.1950 (1 ♂), 23.vii.1950 (1 ♂) (W. Hellén leg.) (MZH). *Li*: 1 ♀, Inari, Ivalo, 761:352, vii.1922 (E. Kivirikko leg.) (MZH); 1 ♀, Opukasjärvi, 772:355, 6.vii.1960 (V. Vikberg leg.) (MZH); 1 ♂, *Li*: Utsjoki, 775:350, 2.vii.1967 (Karvonen leg.) (MZH); 1 ♀, same locality but, 7758:3502, 13.viii.1983 (M. Koponen leg.) (MZH); 1 ♀, Pulmanki, 77678:35372, 22–29.vii.2010, swept on Malaise trap (R. Leinonen & G. Söderman leg.) (MZH).

Distribution. Nearctic, Neotropical, and Palaearctic regions.

Hosts. *Calliphora* sp. (Diptera: Calliphoridae).

Remarks. W. Hellén collected several females from dead rats in Finnish Lapland.

5. *Alysia fuscipennis* Haliday, 1838

Material examined: 31 ♀♀, 39 ♂♂, sampled from *Ab* (Kustavi, Nauvo, Vihti), *Al* (Eckerö, Hammarland, Jomala, Mariehamn, Saltvik), *Kb* (Joensuu, Liperi, Pielisjärvi, Tohmajärvi), *Kl* (Parikkala, Rautjärvi), *Ks* (Kuusamo), *Le* (Enontekiö), *Li* (Inari), *N* (Nurmijärvi), *Obb* (Tornio), *Ok* (Kuhmo, Paltamo), *Om* (Haapavesi), *Sa* (Luumäki, Mikkeli), *Sb* (Kuopio), *St* (Pori, Vammala), *Ta* (Janakkala, Kangasala, Kärkölä, Lammi, Pälkäne, Ruovesi, Sääksmäki), and *Tb* (Keuruu, Rautalampi) (MZH).

Distribution. Western Palaearctic region.

6. *Alysia lucia* Haliday, 1838

Material examined: 123 ♀♀, 46 ♂♂, swept from *Al* (Finström, Hammarland, Jomala, Lemland, Sund), *Ab* (Korpo, Kustavi, Perniö, Vihti), *Kb* (Liperi), *Kl* (Parikkala), *Ks* (Kuusamo), *Le* (Enontekiö), *Lkoc* (Kittilä, Kolari, Muonio), *Lkor* (Pelkosenniemi, Sodankylä), *Li* (Inari, Utsjoki), *N* (Espoo, Hanko, Helsinki, Hyvinkää, Nurmijärvi, Sipoo, Tammisaari, Vantaa), *Oba* (Yli-Ii), *Obb* (Ranua), *Ok* (Sotkamo), *Om* (Vimpeli), *Sa* (Mikkelin mlk. Ristiina, Suomenniemi, Valkeala), *St* (Nakkila), *Ta* (Hartola, Janakkala, Juupajoki, Lahti, Lammi, Nastola, Pälkäne, Säynätsalo), *Tb* (Konnevesi, Saarijärvi).

Distribution. Nearctic and Palaearctic regions.

7. *Alysia subproia* Tobias, 1999

Material examined: *Ks*: 1 ♀, Salla, Pirunkirkko, 7494:3610, 26.vi.2003 (M. Koponen leg.) (MZH). *Sa*: 1 ♀, Mikkeli, Otava, 6835:3503, 22.v.2008 (M. Koponen leg.) (MZH).

Distribution. Western Palaearctic region.

8. *Aphaereta brevis* Tobias, 1962

Material examined: *N*: 1 ♀, Nurmijärvi, Hindrikanpolku, 6708:3380, 15.vii.1995, swept on kotipihalta (M. Koponen leg.) (MZH).

Distribution. Palaearctic region.

9. *Asobara tabida* (Nees, 1834)

Material examined: 44 ♀♀ 15 ♂♂ sampled from *Ab* (Karjalohja, Pyhäjärvi), *Kb* (Joensuu), *Om* (Haapavesi), *Sa* (Mikkeli, Ristiina, Ruokolahti, Savitaipale), *Sb* (Joroinen), *St* (Merikarvia), and *Ta* (Hausjärvi, Hämeenlinna, Janakkala, Lammi) (MZH).

