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Revision of the Barbotin's Charipinae collection with description of a new *Alloxysta* species (Hymenoptera: Cynipoidea: Figitidae)

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Abstract

The Barbotin's Charipinae collection has been revised and all the specimens have been identified to species level. A total of 1011 specimens have been studied and grouped in 24 species: *Alloxysta arcuata*, *A. basimacula*, *A. brachycera*, *A. brachyptera*, *A. brevis*, *A. castanea*, *A. citripes*, *A. consobrina*, *A. crassa*, *A. fuscipes*, *A. fracticornis*, *A. glebaria*, *A. halterata*, *A. kovilovica*, *A. macrophadna*, *A. mullensis*, *A. pilipennis*, *A. pleuralis*, *A. pusilla*, *A. ramulifera*, *A. sawoniewiczzi*, *A. semiaperta*, *A. victrix* and *Phaenoglyphis villosa*. The information present on the labels of each specimen is given. Additionally, one new species has been found in this collection, which is described in this paper: *Alloxysta barbotini* Ferrer-Suay & Pujade-Villar n. sp. A complete description and illustrative plate are given for this new species.

Key words: Barbotin collection, Figitidae, Charipinae, *Alloxysta*.

Resum

Revisió de la col·lecció Charipinae de Barbotin amb la descripció d'una nova espècie d'*Alloxysta* (Hymenoptera: Cynipoidea: Figitidae)

La col·lecció Charipinae de Barbotin ha estat revisada i tots els exemplars han estat identificats a nivell d'espècie. Un total de 1011 exemplars s'han estudiat i agrupats en 24 espècies: *Alloxysta arcuata*, *A. basimacula*, *A. brachycera*, *A. brachyptera*, *A. brevis*, *A. castanea*, *A. citripes*, *A. consobrina*, *A. crassa*, *A. fuscipes*, *A. fracticornis*, *A. glebaria*, *A. halterata*, *A. kovilovica*, *A. macrophadna*, *A. mullensis*, *A. pilipennis*, *A. pleuralis*, *A. pusilla*, *A. ramulifera*, *A. sawoniewiczzi*, *A. semiaperta*, *A. victrix* i *Phaenoglyphis villosa*. Aquí es dona la informació present en les etiquetes de cada espècimen. Adicionalment, una nova espècie s'ha trobat en aquesta col·lecció i és aquí descrita: *Alloxysta barbotini* Ferrer-Suay i Pujade-Villar n. sp. La descripció completa i una llàmina il·lustrativa d'aquesta nova espècie son incloses.

Paraules clau: Col·lecció Barbotin, Figitidae, Charipinae, *Alloxysta*.

Introduction

François Barbotin, an excellent French entomologist, was born in Saint-Malo (France) on 3rd march 1914. He graduated in Natural Sciences from the University of Rennes and then began his career as an assistant in the entomology station of the Faculty of Science, where he published his first work on Cynipidae. Very fond of the Bretagne, he was a patient observer and soon the entomological world began to fascinate him. Later, plant-host and parasite-pest relationships would be his subjects of study. After his death (19th august 1996 in Saint-Malo (France)), the Charipinae collection was kindly deposited in the University of Barcelona, with Dr. Juli Pujade-Villar as a curator (Pujade-Villar & Folliot, 2001).

One of his groups of study was the subfamily Charipinae (Hymenoptera: Cynipoidea: Figitidae), working together

with H.H. Evenhuis. They published several works based on the revision of some of the Charipinae species. In Evenhuis & Barbotin (1977), they review the hosts where the cosmopolitan species, *Phaenoglyphis villosa* (Hartig, 1841), had been found and also provide a description for *Alloxysta arcuata* (Kieffer, 1902). This host list was a reference of the trophic relations on which *P. villosa* appears and also it was the base for future trophic studies based on this subfamily. They consider in their work *P. villosa* to be a very widely specialized aphid hyperparasitoid. It was reared from quite a number of combinations of aphids and primary parasitoids (Aphidiinae and Aphelinidae). In Evenhuis & Barbotin (1987), they revise the type material of the *Alloxysta* species described by J.J. Kieffer deposited in the Carpentier collection, in this work they established many new synonymies and several *nomen novum*.

Apart from these studies, Barbotin also devoted much of his time to perform collections in the field. Thanks to them his collection is a reference, specially related with Cynipoidea. As for the Charipinae, his collection covers a total of 1011 specimens which have been organized in 24 species. In this work, the Barbotin's Charipinae collection has been revised. All the specimens have been identified to species level. One new species has been discovered: *Alloxysta barbotini* Ferrer-Suay & Pujade-Villar n. sp. The new species is completely described and illustrated in this work; a list of the material studied is compiled for the rest of Charipinae species.

Material and Methods

Specimens were studied using a stereo microscope (NIKON SMZ-1) and an environmental scanning electron microscope (FEI Quanta 200 ESEM) belonging to the scientific technical services of the University of Barcelona. The field-emission gun environmental scanning electron microscope was used for high-resolution imaging without gold-coating of the specimens.

The material studied is deposited in the UB: University of Barcelona, Col. JP-V (Barcelona, Spain).

The information included on the labels of each specimen was copied, and then compiled in the "Material studied" section of each species as it appears. Most of the information on the labels is presented as abbreviations, as some authors of the twentieth century did. The original notes of F. Barbotin have been consulted and some abbreviations have been figured out, regrettably we have been unable to figure some of them. Below a list of these abbreviations is included to facilitate the reading of the «Material studied» section:

Fev. Cher	Fève Chevrier on <i>Aphis favae</i>
rufur G.R.	unknown
E.N.A.	École National d'Administration, Rennes, France
VA	Sample code
L4	Sample code
Sa, SA	Sample code
Rn	Rennés
Ch. M.	Charente Maritime, Saint-Malo, France
SIP	Gardens SIP Partenaire, Saint-Malo, France
P.C. Verrines	Saint-Malo, somewhere in the street Tertre Verrine
ENSAR	campus of the École Nationale Supérieure Agronomique of Rennes
Guer	a city of French Brittany
RP	<i>Rhopalosiphum padi</i>
L3, L4	Sample code
N4	Sample code
MD, Md	<i>Metopolophium dirhodum</i>
HS-69	Sample code

Results

Alloxysta arcuata (Kieffer, 1902)

Material studied

(16 ♂ & 12 ♀). "Simalo, 35, Jard. Vatan, E.23-6-83"

(handwritten): 1 ♀; "Rennes Thabor été 52" (handwritten): 1 ♀; "Mont-Dol 35 / pannellies, 17-7-72" (handwritten): 1 ♀; "Poitiers de *Disaphis plantaginea*, 23-6-73" (handwritten): 1 ♀; "Fev. Cher., 14.7.71": 1 ♂; "*Clematis vitalba*, Saltes de Gordon (30), 13.VI.1976, ex. *Aphis vitalbae*, ecl. 26.VI.1971, 5259/ Leglant": 1 ♀; "3 rufur": 1 ♂; "53 rufur G.R": 1 ♀; "31 rufur G.R": 1 ♂; "27 rufur 6350 G.R": 2 ♂ & 1 ♀; "7016 ecl. 3.IX.68", "ex. *Aphis fabae*, s./ *Chenopodium*, valenci (Marquet), 13.VIII.68": 1 ♀ & 5 ♂; "17 rufur 6142 G.R": 1 ♂; "7066 ecl. 17.IX": 1 ♂; "ex. *Rhopalomyzus poae*, s./ *Lonicera alpisena*, 1500m, 5 Km N d' Allemont, 24.IX.1968, ecl. 21.X.68": 1 ♂; "7108 ex. *Hyadaphis*, s/ *Bupleurum*, N le sappey Isère, 19.IX.68, ecl. 10.X.68": 1 ♀; "ex. *Rhopalomyzus poae*, s./ *Lonicera alpisena*, 1500m, 5 Km N d' Allemont, 24.IX.1968, ecl. 7.XI.68": 1 ♂; "7016 ecl. 3.IX.68", "ex. *Aphis fabae*, s./ *Chenopodium*, valenci (Marquet), 13.VIII.68": 1 ♂; "Eriferon acer 3168, Villeneuve la Salle 05, 25.VI.1969, ex. *Acurticanxa eriferus*, ex. 8.VII.69": 1 ♀; "46 rufur i3439 G.R.", "Rhonamahad (1200m) IRAN 30.X.1967, Remaund", "ex. *Hyadaphis* sp. (Aphididae), s./ *Asperulir*": 1 ♂; "*Salix purpurea*, 6 Km W la frave, 21.X.1969, ex *Cavariella aqualica*, ecl. 14.IV.70": 1 ♀; "46 rufur i3439 G.R.", "Rhonamabad (1200m) IRAN, 30.X.1967, Remaund", "ex. *Hyadaphis* sp. (Aphididae), s./ *Aspenula*": 1 ♀.

Countries in Barbotin collection

France and Iran.

Previously mentioned in:

Andorra (Ferrer-Suay *et al.*, 2011: 350); Australia (Ferrer-Suay *et al.*, 2014b: 92); Canada (British Columbia) (Ferrer-Suay *et al.*, 2014a: 51); Canary Islands (Ferrer-Suay *et al.*, 2013b: 261); Colombia (Ferrer-Suay *et al.*, 2012a: 321); Corsica (Ferrer-Suay *et al.*, 2013c: 5); France (Ferrer-Suay *et al.*, 2015: 120); Italy (Ferrer-Suay *et al.*, 2014c: 4); Kenya (Ferrer-Suay *et al.*, 2013b: 261); Madeira (Ferrer-Suay *et al.*, 2012b: 9); Mexico (Ferrer-Suay *et al.*, 2013d: 30); Morocco (Ferrer-Suay *et al.*, 2013b: 261); Netherlands (Evenhuis, 1976: 143); Iran (Ferrer-Suay *et al.*, 2013d: 32); Romania (Ionescu, 1969: 245, 268; Prelipcean *et al.*, 2004: 60); South Africa (Ferrer-Suay *et al.*, 2013b: 261); Spain (Kieffer, 1902a: 12); Thailand and Taiwan (Ferrer-Suay *et al.*, 2013a: 3); USA (Arizona, California, Colorado, Georgia, Iowa, Kansas, Maryland, Nebraska, New Mexico, Texas, Utah) (Ferrer-Suay *et al.*, 2014a: 51) and Zimbabwe (Ferrer-Suay *et al.*, 2013b: 261).

Alloxysta barbotini Ferrer-Suay & Pujade-Villar n. sp. (Fig. 1)

Diagnosis

Alloxysta barbotini is similar to *Alloxysta australiae* (Ashmead, 1900) because both species have: closed radial cell, pronotal and propodeal carinae present and the propodeal carinae are independent. They can be differentiated by the antenna: rhinaria and club shaped begin in F2 (female) or F1 (male) in *A. barbotini* while in F4 in *A. australiae* (only female known); F2 slightly longer than F3 and F3 subequal to F4 in *A. barbotini* but F2-F4 subequal in length in *A. australiae*; propodeal carinae wide and not defined on bottom while

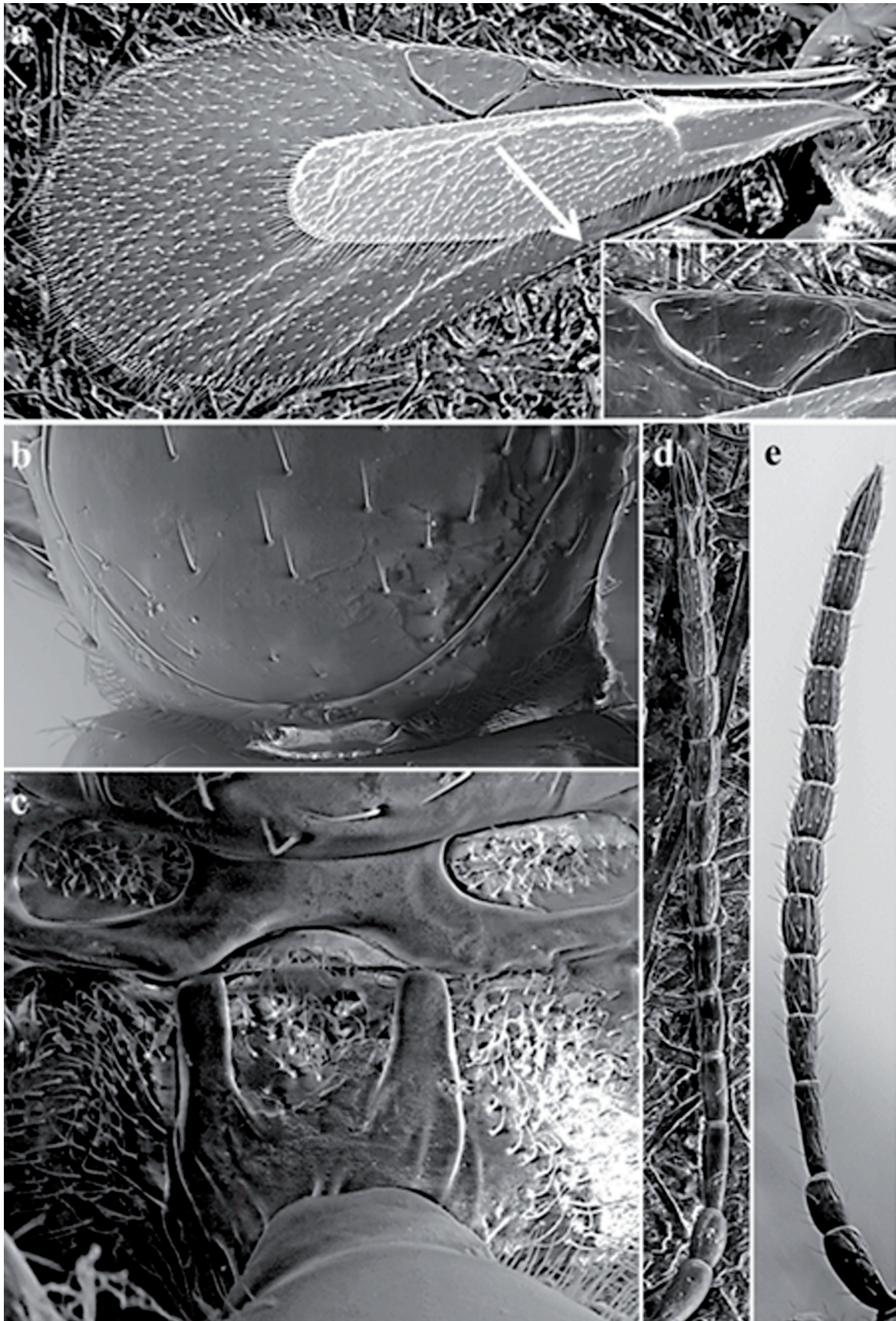


Figure 1. *Alloxysta barbotini* Ferrer-Suay & Pujade-Villar n. sp.: a) forewing and radial cell; b) pronotum; c) propodeum; d) antenna male; e) antenna female.

the propodeal carinae are thin and straight in *A. australiae*; size of radial cell 2.1 (female) and 2.0 (male) times as long as wide in *A. barbotini* but 2.4 times in *A. australiae*.

Type material

(20 ♂ & 34 ♀).

Holotype: (1 ♀) (UB) with the following labels: Ifrane, 27.5.77: 1 ♀.

Paratypes: (20 ♂ & 33 ♀) (UB) with the following labels: Ifrane, 27.5.77: 6 ♂ & 3 ♀; 20.6.77: 4 ♂ & 7 ♀; 4.6.81: 1 ♂; 10.6.81: 3 ♀; Itzèr, 2.6.77: 6 ♂ & 8 ♀; Col du Zad, 2.6.77: 1 ♂ & 2 ♀; 6.6.81: 2 ♀; 7.6.81: 4 ♀; 9.6.81: 1 ♂ & 2 ♀; Aïn Kellah, 5.6.81: 1 ♂ & 2 ♀.

Length

Female: 1.2-1.4 mm. Male: 1.1-1.2 mm.

Coloration

Head yellow, mesosoma and metasoma yellowish brown. Antennae yellow, darkening towards the end. Legs yellow and veins yellowish brown.

Head

Transversally ovate, smooth and shiny, slightly wider than high in front view. Setae below and between toruli, few scattered setae above toruli. Scattered setae on vertex and many setae on face. Transfacial line 1.5 times the height of compound eye. Malar space 1.9 times the height of compound eye.

Antenna

Female: 13-segmented, filiform. All antennomeres covered with sparse setae. F1 smooth and thinner than remaining flagellomeres, F2-F11 with placodeal sensilla and club shaped. Antennal formula: 2.2 (1.5); 4.0 (0.9); 2.7 (1.2); 2.4 (1.5); 2.4 (1.5); F4-F12 subequal in length, width and shape (Fig. 1e). Male: 14-segmented, filiform. All antennomeres covered with sparse setae. F1-F12 with placodeal sensilla and club shaped. Antennal formula: 2.0 (1.2); 3.2 (0.9); 2.5 (1.0); 2.4 (1.0); 2.4 (1.0); F4-F12 subequal in length, width and shape (Fig. 1d).

Mesosoma

Pronotum covered by sparse setae, being less in the distolateral corners, with two protruding carinae (Fig. 1b). Mesoscutum smooth and shiny, round in dorsal view with few scattered setae. Scutellum smooth and shiny with scattered setae, more abundant on apex of scutellum. Propodeum covered by abundant pubescence, with two wide carinae independent slightly fused on bottom (Fig. 1c).

Forewing

Longer than body, 1.2 times as long as mesosoma and metasoma together. Covered with dense pubescence; marginal setae present and very long (Fig. 1a). Closed radial cell, 2.1 times as long as wide in female and 2.0 times as long as wide in male. R1 short and curved; Rs long and slightly curved (Fig. 1a).

