

## Insecta Hemiptera collected in the Mont Avic Natural Park (Aosta Valley, Northwest Italy)

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### Abstract

The results are given of the Hemiptera collection excursions in the Mont Avic Natural Park (Aosta Valley, NW Italy) that took place during the 4th European Hemiptera Congress held in Ivrea in September 2007. Altogether 126 species of Heteroptera, belonging to 89 genera, 108 species of Auchenorrhyncha, belonging to 75 genera, and 30 species of Sternorrhyncha Psyllomorpha, belonging to 8 genera were collected at the four different elevation sites of Capoluogo-Tendeur (500-600 m a.s.l.), Chevrère (1200-1400 m a.s.l.), Dondena (2100-2300 m a.s.l.), and Miserin (2588 m a.s.l.). Of these species, 2 were new records for Italy: the Mirid *Lygus maritimus* and the Cicadellid *Edwardsiana ishidai*. New records for Italy are also the Pipunculid Dipteran *Tomosvaryella freidbergi* and the Halictophagid Strepsipteran *Halictophagus languedoci*, parasitoids of Auchenorrhyncha.

Key words: Hemiptera, Western Alps

## INTRODUCTION

During the 4<sup>th</sup> European Hemiptera Congress, Hemiptera specialists carried out collecting activity at some sites of the Mont Avic Natural Park on 13<sup>th</sup> September 2007. The results of this collecting activity in Piedmont are presented here. As the collecting was carried out without any standardised methods, no ecological considerations are made, but only a list of species is given as a contribution to the Hemiptera fauna of Mont Avic and of the Aosta Valley. The voucher specimens are located in the institutional or private collections of the authors.

## RESULTS

1 – CAPOLUOGO-TENDEUR, m 500-600 (CHAMPDEPRAZ) E395554 N5060583  
This site is characterized by terraces exposed to the south-east, once cultivated and then abandoned. This dry and sunny site was partially filled with a xerothermophilous thick-

et with representative species of the Berberidion and of the Downy Oak wood: *Quercus pubescens*, *Pinus sylvestris* (isolated specimens), *Ulmus minor*, *Colutea arborescens*, *Coronilla emerus*, *Lonicera etrusca*, *Prunus spinosa*, *Prunus mahaleb*, *Hedera helix*, *Ligustrum vulgare*, *Rosa* sp.). There are also areas in which xerothermophilous prairies prevail, which are dominated by grasses. On the many dry-stone walls one can see *Ceterach officinarum*, *Sedum telephium*, and *Sedum montanum*.

## HETEROPTERA

### CIMICOMORPHA

#### **Anthocoridae**

*Anthocoris gallarumulmi* (De Geer) 1 ♀  
*Anthocoris nemorum* (Linnaeus) many adults  
*Orius* (*Orius*) *niger* Wolff, many adults  
*Orius* gr. *minutus* (Linnaeus) many adults

#### **Nabidae**

*Himacerus* (*Aptus*) *mirmicoides* (O.C. Costa) 2 ♀ ♀  
*Himacerus* (*Himacerus*) *apterus* (Fabricius) 1 ♂ 2 ♀ ♀  
*Nabis* gr. *ferus* (Linnaeus) many adults  
*Nabis* (*Nabis*) *rugosus* (Linnaeus) many adults

#### **Miridae**

*Deraeocoris* (*Camptobrochis*) *punctulatus* (Fallén) not counted  
*Deraeocoris* (*Camptobrochis*) *serenus* Douglas & Scott 3 ♂ ♂  
*Europiella artemisiae* (Becker) 2 ♂ ♂ 1 ♀  
*Lygus maritimus* Wagner 1 ♂  
*Orthops* (*Orthops*) *kalmi* (Linnaeus) not counted

#### **Phymatidae**

*Phymata* (*Phymata*) *crassipes* (Fabricius) 2 ♂ ♂ 3 ♀ ♀

#### **Reduviidae**

*Rhynocoris iracundus* (Poda) 1 ♂ 6 ♀ ♀

#### **Tingidae**

*Catoplatus carthusianus* (Goeze) 2 ♂ ♂  
*Copium clavicorne* (Linnaeus) 1 ♂ 4 ♀ ♀  
*Dictyla echii* (Schrank) many adults  
*Lasiacantha capucina* (Germar) 1 ♂ 1 ♀  
*Tingis* (*Tingis*) *cardui* (Linnaeus) 4 ♀ ♀  
*Tingis* (*Tropidocheila*) *reticulata* Herrich-Schäffer 1 ♂