Distribution. Nearctic, Oceanic, Oriental, and Palaearctic regions.

Hosts. *Drosophila* sp. and *Fabomyia* sp. (Diptera: Drosophilidae, Cecidomyiidae).

10. *Asobara tabidula* (Tobias, 1962)

Material examined: *Sa*: 1 ♀, Mikkeli, Mikkelin mlk., 6830:3501, 27.vi.1992 (M. Koponen leg.) (MZH).

Distribution. Oriental, and Palaearctic regions.

11. *Aspilota delicata* Fischer, 1973

Material examined: *Ab*: 1 ♀, Nauvo Selli, 669:322, 18.vii.1978 (M. Koponen leg.) (NHMD). *N*: 5 ♀♀, Helsinki, Lassila, 6682:3382, 20.vii.1977, 25.vii.1979, 6679:3382, 24.ix.1978, Viikki, 6681:3390, 2.viii.1979 (M. Koponen leg.) (NHMD). *Sa*: 1 ♀, Mikkelin mlk. 6830:3501, 27.vii.1979 (M. Koponen leg.) (NHMD).

Distribution. Palaearctic region.

12. **Aspilota laevinota* Tobias, 1962

Material examined: *Ab*: 1 ♀, Vihti, Komiharjanne, 6716:3366, swept on mushroom forest, 19.ix.1976 (M. Koponen leg.) (NHMD).

Distribution. Palaearctic region.

13. *Aspilota nidicola* Hedqvist, 1972

Material examined: *N*: 1 ♀, Helsinki, Pohjois-Haaga, 6681:383, 9.viii.1976 (M. Koponen leg.) (NHMD). *Sa*: 1 ♀, Anttola, 6832:3527, 15.viii.1976 (M. Koponen leg.) (NMHD).

Distribution. Western Palaearctic region.

14. *Aspilota stenogaster* Stelfox & Graham, 1951

Material examined: *N*: 1 ♀, Espoo, Luukki, 6691:3372, swept on mushroom forest, 10.viii.1980 (M. Koponen leg.) (NMHD).

Distribution. Palaearctic region.

15. *Aspilota tetragona* Fischer, 1976

Material examined: *N*: 3 ♀♀, Nurmijärvi, Rajamäki, 6715:3376, 10.vii.1976, 7.viii.1980, and Rajamäki, 6715:3375, mushroom forest, 23.viii.1980 (M. Koponen leg.) (NMHD). *Sa*: 2 ♀♀, Mikkelin mlk., 6830:3502, 15.vi.1975 and 6830:3501, 7.vii.1978 (M. Koponen leg.) (NMHD).

Distribution. Western Palaearctic region.

16. *Idiasta dichrocera* Königsmann, 1960

Material examined: *Ab*: 1 ♀, Kaarina, Järvelä, 67146:32457, 20.vii–8.ix.2014 (V.-M. Mukkala leg.) (MZH). *Ok*: 1 ♀, Kajaani, Paltaniemi airport, 71319:35327, 31.viii.2011, swept on Malaise trap (R. Leinonen and G. Söderman leg.) (MZH). *Sa*: 1 ♀, Mikkeli, Laajalampi, 68398:35143, 28.ix.2014 (M. Koponen leg.) (MZH); 1 ♀, Tornimäki, 6839:3518,

8.ix.2013 (M. Koponen leg.) (MZH); 1 ♀, Laajalammentie, 68400:35143, 6.ix.2013 (M. Koponen leg.) (MZH); 1 ♀, Ryssänkirkonmäki, 6841:3514, 25.viii.2013 (M. Koponen leg.) (MZH).

Distribution. Oriental and Palaearctic regions.

17. *Orthostigma latinerve* (Petersen, 1956)

Material examined: *Sa*: 1 ♂, Ristiina, Ylölänkylä, Alatalo, 6826:3502, 26.v.2009 (M. Koponen leg.) (MZH).

Distribution. Oriental and Palaearctic regions.

