

**New Polish data for *Agnocoris reclairei* (Wagner, 1949)
and *A. rubicundus* (Fallén, 1807)
(Hemiptera: Heteroptera: Miridae)**
with a key to the Palearctic species of *Agnocoris* Reuter*

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Abstract. New records of *Agnocoris reclairei* (Wagner, 1949) and *A. rubicundus* (Fallén, 1807) from Poland (Lower Silesia) are presented. Color images of adults and male genitalia drawings of *Agnocoris* species occurring in Poland, and a key to the Palearctic species belonging to the genus are also provided.

Key words. Hemiptera, Heteroptera, Miridae, Mirinae, *Agnocoris*, *Agnocoris eduardi*, *Agnocoris reclairei*, *Agnocoris rubicundus*, new records, Poland, key.

Introduction

The Holarctic genus *Agnocoris* Reuter comprises seven species (Schuh 2002–2012). Three of them, namely *A. eduardi* Ribes, *A. reclairei* (Wagner), and *A. rubicundus* (Fallén) are known from the Palearctic Region, and two latter occur in Poland (Kerzhner & Josifov 1999). While *A. rubicundus* is widely distributed in Poland, there are only a few Polish records of *A. reclairei* (Gorczyca & Wolski 2011) (Fig. 17).

* This paper presents partial results of the junior author's Master's thesis ("Weevils (Coleoptera: Curculionoidea) and true bugs (Hemiptera: Heteroptera) of trees and bushes in Opole"), submitted to the Department of Biosystematics, Opole University, Opole, Poland, under the supervision of Prof. Jerzy A. Lis.

In this paper, we provide new distributional data for *A. reclairei* and *A. rubicundus* in Poland. The dorsal habitus color photographs and male genitalia drawings of *Agnocoris* species occurring in Poland and a key to Palearctic species belonging to this genus are also provided to facilitate their identification.

Material and methods

Dissections of male genitalia were performed using the technique described by Kerzhner and Konstantinov (1999). External structures were examined using an Olympus SZX12 stereomicroscope. Male genitalia were observed using an Olympus BX50 optical microscope. Color photographs of the adults, taken with an ALTRA 20 digital camera, are not to scale. The terminology of the male genitalic structures follows Konstantinov (2003) and Cassis (2008).

Most of the material used in this study was collected by the junior author in Opole (Lower Silesia) in 2011 and is deposited at the Department of Biosystematics, Opole University, Poland (OU). The studied material also includes specimens loaned from the Department of Zoology, University of Silesia, Poland (US) and Dr. G. Hebda collection (GH). These abbreviations are used throughout the paper.

Key to the Palearctic species of *Agnocoris*

1. Right lateral sclerite of endosoma distinctly curved medially, slender; left paramere with extreme apex of apical process elongated, tooth on its ventral surface distinctly removed from apex (Ribes 1977: Figs 7, 9)
..... *A. eduardi* Ribes, 1977
- Right lateral sclerite of endosoma indistinctly curved medially, almost straight, more or less broadened laterally (Figs 6, 12); left paramere with apical process shorter on extreme apex, tooth on its ventral surface situated near apex (Figs 8-9, 14-15) 2.
2. Sinistrolateral sclerite of endosoma nearly reaching apex of endosoma, almost entirely covered with small denticles (Figs 5, 7); secondary gonopore ellipsoid, situated near apex of endosoma (Fig. 5); dextrolateral sclerite of endosoma nearly cylindrical at basal one third, slightly sinuate medially, and distinctly narrowed toward apex (Fig. 6); left paramere with apical process almost straight, distinctly elongated; paramere body strongly broad-

- ened (Figs 8-9); right paramere broadened (Fig. 10); antennal segment II as long as or slightly longer than head width; interocular distance 1.3 x in ♂, 1.5-1.55 x in ♀ as wide as eye diameter when viewed dorsally, measured between lateral margins *A. reclairei* (Fallén, 1807)
- Sinistrolateral sclerite of endosoma slightly reaching beyond medial portion of endosoma, mostly smooth, serrate only apically (Figs 11-13); secondary gonopore rounded, removed from apex (Fig. 11); dextrolateral sclerite of endosoma stout, strongly sinuate laterally, its apex less distinctly narrowed apically (Fig. 12); left paramere with apical process somewhat curved, short (Figs 14-15); right paramere more slender (Fig. 16); antennal segment II 0.8 x as long as head width; interocular distance 1.15-1.20 x in ♂, 1.4-1.5 x in ♀ as wide as eye diameter when viewed dorsally, measured between lateral margins *A. rubicundus* (Wagner, 1949)