### PENTATOMOMORPHA

#### **Alydidae**

*Camptopus lateralis* (Germar) 2 ♂ ♂ 5 ♀ ♀

**Coreidae***Centrocoris variegatus* Kolenati, 3♂♂ 4♀♀*Coriomeris* spp. many adults**Rhopalidae***Rhopalus (Rhopalus) conspersus* (Fieber) 3♂♂ 5♀♀*Rhopalus (Rhopalus) parumpunctatus* Schilling, many adults*Rhopalus (Rhopalus) subrufus* (Gmelin) not counted*Stictopleurus abutilon* (Rossi) not counted*Stictopleurus punctatonervosus* (Goeze) not counted**Stenocephalidae***Dicranocephalus agilis* (Scopoli) 1♂ 1♀**Lygaeidae***Aellopus atratus* (Goeze) 1♂ 1♀*Aphanus rolandri* (Linnaeus) 2♂♂ 4♀♀*Emblethis* spp. many adults*Geocoris (Piocoris) erythrocephalus* (Le Peletier & Serville) 4♂♂ 6♀♀*Graptopeltus lynceus* (Fabricius) 3♂♂ 4♀♀*Heterogaster artemisiae* Schilling 3♂♂ 2♀♀*Lygaeosoma sardeum sardeum* Spinola 3♂♂ 1♀*Lygaeus equestris* (Linnaeus) / *simulans* Deckert, many adults*Melanocoryphus albomaculatus* (Goeze) 2♂♂ 1♀*Nysius* spp. many adults*Oxycaenus (Euoxycarenius) pallens* (Herrich-Schäffer) many adults*Platyplax salviae* (Schilling) many adults*Rhyparochromus (Xanthochilus) quadratus* (Fabricius) 2♂♂ 2♀♀*Spilostethus pandurus pandurus* (Scopoli) 1♀*Spilostethus saxatilis* (Scopoli) not counted*Tropidothorax leucopterus* (Goeze) 2♂♂ 5♀♀**Cydnidae***Tritomegas bicolor* (Linnaeus) many adults**Pentatomidae***Aelia acuminata* (Linnaeus) many adults*Ancyrosoma leucogrammes* (Gmelin) many adults*Anthemina lunulata* (Goeze) 2♂♂ 4♀♀*Carpocoris (Carpocoris) purpureipennis* (De Geer) many adults*Carpocoris pudicus* (Poda) 1♀*Dolycoris baccarum* (Linnaeus) many adults*Eurydema (Eurydema) ornatum* (Linnaeus) many adults*Eurydema (Rubrodorsalium) dominulum* (Scopoli) 1♂*Eurydema (Rubrodorsalium) ventrale* Kolenati, 2♂♂ 1♀*Graphosoma lineatum* (Linnaeus) many adults*Nezara viridula* (Linnaeus) many adults

*Palomena prasina* (Linnaeus) many adults  
*Palomena viridissima* (Poda) 2♀♀  
*Pentatoma rufipes* (Linnaeus) 1♂♂  
*Sciocoris* spp. many adults  
*Stagonomus bipunctatus* (Linnaeus) 2♂♂ 2♀♀  
*Staria lunata* (Hahn) 5♂♂ 4♀♀

### Plataspidae

*Coptosoma scutellatum* (Geoffroy) many adults

### Scutelleridae

*Odontotarsus purpureolineatus* (Rossi) 2♂♂ 4♀♀

## AUCHENORRHYNCHA

### FULGOROMORPHA

#### Delphacidae

*Ditropsis flavipes* (Signoret) 1♂♂  
*Laodelphax striatella* (Fallén) not counted

#### Dictyopharidae

*Dictyophara europaea* (Linnaeus) 4♂♂ 2♀♀

#### Issidae

*Issus coleoptratus* (Fabricius) 1♂♂ 1♀♀ and 2 nymphs

#### Flatidae

*Metcalfa pruinosa* (Say) not counted

### CICADOMORPHA

#### Aphrophoridae

*Aphrophora alni* (Fallén) 2♂♂ 1♀♀  
*Neophilaenus* gr. *exclamationis* (Thunberg) 15♂♂ 10♀♀  
*Philaenus spumarius* (Linnaeus) not counted

#### Membracidae

*Stictocephala bisonia* Kopp & Yonke 1♀♀

#### Cicadellidae

*Aconurella prolixa* (Lethierry) 1♂♂ 3♀♀  
*Adarrus exornatus* Ribaut, not counted  
*Alebra wahlbergi* (Boheman) 1♂♂  
*Allygidius furcatus* Ferrari 1♀♀  
*Allygus mixtus* (Fabricius) not counted  
*Anaceratagallia ribauti* (Ossiannilsson) not counted  
*Anaceratagallia venosa* (Geoffroy) 12♂♂ 2♀♀ and 2 nymphs  
*Arboridia spathulata* (Ribaut) 1♂♂ 4♀♀