Metasoma

Anterior part with an incomplete ring of setae, glabrous at

centre, wider laterally. Metasoma smooth and shiny, T3 and T4 clearly distinguished.

Distribution

Morocco.

Etymology

This new species is dedicated to F. Barbotin who collected the material and previously detected the new species.

Host

Cinara (Cedrobium) laportei (Remaudière) is found in small dense colonies on twigs and on small shoots of lower branches of *Cedrus* spp. in Europe, North Africa (Algeria, Morocco) and South Africa. Its range currently seems to be expanding. Immatures probably of this species were also collected in Himachal Pradesh, India (BMNH collection, leg. A. Chowdhury). Remaudière (1954) erected the genus *Cedrobium* for this species which differs from other *Cinara* in its 5-segmented antennae, strongly sclerotic tergum and curious, mace-like dorsal hairs. However on phylogenetic grounds and taking into account recent biochemical evidences (Lampel & Burgener, 1987), *Cedrobium* should clearly be treated as a subgenus within *Cinara*.

Alloxysta basimacula (Cameron, 1886)

Material studied

(1 ♀). "10 rufur 6059 G.R.", "OS. Frijus 1900, France 10.VIII.86, Remoundière", "Ex.: *Nasonovia* sp. (Aphididae) s./ *Hierucium*".

Countries in Barbotin collection

France.

Previously mentioned in:

Scotland (Cameron, 1886; 87; 88; Cameron, 1889: 58).

Alloxysta brachycera Hellén, 1963

Material studied

(1 ♀). "6967-68", "ex. *Hyadaphis* ex *Cavariella*, s/ *Myrrhis*, Col. De Mottets (France), 7.VIII.68".

Countries in Barbotin collection

France (new record).

Previously mentioned in:

Finland (Hellén, 1963: 14).

Alloxysta brachyptera (Hartig, 1841)

Material studied

(4 ♂ & 1 ♀). "Au pied desus vegetation de *Polygonum pourueuris*, ou bord de l'Alliue" (handwritten), "Abrets (Riue guuche) 6-viii-74, Allier, J. Barbier" (handwritten), "A15": 1 ♂; "73": 1 ♂; "Portbail Manche, 12-XII-70, ex *Aphelinus*

varipes Forst in *Holcaphis holci* Hardy", "73": 1 ♂; "St. Malo jardin/Tomate, R. 1-8-77, E. 14-8-77": 1 ♂; "20 rufur 6086 G.R.", "05. Villeneurt, 13.VIII.1966, Remaundièr", "Ex.: ? Saltusaphini (Aphididae) s./ laux": 1 ♀.

Countries in Barbotin collection

France.

Previously mentioned in:

Austria (Giraud, 1860: 131); Belgium (Lameere, 1907); England (Dalla Torre & Kieffer, 1910: 292; Fergusson, 1986: 18; Müller *et al.*, 1999: 352); Finland (Hellén, 1931: 5); France (Dalla Torre & Kieffer, 1910: 292); Germany (Hartig, 1840: 200); Ireland (Fergusson, 1986: 18); Romania (Ionescu, 1969: 236); Scotland (Fergusson, 1986: 18); Sweden (Thomson, 1862: 410).

Alloxysta brevis (Thomson, 1862)

Material studied

(6 ♂ & 22 ♀). "Portbaig, Manche, 12.xii.70", "ex *Aphelinus varipes* Forst in *holcaphis, holci* Hardy", "73": 1 ♀; "53": 1 ♂ & 1 ♀; "Portrail Mancha 12-xii-70", 273": 1 ♀; "Fev. Cher., 18.7.71": 1 ♀; "Fev. Cher., 18.7.71": 1 ♀; "Fev. Cher., 8.7.71": 1 ♀; "Enijeron acer, Villeneuve la Salle, 25.VI.69, Ex. Acurticauda, col. 6.VII.69, 3168": 1 ♀; "Fev. Cher. 18.7.71": 1 ♂; "Fev. Cher. 18.7.71": 1 ♂; "Fev. Cher. 18.7.71": 1 ♂; "Fev. Cher. 18.7.71": 1 ♀; "39 rufur 02704 G.R.", "Aigona, Tessui, SUISSE, VIII.1962, Remandier", "Ex.: *Semiaphis pimipinellae* KLTB. (Aph.), s./ *Pimpinella sarifrap*": 1 ♀; "19 rufur 02704 G.R.", "Aragno, Tessin, SUISSE, VIII.1962, Remandier", "*Semiaphis pimipinellae* KLTB. (Aph.), s./ *Pimpinella sarifraga*": 1 ♀; "31 rufur G.R.": 1 ♀; "9 rufur 6030 G.R.": 1 ♀; "53 rufur G.R.": 1 ♀; "53 rufur G.R.": 1 ♀; "24 rufur 3351 G.R.": 1 ♀; "52 rufur i2836 G.R.": 1 ♀; "7016 ecl. 3.IX.68", "ex. *Aphis fabae*, s./ *Chenopodium*, valenci (Marquet), 13.VIII.68": 1 ♀; "51 rufur i3277 G.R.": 1 ♀; "*Helianthium*, *Aspes* s./ Buech (5), 25.V.70, ex. *Aphis*, ecl. 20.VI.70, n° 4565/ifu": 1 ♀; "Fev. Cher, 18-7-71": 1 ♀; "Erigeron a cu 3168, Villeneuve la Salle 05, 25.VI.69, W Acuticanioia eriferuntis, ecl. 10.VII.69": 1 ♀; "ex. *Aphis craccivora*, ex. *Toxoptera aurantii*, *Citrus*, San Giuliano, Corse, 25-26.vii.70, LECLANT" (Tube 63): 1 ♀.

Additional material (without data in labels):

"53": 1 ♂; "35": 1 ♂.

Countries in Barbotin collection

France.

Previously mentioned in:

Andorra (Ferrer-Suay *et al.*, 2011: 350); Canada (Andrews, 1978: 68); Canada (Vancouver) (Ferrer-Suay *et al.*, 2014a: 56); Corsica (Ferrer-Suay *et al.*, 2013c: 5); England (Müller *et al.*, 1999: 346); Finland (Hellén, 1963: 22); France (Kieffer, 1904a: 602; De Gaulle, 1908: 26); Germany (Hübner *et al.*, 2002: 507); Hawaii (Beardsley, 1985: 50); Hungary (Fülöp *et al.*, 2010: 54); India (Ferrer-Suay *et al.*, 2013a:

5); Iran (Ferrer-Suay *et al.*, 2013d: 36); Ireland (O'Connor & Nash, 1997); Japan (Takada & Nakamura, 2010: 269); Madeira (Borges *et al.*, 2008: 351); Mexico (Ferrer-Suay *et al.*, 2013g: 32); Morocco (Ferrer-Suay *et al.*, 2013b: 262); Poland (Barczak, 1991: 87); Romania (Ionescu, 1969: 245-246; Prelipcean *et al.*, 2004: 60); Spain (Ceballos, 1941: 226; Tizado & Nuñez-Perez, 1993: 97; Bertolaccini *et al.*, 2004: 42); Sweden (Thomson, 1862: 408); Thailand (Ferrer-Suay *et al.*, 2013a: 5); USA (California) (Oatman *et al.*, 1983: 1714; Zuparko & Dahlsten, 1995: 730); USA (Florida) (Ashmead, 1887: 19; Evans & Stange, 1997: 1); USA (Idaho) (Weld, 1920: 15); Zimbabwe (Ferrer-Suay *et al.*, 2013b: 262); USA (California, Colorado, Georgia, Iowa, Maryland, Utah) (Ferrer-Suay *et al.*, 2014a: 56).

Alloxysta castanea (Hartig, 1841)

Material studied

(13 ♂ & 15 ♀). "Rennes E.N.A., 28-5-47": 1 ♀; "Biard 86, de *M. cerasi*, Réc. 26-6-73, Ed. 12-16/04/74" (handwritten): 1 ♀; "80-03 cerisier": 1 ♀; "ex. *Hyadaphis*": 1 ♂; "...": 1 ♂; "3415", "*Chondrilla juncea*, Veynes (od) 13IX.69, ex *Dactynotus chondrillae*, col. 19.IX.1969": 1 ♀; "3508", "*Chondrilla juncea*, Annot (04) 16.IX.69, ex. *Dactynotus etondrillae*, col. 19.IX.1969": 1 ♂; "en lactantwler T. Bojeaniae, Les Bossons, 8.VIII.68": 1 ♂; "ex. *Macrosiphum oredonensis* s/ *Lonicera nigra*, les Bossons 1700m, Pyramides, 22.IX.68": 1 ♀; "*Hera-deum sphondylium*, 17 Kg W Frenoble, 19.X.69, col. 3.V.70, 3576": 1 ♂; "15 rufur 5836 G.R.", "OS. Villeneuve, 9.VIII.65, Remaundièr", "Ex.: *Dactynotus* sp. (Aphid), s./ *Hieracium*": 1 ♀; "3415", "*Chondrilla juncea*, Vejnes (05) 13.IX.69, ex. *Dactynotus chondrillae*, ecl. 19.IX.69": 1 ♀; "Aretostaphylos 4.n, Vars, Escreins (05), 23.VII.70, ex. *Wahlgzeniella* oss, ecl. 2-VIII.70, 4826/LEGLANT": 1 ♂; "Licris n° 2686, Lantosqua (06), 24.X.1969, ex. *Nasonovia fiorisis*, ecl. 18.XI.1968": 1 ♀; "*Inula viscosa*, Antisanti (20), 8.VII.1970, ex. *Dactynotus inulac*, ecl. 20.VII.1970, n° 4748/LEGLANT": 1 ♂; "*Achillea millefolium*, Col. Sur Minier (30), 16.VII.1971", "ex. *Uroleucon achilleae*, ecl. 23.VII.71", "n° 5538/LECL": 1 ♂ & 1 ♀; "*Centaurea nisra*, Col. Le Faubel (30), 16.VII.1971, ex. *Uroleucon jaceae*, ecl. 28.VII.1971, n° 5257/LECL. 5357": 1 ♂; "*Inula viscosa*, Antisanti (20), 8.VII.70, ex. *Dactynotus inylae*, ecl. 20.VII.70, n° 4748/LEGLANT": 1 ♀; "49 rufur i 34 72-75. G.R.", "Euche Rhonamaboore et Boudjvid (1900m), IRAN 31.X.67, Remaundièr", "Avec philascunde, s./ *Quercus pusica*": 1 ♀; "7 rufur i2592-96 G.R.": 1 ♂; "ex *Hyadaphis lup-leuri*, 1/ *Bufiletrum falcatum*", "Col du Granier, 1100m, Isèn, 20.IX.68, ecl. 11.X.68": 1 ♂.

Additional material (without data in labels):

"1074": 1 ♀; "1062": 1 ♂; "828": 1 ♂ & 3 ♀.

Countries in Barbotin collection

France and Iran.

Previously mentioned in:

Austria (Kieffer, 1902b: 35); Canada (Quebec) (Andrews, 1978: 67); Colombia (Ferrer-Suay *et al.*, 2012a: 322); Cor-

sica (Ferrer-Suay *et al.*, 2013c: 6); Denmark (Andrews, 1978: 82); England (Cameron, 1889: 54; Dalla Torre & Kieffer, 1910: 256); Finland (Hellén, 1963: 14); France (Kieffer, 1902a: 10, 15; Kieffer, 1904a: 595; De Gaulle, 1908: 26; Cavour, 1954: 12); Germany (Hartig, 1841: 352; Hedicke, 1928: 94; Hübner *et al.*, 2002: 507); Iran (Ferrer-Suay *et al.*, 2013d: 36); Kuriles Island (Belizin, 1962: 128); Madeira (Ferrer-Suay *et al.*, 2012b: 10); Malaysia (Ferrer-Suay *et al.*, 2013a: 7); Mexico (Ferrer-Suay *et al.*, 2013g: 32); Morocco (Ferrer-Suay *et al.*, 2013b: 262); Nepal (Ferrer-Suay *et al.*, 2013a: 7); Norway (Hofsvang & Hagvar, 1983: 60); Romania (Ionescu, 1969: 266; Prelicean *et al.*, 2004: 60); Scotland (Cameron, 1883: 365); Spain (Ferrer-Suay *et al.*, 2012c: 123); Taiwan (Ferrer-Suay *et al.*, 2013a: 7); The Netherlands (Andrews, 1978: 82); USA (Colorado) (Baker, 1896: 133; Andrews, 1978: 52); USA (Arizona, California, Colorado, Illinois, Kansas, New Mexico, Texas) (Ferrer-Suay *et al.*, 2014a: 58).

Alloxysta citripes (Thomson, 1862)

Material studied

(1 ♂ & 6 ♀). “Au revers famille destillant plaine de pucerons”, “Dijon, 24-vii-74, 4-D’or- J. Barbier”, “11171”: 1 ♀; “*Quercus suber*, Banyuls (66), 10.11.70, ex. *Hoplocallis picta*, ex. 21.IV.70”: 1 ♀; “*Quercus suber*, Banyuls (66), 10.11.70, ex. *Hoplocallis picta*, ex. 22.IV.70”: 1 ♀; “Oromo (Me), U.S.A., 9.IX.76”, “*Drepanophis/ Acer saccharum* n° 979”: 1 ♀; “43 rufur 02124 28 G.R”, 2Hozas Sulii (1300m), TURQUIE 15.X.1962, Remaundier”, “ex.: Thelarinar, s./ *Quercus robur*”: 1 ♀; “43 rufur 02124 28 G.R”, 2Hozas Sulii (1300m), Turquie 15.X.1962, Remaundier”, “ex.: Thelarinar, s./ *Quercus robur*”: 1 ♀; “41 rufur G.R.”, “Salonique Grece, 16.VI.64, Remaundier”: 1 ♂.

Countries in Barbotin collection

France and Turkey (new record).

Previously mentioned in:

Andorra (Ferrer-Suay *et al.*, 2011: 355); Corsica (Ferrer-Suay *et al.*, 2013c: 6); England (Kieffer, 1902a: 11; Ferguson, 1986: 18); France (Kieffer, 1904a: 600; De Gaulle, 1908: 26); Germany (Hübner *et al.*, 2002: 508); Hungary (Fülöp *et al.*, 2010: 55); Iran (Rakhshani *et al.*, 2001: 42; Rakhshani *et al.*, 2004: 3); Jamaica (Ferrer-Suay *et al.*, 2013h: 282); Moldova (Belizin, 1966: 6); Morocco (Ferrer-Suay *et al.*, 2013b: 262); Portugal (Ferrer-Suay *et al.*, 2012b: 10); Scotland (Cameron, 1886: 87); South Africa (Ferrer-Suay *et al.*, 2013b: 262); Spain (Ferrer-Suay *et al.*, 2012c: 124); Sweden (Thomson, 1862: 410); The Netherlands (Evenhuis, 1976: 140); USA (Iowa) (Ferrer-Suay *et al.*, 2014a: 58).

Alloxysta consobrina (Thomson, 1862)

Material studied

(94 ♂ & 155 ♀). “Turteville, ou bord du l’Ouche, au Boix du Parc” (handwritten), “Dijon 3-viii.73, c. d’or-J. Barbier” (handwritten), “10038” (handwritten): 1 ♀; “78-15, E. fin-