***Agnocoris reclairei* (Wagner, 1949)**

(Figures 1-2, 5-10, 17)

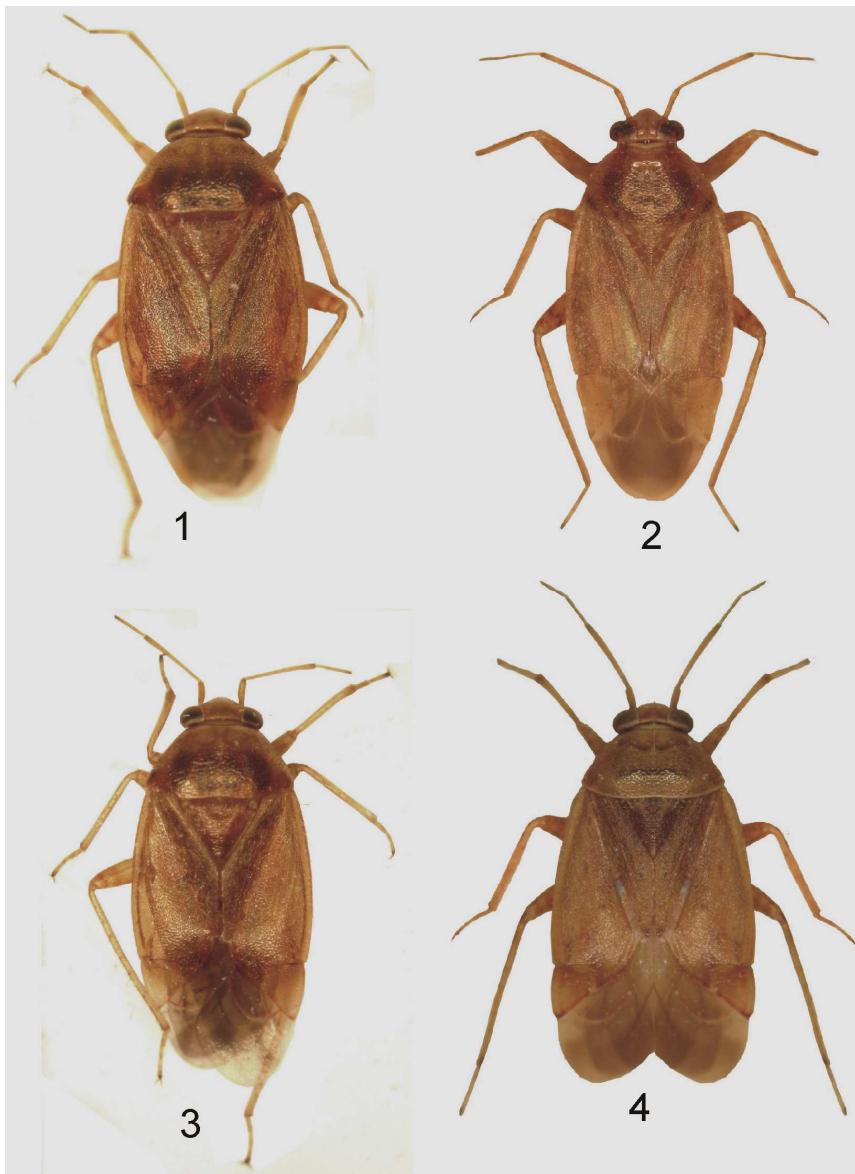
Distribution. Known from many European countries, Azerbaijan, Asian part of Turkey and Iraq. In the Polish literature there are only view reports of this species. However, Gorczyca and Wolski (2011) suggested that a part of records of *A. rubicundus* refered to this species. *A. reclairei* has been hitherto recorded from the Baltic Coast, Mazovian Lowland, Podlasie Lowland, Krakowsko-Wieluńska Upland, Lubelska Upland, Sandomierska Lowland, Western Beskidy Mts (Gorczyca & Wolski 2011).

Biology. Occurs mostly on *Salix* spp. (Gorczyca & Wolski 2011).