- Arocephalus longiceps* (Kirschbaum) 24♂♂ 29♀♀ (1 individual of which parasitized by 1♀ of *Halictophagus languedoci* Abdul-Nour)  
*Asymmetrasca decedens* (Paoli) 1♂  
*Austroagallia sinuata* (Mulsant & Rey) 5♂♂ 9♀♀  
*Balclutha punctata* (Fabricius) 1♀  
*Balclutha rosea* (Scott) 1♂  
*Balclutha saltuella* (Kirschbaum) 43♂♂ 27♀♀  
*Cicadella viridis* (Linnaeus) not counted  
*Dikraneura variata* Hardy, not counted  
*Ebarrius cognatus* (Fieber) 6♂♂ 2♀♀  
*Emelyanoviana mollicula* (Boheman) 4♂♂ 4♀♀  
*Empoasca vitis* (Göthe) 3♀♀  
*Eremochlorita hungarica* (Ribaut) 17♂♂ 14♀♀ and 2 nymphs  
*Eupteryx adpersa* (Herrich-Schäffer) 1♂  
*Eupteryx aurata* (Linnaeus) not counted  
*Eupteryx curtisii* (Flor) 1♂ 1♀  
*Eupteryx zelleri* (Kirschbaum) 52♂♂ 40♀♀  
*Fieberiella* sp. 2♀♀  
*Fruticidia bisignata* (Mulsant & Rey) 1♂ 1♀  
*Goniagnathus brevis* (Herrich-Schäffer) 2♀♀  
*Hardya tenuis* (Germar) 1♂ 1♀  
*Hephathus freyi* (Fieber) 2♂♂  
*Idiocerus herrichii* (Kirschbaum) 1♀  
*Idiocerus stigmatalis* Lewis 2♀♀  
*Jassargus* cf. *bicorniger* (Then) 14♂♂ 11♀♀  
*Jassargus* gr. *obtusivalvis* (Kirschbaum) 20♂♂ 20♀♀ (of which 5♂♂ and 8♀♀ parasitized hosting 1 specimen of *Halictophagus languedoci* Abdul-Nour, 1 individual hosting 1♂ 1♀ of the parasite and 1 individual hosting 2♀♀ of the parasite)  
*Kybos* sp. 5♀♀  
*Macrosteles cristatus* (Ribaut) 2♂♂  
*Mocytia crocea* (Herrich-Schäffer) 5♂♂ 1♀  
*Psammotettix helvolus* (Kirschbaum) 9♂♂ 29♀♀  
*Rhopalopyx elongatus* Wagner 2♂♂ 1♀  
*Ribautiana alces* (Ribaut) 1♂ 1♀  
*Selenocephalus obsoletus* (Germar) 1♀  
*Thamnotettix dilutior* (Kirschbaum) 1♂ 4♀♀  
*Thamnotettix exemptus* Melichar 1♂  
*Wagneriala incisa* (Then) 1♂  
*Zyginidia pullula* (Boheman) 1♀

## STERNORRHYNCHA

## PSYLLOMORPHA

**Psyllidae**

*Aphalara sauteri* Burckhardt, not counted

**Triozidae**

- Bactericera perrisii* Puton 1♂  
*Phylloplecta trisignata* (Löw) many nymphs  
*Triozia urticae* (Linnaeus) not counted  
*Triozia velutina* Foerster 1♂

2 – CHEVRÈRE, m 1200-1400 (CHAMPDEPRAZ) E391384 N5059599

This rural area is surrounded by forests dominated by *Pinus sylvestris*, *Pinus uncinata*, *Larix decidua* and, in correspondence to the watersheds, *Fagus sylvatica* and *Alnus incana*. The pastures are attributable to the Polygono-Trisetion in the areas regularly irrigated and fertilized (fertile mountain meadows) and to the Mesobromion in the more xeric areas; on the margins of the cultivated land the following species are frequent: *Corylus avellana*, *Betula pendula*, *Fraxinus excelsior*, *Sorbus aria*, *Sorbus aucuparia*, *Prunus* spp., *Rosa* spp., *Berberis vulgaris*, *Juniperus communis*.

## HETEROPTERA

## GERROMORPHA

**Gerridae**

- Gerris gibbifer* Schummel, many adults

**Veliidae**

- Velia* sp. 5♂♂ 6♀♀

**Hydrometridae**

- Hydrometra stagnorum* (Linnaeus) 1♂ 4♀♀

## LEPTOPODOMORPHA

**Saldidae**

- Macrosaldula scotica* (Curtis) 3♂♂ 2♀♀  
*Saldula orthochila* (Fieber) 1♀  
*Saldula saltatoria* (Linnaeus) 2♂♂ 1♀

## CIMICOMORPHA

**Anthocoridae**

- Anthocoris nemorum* (Linnaeus) many adults  
*Dufouriellus ater* (Dufour) 1♂  
*Orius (Heterorius) laticollis* (Reuter) not counted  
*Orius (Orius) niger* Wolff, not counted