18. *Orthostigma longicubitale* Königsman, 1969

Material examined: *Ab*: 1 ♀, Perniö, Matilda, 6685:2273, 18.ix.1994 (M. Koponen leg.) (MZH). *N*: 2 ♂♂, Espoo, Tontunmäki, 667625:337604, 18–24.vi.2011, swept on window trap (P. Rassi leg.) (MZH); 2 ♀♀, Nurmijärvi, Kaanaanmetsä, 6705:3381, swept on old forest, 6.v.1989 (M. Koponen leg.) (MZH). *Oa*: 1 ♀, Kristinestad, Nordfjärden, 69218:32086, 13.vi.2014 (M. Koponen leg.) (MZH). *Sa*: 3 ♀♀, 1 ♂, Mikkeli, Hietala, 68305:35017, 2.vi.2014 (M. Koponen leg.) (MZH); 1 ♀, Laajalampi, 6839:3514, 23.v.2014, swept on shore of a lakelet (M. Koponen leg.) (MZH); 2 ♀♀, Ryssänkirkonmäki, 6841:3514, 8.vi.2014 (M. Koponen leg.) (MZH).

Distribution. Oriental and Palaearctic regions.

19. *Phaenocarpa galatea* (Haliday, 1838)

Material examined: *Le*: 2 ♀♀, 3 ♂♂, Enontekiö, Kilpisjärvi, 767:325, 3–21.vii.1950 (W. Hellén leg.) (MZH).

Distribution. Oriental and Western Palaearctic regions.

20. *Phaenocarpa intermedia* Tobias, 1962

Material examined: *Ab*: 1 ♀, Sauvo, Karuna, 669:235, 27.viii–12.ix.2000, swept on Malaise trap (R. Jussila leg.) (MZH).

Distribution. Oriental and Palaearctic regions.

21. *Phaenocarpa tacita* Stelfox, 1941

Material examined: *Ab*: 1 ♀, Uusikaupunki, Nystad, 675:319, 6.ix.1920 (W. Hellén leg.) (MZH). *Al*: 1 ♀, Eckerö, Storby, 670:308, 13.vii.1958 (W. Hellén leg.) (MZH). *N*: 5 ♀♀, Espoo, 667625:337604, 11–20.vi.2010, swept on window trap (P. Rassi leg.) (MZH). *Sa*: 1 ♀, Mikkeli, Vihtaniemi, 6839:3506, 30.vi.2012 (M. Koponen leg.) (MZH). *Ta*: 1 ♀, Nastola, Pyhäntäka, 6774:3436, 22.vi.1980, swept on grove slope (M. Koponen leg.) (MZH).

Distribution. Palaearctic region.

22. *Phasmalysia zinovjevi* Tobias, 1971

Material examined: *Sb*: 1 ♂, Savonranta, 69081:36026, 18.vi–13.vii.1996, swept on trunk window trap on dead aspen (P. Martikainen leg.) (MZH).

Distribution. Western Palaearctic region.

23. *Tanycarpa amplipennis* (Förster, 1862)

Material examined: *Kl*: 1 ♀, Parikkala, Laurila, 683:363, 16–27.vi.1940 (W. Hellén leg.) (MZH). *Sa*: 1 ♀, Hirvensalmi, Sammakkolampi, 6839:3499, 9.vi.2010 (M. Koponen leg.) (MZH). *Ta*: 1 ♀, Pälkäne, 680:335, 16.vi.1959 (V. Vikberg leg.).

Distribution. Nearctic, Oriental and Palaearctic regions.

24. *Tanycarpa rufinotata* (Haliday, 1838)

Material examined: *Al*: 1 ♀, Eckerö, Skag, 670:309, 12.vii.1961 (W. Hellén leg.) (MZH). *Le*: 1 ♀, Enontekiö, Urttasjoki, 7692:3263, 9–15.vii.2009 (A. Haarto leg.) (MZH). *N*: 1 ♀, Espoo, 667625:337604, 10–20.ix.2010, swept on window trap (P. Rassi leg.) (MZH). *Sa*: 6 ♀♀, Mikkeli, Laajalampi, 6839:3514, 29.vi.2014, 7.vii.2014, 4.ix.2014, 27.viii.2015, 1.ix.2015, and 7.ix.2015 (M. Koponen leg.) (MZH).