nou 78” (handwritten): 1 ♀; “78-15, E. 30.xi.78” (handwritten): 1 ♂ & 1 ♀; “78-15, E. 11-11-78” (handwritten): 1 ♀; “78-15, E. 12-11-78” (handwritten): 1 ♂; “78-15, E. Fin nov 78 (handwritten): 2 ♀; “78-15, 12-11-78” (handwritten): 1 ♀; “20.10.76, 266, La Grignenais, VA Rm, 9”: 1 ♂; “20.10.76, 367, La Grignenais, VA Rm, 8”: 1 ♂; “Le Chenot, 8-6-77, T1 40, 8.6.77”, “L4 Sa 361”: 1 ♀; “20.10.76, 968, La Grignenacs, VA Rm, 7”: 1 ♂; “St. Malo jardin, chou en fleur, E. 25.06.1980”: 1 ♀; “80-01, E. 06.06.80” 1 ♂ & 1 ♀; “80-01, E. 06.06.80” 1 ♂ & 1 ♀; “80-01, E. 05.06.80” 1 ♂ & 1 ♀; “80-01, E. 05.06.80”: 1 ♂ & 1 ♀; “SIP2 7-10-70”, “Ront. Brevicoryne brassicae”, “St. Pd. SEI 7/10/70”: 1 ♂; “BIARD 86/ *Chenopodium*, 28.6.73”: 1 ♀; “BIARD 86/ *Chenopodium*, 28.6.73”: 1 ♀; “St. M, 6-10.70”: 4 ♂ & 19 ♀; “BIARD 86/ *Chenopodium*, 28.6.73”; “St. Pol 7-10-70”: 2 ♂ & 4 ♀; “St. Pol -10-80”: 1 ♂; “Kers, 7.10.70”: 2 ♀; “Ch. M 22.10.70”: 1 ♂ & 7 ♀; “Kers, 7.10.70”: 3 ♀; “# Poitiers/ Blé été 1975”: 1 ♀; “St. Benoit 86/ rosier, 2-6-1972”: 1 ♀; “St. Benoit 86/ rosier, 2-6-1972”: 1 ♂; “St. Benoit 86/ pois de senteus, 6-8-72”: 1 ♀; “Melrand de pucerons/blé, Juin 55”: 1 ♀; “Roscoff Ecl. 10-10-55”: 1 ♀; “Poitiers, a. 1973, 10-4-74”: 1 ♀; “Kers 7.10.70”: 1 ♀; “Kers 7.10.70”: 1 ♀; “Tussilago farfara, Samoëns (74), 7.X.1970, ex. *Capitophorus similis*, ecl. 7.IV.1971, n° 4916/F.L”: 1 ♂; “*Achillea millefolium*, Jausiers (04) 14.IX.69, ex. *Pleotsichophorus dufouli*, ecl. 25.IX.69”: 1 ♀; “SIP 2, 7.10.70”: 1 ♂ & 14 ♀; “*Achillea millefolium*, Villeneuve la Salla (05), ex. Mella tapuskae, ecl. 5.X.1969-3748”: 1 ♂; “SIP 2, 7.10.70”: 1 ♂; “La miceac, Le Montier (05) ex., ecl. 11.XI.66”: 1 ♀; “*Saxifraga aigoon*, La Roche sur Pirineos, 22.VI.1969, ex. Neokakimia, ecl. 10.VII.1969”: 1 ♀; “Lasnium 23.X.69, Le Mnetier (05), ex., ecl. 11.XLI.1969”: 1 ♀; “Laminur, Le Monetier (05), X.70, ex. *Aulacorthum solani*, col. 7.V.70”: 1 ♀; “10-20 Juillet”, “P.C. Verrines, Charipinae 1973, 20-30 Mars a 1-10 Aoüt”: 1 ♀; “10-20 Juillet”, “P.C. Verrines, Charipinae 1973, 20-30 Mars a 1-10 Aoüt”: 1 ♀; “1-10 Juillet”, “P.C. Verrines Charipinae 1973 20-30 Mar a 1-10 Aoüt”: 1 ♀; “Mont Tremblant Québec, 28.VIII.76”, “Ex. *Ropalosiphum nymphaeae/ Solidago*”: 1 ♀; “Les Verrines Charipinae 1972, 2° decade de Mars a 1ere decade d’Aoüt”, “2° decade d’Aoüt”: 1 ♀; “66 rufur”, “S.E.I., sud 21.V.68 Robut”, “ex. *Capitophorus hirur*, s./ Arlichaut”: 1 ♀; “67 rufur”, “S.E.I., sud 21.V.68 Robut”, “ex. *Capitophorus hirur*, s./ Arlichaut”: 1 ♂; “68 rufur”, “Ruuvel Rosool, 15.V.68 Robut”, “ex. *Capitophorus horni*, s./ Arlichaut”: 1 ♂; “69 rufur”: 1 ♂; “62 rufur i3638 G.R”: 1 ♀; “23 rufur 5334 G.R”: 1 ♀; “23 rufur 5334 G.R”: 1 ♂; “23 rufur 5334 G.R”: 1 ♂; “23 rufur 5334 G.R”: 1 ♀; “23 rufur 5334 G.R”: 1 ♂ & 1 ♀; “23 rufur 5334 G.R”: 1 ♂; “14 rufur”: 1 ♂ & 1 ♀; “14 rufur”: 1 ♂; “*Berberis vulgaris*, La frare 1300m, *Liosomaphis berberis*, ecl. 6.VII.69, 3064”: 1 ♀; “4 *Brachycaudus amygdalinus*, s./ *Bhygonum avicallare*”: 1 ♂; “ex *Dactynotus/Leontodon*, Col. Du branin, Isüc 1100m, 20.IX.68”: 1 ♂; Maroc, Ena Mekne”, “s/ puceron, Ghoux parasite, 13.x, 25.x.74”: 2 ♂ & 1 ♀; “s/ Artichaut, E.N.A., N° 389, 13.10, 5.11.71”: 1 ♂; “Maroc, Boudersbaia”, “Puceron, s/ choux 23.xi.71”: 1 ♂; “Maroc, Vallee Heu-

rense”, “Morelle Noue, 23.10.71”: 1 ♂; “s/ chorux, n° 420, France, 30.10.1971”: 1 ♂; “Maroc, I France”, “Puceron s/ choux 25.xi.71”: 1 ♀; “Maroc N° 423/ Choux ENA 8-11-71”: 1 ♀; “Maroc, ENA Meknes”, “s/ puceron Choux parasite, 13.x, 25.x.71”: 1 ♂; “Maroc, ENA Meknes”, “s/ calendula arvensis, 16.XI.71”: 1 ♂; “Rep. blé Rhem., 26.11.80, 39, B9, VA, RP”: 1 ♀; “Rep. blé Rhem., 26.11.80, 36, M10 L4 RP”: 1 ♀; “Rep. blé Rhem., 15.4.81, 85, M10 L4 RP”: 1 ♀; “Rep. blé Rhen 26.11.80, 40, B9 L4 RP”: 1 ♂; “Rep. Rhen mis en élevage, 4-9.1.80, 10, RP, L4”: 1 ♂; “Avoine afres, P. Porzay, 85, 9-12.77”: 1 ♂; “N°1 8/9”: 3 ♂ & 2 ♀; “N° 18”: 2 ♂ & 2 ♀; “St. Pol de Léon, Finistère, mai-juin 1968 em 1969”, “Charips tscheki”: 1 ♂ & 2 ♀; “Ex. *Myzus orutus*, *Lampsana*, La Varenne (France), 7.vii.72” (Tube 102): 1 ♀; “ex Aphidiid in *Hyalopteroides dactylidis*, *Dactylis glomerata*, *Marsalin*, Manche(France), 25.v.72” (Tube 94): 1 ♀; “Le Meriot, Aube (France), 15.vii.72” (Tube 116): 1 ♀; “ex. *Praon* in *Macrosiphum rosae*, *Rosa*, Arvieux (France), H.A. 1600m, 29.vi.72” (Tube 111): 1 ♀; “Le Manche (France), *A. fabae*, 20/6, Euonymus, A. Robert” (Tube 82): 1 ♀; “ex *Praon*, 0/ *Acyrtosiphon chelidori*, *Chelidonium*, LV, 1.vi.71” (Tube 80): 1 ♀; “ex. *Praon dorsale* in *Uroleucon sonchi* L., *Sonchus*, 14. Courseulles, 25.v.72” (Tube 93): 1 ♀; “ex. *Dryyamo*, *Acer pseudoplatanus*, Santafe (Spain), 17.viii.70” (Tube 66): 1 ♀; “ex *Liosomaphis berberidis*, *Berberis*, Rondak (E. Teheran) IRAN vi.1966” (Tube 13): 1 ♀; “ex. *Chaetosiphon*, *Rosa lamina*, W. col des limoneines, 19.vi.70” (Tube 57): 1 ♀; “6738a71, *Quercus lanuginosa*, Est Venasque (France), 6.v.68” (Tube 14): 1 ♂; “aux cham horticoles (a), 1968 (Tube 9)”: 1 ♂; “ex galle F (Tube 1)”: 1 ♂; “ex. *Chamaemyidi*, *Cirsium eriophorum*, Vars (France), 29.vii.1970 (Tube 11)”: 1 ♂.

Additional material (without data in labels)

“299”: 1 ♀; “103”: 1 ♀; “61”: 1 ♀; “90”: 1 ♀; “274”: 1 ♀; “207”: 1 ♀; “186”: 1 ♀; “229”: 1 ♀; “100”: 1 ♀; “84”: 1 ♀; “264”: 1 ♀; “273”: 1 ♀; “276”: 1 ♀; “69”: 1 ♀; “73”: 1 ♀; “76”: 1 ♀; “285”: 1 ♀; “109”: 1 ♀; “266”: 1 ♀; “53”: 1 ♀; “60”: 1 ♀; “58”: 1 ♀; “105”: 1 ♀; “295”: 1 ♀; “301”: 1 ♀; “95”: 1 ♀; “11bis”: 1 ♀; “190”: 1 ♀; “59”: 1 ♀; “289”: 1 ♀; “292”: 1 ♀; “248”: 1 ♀; “180”: 1 ♀; “262”: 1 ♀; “106”: 1 ♀; “55”: 1 ♀; “291”: 1 ♀; “251”: 1 ♀; “279”: 1 ♀; “255”: 1 ♀; “67”: 1 ♀; “192”: 1 ♀; “110”: 1 ♀; “285”: 1 ♂; “263”: 1 ♂; “287”: 1 ♂; “233”: 1 ♂; “283”: 1 ♂; “249”: 1 ♂; “250”: 1 ♂; “235”: 1 ♂; “253”: 1 ♂; “202”: 1 ♂; “164”: 1 ♂; “183”: 1 ♂; “178”: 1 ♂; “279”: 1 ♂; “284”: 1 ♂; “281”: 1 ♂; “280”: 1 ♂; “96”: 1 ♂; “298”: 1 ♂; “259”: 1 ♂; “290”: 1 ♂; “244”: 1 ♂; “232”: 1 ♂; “297”: 1 ♂; “267”: 1 ♂; “303”: 1 ♀; “64”: 1 ♂; “269”: 1 ♂; “270”: 1 ♂; “72”: 1 ♂; “300”: 1 ♂; “197”: 1 ♂; “256”: 1 ♂; “252”: 1 ♂; “1026”: 1 ♂; “163 bis”: 1 ♂; “63”: 1 ♀; “1017”: 1 ♀; “1040”: 1 ♂.

Countries in Barbotin collection

France and Morocco.

Previously mentioned in:

Africa (Evenhuis, 1974: 167); Andorra (Ferrer-Suay *et al.*, 2011: 356); Argentina (de Santis, 1937: 1; Pujade-Villar *et al.*, 2002: 543; Berta *et al.*, 2002: 67); Australia (Froggatt,

1904: 603; Carver, 1992: 775); Brazil (Maria de Sousa & Paes Bueno, 1993/1994: 29; Betini, 1975: 54; Betini, 1976: 76; Lazzari, 1985: 9; Teixeira, 1991: 47; Cividanes, 2002: 251; Pujade-Villar *et al.*, 2002: 543; Vaz *et al.*, 2004: 225); Chile (Pujade-Villar *et al.*, 2002: 543); Colombia (Pujade-Villar *et al.*, 2010b); England (Müller *et al.*, 1999: 352; van Veen *et al.*, 2003: 450); France (Kieffer, 1902a: 16; De Gaulle, 1908: 26); Germany (Hartig, 1841: 352; van Veen *et al.*, 2003: 450; Hübner *et al.*, 2002: 508); Hawaii (Beardsley, 1985: 50); Hungary (Dalla Torre & Kieffer, 1910 : 285); India (Ferrer-Suay *et al.*, 2013a: 7); Iran (Lotfalizadeh, 2002b: 1; Lotfalizadeh & van Veen, 2004: 119); Ireland (Chua, 1978: 436); Italy (Ferrer-Suay *et al.*, 2014c: 7); Lapland (Zetterstedt, 1838: 410); Mexico (Ferrer-Suay *et al.*, 2013g: 35); New Zealand (Valentine, 1975: 59; Ferrer-Suay *et al.*, 2012d: 232); Peru (Pujade-Villar *et al.*, 2002: 543); Romania (Feraru *et al.*, 2005: 67); Scandinavia (Zetterstedt, 1838: 410); Scotland (Cameron, 1886: 85); Spain (Archimowitsch, 1952: 112; Ferrer-Suay *et al.*, 2012c: 126); Uruguay (Pujade-Villar *et al.*, 2002: 543); Canary Islands (Tenerife) (Kieffer, 1904b: 63); USA (California) (Horn, 1988: 354); USA (Florida) (Ashmead, 1887: 9; Spencer, 1926: 148); Wales (Weld, 1952: 252).

Alloxysta crassa (Thomson, 1862)

Material studied

(1 ♂ & 6 ♀). France samples for obtained Charipinae material (probably from Sain Malo): “833”: 1 ♀; “1063”: 1 ♀; “1063”: 1 ♀; “1063”: 1 ♀; “1063”: 1 ♀; “838”: 1 ♀; “1060”: 1 ♂.

Countries in Barbotin collection

France (new record).

Previously mentioned in:

Scotland (Cameron, 1889: 59).

Alloxysta fracticornis (Thomson, 1862)

Material studied

(5 ♀). “4/9/73 T”, “1973 Parcelle Charipinae”: 1 ♀; “8.8.73”, “Parcelle _0_73 Charipinae”: 1 ♀; “10-20 Sept”, “Les Verrines, Charipinae 1972, 10-20 Août a 20-30 Octo”: 1 ♀; “Maroc, ENA Meknes”, “s/ puceron artichaud, 5.x-, 16.x.70”: 1 ♀; “Maroc, ENA Meknes”, “s/ puceron *Rumex pulcher*, 12.6.71, 29.6.71”: 1 ♀.

Countries in Barbotin collection

France and Morocco (new records).

Previously mentioned in:

Austria (Andrews, 1978: 83); Canada (Ontario) (Ferrer-Suay *et al.*, 2014a: 59); Ecuador (Ferrer-Suay *et al.*, 2013h: 285); Poland (Kierych, 1979b: 14); Romania (Ionescu, 1969: 251); Spain (Ferrer-Suay *et al.*, 2013f: 324); Sweden (Thomson, 1862: 408); USA (California, Colorado) (Ferrer-Suay *et al.*, 2014a: 59).

Alloxysta fuscipes (Thomson, 1862)

Material studied

(1 ♂). “*Rosa spinosissima*, L2 Argentan, 29.V.1970, ex *Metopolophium*, col. 12.VI.1970”, “4555/LEGLANT”: ♂.

Countries in Barbotin collection

France (new record).

Previously mentioned in:

Austria (Hellén, 1963: 13); England (Andrews, 1978: 83); Finland (Hellén, 1931: 4; Hellén, 1963: 13); Iceland (Hellén, 1931: 4); Lappland (Hellén, 1963: 13); Norway (Hellén, 1966: 393); Russia (Hellén, 1963: 13); Scotland (Cameron, 1886: 88); Sweden (Thomson, 1862: 410).

Alloxysta glebaria Hellén, 1963

Material studied

(1 ♂). “St. Benoit 86/persil au soil, 15.6.69”, “*Nephycta discreta* F.”: 1 ♂.

Countries in Barbotin collection

France (new record).

Previously mentioned in:

Finland (Hellén, 1963: 22).

Alloxysta halterata (Thomson, 1862)

Material studied

(10 ♂ & 1 ♀). “118 Rem”, “Quineville/Holcus mollis, 17-X-1972”, “Ex *Aphidius uzbekistanicus* cus Luzn/sit. Fragarive Wi”: 1 ♀; “S. Pol de Leon, Finistère, 1967m1968”: 1 ♂; “625”: 1 ♀; “823”: 1 ♂; “118 Rem”, “Quimeville 50/Holcus mollis, 17.X.1972”, “ex *Aphidius uzbekistanicus* Luzh”, “in *Sitobion fragariae* WLK”: 1 ♂; “Acigné La Charterie, 18.4.43”: 1 ♀; “Biard 86/ pucerons ceriniers? 5-7-72”: 1 ♀; “Rem 118”, “Quineville 50/Holcus mollis 17.X.1972”, “*Aphidius uzbekistanicus* Luzh/ *Sitobion fragariae*”: 1 ♂; “Rem 118”, “Quineville 50/Holcus mollis 17.X.1972”, “*Aphidius uzbekistanicus* Luzh/ *Sitobion fragariae*”: 1 ♂; “121 Rem”: 1 ♀; “St.Malo 35/ rosa ex. Pucerons, ex. 10-06-82”: 1 ♀; “838”: 1 ♂; “834”: 1 ♂; “844”: 1 ♂; “1063”: 1 ♂; “631”: 1 ♀; “119Rem”: 1 ♀; “1063”: 1 ♀; “1063”: 1 ♀; “ENSAR, 23.6.71”: 1 ♂; “Luzerne serre, ENSAR, 71-028”: 1 ♀; “Luzerne serre, ENSAR, 71-028”: 1 ♀; “Luzerne serre, ENSAR, 71-028”: 1 ♀; “Luzerne serre, ENSAR, 71-028”: 1 ♀; “820”: 1 ♀; “60 rufur 6854 G.R.”, “*Thorus HK* Savoie, 15.VII.68 Remand”, “ex. *Aphis galii* saabii, s./ *Gallium*”: 1 ♀; “12 rufur 5842 G.R.”, “Ot Vi. Remeure, FRANCE-1900m, 9.VIII.65, Remand”, “ex.: Reyr *Macrosiphum malvar* Mosi (Aph.), s./ *Geranium*”: 1 ♀; “12 rufur 5842 G.R.”, “OS. Villedeneuve FRANCE 1900m, 9.VIII.65, Remand”, “Ex.: *Acirthosiphum malvat.* Moss. (Aph.) s./ *Geranium*”: 1 ♀.

Countries in Barbotin collection

France (new record).

Previously mentioned in:

England (Hellén, 1963: 20; Müller *et al.*, 1999: 346); Finland (Hellén, 1963: 20); Germany (Hübner *et al.*, 2002: 507); Madeira (Ferrer-Suay *et al.*, 2012b: 11); Romania (Ionescu, 1969: 233); Scotland (Cameron, 1886: 88); Sweden (Thomson, 1862: 410); USA (Colorado) (Ferrer-Suay *et al.*, 2014a: 59).

Alloxysta kovilovica Ferrer-Suay & Pujade-Villar, 2013

Material studied

(4 ♀). “P.C. Charpinæ 2° decade Aourt, 1973 Novembre”, “3ere decade Oct 72”: 1 ♀; “P.C. Charipinæ 2° decade Aout 1973”, “2° decade d’Août”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinæ”, “8.9.72_0.”: 1 ♀; “P.C. Charpinæ 2° decade Aout, 1973 Novembre”, “3ere decade Oct 72”: 1 ♀.

Countries in Barbotin collection

France (new record).

Previously mentioned in:

Serbia (Ferrer-Suay *et al.*, 2013e: 256).