**Nabidae**

- Himacerus (Himacerus) apterus* (Fabricius) 3♂♂ 3♀♀  
*Nabis (Nabicula) flavomarginatus* Scholtz many adults  
*Nabis (Nabis) brevis* Scholtz 5♂♂ 7♀♀

*Nabis (Nabis) rugosus* (Linnaeus) not counted  
*Nabis* spp. gr. *ferus* (Linnaeus) many adults

### Miridae

*Adelphocoris lineolatus* (Goeze) not counted  
*Alloeotomus germanicus* Wagner 1 ♀  
*Bryocoris pteridis* (Fallén) 1 ♀  
*Chlamydatus (Attus) pullus* Reuter 1 ♂  
*Deraeocoris (Camptobrochis) punctulatus* (Fallén) not counted  
*Deraeocoris (Knightocapsus) lutescens* (Schilling) 1 ♂  
*Dicyphus* sp. not counted  
*Dicyphus (Brachyceraea) globulifer* (Fallén) not counted  
*Dicyphus (Dicyphus) cerastii* Wagner 1 ♂ 1 ♀  
*Dicyphus (Dicyphus) hyalinipennis* (Burmeister) not counted  
*Lygus rugulipennis* Poppius 2 ♂♂ 2 ♀♀  
*Monalocoris (Monalocoris) filicis* (Linnaeus) 5 ♂♂ 7 ♀♀  
*Orthops (Orthops) kalmi* (Linnaeus) 1 ♂ 1 ♀  
*Pantilius tunicatus* (Fabricius) not counted  
*Stenodema (Stenodema) holsatum* (Fabricius) 4 ♀♀  
*Trigonotylus ruficornis* (Geoffroy) not counted

### Tingidae

*Acalypta musci* (Schrank) 1 ♀  
*Corythucha ciliata* (Say) 1 ♀

### PENTATOMOMORPHA

### Coreidae

*Syromastus rhombeus* (Linnaeus) 1 ♂ 1 ♀

### Rhopalidae

*Myrmus miriformis* (Fallén) many adults  
*Rhopalus (Rhopalus) conspersus* (Fieber) 1 ♀

### Berytidae

*Berytinus (Berytinus) minor* (Herrich-Schäffer) not counted  
*Berytinus (Lizinus) montivagus* (Meyer-Dür) 1 ♀

### Lygaeidae

*Aphanus rolandri* (Linnaeus) 1 ♀  
*Drymus (Sylvadrymus) brunneus* (F. Sahlberg) 1 ♂  
*Emblethis* spp. many adults  
*Eremocoris plebejus* (Fallén) 1 ♀  
*Gastrodes grossipes* (De Geer) 1 ♂ 3 ♀♀  
*Geocoris (Geocoris) ater* (Fabricius) 2 ♂♂  
*Kleidocerys resedae* (Panzer) 1 ♀  
*Lygaeosoma sardeum* Spinola, not counted  
*Megalonotus* gr. *chiragra* (Fabricius) 1 ♂ 2 ♀♀

*Megalonotus sabulicola* (Thomson) not counted  
*Nysius* spp. many adults  
*Oxycarenus* (*Oxycarenus*) *modestus* (Fallén) 2♀♀  
*Plinthisus* sp. 2♀♀  
*Rhyparochromus* (*Rhyparochromus*) *pini* (Linnaeus) many adults  
*Rhyparochromus* (*Rhyparochromus*) *vulgaris* (Schilling) not counted  
*Rhyparochromus* (*Xanthochilus*) *quadratus* (Fabricius) not counted  
*Stygnocoris rusticus* (Fallén) not counted  
*Stygnocoris sabulosus* (Schilling) not counted  
*Trapezonotus* (*Trapezonotus*) *arenarius* (Linnaeus) 2♂♂ 1♀

### **Acanthosomatidae**

*Elasmotethus interstinctus* (Linnaeus) 3♀♀

### **Cydnidae**

*Adomerus biguttatus* (Linnaeus) 1♀

### **Pentatomidae**

*Carpocoris* (*Carpocoris*) *fuscispinus* (Boheman) 3♂♂ 3♀♀  
*Carpocoris* (*Carpocoris*) *purpureipennis* (De Geer) 2♂♂ 1♀  
*Dolycoris baccarum* (Linnaeus) not counted  
*Eurydema oleraceum* (Linnaeus) many adults  
*Eysarcoris venustissimus* (Schrank) 3♀♀  
*Jalla dumosa* (Linnaeus) 1♀  
*Palomena prasina* (Linnaeus) many adults  
*Pentatoma rufipes* (Linnaeus) 1♂ and some nymphs  
*Picromerus bidens* (Linnaeus) 3♂♂ 2♀♀  
*Piezodorus lituratus* (Fabricius) 1♂ 3♀♀  
*Sciocoris* spp. many adults