Distribution. Oriental and Western Palaearctic regions.

Additional material recorded from Finland

Aspilota fuscicornis (Haliday, 1838)

Material examined: *N*: 4 ♀♀, Nurmijärvi, Rajamäki, 6715:3376, 15.vii.1979, 31.viii.1979, and 27.vi.1981 (M. Koponen leg.) (NHMD). *Oba*: 1 ♀, Kuivaniemi, 7273:3417, 18.vii.1980 (M. Koponen leg.) (NMHD). *Ta*: 2 ♀♀, Nastola, Pyhäntä, grove slope, 6774:3436; 17.viii.1980 (M. Koponen leg.) (NMHD).

Distribution. Palaearctic region.

New species for present day Finland

Idiasta subannellata (Thomson, 1895)

Reported by Krogerus (1927, 1932) from Terijoki, Kuokkala (now Repino, Leningrad region, Russia). **Finland:** 8 ♀♀, 54 ♂♂ were sampled from *Al* (Eckerö, Finström, Hammarland, Jomala, Lemland), *Ab* (Karjalohja, Sammatti, Uusikaupunki), *N* (Espoo, Hanko, Helsinki, Raasepori), *St* (Karkku), *Ta* (Hauho, Janakkala), *Sa* (Imatra, Mikkeli), *Kl* (Parikkala), *Tb* (Keuruu), *Om* (Pietarsaari), *Ok* (Kuhmo), *Oba* (Hailuoto), *Ks* (Kuusamo), *Li* (Inari).

Distribution. Palaearctic region.

Checklist of Finnish Alysiinae species with literature citations

Citations and species marked with [] are not from present day Finland. They were recorded from regions ceded to the USSR after the Second World War.

* = First record from Finland.

ADELPHENALDIS Fischer, 2003

acutidentata (Fischer, 1970)

van Achterberg 2007, 2012

**globipes* (Fischer, 1972)

New to Finland

parvicornis (Thomson, 1895)

van Achterberg 2007, 2012, Peris-Felipo *et al.* 2012

ADELUROLA Strand, 1928

florimela (Haliday, 1838)

[Krogerus 1927, 1932, Hellén 1931, 1940, Shenefelt 1974], Koponen 2000, Silfverberg 2001, van Achterberg 2012, Yu *et al.* 2012, Riedel & Hansen 2014

ALLOEA Haliday, 1833

**bonessi* Fischer, 1966

New to Finland

**lonchopterae* Fischer, 1966

New to Finland

ALYSIA Latreille, 1804

**alticola* (Ashmead, 1890)

New to Finland

brachycera Thomson, 1895

Wharton 1986, Silfverberg 1991, van Achterberg 2007, 2012, Yu *et al.* 2012

frigida Haliday, 1838

Nordström 1948, Hackman & Meinander 1979, Koponen & Vikberg 1984, van Achterberg 2012, Yu *et al.* 2012

**fuscipennis* Haliday, 1838

New to Finland

incongrua Nees, 1834

Hellén 1938, 1940, Shenefelt 1974, Fischer 1993, van Achterberg 2012, Yu *et al.* 2012

****lucia*** Haliday, 1838

New to Finland

lucicola Haliday, 1838

van Achterberg 2007, 2012

luciella Stelfox, 1941

van Achterberg 2007, 2012

mandibulator (Nees, 1812)

[Krogerus 1927], Shenefelt 1974, Fischer 1993, Yu *et al.* 2012, Söderman *et al.* 2010, van Achterberg 2012

?*mandibularis* auct.: Nylander 1859, Hellén 1923, 1940, Krogerus 1960

manducator (Panzer, 1799)

