

Lygus adpersus (Schilling, 1837) is a synonym of *L. gemellatus* (Herrich-Schaeffer, 1835) (Heteroptera: Miridae)

N.Yu. Demchenko

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The synonymy of *L. adpersus* with *L. gemellatus* is restored. *L. gemellatus* f. *adpersus* corresponds to the overwintering generation in the southern part of the species range and to the single generation in the colder regions.

N.Yu. Demchenko, Voronezh State University, Universitetskaya pl. 1, Voronezh 394693, Russia.

Lygus gemellatus (Herrich-Schaeffer, 1835)

= *Lygus adpersus* (Schilling, 1837), **syn. rest.**

L. adpersus (described from Poland) was placed in synonymy with *L. gemellatus* (described from Germany) by Scholtz (1847).

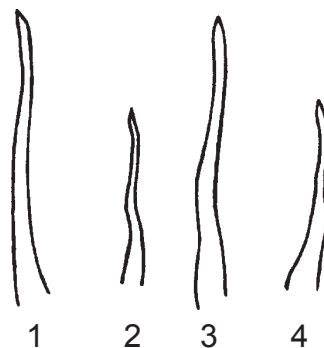
Wagner (1947) described from Hamburg *L. gemellatus* f. *autumnalis* differing in the reddish coloration of body. Vinokurov (1979) found that only this form is distributed in Yakutia and that it shows constant differences in the black pattern on pronotum and scutellum. Kerzhner (1984) considered this form to be a separate species and restored for it the name *L. adpersus*.

My observations show that *L. adpersus* is conspecific with *L. gemellatus*. Dr R. Remane (personal communication of J. Günther to I.M. Kerzhner) is of the same opinion. In the southern regions, *L. gemellatus* has two generations, of which the summer generation corresponds to f. *gemellatus* and the overwintering one to f. *adpersus*. In the colder regions (Northern Europe, most of Siberia), the species apparently has only one generation, with coloration corresponding to f. *adpersus*. The following facts support this view.

The two forms do not differ in the structure of the male genitalia, particularly in the length and shape of the spicula aedeagi. The figures of the genitalia of a male from Korea (Josifov & Kerzhner, 1972, *Lygus* sp.), contrary to Kerzhner (1984), refer not to *L. adpersus*, but to the subsequently described *L. sibiricus* Aglyamzyanov (Aglyamzyanov, 1990). Other authors figured the spicula of *L. adpersus* either as subequal to that of *L. gemellatus* (Aglyamzyanov, 1990; Josifov, 1992) or as slightly longer (Rieger, 1987), but actually the length of the spicula varies in the same limits in both forms (Figs 1-4).

In Voronezh Province, the f. *gemellatus* is found from mid-June to mid-August on the same plants, on which the f. *adpersus* is collected from mid-August of the given year to mid-June of the next year (except the winter period). Similar results are obtained from examination of the collection of the Zoological Institute, St.Petersburg and some published data. In the regions where both forms occur, the f. *gemellatus* is collected from mid-June to mid-August and the f. *adpersus*, mainly from mid-August to November and from late March to mid-June. A few specimens form exception, but this is probably explained by overlapping of generations. In colder regions, only the f. *adpersus* is found throughout the warm period.

On 25 May 2003, I put several specimens of the f. *adpersus* in a rearing cage with *Artemisia absinthium* L. The first-instar larvae hatched on 4 June. Most of the larvae did not finish the development; both obtained imagines (moulted on 21 and 22 June) belonged to f. *gemellatus*.



Figs 1-4. *Lygus gemellatus*, variability of spicula in specimens from Voronezh Province: 1, 2, f. *gemellatus*; 3, 4, f. *adpersus*.

Further work is necessary to clarify the factors regulating the seasonal dimorphism in *L. gemellatus*.

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