

**The identity of *Hemerobius paucinervis* Zetterstedt, 1840
(Neuroptera)**

Viktória SZŐKE

*Hungarian National Museum Public Collection Centre – Hungarian Natural History Museum,
Department of Zoology, Collection of Smaller Insect Orders,
H-1088 Budapest, Baross utca 13, Hungary. E-mail: szoke.viktoria@nhmus.hu*

Abstract – Based on the re-examination of the lectotype of *Hemerobius paucinervis* Zetterstedt, 1840 (Neuroptera), this taxon is removed from the synonymy with *Symphorobius elegans* (Stephens, 1836) (Hemerobiidae), and transferred to the genus *Sisyra* Burmeister, 1839 (Sisyridae) as a junior subjective synonym of *Sisyra nigra* (Retzius, 1783).

Key words – taxonomy, nomenclature, synonym, Hemerobiidae, Sympherobius, Sisyridae, Sisyra

Dedication – The author warmly congratulates David Attenborough on the occasion of his 100th birthday, celebrated on the day of this article’s publication, and sincerely thanks him for all the inspiration and teaching that every living creature is extraordinary and, when examined closely, can reveal remarkably fascinating curiosities.

INTRODUCTION

Hemerobius paucinervis Zetterstedt, 1840 (Neuroptera), described by ZETTERSTEDT (1840) as pertaining to Hemerobiidae (brown lacewings), has an apparently unambiguous nomenclatural status, based on the latest and most comprehensive works (OSWALD 1988, MONSERRAT 1990, ASPÖCK *et al.* 2001, OSWALD 2026). Nevertheless, it has a quite confusing nomenclatural history.

ZETTERSTEDT (1840) described this species in combination with *Hemerobius* Linnaeus, 1758, based on an unspecified number of female specimen(s) from Tornio, Lapland, Sweden, collected nearby Jukkasjärvi on 3 July (year and collector not specified, collector presumably Zetterstedt). The original description contains no explicit or implicit indication that it was based on a single individual, therefore the type material must be treated as a series of syntypes. Later HAGEN (1866) treated *Hemerobius paucinervis* as a junior subjective synonym of “*Hemerobius elegans* Steph.” [now *Symphorobius elegans* (Stephens, 1836), Hemerobiidae]; this taxonomic decision was followed by MACLACHLAN (1868).

Not long after, however, WALLENGREN (1871) re-examined a syntype of *Hemerobius paucinervis* which he recognised as “the [single] original specimen” (“originalexemplaret” in Swedish); with this, he is deemed to have designated the specimen in concern as the lectotype (ICZN 1999, Art. 74.6). Additionally, he discovered that it actually pertains to *Sisyra* Burmeister, 1839 (Neuroptera: Sisyridae, spongillaflies), and downgraded it to a synonym of “*Sisyra fuscata* Fabr.” [now a junior subjective synonym of *Sisyra nigra* (Retzius, 1783)].

In the next paper which mentioned this species (ALBARDA 1889), *Hemerobius paucinervis* was listed both as the junior subjective synonym of *Sisyra fuscata* and that of *Hemerobius elegans*, citing in both cases the same reference, the original description by ZETTERSTEDT (1840). KRÜGER (1923), in agreement with WALLENGREN (1871), discussed *Hemerobius paucinervis* under *Sisyra*, summarised the knowledge and cited all relevant papers published in this topic until that time, i.e., ZETTERSTEDT (1840), HAGEN (1866), MACLACHLAN (1868), WALLENGREN (1871), and ALBARDA (1889). Later TJEDER (1940), based on the same type specimen of *Hemerobius paucinervis* as was seen by WALLENGREN (1871), confirmed its synonymy with *Sisyra fuscata*.

However, in LERAUT (1980), *Hemerobius paucinervis* re-appeared as a synonym of *Symphorobius elegans*, without proposing a formal nomenclatural act (an omission notable given his treatments of other taxa in the same work), without citing any former classifications (i.e., HAGEN (1866), MACLACHLAN (1868), ALBARDA (1889)), and without offering any evidence of having examined the type specimen. In comprehensive works subsequent to LERAUT (1980), including major revisions, catalogues and databases (e.g., OSWALD 1985, 1988, MONSERRAT 1990, ASPÖCK *et al.* 2001, OSWALD 2026), *Hemerobius paucinervis* was consistently treated as a junior synonym of *Symphorobius elegans*; a notable exception is the European catalogue and revision by ASPÖCK *et al.* (1980) which omitted *Hemerobius paucinervis* entirely.

While examining photographs of type specimens of Neuroptera deposited in the Biological Museum of Lund University (MZLU) via their open access photograph database*, I found three photos of a specimen pertaining to the type material of *Hemerobius paucinervis* (two habitus views and one of the labels). An examination of these images revealed that this species pertains to the family Sisyridae rather than Hemerobiidae. Consequently, a review of the nomenclatural history and a re-examination of the specimen in concern were deemed necessary. Based on these findings, the identity of this species is clarified in this paper.