Alloxysta macrophadna (Hartig, 1841)

Material studied

(12 ♂ & 99 ♀). “Versailles, print 1971, Bournoville”, “ex. *Aph. ervi/A. pisum*, Luzerne”, “*Alloxysta scutellata* K, Barbotin det.”: 1 ♀; “31.7.73-0”: 1 ♀; “1-10 Juillet”, “P.C. Verrines, Charipinæ 1973, 20-30 Mars a 1-10 Août”: 1 ♀; “29-5-73.0.”, “Parcelle_0_73_ Charipinæ”: 1 ♀; “8/8/73”, “Parcelle_0_73_ Charipinæ”: 1 ♀; “8/8/73”, “Parcelle_0_73_ Charipinæ”: 14 ♀; “Parcelle, Les Verrines 1972_0_ Charipinæ”, “22.3.72_0_”: 1 ♀; “T 31/7/73”, “1973 Parcelle Charipinæ”: 1 ♀; “9/5/73/ 0”, “Parcelle_0_73_ Charipinæ”: 1 ♂; “8/8/73 T”, “1973 Parcelle Charipinæ”: 1 ♀; “8/8/73 T”, “1973 Parcelle Charipinæ”: 1 ♀; “10-20 Mai”, “P.C. Verrines, Charipinæ 1973, 20-30 Mars a 1-10 Août”, “8/8/73 T”, “1973 Parcelle Charipinæ”: 1 ♀; “1° decade de MARS”, “P.C. Verrines, Charipinæ 1973, 20-30 Mars a 1-10 Aout”: 1 ♀; “1-10 Juni”, “P.C. Verrines, Charipinæ 1973, 20-30 Mars a 1-10 Août”: 1 ♂; “1-10 Août”, “Les Verrines, Charipinæ 1972, 10-20 Août a 20-30 Octo”: 1 ♀; “1-10 Juillet”, “P.C. Verrines, Charipinæ 1973, 20-30 Mars a 1-10 Août”: 3 ♀; “2° et 3 decade Gat.”, “Les Verrines, Charipinæ 1972, 10-20 Août a 20-30 Octo”: 1 ♀; “20-30 Juillet”, “P.C. Verrines, Charipinæ 1973, 20-30 Mars a 1-10 Août”: 1 ♀; “2° decade MARS”, “P.C. Verrines, Charipinæ 1973, 20-30 Mars a 1-10 Août”: 1 ♀; “10-20 Juillet”, “P.C. Verrines, Charipinæ 1973, 20-30 Mars a 1-10 Août”: 1 ♀; “2 nd decade de juni”, “P.C. Verrines, Charipinæ 1973, 20-30 Mars a 1-10 Août”: 1 ♀; “10-20 Sept”, “Les Verrines, Charipinæ 1972, 10-20 Août a 20-30 Octo”: 9 ♀; “ex *Macrosiphum oredonensis* n/ *Lonicora nigra*, Les Bossons (Ht. Sav), Ryzomides 1700m, 22.IX.68, col. 11X68”: 1 ♀; “Parcelle_C. Charipinæ”, “26-6-73-C”: 1 ♀; “Parcelle_C. Charipinæ”, “8-8-73-C”: 2 ♀;

“Parcelle_C. Charipinae”, “19-6-73-C”: 3 ♀ & 1 ♂; “Parcelle, C., Charipinae”, “26-6-73-C”: 1 ♀; “P.C. Charipinae, 2° Decade Aout, 1973 Novembre”, “Novembre”: 1 ♀; “Parcelle, Les Verrines, 1973_0_, Charipinae”, “28-9-74_0_”: 1 ♀; “Parcelle, Les Verrines, 1973_0_, Charipinae”, “28-9-74_0_”: 2 ♀; “Parcelle, Les Verrines, 1973_0_, Charipinae”, “15-9-72_0_”: 1 ♀; “8/8/73 T”, “1973 Parcelle Charipinae”: 1 ♀; “P.C. Charipinae, 2° Decade Aout, à 1973, Novembre”, “2° decade d’Aout”: 1 ♀; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “8.9.72_0_”: 1 ♀; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “28.9.74_0_”: 1 ♀; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “8.9.72_0_”: 1 ♀; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “15.9.72_0_”: 1 ♀; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “30.6.72_0_”: 1 ♀; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “8.9.72_0_”: 1 ♀; “P.C. Charipinae, 2° decade aout, 1973, Novembre”, “3ere decade, Oct. 72”: 1 ♀; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “5.5.72_0_”: 1 ♀; “Parcelle, Les Verrines 1972_0_ Charipinae”, “4.8.72_0_”: 1 ♂; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “8.9.72_0_”: 1 ♀; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “8.9.72_0_”: 1 ♀; “Parcelle, Les Verrines, 1972_0_, Charipinae”, “28.9.74_0_”: 1 ♀; “ex *Macrosiphum oredonensis*, *Lonicera nigra*, Les Bossens Pyr. 22.IX.1968”: 1 ♂; “P.C. Charipinae, 2° decade Aout, 1973 Novembre”, “2° decade d’Oct”: 1 ♀; “P.C. Charipinae, 2° decade Aout, 1973 Novembre”, “3° decade d’Oct”: 1 ♀; “T 31/7/73”, “1973 Parcelle Charipinae”: 1 ♀; “8/8/73 T”, “1973 Parcelle Charipinae”: 1 ♂; “T 31/7/73”, “1973 Parcelle Charipinae”: 1 ♀; “3/5/73/0”, “Parcelle_0_73, Charipinae”: 1 ♀; “P.C. Charipinae, 2° decade Aout, 1973 Novembre”, “3° decade Sprt.”: 1 ♀; “32 rufur”, “Portlago 18.VII.67 Remoundiere”, “Ex.: s./ *Vicia crassa*”: 1 ♀; “ex. *Aulacorthum* 7004, s/ *Vaccinium*, Loguan (Hresan) 2200m, 11.VIII.68”: 1 ♂; “Parcelle, Les Verrines 1972_0_ Charipinae”, “22-9-70_0_”: 1 ♀; “8/8/73 T”, “1973 Parcelle Charipinae”: 1 ♀; “Parcelle, Les Verrines 1972_0_ Charipinae”, “22.9.72_0_”: 1 ♀; “Parcelle, Les Verrines 1972_0_ Charipinae”, “22.6.72_0_”: 1 ♀; “1-10 Juillet”, “P.C. Verrines Charipinae 1973 20-30 Mars a 1-10 Aoüt”: 1 ♀; “Parcelle_C. Charipinae”, “8.8.73.C”: 1 ♀; “P.C. Charipinae 2° decade Aout 1973”, “Novembre”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinae”, “28.9.74_0_”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinae”, “8.9.74_0_”: 1 ♂; “Parcelle Les Verrines 1972_0_ Charipinae”, “22.9.72_0_”: 1 ♂; “Parcelle Les Verrines 1972_0_ Charipinae”, “8.9.72_0_”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinae”, “22.9.72_0_”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinae”, “22.9.72_0_”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinae”, “22.9.72_0_”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinae”, “22.9.72_0_”: 1 ♀; “Les Verrines Charipinae 1972 2° decade de Mars a 1ere decade d’Aout”, “2° decade Juin”: 1 ♀; “Les Verrines Charipinae 1972 2° decade de Mars a 1ere decade d’Aoüt”, “3° decade juin”: 1 ♂; “Les Verrines Charipinae 1972 2° decade de Mars a 1ere decade d’Aoüt”, “3° decade Juillet”: 1 ♀; “Les Verrines Charipinae 1972 2° decade de Mars a 1ere decade d’Aoüt”, “3° decade Juillet”: 1 ♀; “8/8/73 T”, “1973 Parcelle Charipinae”: 1 ♀; “10-20 Sept”, “Les Verrines, Charipinae 1972, 10-20 Aoüt a 20-30 Octo”: 1 ♀; “Parcelle, Les Verrines 1972_0_ Charipinae”, “28.9.74_0_”: 1 ♀; “Versailles prim

1971, Bourueville”, “ex. Aph. erwi?/ *A. pisum*/ Luzerne”, “*Alloxysta scutellata* K, Barbotin det”: 2 ♂ & 4 ♀.

Countries in Barbotin collection

France.

Previously mentioned in:

Andorra (Ferrer-Suay *et al.*, 2011: 357); Austria (Giraud, 1860: 130; Hellén, 1963: 12); Belgium (Lameere, 1907; Crèvecoeur & Maréchal, 1933); Bulgaria and Balkan peninsula (Vasileva-Sumnalieva, 1976: 23); Canada (Quebec) (Andrews, 1978: 53); Canada (Northwest Territories) (Ferrer-Suay *et al.*, 2014a: 60); England (Cameron, 1889: 53; Kieffer, 1902a: 10; Müller *et al.*, 1999: 346); Finland (Hellén, 1963: 12); France (Kieffer, 1902a: 10; De Gaulle, 1908: 26); Germany (Hartig, 1841: 352; Höller *et al.*, 1993: 13); Iran (Ferrer-Suay *et al.*, 2013d: 38); Ireland (O’Connor & Nash, 1997); Italy (Hellén, 1963: 12); Lapland (Hellén, 1963: 12); Norway (Hellén, 1966: 393); Poland (Kierych, 1979b: 14; Krawczyk *et al.*, 2009: 161); Romania (Barnea *et al.*, 2005: 87); Russia (Hellén, 1963: 12); Scotland (Cameron, 1883: 368; Cameron, 1886: 53); Sweden (Thomson, 1862: 408); Switzerland (Hellén, 1963: 12); The Netherlands (Evenhuis, 1974: 165); USA (Alaska) (Ashmead, 1902: 143); USA (Tennessee) (Andrews, 1978: 59) and USA (California, Colorado, Orlando) (Ferrer-Suay *et al.*, 2014a: 60).

Alloxysta melanogaster (Hartig, 1840)

Material studied

(2 ♂ & 5 ♀). “Marquez 1968 (Tube 8)”: 1 ♀; “*Phargmites*, Le Meriot, Aube (France), 15.vii.72 (Tube 123)”: 1 ♀.

Additional material (without data in labels):

“74”: 1 ♂; “75”: 1 ♂; “225”: 1 ♀; “20”: 1 ♀; “99”: 1 ♀.

Countries in Barbotin collection

France.

Previously mentioned in:

Austria (Giraud, 1860: 129); Belgium (Lameere, 1907); Chile (Ferrer-Suay *et al.*, 2013h: 288); Finland (Hellén, 1963: 21); France (De Gaulle, 1908: 26; Dalla Torre & Kieffer, 1910: 279); Germany (Hartig, 1840: 200); Iran (Ferrer-Suay *et al.*, 2013d: 38); Romania (Ionescu, 1969: 252); Scotland (Cameron, 1886: 86); Thailand and Taiwan (Ferrer-Suay *et al.*, 2013a: 9).

Alloxysta mullensis (Cameron, 1883)

Material studied

(1 ♂ & 5 ♀). “Fev. Cher., 8.7.71”: 2 ♀ & 1 ♂; “Fev. Cher., 10.7.71”: 1 ♀; “ex. *Aphis farietariae*, *Parietaria officinalis*, Antibes (France), 24.III.69, ecl. 23.VI”: 1 ♀; “20-30 Juillet”, “P.C. Verrines, Charipinae 1973, 20-30 Mars a 1-10 Aoüt”: 1 ♀.

Countries in Barbotin collection

France.

Previously mentioned in:

Iran (Lotfalizadeh, 2002a: 36); Kenya (Ferrer-Suay *et al.*, 2013b: 263); Madagascar (Ferrer-Suay *et al.*, 2013b: 263); Mexico (Ferrer-Suay *et al.*, 2013g: 37); Morocco (Ferrer-Suay *et al.*, 2013b: 263); Russia (Bokina, 1997: 435); Scotland (Cameron, 1883: 366; Cameron, 1886: 86); Spain (Ferrer-Suay *et al.*, 2013f: 326); South Africa and Uganda (Ferrer-Suay *et al.*, 2013b: 263); USA (California, Colorado, Georgia, Iowa, Kansas, Nevada, New Mexico, Texas, Utah) (Ferrer-Suay *et al.*, 2014a: 61).

Alloxysta pilipennis (Hartig, 1840)

Material studied

(5 ♂ & 10 ♀). “Pois cher., 1-7-71”: 1 ♀; “St. Benoit 86/ rosier, 16-6-1972”: 1 ♀; “*Achillea millefolium*, Col sur minier (30), 16.VII.1971, ex. *Uroleucon chilleae*, ecl. 28.VII.1971-5538/Lecl”: 1 ♀; “*Dysaphis plantaginea*, Le Malin, Rennes (France), 12.vi.70 (Tube 49)”: 1 ♂; “*Galeaphis*, Les Bossons (74), 6.X.1970, ex. *Aphis*, ecl. 10.X.70, 4873/LECLANT”: 1 ♂; “*Sanieula eurojaca*, Col. Sur Jorba (20) 1100, 9.VII.70, ex. *Macrosiphum*, ecl. 20.VII.1970, n° 4470/LECLANT”: 1 ♂; “*Prunus malialeb.*, le Plan du Vaz (06), ex. *Myzus lythri*, ecl. 29.V.1969, 2920”: 1 ♀; “20-30 Juillet”, “P.C. Verrines, Charipinae 1973, 20-30 Mars a 1-10 Aout”: 1 ♂; “Iere decade Sept”, “P.C. Charipinae 2° decade Aout 1973 Novembre”: 1 ♀; “Parcelle _C. Charipinae”, “4.9.73.C”: 1 ♀; “1° decade d’Oct”, “P.C. Charipinae 2° decade Aout 1973 Novembre”: 1 ♀; “Parcelle _C. Charipinae”, “7.9.73.C.”: 1 ♀; “27 rufur 6350 G.R.”: 1 ♀.

Additional material (without data in labels):

“1071”: 1 ♀; “1075”: 1 ♂.

Countries in Barbotin collection

France.

Previously mentioned in:

Austria (Giraud, 1860: 129; Hellén, 1963: 16); Canada (Vancouver) (Ferrer-Suay *et al.*, 2014a: 63); Colombia (Ferrer-Suay *et al.*, 2012a: 325); England (Dalla Torre & Kieffer, 1910: 282); Finland (Hellén, 1963: 16); France (De Gaulle, 1908: 26; Dalla Torre & Kieffer, 1910: 282); Germany (Hartig, 1841: 352); Israel (Argaman, 1988: 115); Italy (Ferrer-Suay *et al.*, 2014c: 8); Poland (Kierych, 1979b: 16); Norway (Hellén, 1966: 393); Romania (Ionescu, 1969: 249); Scotland (Cameron, 1886: 85); Spain (Ferrer-Suay *et al.*, 2012c: 125; Ferrer-Suay *et al.*, 2013f: 327); Sweden (Thomson, 1862: 407); Switzerland (Hellén, 1963: 16); The Netherlands (Hellén, 1963: 16); USA (Maryland) (Andrews, 1978: 61); USA (Alaska, California, Colorado, Virginia) (Ferrer-Suay *et al.*, 2014a: 63) and Zimbabwe (Ferrer-Suay *et al.*, 2013b: 263).

Alloxysta pleuralis (Cameron, 1879)

Material studied

(1 ♂ & 10 ♀). “La Roque d’Ax 12, A. fiu mei, E. juin,

1981”, “81-10”: 1 ♀; “56 rufur 6829 G.R.”, “St. Marcel Dwin, 13.vi.68 Remand”, “ex. *Hyadaphis s./ lonicua*”: 1 ♀; “1 rufur”, “St. Harcel lis, Valencis Diom, 13.VI.68, Remand”, “ex. *Hyadaphis s./ Lonicua*”: 1 ♀; “56 rufur 6829 G.R.”, “St. Marcel Diome, 13.VI.68, Remand”, “ex. *Hyritaphis*, s. floriana”: 1 ♀; “31 rufur G.R.”: 1 ♀; “1 rufur”: 1 ♀; “56 rufur 6829 G.R.”, “St. Marial Orvue, 13.VI.68, Remand.”, “ex. *Hyartaphis s./ Loricina*”: 1 ♀.

Additional material (without data in labels):

“843”: 1 ♀; “23”: 1 ♂; “201”: 1 ♀; “195”: 1 ♀.

Countries in Barbotin collection

France.

Previously mentioned in:

England (Cameron, 1879: 113; Fergusson, 1986: 19; Müller *et al.*, 1999: 346); France (Kieffer, 1902a: 14; De Gaulle, 1908: 26; Gautier, 1921: 305); Germany (Hübner *et al.*, 2002: 507); India (Ahmad & Singh, 1996: 26); Ireland (Fergusson, 1986: 19); Israel (Argaman, 1988: 115); Norway (Westrum *et al.*, 2010); Poland (Barczak, 1991: 87); Scotland (Cameron, 1886: 85; Fergusson, 1986: 19); Spain (Tizado & Nuñez-Perez, 1993: 97).