## AUCHENORRHYNCHA

### FULGOROMORPHA

### **Delphacidae**

*Conomelus lorifer dehnelli* Nast 2♂♂ 1♀  
*Ditropsis flavipes* (Signoret) 1♂ 1♀  
*Florodelphax leptosoma* (Flor) not counted  
*Javesella dubia* (Kirschbaum) not counted  
*Kelisia* gr. *haupti* Wagner 1♀  
*Laodelphax striatella* (Fallén) 3♀♀  
*Muellerianella brevipennis* (Boheman) not counted  
*Muellerianella extrusa* (Scott) 1♂  
*Ribautodelphax albostrigata* (Fieber) 2♂♂ 3♀♀  
*Ribautodelphax pungens* (Ribaut) 1♂ 1♀  
*Stenocranus minutus* (Fabricius) 5♂♂ 9♀♀ and nymphs  
*Toya propinqua* (Fieber) 1♂



**Tettigometridae**

*Tettigometra* cfr. *impressopunctata* Dufour 1♂ 3♀♀

**Caliscelidae**

*Caliscelis* sp. nymphs not counted

**Issidae**

*Issus coleoptratus* (Fabricius) 7♂♂ and 3 nymphs

## CICADOMORPHA

**Aphrophoridae**

*Aphrophora alni* (Fallén) 5♂♂

*Aphrophora corticea* Germar 2♀♀

*Neophilaenus albipennis* (Fabricius) 1♀

*Neophilaenus campestris* (Fallén) 1♀

*Neophilaenus exclamationis* (Thunberg) not counted

*Neophilaenus lineatus* (Linnaeus) 3♀♀

*Philaenus spumarius* (Linnaeus) 5♂♂ 3♀♀

**Membracidae**

*Centrotus cornutus* (Linnaeus) 1 nymph

**Ulopidae**

*Utecha trivialis* (Germar) 1♂

**Cicadellidae**

*Aconurella proluxa* (Lethierry) 1♂

*Adarrus* sp. 1♂ 3♀♀

*Adarrus exornatus* Ribaut 2♂♂ 5♀♀

*Adarrus multinotatus* (Boheman) 1♂

*Anaceratagallia venosa* (Geoffroy) not counted

*Anoscopus* cfr. *flavostriatus* (Donovan) 2♂♂

*Aphrodes bicincta* (Schrank) 1♀

*Arboridia* sp. 1♀

*Arboridia ribauti* (Ossiannilsson) 1♂

*Arocephalus longiceps* (Kirschbaum) 71♂♂ 74♀♀

*Austroagallia sinuata* (Mulsant & Rey) not counted

*Balclutha punctata* (Fabricius) 13♂♂ 19♀♀ and 14 nymphs

*Balclutha saltuella* (Kirschbaum) 1♂ 1♀

*Chlorita viridula* (Fallén) not counted

*Cicadella viridis* (Linnaeus) 1♂ 4♀♀

*Cicadula persimilis* (Edwards) 13♂♂ 3♀♀

*Cicadula quadrinotata* (Fabricius) 2♂♂

*Conosanus obsoletus* (Kirschbaum) 3♀♀

*Deltocephalus pulicaris* (Fallén) 10♂♂ 1♀ (2♂♂ of which parasitized and castrated)

*Diplocolenus bohemani* (Zettstedt) 1♀

- Doratura stylata* (Boheman) 2♂♂ 3♀♀  
*Ebarrius cognatus* (Fieber) not counted  
*Edwardsiana* sp. 1♀  
*Edwardsiana geometrica* (Schrank) not counted  
*Edwardsiana ishidai* (Matsumura) 2♂♂  
*Edwardsiana rosae* (Linnaeus) 1♂ (parasitized and castrated)  
*Emelyanoviana mollicula* (Boheman) 23♂♂ 9♀♀  
*Empoasca decipiens* Paoli not counted  
*Erythria manderstjernii* (Kirschbaum) 4♂♂ 1♀  
*Eupteryx atropunctata* (Goeze) 2♂♂  
*Eupteryx curtisii* (Flor) 8♂♂  
*Eupteryx notata* Curtis 1♂  
*Eupteryx urticae* (Fabricius) 1♂ 3♀♀  
*Euscelis incisus* (Kirschbaum) 5♂♂ 7♀♀  
*Forcipata major* (Wagner) 1♀  
*Goniagnathus brevis* (Herrich-Schäffer) 2♀♀  
*Grypotes puncticollis* (Herrich-Schäffer) 1♀  
*Hardya tenuis* (Germar) not counted  
*Idiocerus stigmatalis* Lewis 1♀  
*Macropsis* cfr. *infuscata* (Sahlberg) 1♀  
*Macropsis fuscata* (Zetterstedt) 1♀  
*Macrosteles cristatus* (Ribaut) 10♂♂ 15♀♀  
*Mocydia crocea* (Herrich-Schäffer) 1♀  
*Psammotettix alienus* (Dahlbom) 1♂  
*Psammotettix confinis* (Dahlbom) 1♂  
*Psammotettix* gr. *helvolus* (Kirschbaum) 93♂♂ 94♀♀  
*Wagneripteryx germari* (Zetterstedt) 2♂♂ 17♀♀ (some of which parasitized by Dryinidae)  
*Zyginidia pullula* (Boheman) 1♀