Hellén 1938, 1940, Silfverberg 1968, Shenefelt 1974, Yu *et al.* 2012, Silfverberg 2007, van Achterberg 2012

curtungula Thomson, 1895: Hellén 1938, 1940

obscuripes Thomson, 1895: van Achterberg 2007, 2012

rufidens Nees, 1834

van Achterberg 2007, 2012

similis Nees, 1812

van Achterberg 2007, 2012

sophia Haliday, 1838

van Achterberg 2007, 2012

****subproia*** Tobias, 1999

New to Finland

tipulae (Scopoli, 1763)

van Achterberg 2007, 2012

ANISOCYRTA Foerster, 1862

alpinicola van Achterberg, 1986

Koponen 2000, Silfverberg 2001, van Achterberg 2007, 2012, Yu *et al.* 2012

perdita (Haliday, 1838)

Koponen 2000, Silfverberg 2011, van Achterberg 2007, 2012, Yu *et al.* 2012

APHAERETA Foerster, 1862

****brevis*** Tobias, 1962

New to Finland

major (Thomson, 1895)

van Achterberg 2007, 2012

minuta (Nees, 1811)

van Achterberg 2007, 2012, Yu *et al.* 2012, Riedel & Hansen 2014, Gadallah *et al.* 2015

cephalotes (Haliday, 1833): Hellén 1938, 1940, Shenefelt 1974

rubicunda Tobias, 1962

van Achterberg 2007, 2012

scaptomyzae Fischer, 1966

van Achterberg 2007, 2012

tenuicornis Nixon, 1939

Wishart *et al.* 1957, van Achterberg 2007, 2012, Yu *et al.* 2012

ASOBARA Foerster, 1862

fungicola (Ashmead, 1894)

van Achterberg 2007, 2012

****tabida*** (Nees, 1834)

New to Finland

***tabidula** (Tobias, 1962)
New to Finland

ASPILOTA Foerster, 1862

compressiventris Stelfox & Graham, 1951
van Achterberg 2007, 2012

***delicata** Fischer, 1973
New to Finland

fuscicornis (Haliday, 1838)

van Achterberg 2007, 2012, Yu *et al.* 2012

dilatata Thomson, 1895: Krogerus [1927], 1932, Hellén [1931], 1940, Shenefelt 1974

***laevinota** Tobias, 1962

New to Finland

***nidicola** Hedqvist, 1972

New to Finland

stenogaster Stelfox & Graham, 1951

van Achterberg 2007, 2012

***tetragona** Fischer, 1976

New to Finland

ASYNTACTUS Marshall, 1898

rhogaleus Marshall, 1898

Koponen 2000, Silfverberg 2001, van Achterberg 2007, 2012, Yu *et al.* 2012

ATOPANDRIUM Graham, 1952

debilitatum (Morley, 1933)

Vänninen & Koskula 1998, van Achterberg 2007, 2012

CHASMODON Haliday, 1838

acares van Achterberg, 1975

van Achterberg 2007, 2012

apterus (Nees, 1812)

Krogerus 1927, 1932, Hellén 1931, 1940, Shenefelt 1974, van Achterberg 2007, 2012, Yu *et al.* 2012, Riedel & Hansen 2014

CRATOSPILA Foerster, 1862

tricolor (Telenga, 1948)

van Achterberg 2007, 2012

DAPSILARTHRA Foerster, 1862

sylvia (Haliday, 1839)

van Achterberg 2007, 2012

DINOTREMA Foerster, 1862 – included in Koponen & Peris-Felipo (2016) – 91 species

EUDINOSTIGMA Tobias, 1986

alox van Achterberg, 1988

van Achterberg 2007, 2012

IDIASTA Foerster, 1862

annulicornis (Thomson, 1895)

Hellén 1938, 1940, Shenefelt 1974, Tobias 1995, van Achterberg 2007, 2012, Yu *et al.* 2012

***dichrocera** Königsmann, 1960

New to Finland

nephele (Haliday, 1838)

Hellén 1938, 1940, Shenefelt 1974, van Achterberg 2007, 2012, Yu *et al.* 2012

[*]**subannellata** (Thomson, 1895)

[Krogerus 1927, 1932, Hellén 1931, 1940, Shenefelt 1974, Tobias 1995, van Achterberg 2007, 2012, Yu *et al.* 2012, Riedel & Hansen 2014]