Alloxysta pusilla (Kieffer, 1902)

Material studied

(17 ♂ & 45 ♀). “St. Malo 35, St. Servan / Lognasaier aout 1972” (handwritten): 1 ♀; “Gd. Pont 86 / cerinier, R. 15-6-74, E. juin 75” (handwritten): 1 ♀; “La Jarrie 84/ cerisier, 16-6-74” (handwritten): 1 ♀; “ex. *Brachycaudus cardui*, *Prunus spinosa*, Aspe (France), 29.v.70 (Tube 45)”: 1 ♀; “Fev. Cher., 18.7.71”: 1 ♀; “Fev. Cher., 14.7.71”: 2 ♂ & 4 ♀; “Fev. Cher., 8.7.71”: 1 ♂ & 1 ♀; “Guer 13.6.70”: 1 ♂; “Fev. Cher., 8.7.71”: 2 ♂ & 9 ♀; “Guèr 13.6.70”: 4 ♀; “Guémené 13.6.70”: 1 ♂; “Guémené 13.6.70”: 1 ♂; “Rennes 17.6.70”: 5 ♀; “*Quercus suber*, Banyuls (66), 10.11.70, ex. *Hoflocalis picta*, ex. 21.IV.70”: 1 ♂; “Fev. Cher. 18.7.71”: 5 ♂ & 8 ♀; “Fev. Cher. 18.7.71”: 1 ♀; “*Acer campestre*, Largaie (34), 3.VI.69, ecl. 20.VI.69, ex. *Periphyllus* 3019”: 1 ♀; “2 rufur”, “Val d’ On 78, La Mummie, 31.V.68, Michel”, “ex. *Hyadaphis*, s./ *Lonicera*”: 1 ♀; “49 rufur i 34 72-75. G.R.”, “Euche Rhonamaboor et Boudjvid (1900m), IRAN 31.X.67, Remaundier”, “Avec philascunde, s./ *Quercus pusica*”: 1 ♂; “70 rufur G.R.”: 1 ♀; “herbaceus, ecl. 6.IX.68”: 1 ♀; “Ex *Brachycaudus prunicola* 7024, s/ Pichu, L’Amailler 12.VIII.68”: 1 ♀; “27 rufur 6350 G.R.”: 1 ♀; “Fém Cher, 14.7.71”: 1 ♀; “Fev. Cher, 10-7-71”: 1 ♀; “46 rufur i3439 G.R.”, “Rhonamabad (1200m) IRAN, 30.X.1967, Remaund”, “ex. *Hyadaphis* sp. (Aphididae), s./ *Aspenula*”: 1 ♂.

Countries in Barbotin collection:

France and Iran.

Previously mentioned in:

Andorra (Ferrer-Suay *et al.*, 2011: 358); Costa Rica (Ferrer-Suay *et al.*, 2013h: 293); England (Sanders & van Veen 2010: 706); France (Kieffer, 1902a: 13; De Gaulle, 1908:

26); Germany (Hübner *et al.*, 2002: 507); Guatemala (Ferrer-Suay *et al.*, 2013p: 293); Iran (Ferrer-Suay *et al.*, 2013d: 39); Italy (Genova) (Mantero, 1906); Romania (Ionescu, 1969: 255); Spain (Ferrer-Suay *et al.*, 2012c: 128); Thailand and Taiwan (Ferrer-Suay *et al.*, 2013a: 17).

Alloxysta ramulifera (Thomson, 1862)

Material studied

(1 ♂ & 5 ♀). “83”, “*Alloxysta minuta*”: 1 ♀; “83”: 1 ♂; “ex *Aphelinus asychis*, o/ *Aphis*, *Leontodon*, Courseulles (France), 3.v.73 (Tube 626)”: 1 ♀; “1-10 Juni”, “P.C. Ver-rines Charipinae 1973 20-30 Mars a 1-110 Aout”: 1 ♀; “*Cis-tus monspeliensis*, Antisanti (20) 5.IV.1970, ex. *Aphis*, col. 9.IV.70”: 1 ♀; “33 rufur”: 1 ♀.

Countries in Barbotin collection

France.

Previously mentioned in:

Austria (Giraud, 1860: 127; Hellén, 1963: 21); Belgium (Lameere, 1907); England (Andrews, 1978: 86; Müller *et al.*, 1999: 346); Finland (Hellén, 1963: 21); France (Kieffer, 1904a: 601; De Gaulle, 1908: 26); Germany (Hartig, 1840: 200; Förster, 1869: 340; Hübner *et al.*, 2002: 507); Hungary (Dalla Torre & Kieffer, 1910: 277); Iran (Ferrer-Suay *et al.*, 2013i: 671); Israel (Argaman, 1988: 115); Madeira (Borges *et al.*, 2008; Ferrer-Suay *et al.*, 2012b: 12); Poland (Kierych, 1979b: 15); Romania (Ionescu, 1969: 235; Prelipcean *et al.*, 2004: 60); Scotland (Cameron, 1886: 86); Spain (Ferrer-Suay *et al.*, 2013f: 327); Sweden (Thomson, 1862: 408); The Netherlands (Hellén, 1963: 21); USA (New Mexico) (Ferrer-Suay *et al.*, 2014a: 64).

Alloxysta sawoniewiczzi (Kierych, 1988)

Material studied

(1 ♂ & 3 ♀). France samples for obtained Charipinae material (probably from Sain Malo): “17 rufur 6142 G.R.”: 1 ♀; “17 rufur 6142 G.R.”: 1 ♂ & 1 ♀; “17 rufur 6142 G.R.”: 1 ♀.

Countries in Barbotin collection

France (new record).

Previously mentioned in:

Australia (Ferrer-Suay *et al.*, 2014b: 98); Nepal (Ferrer-Suay *et al.*, 2013a: 18); Poland (Kierych, 1988: 351); Thailand and Taiwan (Ferrer-Suay *et al.*, 2013a: 18).

Alloxysta semiaperta Fergusson, 1986

Material studied

(2 ♀). “Biard (France) 86, rosa, 25.6.74”: 1 ♀.

Additional material (without data in labels):

“836”: 1 ♀.

Countries in Barbotin collection

France.

Previously mentioned in:

England (Fergusson, 1986: 19); Ireland (O'Connor & Nash, 1997).

Alloxysta victrix (Westwood, 1833)

Material studied

(37 ♂ & 94 ♀). “Biard 86, cuvelta jaune, 10-4-72”: 1 ♀; “Biard prunus” (handwritten): 1 ♂; “78-18 E. Fév. 79” (handwritten): 1 ♂; “20.5.76 PP, Bord. Momie tombré 144, L4, RP” (handwritten): 1 ♂; “14.6.76, PP, 80m, 198, sur table”: 1 ♀; “14.6.76 PP 194 40m, 1^e” (handwritten), “VAMd” (handwritten): 1 ♂; “14.6.78 PP, 127, 60m, sur table” (handwritten), “L3L4Md” (handwritten): 1 ♀; “21.6.76 PP, 222, 100m, 3 sur”, “VAMd”: 1 ♀; “21-6-76 PP, 217, 60m, 2^e f”, “N4Md”: 1 ♀; “22-6-76, B2, 245, 140m, NDVA”: 1 ♀; “3.7.75- blé, Norway-Colmar, SA, 130”: 1 ♂; “8.7.75, H 127, L4 (15.7) MD”: 1 ♀; “MD blé, 3.4.75, 129, 70, Marway”: 1 ♀; “obe-noir, 28.6.77, blé, 34, 15.7, L4, M1, Bord, SA”: 1 ♀; “Le Chenot, 16-6-77, T2 50 E, 2-7”, “L4 Sa 335”: 1 ♀; “Le Rhen, 27-6-77, 141-20T, 8-7-77”, “L4 Sa 370”: 1 ♂; “R.75, 1/2 H, 24-6-75, 100, L4 (15.7) MD”: 1 ♀; “R74 ½, 17.6.75, 62, VA (2.7) MD”: 1 ♀; “R75 6H, 11-6-75, L4 34 MD”: 1 ♀; “Le Chenot, 31-5-77, M2 60, 20.6.77”, “VA Sa 363”: 1 ♀; “R75, 6H, 17.6.75, 23, L4 (7.7) MD”: 1 ♀; “R75 6H, 17.6.75, 94, N4 (4.7) MD”: 1 ♀; “R74 1/2H, 17-6-75, 51, L4 (2.7) MD”: 1 ♀; “R.75 106 L2H, 24-6-75, L4 (15.7) MD”: 1 ♀; “R.75 4H, 17.6.75, 92, RP (3.7.75) L4”: 1 ♂; “R.75 6H, 11.6.75, L4 33 MD”: 1 ♀; “R.74 1H, 11-6-75, 27, L4 (23.6.75) MD”: 1 ♂; “R.75 6H, 17.6.75, 68, L4 (2.7.75) MD”: 1 ♀; “R.75 6H, 17-6-75, 69, N4 (4.7.75) MD”: 1 ♂; “R.74 2H, 17.6.75, 72, L4 (25.6) MD”: 1 ♀; “R.74 1H, 17-6-75, L4 (3.7. 71) MD”: 1 ♂; “R.75 1/2H, 17.6.75, 77, L4 (1.7.75) MD”: 1 ♀; “R.75 1/2H, 17.6.75, épis, 81, L4 (4-7.75) MD”: 1 ♂; “Le Chenot, 22.6.77, 334, 8.7.77, M1 BE”: 1 ♂; “St. Bemdit 86/ orria, 14.6.73”: 1 ♀; “*Achillea millefolium*, Villeneuve la Salle (5), 25.VI.65, Ex. *Mella millefolli*, col. 6-VII.69”: 1 ♂; “Poitiers, 9-8-71”: 1 ♀; “Rennes, sur rosiers”: 1 ♂ & 1 ♀; “Lungerye serre ENSAR, 71-028”: 1 ♂; “Lungerye serre ENSAR, 71-028”: 1 ♀; “Pois cher.”, 1-7-71”: 1 ♀; “Pois cher.”, 1-7-71”: 1 ♀; “Pois cher.”, 1-7-71”: 1 ♀; “Pois cher.”, 1-7-71”: 1 ♀; “St. Nenoit 8c, jardin, honier, Sept. 12732” 1 ♂; “Rennes, 16 sur Renom puceron/rosier, Ecl. 3-5-43”: 1 ♂; “St. Meloir 35/ Ollie, R. 25-6-77, E. 9-7-77”: 1 ♀; “St. Meloir 35/ Ollie, R. 25-6-77, E. 9-7-77”: 1 ♂; “St. Benoit 86/ rosier 20-6-72”: 1 ♂; “St. Benoit 86/ rosier 10-6-72”: 1 ♀; “St. Benoit/ *Sonchus*, juillet 1973”: 1 ♀; “St. Benoit/ *Sonchus*, juillet 1973”: 1 ♂; “St. Benoit/ *Sonchus*, 28-6-73”: 1 ♀; “St. Benoit 86/ *dipsacus*, 9-7-73”: 1 ♀; “St. Benoit/ *dipsacus*, 28-6-73”: 1 ♀; “St. Benoit/ *dipsacus*, 28-6-73”: 1 ♂; “St. Benoit 86/ rosier, 25-6-1972”: 1 ♀; “Rennes, iclos. 5-10-55”: 1 ♀; “St. Benoit 86/ rosier, 16-6-1972”: 1 ♀; “St. Benoit 86/ rosier, R. juillet 73, Ecl. 1.10.73”: 1 ♀; “BIARD 86/Rosa, 16-6-76, E. 15-4-75”: 1 ♀; “St. Miloir, 35/ ortie, R- 25-6-77, E- 5-7-77”:

1 ♀; “Rennes Jardin 25-5-52”: 1 ♀; “BIARD 86/ *Sonchus*, 10-7-73, E. 15-4-75”: 1 ♀; “Liguge Bernoy, 19-10-71”: 1 ♀; “St. Benoît 86/ pois de senteur, 9-10-72”: 1 ♀; “Placé sur pucerons/rosier le 16-6-75”: 1 ♀; “Rennes ex. Pucerons de rosier”: 1 ♂; “Rennes Eclos. 5-10-55”: 1 ♀; “BIARD 86/ juillet 1973, E. 15-4-75”: 1 ♂; “Rennes ecl. 12-2-47, de pucerons de rosier”: 1 ♀; “*Achillea millefolium*, Villeneuve la Salla (05), 25.VI.1969, ex *Mella millefolii*, col. 5.VII.69, 3169”, 3169/LEGLANT”: 1 ♂; “*Achillea millefolium*, Villeneuve la Salla (05), ex. *Mella millefolii*, ecl. 8.VII.69-6139”: 1 ♀; “*Achillea millefolium*, Jausiers (04), 14.IX.69, ex. *Pleotrichophorus*, ecl. 24.IX.1969” 1 ♀; “*Achillea millefolium*, Villeneuve la Salla, 25.VI.1969, ex. *Mella millefolii*, ecl. 14.VII.69-3169”: 1 ♀; “*Achillea* – Spis, 17.IX.71, ex. *Macrosiphoniella*, ecl. 25.IX.71, n° 5377/REEL” 1 ♂ & 1 ♀; “*Achillea millefolium*, Villeneuve la Salle (05), 25.VI.69, Ex. *Mella millefolii*, ecl. 6.VIII.69”: 1 ♀; “*Rosa spinosissima*, 8Km, W La Srva (05), 21.X.1969, ex. *Macrosiphum*, col. 14.IV.70”, “3672/LECLANT”: 1 ♀; “Lotcurilla, nubéns 700, 16.VI.69, ex. *Aulacorthum dream*, col. 27.VI.69, 3255b”: 1 ♂; “*Sonchus* 3665, 14 Km W Grenoble (38), 19.X.1969, ex. *Hyperomyzus lactucae*, ecol. 22.X.1969”: 1 ♂; “10-20 Juillet”, “P.C. Verrines, Charipinae 1973, 20-30 Mars a 1-10 Aoüt”: 1 ♀; “*Achillea millefolium*, Villeneuve la Salla, 05, ex. *Mella millefolii*, col. 7.VII.69, 6139”: 1 ♂; “20-30 Juni”, “P.C. Verrines, Charipinae 1973, 20-30 Mars a 1-10 Aoüt”: 1 ♀; “*Achillea millefolium*, Vileueuve la Salle (05), 25.VI.1969, ex. *Mella millefolii*, ecl. 6.VII.69 – 3169” “3169/LEGLANT”: 1 ♀; “*Medicago sativa*, Moutfeller, 12.V.71, ex. *Acyrtosiphum pisum*, ecl. 24.V.71, 5249 bis / LEGLANT”: 1 ♀; “Sascifra ja acfoor, La Roche de Roure, 22.VI.69, Ex. Niokakimia, ecl. 6.VII.69”: 1 ♂; “Parcelle, Les Verrines 1972_0_, Charipinae”, “8.9.72_0_”: 1 ♀; “10-20 Juillet”, “P.C. Verrines, Charipinae 1973, 20-30 Mars a 1-10 Aoüt”: 1 ♀; “1° decade Avur”, “P.C. Verrines, Charipinae 1973, 10-20 Aoüt a 20-30 Octo”: 1 ♀; “27/9/73 T”, “1973 Parcelle Charipinae”: 1 ♀; “1° decade Juillet”, “P.C. Verrines Charipinae 1973 20-30 Mars a 1-10 Aoüt”: 1 ♀; “1-10 Juillet”, “P.C. Verrines Charipinae 1973 20-30 Mar a 1-10 Aoüt”: 1 ♀; “1-10 Juillet”, “P.C. Verrines Charipinae 1973 20-30 Mar a 1-10 Aoüt”: 1 ♀; “14/5/75.0.”, “Parcelle_0_73 Charipinae”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinae”, “22.9.72_0_”: 1 ♀; “1ere decade Sept”, “P.C. Charipinae 2° decade Aout 1973 Novembre”: 1 ♀; “1° decade d’Oct”, “P.C. Charipinae 2° decade Aout 1973 Novembre”: 1 ♀; “1ere decade Sept”, “P.C. Charipinae 2° decade Aout 1973 Novembre”: 1 ♀; “1° decade d’Oct”, “P.C. Charipinae 2° decade Aout 1973 Novembre”: 1 ♀; “P.C. Charipinae 2° decade Aout 1973”, “Novembre”: 1 ♀; “P.C. Charipinae 2° decade Aout, 1973 Novembre”, “3ere decade Oct 72”: 1 ♀; “Les Verrines Charipinae 1972 2° decade de Mars a 1ere decade d’Aoüt”, “2° decade d’Aoüt”: 1 ♂; “Parcelle Les Verrines 1972_0_ Charipinae”, 8.9.72_0_”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinae”, 8.9.72_0_”: 1 ♀; “Parcelle Les Verrines 1972_0_ Charipinae”, 15.9.72_0_”: 1 ♀; “Les Verrines Charipinae, 2° decade de Mars a 1ere decade d’Aout”, “2° decade Juin”: 1 ♀; “57 rufur 6942 G.R”: 1 ♀; “57 rufur 6942 G.R”: 1 ♀; “65 rufur”: 1 ♂; “61 rufur 6954 G.R”: 1 ♀;

“57 rufur 6942 G.R.”: 1 ♀; “12 rufur 5842 G.R.”: 1 ♀; “30 rufur 6521 G.R.”: 1 ♂; “19 rufur 5778 G.R.”: 1 ♂; “6 rufur”: 1 ♀; “14 rufur”: 1 ♀; “ex *Dactynotus*, s/ *Leontodon* coldu Gramier, 1100m I sine, 20.IX.68, ecl. 11.X.68”: 1 ♀; “6980”, “ex. *Macrosiphum oredonensis*, s/ *Lonicera nigra*, Les Bossons, 1800m, 8.VIII.68”: 1 ♀; “*Lonicera nigra*, les Bosons (Pysomides), 1700m, 22.IX.68”: 1 ♀; “*Citrus reticulata*, Aleria (20), 4.VI.71, ex. *Myzus persicae*, ecl. 20.VI.1971, 5215/ LECLANT”: 1 ♀; “Loa C. de Sorea (20) 900m, ex. *Sitobion fragariae*, 3.VI.1971, 5190/LECLANT”: 1 ♀; “ex *Dactynotus*, s/ *Leontodon*, Gl. Du Granier 1160m, 20.IX.68”: 1 ♀; “ex *Dactynotus* *Leontodon*, Col. Da Granier, 1100m, 1 sém 20.IX.68, ecl. 12.X.68”: 1 ♀; “Maroc, Ena Mekne”, “s/ puceron, *Rumex Pulcher*, 12-6-71, 24-6-71”: 1 ♂; “Rep., La Rhen, 15.04.81, 76, B3, L4, MD”: 1 ♂; “Rep. blé, Rhui, 6.01.81, 53, M8, L4, RP”: 1 ♀; “Versailles prim 1971, Bournoville”, “ex Aph. erwi?/ *A. pisum*/ Luzeima”: 4 ♂ & 1 ♀.