The examined lectotype of *Hemerobius paucinervis* (Fig. 1) was borrowed from the MZLU for thorough examination in the Hungarian National Museum Public Collection Centre – Hungarian Natural History Museum, Budapest (HNHM). It was examined and identified by the author, using a Nikon SMZ800 stereomicroscope. The complete nomenclatural history of *Sisyra nigra* is not

* <https://www.flickr.com/photos/127240649@N08/>

repeated, since it is given in detail by ASPÖCK *et al.* (2001). Photos were taken partly using a Nikon-D7200 camera, equipped with a Nikon AF-S Micro Nikkor 105mm objective and a DCR-150 Raynox Macro Conversion lens, controlled by Helicon Remote and stacked by Helicon Focus, and partly with a Sony Xperia 10 VI cell phone camera. Post-image works were made by Adobe Photoshop 2025.

TAXONOMY

Sisyra nigra (Retzius, 1783)

Hemerobius niger Retzius, 1783. Original description: RETZIUS (1783: 59). Proposed for the unavailable name “*Hémerobe velu noir*” in DEGEER (1771: 713, pl. 22 figs. 8–11). Syntype(s): [Sweden], no type locality given (DEGEER 1771); lost? (PARFIN & GURNEY 1956).

Hemerobius paucinervis Zetterstedt, 1840. Original description: ZETTERSTEDT (1840: 1050). Lectotype (designated by WALLENGREN (1871: 26) under ICZN (1999, Art. 74.6)): [Sweden,] Juckasjervi [= Juckasjärvi]; MZLU (examined). Synonymised by WALLENGREN (1871: 26) with *Sisyra fuscata* (Fabricius, 1793), now a junior subjective synonym of *Sisyra nigra*.
Confirmed subjective synonym.

Material examined – Lectotype (label data given verbatim, the symbol “//” indicates separate labels): male, “H. paucinervis Zett. ♀ | et Cordyl. Kunzei | Juckasj. // (U) MZLU 00205841 (L) MZLU 00205842 // MZLU Type no. 7713:1 (L) // Photo 2023 by MZLU // Type no. Syntype: 639 *Cordylura kunzei* Zetterstedt, 1821 // Lectotypus *Hemerobius paucinervis* Zett., 1840. ♂ des. Wallengr. 1871. // *Sisyra nigra* Retz. ♂ det. Szöke V. 2026”; pinned on the same pin with a syntype of *Cordylura kunzei* Zetterstedt, 1821 [now *Staegeria kunzei* (Zetterstedt, 1821)] (Diptera: Scatophagidae) (ŠIFNER 2008, OZEROV 2014), below the latter (Figs 1–2).

Remarks – The examined lectotype of *Hemerobius paucinervis* is in a poor condition due to the penetrating, thick pin, however, its diagnostic characters, most importantly the highly characteristic genital segments (Fig. 3) can readily be examined and allow a reliable species-level identification. Since subsequent workers did not affix identification labels, the specimen’s examination history following Zetterstedt cannot be reconstructed, and this information is frequently unclear from the subsequent taxonomic literature as well. However, WALLENGREN (1871) certainly saw the specimen, as he documented that it is pinned together with a specimen of *Cordylura kunzei*; TJEDER (1940) certainly examined it too, as he correctly pointed out that the sex of the specimen is actually male (not female as it was given in the original description). The sex of the lectotype is hereby confirmed as male.

Based on the re-examination of the lectotype it is evident that *Hemerobius paucinervis* pertains to the family Sisyridae, and not Hemerobiidae. The specimen in concern possesses the highly diagnostic, unmistakable gonocoxite 9 of the male of *Sisyra nigra* (Fig. 3). Therefore, the synonymy of the two species, proposed by WALLENGREN (1871) and confirmed by TJEDER (1940), but not accepted by numerous subsequent authors, is here confirmed, thus *Hemerobius paucinervis* is hereby removed from the synonymy with *Symphorobius elegans* (Hemerobiidae) and transferred to the genus *Sisyra* (Sisyridae) as a junior subjective synonym of *Sisyra nigra*.



Fig. 1. Habitus of the lectotype of *Hemerobius paucinervis* Zetterstedt, 1840 (photo by Viktória Szóke)



Fig. 2. Zetterstedt's pin with a syntype of *Cordylura kunzei* Zetterstedt, 1821 above and the lectotype of *Hemerobius paucinervis* Zetterstedt, 1840 below, and the labels (photos by Viktória Szöke)



Fig. 3. Gonocoxite 9 (arrowed) of the lectotype of *Hemerobius paucinervis* Zetterstedt, 1840 (photo by Viktória Szóke)

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