MESOCRINA Foerster, 1862

indagatrix (Foerster, 1862)

van Achterberg 2007, 2012

ORTHOSTIGMA Ratzeburg, 1844

breviradiale Königsmann, 1969

van Achterberg 2007, 2012

cratospilum (Thomson, 1895)

van Achterberg 2007, 2012

laticeps (Thomson, 1895)

van Achterberg 2007, 2012

***latinerve** (Petersen, 1956)

New to Finland.

longicorne Königsmann, 1969

van Achterberg 2007, 2012

***longicubitale** Königsmann, 1969

New to Finland

maculipes (Haliday, 1838)

van Achterberg 2007, 2012

mandibulare (Tobias, 1962)

van Achterberg 2007, 2012

pseudolaticeps Königsmann, 1969

van Achterberg 2007, 2012

pumilum (Nees, 1834)

van Achterberg 2007, 2012

pusillum (Zetterstedt, 1838)

van Achterberg 2007, 2012

sculpturatum Tobias, 1962

van Achterberg 2007, 2012

PANEREMA Foerster, 1862

inops Foerster, 1862

van Achterberg 2007, 2012

PENTAPLEURA Foerster, 1862

angustula (Haliday, 1838)

van Achterberg 2007, 2012

fuliginosa (Haliday, 1838)

van Achterberg 2007, 2012

pumilio (Nees, 1812)

van Achterberg 2007, 2012

PHAENOCARPA Foerster, 1862

angustiptera Papp, 1968

Koponen & Vikberg 2005, Silfverberg 2007, van Achterberg 2007, 2012, Yu *et al.* 2012, Riedel & Hansen 2014

- canaliculata* Stelfox, 1941
Gurasashvili 1983, Tobias 1995, Silfverberg 1991, van Achterberg 2007, 2012, Yu *et al.* 2012
- chiastochetae* Fischer, 1990
Koponen 1989, Fischer 1990, Silfverberg 1991, van Achterberg 2007, 2012, Yu *et al.* 2012
- conspurcator* (Haliday, 1838)
Kanervo 1936, Fischer 1971, Shenefelt 1974, Koponen & Vikberg 2005, van Achterberg 2007, Yu *et al.* 2012
- arctica* Thomson, 1895: [Hellén 1938, 1940]
- eugenia* (Haliday, 1838)
Hellén 1938, 1940, Fischer 1971, Shenefelt 1974, van Achterberg 1998, Koponen & Vikberg 2005, van Achterberg 2007, 2012, Yu *et al.* 2012
- eunice* (Haliday, 1838)
van Achterberg 2007, 2012
- flavipes* (Haliday, 1838)
van Achterberg 2007, 2012
- *galatea* (Haliday, 1838)
New to Finland
- hirsuta* Koponen & Vikberg, 2005
Koponen & Vikberg 2005, Silfverberg 2007, van Achterberg 2012, Yu *et al.* 2012
- *intermedia* Tobias, 1962
New to Finland
- livida* (Haliday, 1838)
van Achterberg 2007, 2012
- longicauda* (Thomson, 1895)
van Achterberg 2007, 2012
- luteipes* Stelfox, 1950
van Achterberg 2007, 2012
- notabilis* Stelfox, 1944
van Achterberg 2007, 2012
- pellmyri* Fischer, 1990
Koponen 1989, Fischer 1990, Silfverberg 1991, van Achterberg 2007, 2012, Yu *et al.* 2012
- picinervis* (Haliday, 1838)
Koponen & Vikberg 2005, Silfverberg 2007, van Achterberg 2007, 2012, Yu *et al.* 2012
- pratellae* (Curtis, 1826)
Hellén 1938, 1940, Fischer 1971, Shenefelt 1974, Koponen & Vikberg 2005, van Achterberg 2007, 2012, Yu *et al.* 2012
- pullata* (Haliday, 1838)
Hellén 1938, 1940, Fischer 1971, Koponen & Vikberg 2005, van Achterberg 2012, Yu *et al.* 2012
- ruficeps* (Nees, 1812)
Fischer 1990, Silfverberg 1991, Koponen & Vikberg 2005, van Achterberg 2007, 2012, Yu *et al.* 2012, Gadallah *et al.* 2015
- *tacita* Stelfox, 1941
New to Finland
- ungulosestosa* van Achterberg & Koponen, 2003
van Achterberg & Koponen 2003, Silfverberg 2007, van Achterberg 2007, 2012, Yu *et al.* 2012
- PHASMALYSIA** Tobias, 1971
- *zinovjevi* Tobias, 1971
- SYMPHANES** Foerster, 1862
- striolata* (Thomson, 1895)
Koponen 2000, Silfverberg 2001, Yu *et al.* 2012