## STERNORRHYNCHA

### PSYLLOMORPHA

#### Psyllidae

- Aphalara polygoni* Förster, not counted  
*Aphalara sauteri* Burckhardt 8♂♂ 16♀♀  
*Bactericera nigricornis* (Förster) 6♂♂ 7♀♀  
*Cacopsylla affinis* (Löw) 1♀  
*Cacopsylla albipes* (Flor) 2♀♀  
*Cacopsylla brevantennata* (Flor) 6♂♂ 4♀♀  
*Livia junci* (Schrank) not counted  
*Psylla alni* (Linnaeus) 14♂♂ 7♀♀  
*Psyllopsis fraxini* (Linnaeus) 1♂  
*Psyllopsis fraxinicola* (Förster) 1♂ 1♀

**Triozidae***Triozza caesaris* Burckhardt & Lauterer 2♂♂*Triozza rumicis* Löw 1♀

3 – DONDENA REFUGE, m 2100-2300 (CHAMPORCHER) E387135  
N5052166

This site is characterized by alpine meadows (Nardion prevailing in grazed areas; Festucion dominant on steep slopes exposed southwards), strips of shrubs dominated by *Rhododendron ferrugineum*, *Vaccinium gaultherioides*, and *Alnus viridis* on North exposures, and *Juniperus* on South exposures, wide debris layers and rocky outcrops (area of contact between the ophiolites of the Mont Avic massif and the lime schists are dominant in the upper Champorcher Valley). In the immediate surroundings there are sparse forests of *Larix decidua* and some nuclei of *Pinus uncinata*.

## HETEROPTERA

## LEPTOPODOMORPHA

**Saldidae***Salda littoralis* not counted*Saldula orthochila* (Fieber) not counted*Saldula saltatoria* (Linnaeus) not counted

## CIMICOMORPHA

**Nabidae***Nabis (Nabis) punctatus* A. Costa, not counted*Nabis (Nabis) rugosus* (Linnaeus) not counted**Miridae***Adelphocoris lineolatus* (Goeze) not counted*Stenodema calcaratum* (Fallén) not counted*Trigonotylus caelestialium* (Kirkaldy) not counted

## PENTATOMOMORPHA

**Alydidae***Camptopus lateralis* (Germar) not counted**Coreidae***Coreus marginatus* (Linnaeus) not counted**Rhopalidae***Stictopleurus abutilon* (Rossi) not counted**Lygaeidae***Geocoris lapponicus* Zetterstedt, not counted*Kleidocerys ericae* (Horváth) not counted*Melanocoryphus albomaculatus* (Goeze) not counted

*Metopoplax origani* (Kolenati) not counted  
*Nysius* sp. not counted  
*Nysius thymi* (Wolff) not counted  
*Oxycarenus (Euoxycarenus) pallens* (Herrich-Schäffer) not counted  
*Trapezonotus (Trapezonotus) arenarius* (Linnaeus) not counted

## AUCHENORRHYNCHA

### FULGOROMORPHA

#### Delphacidae

*Kelisia ribauti* Wagner, many adults  
*Laodelphax striatella* (Fallén) 1♂ 1♀  
*Toya propinqua* (Fieber) 1♂

### CICADOMORPHA

#### Aphrophoridae

*Neophilaenus exclamationis* (Thunberg) 8♂♂ 3♀♀

#### Cicadellidae

*Anaceratagallia venosa* (Geoffroy) 1♂ 1♀  
*Arocephalus longiceps* (Kirschbaum) 1♀  
*Cicadula quadrinotata* (Fabricius) 3♂♂ 4♀♀  
*Deltocephalus pulicaris* (Fallén) 2♂♂ 2♀♀  
*Ebarrius cognatus* (Fieber) 1♂  
*Ebarrius interstictus* (Fieber) 1♂ 2♀♀  
*Idiodonus cruentatus* (Panzer) 2♀♀  
*Psammotettix cephalotes* (Herrich-Schäffer) 9♂♂ 10♀♀  
*Psammotettix helvolus* (Kirschbaum) 9♂♂ 5♀♀  
*Psammotettix nardeti* Remane 1♀  
*Streptopyx tamaninii* Linnavuori 1♂  
*Verdanus abdominalis* (Fabricius) 2♀♀  
*Zyginidia cornicula* Meusnier 1♂ 7♀♀