Countries in Barbotin collection

France and Morocco.

Previously mentioned in:

Andorra (Ferrer-Suay *et al.*, 2011: 359); Australia (Girault, 1932: 3); Austria (Giraud, 1860: 127; Hellén, 1963: 16); Belgium (Fabianus, 1900); Brazil (Peronti *et al.*, 2007: 132); Canada (Fitch, 1861: 841); Canary Islands (Ferrer-Suay *et al.*, 2013b: 263); Chile (Guerra *et al.*, 1998: 335); Corsica (Ferrer-Suay *et al.*, 2013c: 7); England (Westwood, 1833: 495; Curtis, 1838: 688; Cameron, 1883: 366; Dalla Torre & Kieffer, 1910: 285, 288; West *et al.*, 1998: 1458; Müller *et al.*, 1999: 346; van Veen *et al.*, 2003: 450); Finland (Hellén, 1963: 6); France (Kieffer, 1902a: 15, 16; Kieffer, 1902b: 70; Kieffer, 1904a: 600; De Gaulle, 1908: 26); Germany (Hartig, 1840: 199; Hübner *et al.*, 2002: 507; Höller *et al.*, 1993: 13); Greenland (Buhl, 1997: 164); Hungary (Dalla Torre & Kieffer, 1910: 285; Fülöp *et al.*, 2010: 55); Ireland (O’Connor & Nash, 1997); Israel (Argaman, 1988: 114); Italy (Pagliano, 1995: 3); Japan (Ferrer-Suay *et al.*, 2013a: 19); Lappland (Zetterstedt, 1838: 410; Hellén, 1963: 16); Madeira (Borges *et al.*, 2008; Ferrer-Suay *et al.*, 2012b: 13); Mexico (Ferrer-Suay *et al.*, 2013g: 37); Morocco (Ferrer-Suay *et al.*, 2013b: 264); New Zealand (Valentine, 1975: 59; Ferrer-Suay *et al.*, 2012d: 237); Norway (Hellén, 1966: 393; Westrum *et al.*, 2010); Poland (Kierych, 1979b: 15; Krawczyk *et al.*, 2009: 161); Romania (Ionescu, 1969: 261; Feraru & Mustata, 2005: 75); Russia (Belizin, 1962: 127; Hellén, 1963: 16; Bokina, 1997: 435); Scotland (Cameron, 1883: 366); Spain (Torras-Casals, 1996: 196, 197); Sweden (Thomson, 1862: 406; Thomson, 1877: 814); The Netherlands (Hellén, 1963: 16; Andrews, 1978: 92); USA (California) (Sullivan & van den Bosch, 1971); USA (Iowa) (Mertins, 1985: 186); USA (Massachusetts) (Kieffer, 1909: 481); USA (New York) (Fitch, 1861: 841).

Phaenoglyphis villosa (Hartig, 1841)

Material studied

(72 ♂ & 138 ♀). “St. Malo 35 / Tomate, R. 1-8-77, E.15-3-78” (handwritten): 1 ♀; “St. Malo 35, *Linaria Lymbolar*, R.

- Fév. 78, E. 25.3.78" (handwritten): 1 ♀; "P.P 80m, 20.5.75, L4 MD" (handwritten): 1 ♂; "25.5.76, P. Porzay, 4e f. inf. N66, 5": 1 ♀; "25.5.75, 169, 1^o suf": "L4Rp": 1 ♂; "15-6-76, 240, B2, 160m, L4MD": 1 ♂; "70/17, 257": 1 ♂; "R.74 1/2H, 8.7.75, L4 124 MD": 1 ♂; "R.74 4it, 1-7-75, 120, L4, (21.7) MD": 1 ♂; "3.7.75- blé, Marway-Colmar, SA, 134": 1 ♀; "R.75, 1/2 H, 11-6-75, L4 37 MD": 1 ♂; "R.75, 1/2 H, 11-6-75, VA 38 MD": 1 ♀; "Le Chenot, 8-6-77, T2 50K, 15.7.77": "L4 Sa 357": 1 ♀; "Le Chenot, 28-6-77, M1 30E, 341": "N4 Sa": 1 ♀; "Le Chenot, 15-6-77, M1-100T": "VA Sa 330": 1 ♂; "10.11.76 275, Pont Cobland, 5, blé, L4 RR": 1 ♀; "Lenoir 318, 21.6.77 blé Talles, 15.7, VA M1.30m SA": 1 ♀; "10.11.76, 273, Pont Coblant, 6, orge, L4Rm": 1 ♂; "Le Rhen 295, 14.6.77, blé, T2 Talles 20m, (4.7) L4 SA": 1 ♂; "Le Chenot, 15-6-77, M2 20E, 8.7.77, 326": 1 ♀; "Lenoir (1.7), 21.6.77, blé, epis 319, VA M2 50m, SA": 1 ♀; "11-6-75, B, N4 48 MD": 1 ♂; "R75 2H, 24-6-75, 114, L4 (21.7) MD": 1 ♂; "Le Chenot, 3-6-77, 2-7": "L4 Sa 350": 1 ♂; "Le Chenot, 15-6-77 M1 30T": "L4 Sa 356": 1 ♂; "Le Chenot, 31-5-77, M2 60, 2.7.77": "VA Sa, 355": 1 ♀; "Lenoir (15.7), 21.5.77, blé, épis 320, L4 M1 70m SA": 1 ♂; "R.75 1/2H, 11-6-75, L4 36 MD": 1 ♀; "R.75 2H, 11-6-75, L4 23 MD": 1 ♂; "R.75 4H, 11-6-75, L4 30 MD": 1 ♂; "R.75 1/2H, 11-6-75, L4 35 MD": 1 ♂; "R.75 6H, 11.6.75 L4 44 RP": 1 ♀; "R.74 4H, 17.6.75, L4 S4 MD": 1 ♀; "17.6.75, 98 G épis N4 (10-7) MD": 1 ♀; "R.75 2H, 24.6.75, 112, L4 (17.7) MD": 1 ♂; "Le Rhen, 294, 14.6.77, blé, TH femille 50m, L4 MD (4.7)": 1 ♀; "Le Chenot, 27-5-77, 20-6-366": "L4 Sa": 1 ♂; "Le Rhen (7.7) 1.6.77, blé, 298, T2 femille 50m, 44.5A": 1 ♂; "Lenoir (8.7), 14.6.77, 317, femille, VA M2 80m SA": 1 ♀; "Lenoir (8.7), 14.6.77, blé, epis 307, VA T1 40m SA": 1 ♀; "R.75, 105, 4H, 24-6-75, N4 (16.7) MD": 1 ♂; "17.6.75, 96, F, épis, L4 (8.7) MD": 1 ♂; "R.75, 1/2H, 17.6.75, MD 87 L4": 1 ♀; "R.75 1/2H, 17.6.75, L4 86 MD": 1 ♂; "R74, 6H, 17.6.75, 75, 14 (10.7) MD": 1 ♂; "R74, 6H, 17.6.75, N4, 76, MD": 1 ♂; "R75, 1h, 4.6.75, 14, 21, md": 1 ♀; "R75, 4H, 17.6.75, 65, L4, (8.7.75) MD": 1 ♀; "R75, 1/2H, 17.6.75, L4, 57, MD": 1 ♂; "Rennes, E.N.A., 10.7.46": 1 ♀; "BIARD 86/ cerisier été 1972": 1 ♂ & 1 ♀; "clementinier, Alesans (20), 2. VI.70, ex. *Myzus persicae*, ecl. 7.VI.1970": 1 ♀; "*Lepidium araba*, Rivesaltio (66), 8.IV.1970, ex. *Myzus persicae*, ecl. 15.IX.70, n° 4286/LEGLANT": 1 ♀; "Parcelle, Les Verrines 1972_0_Chariquinae", "2.7.72_0_": 1 ♂; "*Lepidium araba*, rivesaltes (66), 8.IV.1970, ex. *Myzus persicae*, ecl. 15.IV.70", "4286/LEGLANT": 1 ♀; "*Galium aparine*, Grolheron (26) 14.V.69, ex. *Aphis fabae*, ecl. 15.VI.69, n° 2979": 1 ♀; "ex. Aphidid, in *Trichocallis*, 11951, *Carex*, Col de Grosse Pierre - massif Vosges (France), 28.vii.74 (Tube 851)": 1 ♂ & 7 ♀; "636": 3 ♂ & 9 ♀; "635": 1 ♂ & 2 ♀; "622": 2 ♀; "BIARD 86 /col32, juin 1972", "ex *Diaretiella rapael B. brassicae*": 1 ♂; "ORONO (Me), U.S.A, 15.IX.76", "ex *Cryptomyzus/ Galeopsis*, n° 977": 1 ♀; "St. Malo 35 La Vaide/ortie, Ecl. 17-9-73": 1 ♀; "Thur 86/ceriole, R. mai 74, E. été 74": 1 ♀; "ORONO (Me), U.S.A, 15.IX.76", "ex *Cryptomyzus/ Galeopsis*, n° 977": 1 ♀; "Fev. Cher": 1 ♀; "Fev. Cher": 1 ♂; "2ene decade juillet", "P.C. Verrines, Charipinae 1973, 20-30 Mars a 1-10 Aoüt": 1 ♀; "18/9/733/0-": "Parcelle_0_73_Chariquinae": 1 ♀; "Fev. Chev., 18.7.71": 1 ♀; "Fev. Chev., 18.7.71": 1 ♂; "Fev. Chev., 18.7.71": 1 ♂; "Fev. Chev., 18.7.71": 1 ♀; "Fev. Chev., 8.7.71": 1 ♀; "Fev. Chev., 148.7.71": 1 ♀; "Fev. Chev., 18.7.71": 1 ♀; "102": 1 ♀; "St. Pol 7-10-70": 1 ♀; "*Lepidina olraba*, Rirevalles (66), 8.4.1970, ex *Myzus persicae*, ecl. 15.IV.70", "4283/LECLANT": 1 ♀; "*Lepidina olraba*, Rirevalles (66), 8.4.1970, ex *Myzus persicae*, ecl. 15.IV.70", "4283/LECLANT": 1 ♀; "BIARD 86/col22, juin 1972", "ex. *Dimb. Rapael B. brassicae*": 1 ♀; "40 rufur 03012 G.R.", "Lanfrokki Grece, 16.XI.54, Remaundièr", "Ex.: *Aphis riccii* BdF, s./ *Nerium oleander*": 1 ♀; "632": 1 ♂ & 2 ♀; "69": 1 ♀; "39": 1 ♀; "36": 1 ♀; "*Uroleucon*, 11903, *Hypochoaeris*, Forêt du Vallin - zone Moulin (France), 26.vi.74 (Tube 907)": 1 ♀; "70": 1 ♀; "St. Malo 35/ carisier ,Ric. Juin 72, Ecl. 15-2-73": 1 ♀; "Fev. Chev., 8.7.71": 1 ♀; "St. Malo 35, juillet 72": 1 ♀; "76": 2 ♂; "70": 1 ♀; "Plendimem 22 / helminthia Ecl.: 6-8-72": 1 ♀; "HS-69, 30/7": 1 ♀; "HS-69, 14": 1 ♀; "Fev. Chev., 14.7.71": 1 ♂ & 1 ♀; "Fev. Chev., 10.7.71": 1 ♀; "Fev. Chev., 8.7.71": 2 ♂ & 1 ♀; "Fev. Chev., 18.7.71": 4 ♂ & 1 ♀; "Strenoit 86, juin 1979": 1 ♀; "ENSAR 3.6.71": 1 ♀; "St. M. 6-10-70": 2 ♀; "Fev. Cher, 18-7-71": 2 ♀; "*Lepidium alraba*, Rivesaltes (66), 8.IV.70, ex. *Myzus persicae*, ecl. 15.V.70", "4286/LECLANT": 1 ♀; "Fev. Cher, 18-7-71": 1 ♀; "Fev. Cher, 18-7-71": 1 ♀; "Fev. Cher, 18-7-71": 1 ♀; "Veronica Rivesaltes (66), 9.IV.1970, ex. *Nasonovia*, ecl. 17.IV.70, n° 4289/LECLANT": 1 ♀; "635": 1 ♀; "Rh. insertum, Cypéracée, Courseulles - Calvados (France), 26.v.72 (Tube 95)": 1 ♀; "BIARD 86/colza, juin 1972", "ex. *Diar. rapael B. brassicae*", "*Phaenoglyphis piciceps* Th. Barbotni det.": 1 ♀; "St. Malo 35, La Varde, 5-8-73", "Sur chardon, 6-7-73": 1 ♀; "St. Malo 35 La Varde/chardon, Ecl. 17-9-73": 1 ♀; "St. Malo 35, La Varde, 4-8-73", "Sur chardon ricolte, 6-7-73": 1 ♀; "St. Benoit/Panamá, juin 1979": 1 ♀; "St. Malo 35 La Varde/chardon, 1.7.73, Ecl. 24-9-73": 1 ♀; "Acigné, La Charterie, 18-4-43": 1 ♂; "1058": 5 ♀; "Remes, Thabor, été 52": 1 ♂; "H. Poitiers/blé, juin 1925": 1 ♂; "1058": 1 ♀; "Grand Pont 86/cerisier, R. 25.6.74, E. 30.9.74": 1 ♀; "Giand Pont 86/cerisier, R. 25.6.74, E. Sept. 74": 1 ♀; "St. Malo, Rochehome, R. 10-08-77, E. 21 out 77, goh marguerite": 1 ♂; "St. Malo, Rochehome, R. 10-08-77, E. 21 out 77, goh marguerite": 1 ♂; "St. Malo Rochehome, /64 marguerite, Ecl. 21 out 1977": 1 ♀; "BIARD 86/cerisier pint 74", "74.06": 1 ♀; "St. Malo 35 Digue / guirmaure, 20-07-74": 1 ♀; "nothing on the label": 1 ♂; "St. Malo 35 / coratge, R. 25.7.77, E. fin aout 77", "77.04": 1 ♂; "ex *Staticobium*, Station de St. Vaast (France), 23.viii.73 (Tube 640)": 1 ♀; "Biard 86/ pinmellier, Ecl. 15-4-75": 1 ♀; "124 Ren": 1 ♂; "121 Ren": 1 ♀; "118 Rem": 1 ♂; "121 Rem": 1 ♀; "121 Rem": 1 ♂; "St. Benoit 86 juin 71": 1 ♂; "121 Rem": 1 ♂; "121 Rem": 1 ♀; "Grand Pont 86/ cerisier, R. 25.6.74, E. 15.9.74": 1 ♀; "St. Benoit 86 juin 71": 1 ♀; "54 rufur G.R.", "Valence 9.V.68, Remaundièr", "ex. *Myzus persicae* Picher": 1 ♀; "Biard 86/ caeza di *Diar. Rapae*, juin 1972": 1 ♀; "Mansle 96/colaz, dec. 1971": 1 ♂; "Biard 86/calza, juin 1972", "ex. *Diaret. rapael B. brassicae*", "*Phaenoglyphis piciceps* Th. Barbotin det.": 1 ♂; "Mansle 16, puceron/colza, R. nov. 1971, E. 3.3.1972": 1 ♀;

“Thuré 86/blé, R. mai 74, E. été 74”, “74.07”: 1 ♂; “Rennes, E.N.A. 28.5.47”: 1 ♂; “Biard Prunus”: 1 ♀; “41”: 1 ♂; “P.C. Charipinae 2^e decade Aout 1973”, “Noembre”: 1 ♀; “11, 1e 78, Le Rhen, Rep blé 2”, “RPL4”: 1 ♀; “24-11-78, 17n Divid, sep. orige”, “RPL4”: 1 ♀; “Plovievez Porzay, 18.11.77, Maïs, 80”: 2 ♀; “blé. Finistere, 19-10-77, 60m, 26”: 3 ♀; “24-11-78 Mur de Bret. Ref orige”, “RPVA”: 1 ♀; “19-12-78, La Rhen. Rep. blé, 7”, “RPL4”: 1 ♀; “4-12-78, Le Rhen, Ref. blé 7”, “RPL4”: 1 ♂; “4-12-78, Le Rhen, Rep. blé 2”, “RPVA”: 1 ♀; “Plomevez Porzay 18-11-77, Maïo”: 1 ♀; “5-7-79 2 traité II E”, “L4Md”: 1 ♀; “Levoir 21.6.77, 2, M1 30 mE”: 1 ♀; “blé Finistère, 19.10.77, 60m, 12”: 1 ♀; “24.11.78, 17m, Alvid Rep. orige”: 1 ♀; “Rep. blé Rhem., 6.12.79, 4 B7, RP, L4”: 1 ♂; “Rep. blé Rhem., 25.11.80, 35, L4, RP”: 1 ♀; “24.11.78, Au Divid Rep orge”: 1 ♀; “Rep. blé Rhem, 16.12.80, 42, B6 VA RP”: 1 ♂; “Rep. blé Rhem, 15.4.81, 74, B9 Va MD”: 1 ♂; “Rep. blé Rhem, 15.04.81, 77, B4 VA RP”: 1 ♀; “St. Pol de Leon, Finistere 1967 em 1968”, “Ex *Praon flavicornis/capitophorus horani*”: 2 ♂; “RENNES 1967 em 1968”, “Ex *Praon flavicornis/Capitophorus horani*”: 2 ♀; “St. Pol de Leon, Finistere 1967 em 1968”, “ex *Aphidius matricariae/Capit. horni*”: 1 ♀; “181”: 1 ♂; “Versailles prim 1971, Bovinville”, “ex *Aph. erwi*?/ *A. pisum/Luzema*”, “*Phaenoglyphis piciceps* Th. Barbotin det”: 1 ♀.

Countries in Barbotin collection

France.