SYNALDIS Foerster, 1862**concolor** (Nees, 1812)

van Achterberg 2007, 2012

distracta (Nees, 1834)Koponen & Vikberg 1984, van Achterberg 2007, 2012, Yu *et al.* 2012, Askari Hesni *et al.* 2015**laccessiva** Fischer, 1975

van Achterberg 2007, 2012

mandibulata Fischer, 1970

Papp 2007, van Achterberg 2007, 2012

megastigma Fischer, 1967

van Achterberg 2007, 2012

ultima Fischer, 1970

van Achterberg 2007, 2012

SYNCRASIS Foerster, 1862**fucicola** (Haliday, 1838)

van Achterberg 2007, 2012

halidayi (Foerster, 1862)

van Achterberg 2007, 2012

TANYCARPA Foerster, 1862***amplipennis** (Foerster, 1862)

New to Finland

bicolor (Nees, 1812)

van Achterberg 2007, 2012

gracilicornis (Nees, 1812)Hellén 1938, 1940, van Achterberg 2007, 2012, Yu *et al.* 2012, Riedel & Hansen 2014**mitis** Stelfox, 1941

van Achterberg 2007, 2012

***rufinotata** (Haliday, 1838)

New to Finland.

TRACHYUSA Ruthe, 1854**aurora** (Haliday, 1838)Koponen 1999, Silfverberg 2001, van Achterberg 2007, 2012, Yu *et al.* 2012, Riedel & Hansen 2014**nigrothoracica** van Achterberg & O'Connor, 1990Koponen 1999, Silfverberg 2001, van Achterberg 2007, 2012, Yu *et al.* 2012

Discussion

In the present study, a total of 105 Alysiinae species have been catalogued from Finland, and 24 species are recorded for the first time: *Adelphenaldis globipes* (Fischer, 1962), *Alloea bonessi* Fischer, 1966, *Alloea lonchopterae* Fischer, 1966, *Alysia alticola* (Ashmead, 1890), *Alysia fuscipennis* Haliday, 1838, *Alysia lucia* Haliday, 1838, *Alysia subproia* Tobias, 1999, *Aphaereta brevis* Tobias, 1962, *Asobara tabida* (Nees, 1834), *Asobara tabidula* (Tobias, 1962), *Aspilota delicata* Fischer, 1973, *Aspilota laevinota* Tobias, 1962, *Aspilota nidicola* Hedqvist, 1972, *Aspilota stenogaster* Stel-

fox & Graham, 1951, *Aspilota tetragona* Fischer, 1976, *Idiasta dichrocera* Königsmann, 1960, *Orthostigma latinerve* (Petersen, 1956), *Orthostigma longicubitale* Königsmann, 1969, *Phaenocarpa galatea* (Haliday, 1838), *Phaenocarpa intermedia* Tobias, 1962, *Phaenocarpa tacita* Stelfox, 1941, *Phasmalsia zinovjevi* Tobias, 1971, *Tanycarpa amplipennis* (Foerster, 1862), and *Tanycarpa rufinotata* (Haliday, 1838).

This study establishes 359 known Alysiinae species from Finland, 196 belonging to Alysiini, and 163 to Dacnusiini (Koponen & Vikberg 2013). This number of species is

higher than the number in adjacent countries such as Sweden (234), Denmark (173) and Norway (29) (Yu et al. 2012). However, further investigations both on the fauna composition and host association of the Finnish Alysiinae are necessary to provide the basis for biological control of the dipterous pests in agricultural and urban landscapes.

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