## STERNORRHYNCHA

### PSYLLOMORPHA

#### Psyllidae

*Aphalara calthae* (Linnaeus) 2♂♂  
*Aphalara longicaudata* Wagner & Franz 3♂♂ 3♀♀  
*Aphalara sauteri* Burckhardt, many adults  
*Bactericera bohémica* (Šulc) 18♂♂ 19♀♀  
*Bactericera femoralis* (Förster) 28♂♂ 45♀♀  
*Bactericera harrisoni* (Wagner) 1♂ 4♀♀  
*Bactericera parastriola* Conci, Ossiannilsson & Tamanini 2♂♂ 2♀♀

*Cacopsylla brunneipennis* (Edwards) 15♂♂ 12♀♀  
*Cacopsylla melanoneura* (Förster) 1♂  
*Cacopsylla nigrita* (Zetterstedt) 2♂♂ 4♀♀  
*Cacopsylla pulchra* (Zetterstedt) 1♀  
*Cacopsylla rhododendri* (Puton) 1♂ 8♀♀

### **Triozidae**

*Trioza dispar* (Löw) 1♀  
*Trioza remaudierei* Burckhardt & Lauterer 13♂♂ 17♀♀  
*Trioza rumicis* Löw 1♂  
*Trioza schrankii* (Flor) 1♂

4 – MISERIN REFUGE, m 2588 (CHAMPORCHER) E384776 N5051171

This area has a discontinuous plant cover (*Carex curvula*, Poion, Elynion, Salicion herbaceae and Loiseleurio-Vaccinion), interrupted by large areas of debris and rocky outcrops (mainly lime schist), and is close to one of the largest lakes in the Aosta Valley (Lac Miserin). There are also patches of Caricion fuscae and isolated shrubs (*Rhododendron ferrugineum*, *Vaccinium gaultherioides*, *Juniperus nana*).

## HETEROPTERA

### LEPTOPODOMORPHA

#### **Saldidae**

*Saldula orthochila* (Fieber) 1♂ 2♀♀

### PENTATOMOMORPHA

#### **Lygaeidae**

*Nysius* sp. not counted

## AUCHENORRHYNCHA

### FULGOROMORPHA

#### **Delphacidae**

*Kelisia ribauti* Wagner 1♂  
*Ribautodelphax albostrata* (Fieber) 1♂ 1♀

### CICADOMORPHA

#### **Aphrophoridae**

*Neophilaenus exclamationis* (Thunberg) 1♀  
*Philaenus spumarius* (Linnaeus) 1♂ 1♀

#### **Cicadellidae**

*Cicadula quadrinotata* (Fabricius) 1♂

*Erythria* sp. 1♂ 1♀  
*Eupteryx cyclops* Matsumura 2♂♂  
*Neoaliturus fenestratus* (Herrich-Schäffer) 3♀♀  
*Psammotettix* cfr. *nardeti* Remane 1♂ 1♀  
*Psammotettix helvolus* (Kirschbaum) 1♂  
*Psammotettix nardeti* Remane 10♂♂ 27♀♀  
*Verdanus abdominalis* (Fabricius) 3♀♀

## STERNORRHYNCHA

### PSYLLOMORPHA

#### **Triozidae**

*Bactericera bohemica* (Šulc) not counted  
*Bactericera femoralis* (Förster) not counted  
*Triozia urticae* (Linnaeus) not counted

## REMARKS

Altogether 126 species of Heteroptera, belonging to 89 genera, 108 species of Auchenorrhyncha, belonging to 75 genera, and 30 species of Sternorrhyncha Psyllomorpha, belonging to 8 genera, were collected at the three sites of the Natural Park of Mont Avic in the Aosta Valley.

The number of families totals 21 for the Heteroptera, 10 for the Auchenorrhyncha, and 2 for the Sternorrhyncha Psyllomorpha.

The collecting activity at the four different collecting sites gave the following numbers: Capoluogo-Tendeur 66 species of 52 genera of Heteroptera, 53 species of 44 genera of Auchenorrhyncha, and 5 species of 4 genera of Sternorrhyncha Psyllomorpha; Chevrère 71 species of 55 genera of Heteroptera, 69 species of 52 genera of Auchenorrhyncha, and 12 species of 7 genera of Sternorrhyncha Psyllomorpha; Dondena Refuge 18 species of 16 genera of Heteroptera, 17 species of 14 genera of Auchenorrhyncha, and 16 species of 4 genera of Sternorrhyncha Psyllomorpha; Miserin Refuge 2 species of 2 genera of Heteroptera, 11 species of 10 genera of Auchenorrhyncha, and 3 species of 2 genera of Sternorrhyncha Psyllomorpha.

