

## The genus *Agnocoris* in Belgium (Hemiptera: Miridae)

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### Abstract

Since *Agnocoris reclairei* (Wagner, 1949) was split off from *Agnocoris rubicundus* (Fallén, 1807), all identified *Agnocoris* specimens from Belgium turned out to be *A. reclairei*. On 2.VI.2018, *A. rubicundus* was found for the first time in Belgium in the nature reserve Vijverbroek near Kinrooi (Province of Limburg).

**Keywords:** *Agnocoris reclairei* (Wagner, 1949), *Agnocoris rubicundus* (Fallén, 1807), plant bugs, Heteroptera, Vijverbroek

### Samenvatting

Sinds *Agnocoris reclairei* (Wagner, 1949) werd afgesplitst van *Agnocoris rubicundus* (Fallén, 1807) bleken alle geïdentificeerde exemplaren in België *A. reclairei* te zijn. Op 2.VI.2018 werd *A. rubicundus* voor het eerst in België waargenomen in het natuurnatuurreservaat Vijverbroek te Kinrooi (Provincie Limburg).

### Résumé

Depuis que *Agnocoris reclairei* (Wagner, 1949) a été séparé de *Agnocoris rubicundus* (Fallén, 1807), tous les exemplaires identifiés de Belgique se révélaient appartenir à *A. reclairei*. Le 2.VI.2018, *A. rubicundus* a été trouvé pour la première fois en Belgique dans la réserve naturelle Vijverbroek à Kinrooi (Province du Limbourg).

### Introduction

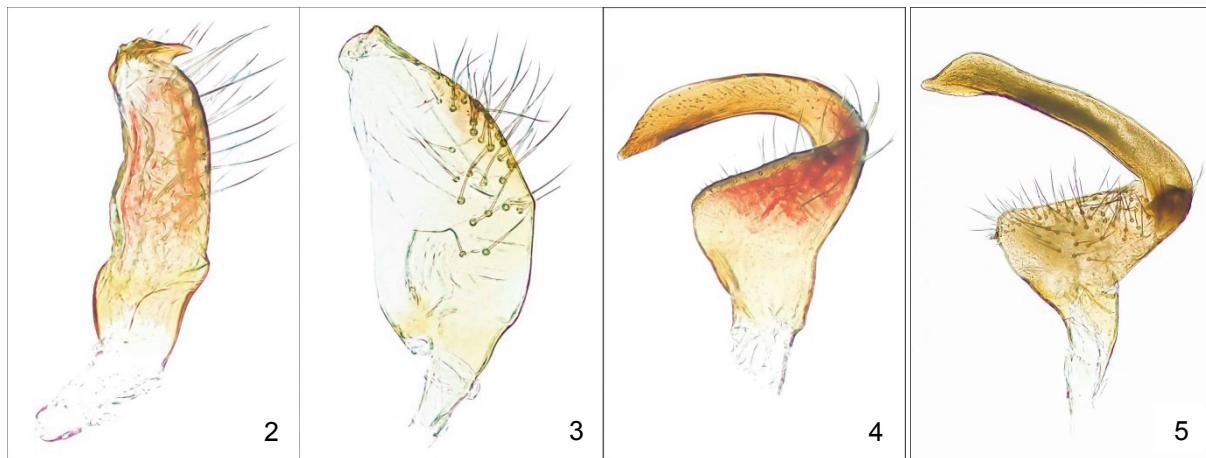
Miridae, also called capsid bugs or plant bugs, are the largest family of Heteroptera in Belgium. The recently published distribution atlas for Belgium reported 231 species, but a lot more can be expected (AUKEMA *et al.*, 2014). Recently, *Orthotylus rubidus* (Puton, 1874), *Tuponia brevirostris* Reuter, 1883 and *Tuponia mixticolor* (A. Costa, 1862) could already be added to the Belgian fauna (LOCK, 2018a,b).

Species of the genus *Agnocoris* measure about 5 mm and can be recognised by the pale midline on the pronotum, the densely hairy forewings with dark arcs on the membrane and especially the very short antennae (Fig. 1). The species are macropterous and live on willow. They overwinter in the adult stage and have one generation per year. Adults can be found all year round and adults from the new generation appear from June onwards.

Since *Agnocoris reclairei* (Wagner, 1949) was split off from *Agnocoris rubicundus* (Fallén, 1807), all identified *Agnocoris* specimens from Belgium turned out to be *A. reclairei*, which is common species in Belgium (AUKEMA *et al.*, 2014). Two unconfirmed records of *A. rubicundus* from the Province of Antwerp and the Brussels Capital Region (LETHIERRY & PIERRET, 1879) probably also refer to *A. reclairei*, which was not yet described at that time. It was therefore concluded that *A. rubicundus* might not be indigenous in Belgium (AUKEMA *et al.*, 2014). However, it is reported here that *Agnocoris rubicundus* (Fallén, 1807) is part of the Belgian fauna, the genus *Agnocoris* is therefore represented by two species in Belgium.



Fig. 1. Habitus of *Agnocoris reclairei* (Wagner, 1949) (photo by K. Lock).



Figs 2-3. Dorsal view of the right paramere: 2. *Agnocoris rubicundus* (Fallén, 1807); 3. *Agnocoris reclairei* (Wagner, 1949) (photos by Koen Lock).

Figs 4-5. Dorsal view of the left paramere: 4. *Agnocoris rubicundus* (Fallén, 1807); 5. *Agnocoris reclairei* (Wagner, 1949) (photos by Koen Lock).

## Material and methods

Bugs were sampled by sweeping the vegetation. Miridae were identified using WAGNER & WEBER (1964). One male of *A. rubicundus* was deposited to the entomological collection of the Royal Belgian Institute of Natural Sciences (I.G.: 33.782).

## Results

On 2.VI.2018, *A. rubicundus* was found on willow in the nature reserve Vijverbroek in Kinrooi (Province of Limburg, UTM: 31UFS9771, 30 m a.s.l.). The reserve is known for its marshes with alluvial alder forest, willow thickets, floating islands and moist grasslands. The reserve is situated in an old branch of the River Meuse, which has silted up since the last ice age and it is part of the border-crossing natural park Rivierpark Maasvallei.

Species of the genus *Agnocoris* can only be identified based on the male genitalia. The right paramere of *A. rubicundus* is small, but bears a big processus at the top (Fig. 2), while it is bigger in *A. reclairei*, but the processus is much smaller (Fig. 3). The left paramere of *A. rubicundus* is big and the sensory lobe is much higher than wide (Fig. 4), while the one of *A. reclairei* is even bigger and the sensory lobe is wider than high (Fig. 5).

## Discussion

*Agnocoris rubicundus* was expected in Belgium, because it was already found in the Netherlands, where it was found close to the Belgian border (AUKEMA & HERMES, 2014), and also in northern France, Germany and Luxembourg (AUKEMA *et al.*, 2014). In the Netherlands, *A. rubicundus* is very rare and it has only been found in eight 5x5 km squares in the southeast of the country. The observation of *A. rubicundus* in Belgium was actually very close to one of these locations.

*Agnocoris reclairei* is a common species in Belgium (AUKEMA *et al.*, 2014), however, since also *A. rubicundus* turns out to be present in Belgium, male genitalia should always be studied for species identification.

## Acknowledgements

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