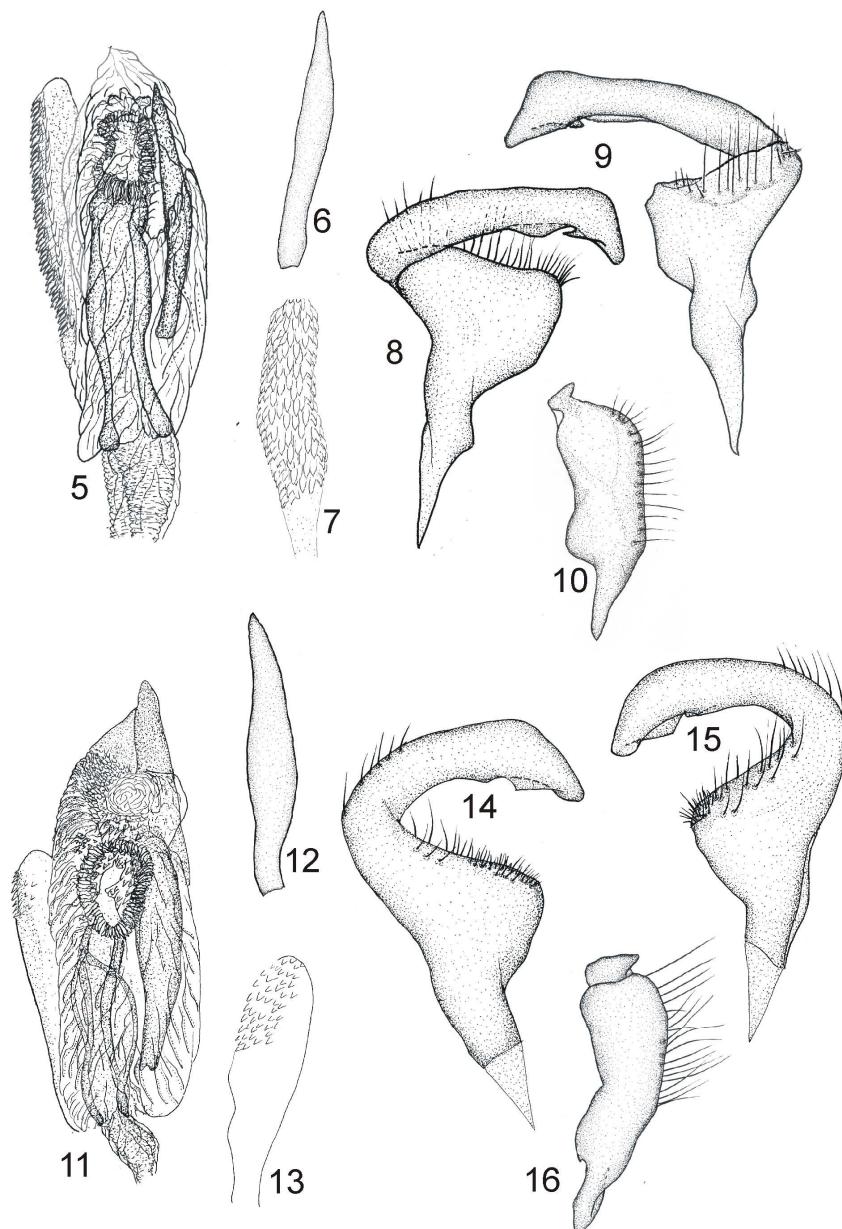
Remarks. This species commonly co-occurred with *A. rubicundus* throughout Opole.

New records. Lower Silesia: Opole [YS01], 4♀♀ and 2♂♂: Opole, European yew (*Taxus baccata* L.), 18.09.2011, leg. H. Skora; 1♀: the same locality and date, wild cherry (*Padus avium* Mill.), leg. H. Skora; 1♂ and 1♀: the same locality, horse chestnut (*Aesculus hippocastanum* L.), 29.07.2011, leg. H. Skora; 1♂: the same locality, European cornel (*Cornus mas* L.), 29.08.2011, leg. H. Skora; 1♀: Opole, Bolko Island, white willow (*Salix alba* L.), 21.06.2011, leg. H. Skora (OU) (Fig. 17).

Additional material examined. 1♂: 09.07.1987 Mielnik, *Salix alba*, leg. A. Herczek; 1♂: 25.07.1987 Mielnik, leg. J. Gorczyca (US) [published in Gorczyca & Herczek (1991)].



Figs 1-4. Dorsal habitus photographs of the Polish *Agnocoris* spp.: 1-2 – *Agnocoris reclairei*: 1 – ♀: Opole YSo1, European yew (*Taxus baccata* L.), 18.09.2011, leg. H. Skora, 2 – ♂: 09.07.1987 Mielnik, *Salix alba*, leg. A. Herczek; 3-4 – *A. rubicundus*: 3 - ♀: Opole YSo1, Bolko Island, white willow (*Salix alba* L.), 21.06.2011, leg. H. Skora, 4 - ♂: 21.07.1987 Wajków, *Phragmitetea*, leg. J. Gorczyca.