New records for Italy are, for the Heteroptera Cimicomorpha, the Mirid *Lygus maritimus* from Capoluogo-Tendeur and, for the Auchenorrhyncha Cicadomorpha, the Cicadellid *Edwardsiana ishidai* from Chevrère. The Delphacid *Mullerianella extrusa* from Chevrère is confirmed as a new record for Italy, having been found at the same time in the neighbouring Canavese district (Alma *et al.*, 2009).

*Zyginidia cornicula* collected at the Dondena Refuge corresponds to *Z. viaduensis* (Wagner) reported in the Checklist of the Italian Fauna (D'Urso, 1995) and in a previous paper (Bocca *et al.*, 1988). The name *Z. cornicula* was preferred, because the aedeagus is intermediate, but closer in shape to the French species.

The male specimens of *Jassargus* gr. *obtusivalvus* collected at Capoluogo-Tendeur have details of the aedeagus of the lobes of the pygofer and of the styli that do not coin-

cide perfectly neither with *J. obtusivalvis* nor with *J. avennicus* Ribaut nor with *J. bicorniger* (Then).

The Pipunculid Diptera collected at Capoluogo-Fabrique are 1♂ and 1♀ of *Tomosvaryella geniculata* (Meigen), while at Chevrère 1♂ was collected of *Tomosvaryella freidbergi* DeMeyer, the latter being the first record for Italy. The leafhopper species parasitized by undetermined larvae of Pipunculidae at Chevrère were *Deltocephalus pulicaris* and *Edwardsiana rosae*.

The Halictophagid Strepsiptera collected at Chevrère were 6 empty male puparia (3 with cephalothecae) and 13♀♀ of *Halictophagus languedoci* Abdul Nour, which is a new species for Italy. The leafhoppers parasitized by *H. languedoci* belonged to *Jassargus* gr. *obtusivalvis*, *Psammotettix helvolus*, and *Arocephalus longiceps* (the two last species are new hosts for this parasite).

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## RÉSUMÉ

*Hémiptères récoltés dans le Parc Naturel Mont Avic (Vallée d'Aoste, Italie NW).*

On mentionne les résultats des récoltes effectuées à l'occasion de l'excursion dans le Parc Naturel du Mont Avic (Vallée d'Aoste, Alpes occidentales italiennes) organisée dans le cadre du 4<sup>th</sup> European Hemiptera Congress – Ivree, septembre 2007. On a cherché à connaître quatre milieux le long d'un vaste gradient d'altitude: Chef-lieu-Tendeur (500-600 mètres), Chevrère (1200-1400 mètres), Dondena (2100-2300 mètres) et Miserin (2588 mètres). Au total on a retrouvé 126 espèces de Heteroptera appartenant à 89 genres, 108 espèces de Auchenorrhyncha appartenant à 75 genres et 30 espèces de Sternorrhyncha Psyllomorpha. Deux espèces sont nouvelles pour l'Italie: le Miridae *Lygus maritimus* et le Cicadellidae *Edwardsiana ishidai*. Nouveaux signalements pour l'Italie sont aussi *Tomosvaryella freidbergi* (Diptera Pipunculidae) et *Halictophagus languedoci* (Strepsiptera Halictophagidae), parasitoïdes de Auchenorrhyncha.

## RIASSUNTO

*Emitteri raccolti nel Parco Naturale Mont Avic (Valle d'Aosta, Italia NW)*

Vengono riportati i risultati delle raccolte effettuate in occasione dell'escursione nel Parco Naturale Mont Avic (Valle d'Aosta, Alpi occidentali italiane) organizzata nell'ambito del 4<sup>th</sup> European Hemiptera Congress – Ivrea, settembre 2007. Sono stati indagati quattro siti lungo un ampio gradiente altitudinale: Capoluogo-Tendeur (500-600 m s.l.m.), Chevrère (1200-1400 m s.l.m.), Dondena (2100-2300 m s.l.m.) e Miserin (2588 m s.l.m.). In totale sono state rinvenute 126 specie di Heteroptera appartenenti a 89 generi, 108 specie di Auchenorrhyncha appartenenti a 75 generi e 30 specie di Sternorrhyncha Psyllomorpha. Due specie sono risultate essere nuove per l'Italia: il Miridae *Lygus maritimus* e il Cicadellidae *Edwardsiana ishidai*. Di nuova segnalazione per l'Italia sono anche il Dittero Pipunculidae *Tomosvaryella freidbergi* e lo Strepsittero Halictophagidae *Halictophagus languedoci*, parassitoidi di Auchenorrhyncha.