Previously mentioned in:

Algeria (Kieffer, 1909: 482); Andorra (Pujade-Villar *et al.*, 2007: 171); Argentina (Pujade-Villar *et al.*, 2002: 543); Australia (Girault, 1931: 2; Carver, 1992: 783; Wilson & Swincer, 1984: 47); Belgium (Crèvecoeur & Maréchal, 1933: 269; Pujade-Villar *et al.*, 2007: 171); Bulgaria and Balkan peninsula (Vasileva-Sumnalieva, 1976: 24); Canada (Alberta and British Columbia) (Andrews, 1978: 34; Menke & Evenhuis, 1991: 150); Canada (Manitoba) (Pujade-Villar *et al.*, 2007: 171); Canada (New Brunswick) (Menke & Evenhuis, 1991: 150); Canada (Nova Scotia) (Menke & Evenhuis, 1991: 150); Canada (Ontario) (Menke & Evenhuis, 1991: 150; Pujade-Villar *et al.*, 2007: 171); Canada (Québec) (Pujade-Villar *et al.*, 2007: 171); Chile (Pujade-Villar *et al.*, 2002: 543); China (Pujade-Villar *et al.*, 2007: 171); Colombia (Ferrer-Suay *et al.*, 2012a: 327); England (Cameron, 1889: 58; Dalla Torre & Kieffer, 1910: 280; Müller *et al.*, 1999: 346); Finland (Hellén, 1931: 5; Hellén, 1958: 67; Hellén, 1963: 7); France (Kieffer, 1902a: 11, 12, 13; Kieffer, 1904a: 595, 597; De Gaulle, 1908: 26; Andrews, 1978: 84); Germany (Hartig, 1841: 353; Hübner *et al.*, 2002: 509; Pujade-Villar *et al.*, 2007: 171); Gough Island (South Africa) (Gaston *et al.*, 2003: 1096); Greece (Pujade-Villar *et al.*, 2007: 171); Hawaii (Beardsley, 1985: 50); Hungary (Pujade-Villar *et al.*, 2007: 171); Iceland (Weld, 1952: 253); India (Ferrer-Suay *et al.*, 2013a: 22); Irak (Al-Jassani & Al-Adil, 1986: 59); Iran (Pujade-Villar *et al.*, 2007: 171); Ireland (O'Connor & Nash, 1997); Italy (Ferrer-Suay *et al.*, 2014c: 11); Japan (Pujade-Villar *et al.*, 2007: 171; Takada & Nakamura, 2010: 270); Madeira (Borges *et*

al., 2008; Ferrer-Suay *et al.*, 2012b: 14); Menorca Island (Spain) (Pujade-Villar *et al.*, 2001: 85); Mexico (Ferrer-Suay *et al.*, 2013g: 40); Moldova (Belizin, 1966: 7); Morocco (Pujade-Villar *et al.*, 2007: 171); New Zealand (Valentine, 1975: 60; Evenhuis & Barbotin, 1977: 185; Ferrer-Suay *et al.*, 2012d: 238); Norway (Pujade-Villar *et al.*, 2007: 171); Poland (Kierych, 1979b: 14); Romania (Ionescu, 1963: 174; Ionescu, 1969: 247; Prelipcean *et al.*, 2004: 60); Russia (Belizin, 1962: 126; Hellén, 1963: 7; Belizin, 1973: 36); Spain (Torrás-Casals, 1996: 196, 197; Suay *et al.*, 1998: 106); Sweden (Thomson, 1862: 409); Taiwan (Pujade-Villar *et al.*, 2007: 171); The Netherlands (Evenhuis & Barbotin, 1977: 185); Ukraine (Pujade-Villar *et al.*, 2007: 171); USA (California) (Andrews, 1978: 34; Menke & Evenhuis, 1991: 150); USA (Massachusetts) (Kieffer, 1909: 481); USA (New England) (Andrews, 1978: 34); USA (Massachusetts) (Ashmead, 1898: 156) and USA (Pujade-Villar *et al.*, 2007: 171).

Discussion

The importance of the revision of old collections is here stated; they are a source of valuable information to improve the knowledge of an specific group of insects. Thanks to the study of Barbotin's Charipinae collection, around a thousand of specimens, it has been improved the distribution patterns of Charipinae species and also a new species has been found from Morocco, named after this important author: *Alloxysta barbotini* Ferrer-Suay & Pujade-Villar n. sp.

A total of 24 Charipinae species have been determined in the Barbotin's collection, mainly from the *Alloxysta* genus, the most abundant and widely distributed Charipinae genus and only one *Phaenoglyphis* species: *P. villosa*, the most cosmopolitan species within this subfamily. Taking into account that the Charipinae material has been collected from different localities in France and according to previous data (Ferrer-Suay *et al.*, 2012; Ferrer-Suay *et al.*, in prep), eight species are cited in this work for the first time from France: *Alloxysta basimacula*, *A. crassa*, *A. fuscipes*, *A. glabria*, *A. halterata*, *A. kovilovica*, *A. sawoniewiczzi* and *A. semiaperta*.

Regrettably, complete information about localities and hosts have not been possible to detecte in each case due that the information on labels is parcial, mainly based on codes. This information has not been found through the Barbotin personal notebooks, which are also deposited in the University of Barcelona. Despite this fact, the informatio included in this work is valuable and worth its difussion.

Acknowledgements

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References

- AHMAD, Md. E. & SINGH, R. 1996. Records of aphid parasitoids from the Bihar and associations with their hosts and food plants. *Journal of Advanced Zoology*, 17 (1): 26-33.
- AL-JASSANI, R. F. & AL-ADIL, K. M. 1986. Insect enemies of the black vean aphid *Aphis fabae* Scop. in Abu-Graib. *Journal of Biological Sciences Research*, 48: 812-813.
- ANDREWS, F. G. 1978. Taxonomy and host specificity of Nearctic Alloxystinae with a catalogue of the World species (Hymenoptera: Cynipidae). *Occasional Papers in Entomology*, 25: 1-128.
- ARCHIMOWITSCH, A. 1952. Fauna de insectos en España que acuden a los "portagranos" de la remolacha. *Boletín de la Sociedad Española de Historia Natural*, Vol. L, serie biológica, 91 p.
- ARGAMAN, Q. 1988. Additions to the Cynipoid fauna of Israel (Hymenoptera, Cynipoidea). *Israel Journal of Entomology*, 22: 109-117.
- ASHMEAD, W. H. 1887. Report on insects injurious to garden crops in Florida. *U. S. Department of Agriculture Division of Entomology Bulletin*, 14: 9-29.
- BAKER, C. F. 1896. New American parasitic Cynipidae (Allotriinae). *Canadian Entomologist*, 28: 131-135.
- BARCZAK, T. 1991. The alloxystids as hyperparasitoids of the *Aphis fabae* group in Poland (Hym., Cynipoidea: Alloxystidae; Hom.: Aphididae). *Polskie Pismo Entomologiczne*, 61: 85-95.
- BARNEA, O., MUSTATA, M., MUSTATA, G. & FERARU, E. 2005. *The complex of parasitoids controlling some colonies of aphids*. Lucrarile "Entomofagii si rolul lor in pastrarea achilibrului natural" Universitatea "A.I. Cuza" Iasi.
- BEARDSLEY, J. W. 1985. Notes on Hawaiian Alloxystidae and Cynipidae (Hymenoptera: Cynipoidea). *Proceedings Hawaiian Entomological Society*, 25: 49-52.
- BELIZIN, V. I. 1962. New Parasitoid Cynipoidea species (Hymenoptera) from a Far East. *Communications of the Far East Branch of the Russian Academy of Sciences (Siberian Section)*, 16: 125-129 (in Russian).
- BELIZIN, V. I. 1966. Paraziticheskie tsinipidy (Hymenoptera, Cynipoidea) moldavskoj SSR (Parasitic Cynipids (Hymenoptera, Cynipoidea) in the Moldavian SSR). *Trudy Moldavskoho nauchono-issled. Instituta Sadovodstva, Vinogradarstva i Vinodelija (Entomologia)*, 13: 1-14. (in Russian).
- BERTA, D. C., COLOMO, M. V. & OVRUSKI, N. E. 2002. Interrelaciones entre los áfidos colonizadores del tomate y sus himenópteros parasitoides en Tucumán (Argentina). *Boletín de Sanidad Vegetal Plagas*, 28: 67-77.
- BERTOLACCINI, I., NÚÑEZ-PÉREZ, E. & TIZADO, E. J. 2004. Plantas hospedadoras alternativas de áfidos plaga de cultivos de leguminosas, sus parasitoides e hiperparasitoides en la provincia de León (España). *Boletín de la Asociación Española de Entomología*, 28 (3-4): 33-47.
- BETINI, A. 1975. Afídeos da macieira (*Pyrus malus* L.), seus predadores e parasitas. *Acta Biologica Paranaense, Curitiba*, 4 (3-4): 33-74.
- BETINI, A. 1976. Afídeos da ameixeira (*Prunus domestica* L.) e pessegueiro (*Prunus persica* L.), seus predadores e parasitas. *Acta Biologica Paranaense, Curitiba*, 5 (1-2): 69-90.
- BOKINA, I. G. 1997. Hyperparasites of grain aphids in forest steppe of the northern Ob river basin in West Siberia. *Zoologicheskii Zhurnal*, 76 (4): 432-437.
- BORGES, P. A. V., ABREU, C., AGUIAR, A. M. F., CARVALHO, P., JARDIM, R., MELO, I., OLIVEIRA, P., SÉRGIO, C., SERRANO, A. R. M. & VIEIRA, P. 2008. A list of the terrestrial fungi, flora and fauna of Madeira and Selvagens archipelagos. Direcção Regional do Ambiente de Madeira and Universidade dos Açores, Funchal and Angra do Heroísmo, 440 p.
- BUHL, P. N. 1997. Microhymenoptera from Zackenberg, North East Greenland (Hymenoptera: Chalcidoidea, Cynipoidea et Ceraphronoidea). *Entomologiske Meddelelser*, 65: 161-164.
- CAMERON, P. 1879. On some new or little known British Hymenoptera. *Transactions of the Entomological Society of London*: 107-119.
- CAMERON, P. 1883. Descriptions of sixteen new species of parasitic Cynipidae, chiefly from Scotland. *Transactions of the Entomological Society of London*, 16 (4): 365-374.
- CAMERON, P. 1886 (1887). The fauna of Scotland, with special reference to Clydesdale and the western district. *Proceedings of the Natural History Society of Glasgow*, 3: 53-95.
- CAMERON, P. 1888. On some new or little known British parasitic Cynipidae. *Entomologist's Monthly Magazine*, 24: 209-211.
- CAMERON, P. 1889. On the British species of Allotriinae, with descriptions of other new species of parasitic Cynipidae. *Memoirs of Manchester Literary and Philosophical Society*, 2: 53-69.
- CARVER, M. 1992. Alloxystinae (Hymenoptera, Cynipoidea, Charipidae) in Australia. *Invertebrate Taxonomy*, 6 (3): 769-785.
- CAVRO, E. 1954. Catalogue des Hyménoptères du département du Nord et des régions limithrophes. III. Térébrants (Parasites porte tarières). *Bulletin de la Société entomologique du Nord de la France*, 75: suppl. 134 p.
- CEBALLOS, G. 1941. *Las tribus de los Himenópteros de España*. Consejo Superior de Investigaciones Científicas. Instituto Español de Entomología. Madrid, 420 p.
- CHUA, T. H. 1978. Pattern and influencing factors or emergence in *Diaretiella rapae* and its parasites. *Zeitschrift fuer Angewandte Entomologie*, 85 (4):436-442.
- CIVIDANES, F. J. 2002. Impacto de Inimigos Naturais e de Fatores Meteorológicos Sobre Uma População de *Brevicoryne brassicae* (L.) (Hemiptera: Aphididae) em couve. *Neotropical entomology*, 31 (2): 249-255.
- CRÈVECOEUR, A. & MARÉCHAL, P. 1933. Matériaux pour servir a l'établissement d'un nouveau catalogue des Hyménoptères de Belgique IV. *Annales de la Société Royale Entomologique de Belgique*, 73(11): 373-382.
- DALLA TORRE, K. W. & KIEFFER, J. J. 1910. *Das Tierreich XXIV: Cynipidae*. R. Friedlander & Sons, Berlin. 24: 1-891.
- DE GAULLE, J. 1908. Catalogue Systématique & Biologique des Hyménoptères de France. *Librairie Paul Klincksieck*, Paris, 171 p.
- DE SANTIS, L. 1937. *El hiperparasito del pulgón verde de los cereales*. In Lopez Cristobal: Los "Pulgones verdes" de los cereales y sus parásitos. La Plata Univ. Nac.Fac. Agron., Lab. Zool. Agr. Bol., 3: 14-16.
- DE SOUSA, B. & PAES BUENO, V. H. 1993/1994. Levantamento de predadores e parasitoides adultos associados a *Brevicoryne brassicae* (Linnaeus, 1758) (Homoptera: Aphididae), em culturas de couve. *Boletín do I.C.B.G.*, 46: 23-34.
- EVANS, G. A. & STANGE, L. A. 1997. Parasitoids Associated with the Brown Citrus Aphid, *Toxoptera citricida*, in Florida (Insecta: Hymenoptera). *Entomological Circular*, 384: 1-5.
- EVENHUIS, H. H. 1974. Studies on Cynipidae Alloxystinae 4. *Alloxysta macrophadna* (Hartig, 1841) and *Alloxysta brassicae* (Ashmead, 1887). *Entomologische Berichten*, 34: 165-168.
- EVENHUIS, H. H. 1976. Studies on Cynipidae Alloxystinae 5. *Alloxysta citripes* (Thomson) and *Alloxysta ligustri* n. sp., with remarks on host specificity in the subfamily. *Entomologische Berichten*, 36: 140-144.
- EVENHUIS, H. H. & BARBOTIN, F. 1977. Studies on Cynipidae Alloxystinae. 6. *Phaenoglyphis villosa* (Hartig) and *Alloxysta arcuata* (Kieffer). *Entomologische Berichten*, 37: 184-190.