Figs 5-16. Male genitalia of *Agnocoris reclairei* (5-10) and *A. rubicundus* (11-16): 5, 11 – endosoma (dorsal view); 6, 12 – dextrolateral sclerite of endosoma; 7, 13 – sinistror lateral sclerite of endosoma; 8, 14 – left paramere (dextrolateral view); 9, 15 – left paramere (sinistror lateral view); 10, 16 – left paramere (dorsal view).

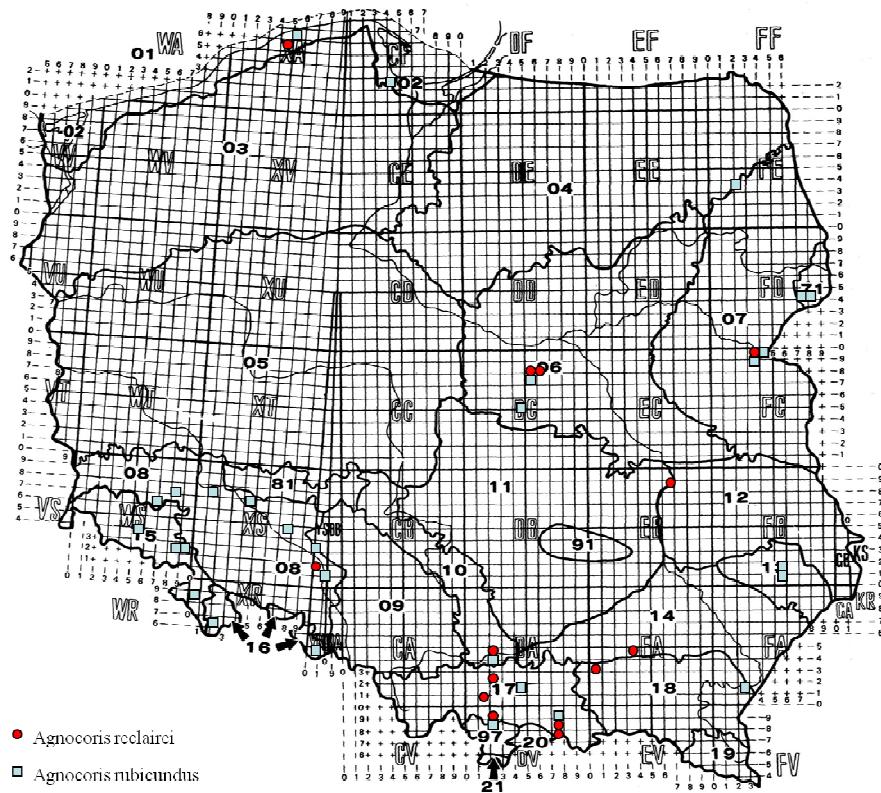


Fig. 17. Distribution map of *Agnocoris* spp. in Poland.

Agnocoris rubicundus (Fallén, 1807)

(Figures 3-4, 11-17)

Distribution. Known from most Palearctic countries. In Poland relatively common (Gorczyca & Wolski 2011).

Biology. Occurs on *Salix* spp., rarely on *Populus alba* L. (Gorczyca & Wolski 2011).

New records. Lower Silesia: Opole [YS01], **1♂** and **3♀♀**: Opole YS01, European yew (*Taxus baccata* L.), 15.08.2011, leg. H. Skora; **1♂** and **2♀♀**: the same locality, European cornel (*Cornus mas* L.),

08.07.2011, leg. H. Skora; **1♀**: the same locality, common snowberry (*Symporicarpos albus*), 29.07.2011, leg. H. Skora; **1♀**: the same locality, horse chestnut (*Aesculus hippocastanum* L.), 08.07.2011, leg. H. Skora; **2♀♀**: Opole, Bolko Island, white willow (*Salix alba* L.), 21.06.2011, leg. H. Skora (**OU**); Boboluszki near Branice [YS04], **2♂♂**: Boboluszki ad Branice, 2.07.2008, leg. G. Hebda; Lisie Łąki near Lubsza [XS74], **1♀** and **1♂**: Dolny Śląsk: Lisie Łąki ad Lubsza, 3.05.2008, leg. M.A. Mazur; “Strobrawa” Landscape Park [YS03], **1♂**: PK Strobrawski YS03, Ładza, 07.05.2010, leg. M.A. Mazur (**GH**) (Fig. 17).

Additional material examined. **1♂**: 9.07.1987 Mielnik, *Salix alba*, leg. A. Herczek; **1♂**: 21.07.1987 Wajków, Phragmitetea, leg. J. Gorczyca; **1♀**: 25.07.1987, leg. J. Gorczyca; **1♀**: Mielnik, 8.07.1987 Salicion albae, leg. A. Herczek (**US**) [published in Gorczyca & Herczek (1991)].

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