- EVENHUIS, H. H. & BARBOTIN, F. 1987. Types des espèces d'Alloxystidae (Hymenoptera, Cynipoidea) de la collection Carpentier, décrits par J. J. Kieffer, avec synonymes nouveaux et un nomen novum. *Bulletin et Annales de la Société Royale Belge*, 123: 211-224.
- FABIANUS, F. 1900. Liste de quelques Hyménoptères capturés à Malonne. *Revue mensuelle de la Société Entomologique Namuroise*, 4: 23-27.
- FERARU, E., MUSTATA, G. & BARNEA, O. 2005. *The diversity of the parasitoids in some colonies of Aphids (Homoptera: Aphididae) installed on grassy plants*. Lucrarile "Entomofagii si rolul lor in pastrarea achilibrului natural" Universitatea "A.I. Cuza" Iasi.
- FERARU, E. & MUSTATA, G. 2005. *Species of parasitoids that control the populations of aphids (Homoptera: Aphididae) from some orchards of Iasi and Vaslui counties*. Lucrarile "Entomofagii si rolul lor in pastrarea achilibrului natural" Universitatea "A.I. Cuza" Iasi.
- FERGUSON, N. D. M. 1986. Charipidae, Ibalidae and Figitidae (Hymenoptera: Cynipoidea). *Handbooks for the Identification of British Insects*, 8 (1c): 1-55.
- FERRER-SUAY, M., SELFA, J., & PUJADE-VILLAR, J. 2011. Nuevos registros de la subfamilia Charipinae (Hymenoptera, Cynipoidea, Figitidae) para Andorra junto con una clave identificativa. *Boletín de la Asociación Española de Entomología*, 35 (3-4): 345-367.
- FERRER-SUAY, M., SELFA, J. & PUJADE-VILLAR, J. 2012a. Charipinos de Colombia (Hymenoptera: Figitidae), con la descripción de dos nuevas especies. *Revista Colombiana de Entomología*, 38 (2): 320-328.
- FERRER-SUAY, M., SELFA, J. & PUJADE-VILLAR, J. 2012b. Revision of Charipinae (Hymenoptera: Cynipoidea: Figitidae) from Madeira and first record of *Alloxysta* from Portugal. *Boletim do Museu Municipal do Funchal*, 62 (332): 5-17.
- FERRER-SUAY, M., SELFA, J., RIBES, A. & PUJADE-VILLAR, J. 2012c. Contribucions al coneixement dels Charipins de Catalunya (Insecta, Hymenoptera). *Orsis*, 26: 117-138.
- FERRER-SUAY, M., PARETAS-MARTÍNEZ, J., SELFA, J. & PUJADE-VILLAR, J. 2012d. Charipinae fauna from New Zealand with descriptions of two new species of *Alloxysta* Förster (Hymenoptera: Cynipoidea: Figitidae: Charipinae). *Australian Journal of Entomology*, 51: 229-238.
- FERRER-SUAY, M., SELFA, J. & PUJADE-VILLAR, J. 2013a. Charipinae fauna (Hymenoptera: Figitidae) from Asia, with description of eleven new species. *Zoological Studies*, 52 (41): 1-26.
- FERRER-SUAY, M., SELFA, J. & PUJADE-VILLAR, J. 2013b. A review of *Alloxysta* species (Hymenoptera: Cynipoidea: Figitidae: Charipinae) from Africa. *African Entomology*, 21 (2): 255-266.
- FERRER-SUAY, M., SELFA, J. & PUJADE-VILLAR, J. 2013c. Revision of Charipinae fauna (Hymenoptera: Cynipoidea: Figitidae) from the Corcega Island. *Redia*, 76: 3-8.
- FERRER-SUAY, M., SELFA, J., SECO-FERNÁNDEZ, M. V., MELIKA, G., ALIPOUR, A. RAKHSHANI, E., TALEBI, A. A. & PUJADE-VILLAR, J. 2013d. A contribution to the knowledge of Charipinae (Hymenoptera: Cynipoidea: Figitidae) associated with aphids from Iran, including new records. *North-Western Journal of Zoology*, 9 (1): 30-44.
- FERRER-SUAY, M., SELFA, J., TOMANOVIĆ, Z., JANKOVIĆ, M., KOS, K., RAKHSHANI, E. & PUJADE-VILLAR, J. 2013e. Revision of *Alloxysta* from the north-western Balkan Peninsula with description of two new species (Hymenoptera: Figitidae: Charipinae). *Acta Entomologica Musei Nationalis Pragae*, 53 (1): 347-368.
- FERRER-SUAY, M., SELFA, J., RIBES, A. & PUJADE-VILLAR, J. 2013f. A key of the Charipinae (Hymenoptera, Cynipoidea, Figitidae) from Spain, including new records and species. *Boletín de la Sociedad Española de Entomología*, 37 (3-4): 315-341.
- FERRER-SUAY, M., SELFA, J., EQUIHUA-MARTÍNEZ A., ESTRADA-VENEGAS E., LOMELI-FLORES, R., PEÑA MARTÍNEZ, R. & PUJADE-VILLAR, J. 2013g. Charipinae (Hymenoptera: Cynipoidea: Figitidae) from Mexico with description of three new species. *Annals of the Entomological Society of America*, 106 (1): 26-41.
- FERRER-SUAY, M., SELFA, J. & PUJADE-VILLAR, J. 2013h. Revision of the Charipinae (Hymenoptera: Cynipoidea: Figitidae) present in the Neotropical region. *Revista Brasileira de Entomologia*, 57 (3): 279-299.
- FERRER-SUAY, M., SELFA, J., SAFOORA F., KARIMI, J. & PUJADE-VILLAR, J. 2013i. First records of *Alloxysta ramulifera* (Thomson, 1862) and *Asaphes vulgaris* Walker, 1834 from Iran. *Linzer biologische Beiträge*, 45 (1): 671-672.
- FERRER-SUAY, M., SELFA, J. & PUJADE-VILLAR, J. 2014a. First records, new species and a key of the Charipinae (Hymenoptera: Cynipoidea: Figitidae) from the Nearctic region. *Annals of the Entomological Society of America*, 107 (1): 50-73.
- FERRER-SUAY, M., SELFA, J. & PUJADE-VILLAR, J. 2014b. New Australasian records of *Alloxysta* Förster (Hymenoptera: Cynipoidea: Figitidae: Charipinae) from the Canadian National Collection of Insects, Ottawa. *Australian Entomologist*, 41 (2): 91-106.
- FERRER-SUAY, M., SELFA, J. & PUJADE-VILLAR, J. 2014c. New Charipinae (Hymenoptera: Cynipoidea: Figitidae) from Italy. *Redia*, XCVII: 3-13.
- FERRER-SUAY, M., SELFA, J., CZYRNEK, M. & PUJADE-VILLAR, J. 2015. Charipinae Dalla Torre & Kieffer, 1910 (Hymenoptera: Cynipoidea: Figitidae) from the Mercantour National Park (Alpes-Maritimes, France), with descriptions of three new species. *Zoosystema*, 37 (1): 115-138.
- FITCH, A. 1861. Sixth report on the noxious and other insects of the state of New York. *Transactions of New York State, Agricultural Society*, 20: 745-868.
- FROGGATT, W. W. 1904. Experimental work with the peach aphid. *Agricultural Gazette of New South Wales*, 15: 603-612.
- FÜLÖP, D., MELIKA, G., BECHTOLD, M. & BOZSÓ, M. 2010. Checklist of charipines of Hungary (Hymenoptera, Figitidae: Charipinae). *Folia Entomologica Hungarica*, 71: 53-56.
- GAUTIER, D. 1921. Description de deux especes nouvelles, *Trioxys placidus* (Hym.: Braconidae) et *Alloxysta gautieri* J.-J. Kieffer (Hym.: Cynipidae). *Bulletin de la Société entomologique de France*, 26: 302-307.
- GASTON, K. J., JONES, A. G., HÄNEL, C. & CHOWN, S.L. 2003. Rates of species introduction to a remote oceanic island. *Proceedings of the Royal Society. London Biological Science*, 270: 1091-1098.
- GIRAUD, J. 1860. Enumeration des Figitides de l'Autriche. *Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien*, 10: 123-176.
- GUERRA, M., FUENTES-CONTRERAS, E. & NIEMEYER, H. M. 1998. Differences in behavioral responses of *Sitobion avenae* (Hemiptera: Aphididae) to volatile compounds, following parasitism by *Aphidius ervi* (Hymenoptera: Braconidae). *Écoscience*, 5 (3): 334-337.
- HARTIG, T. 1840. Ueber die Familie der Gallwespen. *Zeitschrift für Entomologie* (german), 2: 176-210.
- HARTIG, T. 1841. Ersternachtrag zur naturgeschichte der Gallwespen. *Zeitschrift für Entomologie* (German), 3: 322-358.
- HEDICKE, H. 1928. Bietrage zur kenntnis der Cynipiden,

- (Hym.); XV: Neue und wenig bekannte Cynipiden aus dem unt Bemerkungen über eine andere Arten. *Verhandl. Des ver. F. naturw. Unterhaltung*, 19: 72-96.
- HELLÉN, W. 1931. Zur Kenntnis der Cynipiden-fauna Islands. *Goteborgs K. Vetensk.-o. vitterSamh. Handl.*, 2 (5): 1-8.
- HELLÉN, W. 1963. Die Alloxystininen Finnlands (Hymenoptera: Cynipidae). *Fauna Fennica*, 15: 1-23.
- HOFVSANG, T. & HAGVAR, E. B. 1983. Primary parasitoids (Hym., Aphidiidae) and hyperparasitoids on aphids from Norway. *Fauna norvegica, Serie B*, 30: 60-62.
- HÖLLER, C., BORGEMEISTER, C., HAARDT, H. & POWELL, W. 1993. The relationship between primary parasitoids and hyperparasitoids of cereal aphids- an analysis of field data. *Journal of Animal Ecology*, 62: 12-21.
- HORN, D. J. 1988. Parasitism of cabbage aphid and green peach aphid (Homoptera: Aphididae) on collards in relation to weed management. *Environmental Entomology*, 17 (2): 354-358.
- HÜBNER, G., VÖLKL, W. & FRANCKE, K. D. 2002. Mandibular gland secretions in alloxystine wasp (Hymenoptera, Cynipoidea, Charipidae): do ecological or phylogenetical constraints influence occurrence or composition? *Biochemical Systematics and Ecology*, 20: 505-523.
- IONESCU, M. A. 1969. Fauna Republicii Socialiste România. Insecta. Hymenoptera. Cynipoidea. *Academia Republicii Socialiste România*, IX(6), 290 p.
- KIEFFER, J. J. 1902a. Description de quelques Cynipides nouveaux ou peu connus et de deux de leurs parasites (Hymenopteres). *Bulletin de la Société d'Histoire Naturelle de Metz.*, 10: 1-18.
- KIEFFER, J. J. 1902b. *Les Cynipides* (part 2). In Andre, E. Species des Hyménoptères d'Europe et d'Algérie, 7 (2): 748 p. + 21 pl. [Charipinae in: 5-78 + 592-602 (=1904a)].
- KIEFFER, J. J. 1904b. Description de quelques Cynipides exotiques dont l'un forme un genre nouveau. *Bulletin de la Société d'Histoire Naturelle de Metz.*, 2 (11): 59-66.
- KIERYCH, E. 1979b. GALASÓWKOWATE Cynipoidea. Katalog Fauny Polski. Polska Akademia Nauk Instytut Zoologii. *Czesc XXVI*, zedzyt 2. Nr. 33.
- KIERYCH, E. 1988. A new genus and a new species of cynipoids (Hymenoptera, Cynipoidea, Charipidae) from Poland. *Annales Zoologici*, 41: 351-354.
- KRAWCZYK, A., HUREJ, M. & JACKOWSKI, J. 2009. Hyperparasitoids of aphids on maize in Opole region in Poland. *Polish Journal of Entomology*, 78 (2): 161-168.
- LAMEERE, A. 1907. *Manuel de la faune de Belgique; 3. Insectes superieurs, Hymenopteres, Dipteres, Lepidopteres*. H. Lamertin, Bruxelles, 870 p.
- LAMPEL, G. & BURGNER R. 1987: The genetic relationships between lachnid taxa as established by enzyme-gelelectrophoresis. In: Population Structure, Genetics and Taxonomy of Aphids and Thysanoptera. Ed. by J. HOLMAN; J. PELIKÁN; A.F.G. DIXON; L. WEISMANN. The Hague: SPB Academic Publishing, 71-95.
- LAZZARI, S.N. 1985. Natural enemies dos afideos (Homoptera, Aphididae) da cevada (*Hordeum* sp.) no Paraná. *Anais da Sociedade Entomológica do Brazil*, 14 (1): 5-15.
- LOTFALIZADEH, H. 2002b. Parasitoids of Cabbage Aphid, *Brevicoryne brassicae* (L.) (Hom.: Aphididae) in Moghan Region. *Agricultural Science*, 12 (1): 15-25
- LOTFALIZADEH, H. & VAN VEEN, F. 2004. Report of *Alloxysta fuscicornis* (Hym.: Cynipidae), a hyperparasitoid of aphids in Iran. *Journal of Entomological Society of Iran*, 23 (2): 119-120.
- MANTERO, G. 1906. Materiali per un Catalogo degli Imenotteri Liguri. Parte IV. Cinipidi. *Annali del Museo Civico di Storia Naturale di Genova*, 42: 445-467
- MERTINS, J.W. 1985. Hyperparasitoids from pea aphid mummies, *Acyrtosiphon pisum* (Homoptera: Aphididae), in North America. *Annals of the Entomological Society of America*, 78 (2): 186-197.
- MÜLLER, C. B., ADRIAANSE, I. C. T., BELSHAW, R. & GODFRAY, H. C. J. 1999. The structure of an aphid-parasitoid community. *Journal of Animal Ecology*, 68 (2): 346-370.
- O'CONNOR, J. P. & NASH, R. 1997. A review of the Irish Charipidae (Hymenoptera) including nine species new to Ireland. *The Irish Naturalists' Journal*, 25 (11-12): 410-412.
- OATMAN, E. R., TRUMBLE, J. T. & VOTH, V. 1983. Composition and Relative Abundance of Parasites Associated with Aphid Populations on Strawberry in Southern California. *Environmental Entomology*, 12 (6): 1714-1717.
- PAGLIANO G. 1995. *Hymenoptera Cynipoidea*. In: Minelli & Ruffo & La Posta (eds.), *Checklist delle specie della fauna italiana*, Fasc. 96, 1-7. Calderini, Bologna.
- PERONTI, A. L. B. G., FRAGA, F. B., ROSA, K. C. C., TEIXEIRA, M. T. & SILVA, M. L. 2007. *Efeitos da fragmentação florestal e da expansão agrícola sobre a comunidade de insetos fitófagos e himenópteros parasitoides no Parque Nacional da Serra dos Órgaos e arredores*. In: CRONEMBERGER, C.; VIVEIROS DE CASTRO, E.B. (Org.) *Ciência e Conservação na Serra dos Órgaos*. Brasília: Ibama.
- PRELIPCEAN, C., MUSTATA, G. & PRELIPCEAN, A. 2004. Natural control realized by parasitoid insects inside the *Aphis fabae* Scop. colonies. *Analele stiintifice ale Universitatii "Al.I.Cuza" Iasi, s. Biologie animal*. Tom L: 37-44.
- PUJADE-VILLAR, J., ROS-FARRÉ, P., DURÁN, S. & VENTURA, D. 2001 (1999). Cynipoideus collectats a Menorca (Hymenoptera). *Sessió d'Entomologia de la Institució Catalana d'Història Natural-Societat Catalana de Lepidopterologia* 11: 81-86.
- PUJADE-VILLAR, J., DÍAZ, N., EVENHUIS, H. H. & ROS-FARRÉ, P. 2002. South American Charipinae: Review and description of two new species (Hymenoptera: Cynipoidea: Figitidae). *Annals of the Entomological Society of America*, 95 (5): 541-546.
- PUJADE-VILLAR, J. & FOLLIOT, R. 2001. In memoriam François Barbotin (1914-1996). *Nouvelle Revue d'entomologie* (N. S.), 18 (3): 285-288.
- PUJADE-VILLAR, J., PARETAS-MARTÍNEZ, J., SELFA, J., SECÓ-FERNÁNDEZ, M. V., FÜLOP, D. & MELIKA, G. 2007. *Phaenoglyphis villosa* (Hartig, 1841) (Hymenoptera: Figitidae: Charipinae): a complex of species or a single but very variable species? *The Annales de la Société Entomologique de France*, 43 (2): 169-179.
- RAKSHANI, E., TALEBI, A. A., SADEGHI, E., KAVALLIERATOS, N. G. & RASHED, A. 2004. Seasonal Parasitism and Hyperparasitism of Walnut Aphid, *Chromaphis juglandicola* (Kaltenbach) (Hom., Aphididae) in Tehran province. *Journal of Entomological Society of Iran*, 23 (2): 1-11.
- REMAUDIÈRE, G. 1954. Les Cinari (Hom. Aphidoidea Lachnidae) du cèdre en Afrique du Nord. *Revue de pathologie végétale et d'entomologie agricole*, 33 (2): 115-122.
- SANDERS, D. & VAN VEEN, F. J. F. 2010. The impact of an ant-aphid mutualism on the functional composition of the secondary parasitoid community. *Ecological Entomology*, 35(6): 704-710.
- SPENCER, H. 1926. Biology of the parasites and hyperparasites of Aphis. *Annals of the Entomological Society of America*, 19: 119-157.
- SULLIVAN, D. J. & VAN DEN BOSCH, R. 1971. Field ecology of the primary parasites and hyperparasites of the potato aphid, *Macrosiphum euphorbiae*, in the east San Francisco Bay Area. *Annals of the Entomological Society of America*, 64(2): 389-394.

- TAKADA, H. & NAKAMURA, T. 2010. Native primary parasitoids and hyperparasitoids attacking an invasive aphid *Uroleucon nigrotuberculatum* in Japan. *Entomological Science*, 13 (2): 269-272.
- TEIXEIRA, M. 1991. *Estudo das Interações "planta/afidea/parasitoide e hiperparasitoide" em ambientes naturais e antrópicos*. Universidade Federal de Sao Carlos. Centro de Ciências Biológicas e da Saúde. Programa de Pós-Graduação em Ecologia e Recursos Naturais.
- THOMSON, C. G. 1862. Forsök till uppställning och beskrifning af Sveriges Figiter. *Öfversigt af Kongl. Svenska Vetenskaps-Akad: s förhandl.*, 18: 395-420.
- TIZADO, E. J. & NUÑEZ-PÉREZ, E. 1993. Some data on Alloxistinae (Hym., Charipidae) in Spain. *Aphidophaga 5- I.O.B.C. Symposium*, 1993, 97 p.
- TORRAS-CASALS, C. 1996. Especies de Alloxystinae (Hymenoptera, Cynipoidea, Charipinae), hiperparásitos de áfidos en la provincia de Barcelona. *Real sociedad española de Historia Natural (vol extraord. XII Bienal, Madrid 1996)*: 196-197.
- VALENTINE, E. W. 1975. Additions and corrections to Hymenoptera on aphids in New Zealand. *The New Zealand Entomologist*, 6 (1): 59-61.
- VAN VEEN, F. J., BELSHAW, R. & GODFRAY, H. C. J. 2003. The value of the ITS2 region for the identification of species boundaries between *Alloxysta* hyperparasitoids (Hymenoptera: Charipidae) of aphids. *European Journal of Entomology*, 100: 449-453.
- VASILEVA-SUMNALIEVA, L. 1976. On the fauna and biology of the subfamily Charipinae (Hymenoptera, Cynipidae) in Bulgaria. *Acta Zoologica Bulgarica*, 5: 22-26.
- VAZ, L. A. L., TAVARES, M. T. & LOMÔNACO, C. 2004. Diversidade e Tamanho de Himenópteros Parasitóides de *Brevicoryne brassicae* L. e *Aphis nerii* Boyer de Fonscolombe (Hemiptera: Aphididae). *Neotropical Entomology*, 30 (2): 225-230.
- WELD, L. H. 1920. A new parasitic Cynipid reared from a clover aphid. (Hym.) *Entomological news*, 31: 14-16.
- WELD, L. H. 1952. *Cynipoidae*. 1905-1950. Privately published. Ann Arbor, Michigan, 351 pp.
- WEST, S. A., COOK, J. M., WERREN, J. H. & GODFRAY, H. C. J. 1998. *Wolbachia* in two insect host-parasitoid communities. *Molecular Ecology*, 7: 1457-1465.
- WESTRUM, K., KLINGEN, I., HOFVSANG, T. & HÅGVAR, E. B. 2010. Checklist of primary parasitoids and hyperparasitoids (Hymenoptera, Apocrita) on aphids (Hemiptera, Aphididae) from Norway. *Norwegian Journal of Entomology*, 57: 142-153.
- WILSON, C.G. & SWINCER, D. E. 1984. Hyperparasitism of *Therioaphis trifolii* f. *maculate* (Homoptera: Aphididae) in South Australia. *Journal of the Australian Entomological Society*, 23 (1): 47-50.
- ZETTERSTEDT, J. W. 1838. *Insecta Lapponica descripta: Hymenoptera*. Voss, Lipsiae. P. 315-476.
- ZUPARKO, R. L. & DAHLSTEN, D.L. 1995. Parasitoid complex of *Eucallipterus tiliae* (Homoptera: Drepanosiphidae) in northern California. *Environmental Entomology*, 24 (3): 730-737.