

Archanara neurica (Hübner, 1808) (Lepidoptera, Noctuidae) new to Norway

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The noctuid moth *Archanara neurica* (Hübner, 1808) is reported new to Norway. In 2008 a few specimens were collected in Farsund in southernmost Norway. Notes on the distribution, external characters, biology and habitat are given.

Key words: Lepidoptera, Noctuidae, *Archanara neurica*, Norway, distribution, biology.

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Introduction

The genus *Archanara* Walker, 1866 belongs to a group of genera with strong ecological affinity to moist habitats. The group was termed the *Rhizedra* genus-group by Zilli et al. (2005), and the following species are recorded from Norway; *Fabula zollikoferi* (Freyer, 1836), *Rhizedra lutosa* (Hübner, 1803), *Nonagria typhae* (Thunberg, 1794), *Arenostola phragmitidis* (Hübner, 1803), *Longalatedes elymi* (Treitschke, 1825) and *Archanara dissoluta* (Treitschke, 1825) (Aarvik et al. 2000, Zilli et al. 2005). Members of the group have larvae that are stem feeders in Poaceae, Typhaceae and Cyperaceae growing on shores, in shallow lakes and in other wet habitats. Two species of *Archanara* are present in Europe, and *A. polita* (Walker, 1865) and *A. resoluta* Hampson, 1910 occur in the eastern part of the Palaearctic region (Zilli et al. 2005). *A. dissoluta* is a recent addition to the Norwegian fauna, and it was discovered as late as in 1996 (Aarvik et al.

2000). We herewith report the second European *Archanara* species, *A. neurica* (Hübner, 1808), as new to Norway.

The records

In 2010 the authors were shown a photo of a moth collected at Lista Fyr on 11 August 2010 by Richard Cope (Figure 1). The collector had photographed the specimen and later released it. After some discussion it was concluded that the photo most probably represented *Archanara neurica* which is a species not previously recorded in Norway. This discovery led the authors to look for the species in collections, and additional Norwegian specimens which had been mixed with *A. dissoluta* were discovered. All of them had been collected by Jan Erik Røer at Lista. The discovery of voucher specimens confirmed that the specimen on the photo had been correctly identified as *A. neurica*. Kai Berggren and Reidar



FIGURE 1. *Archanara neurica* (Hübner, 1808), the specimen trapped at Lista Fyr in 2010. Photo: Richard Cope.

Voith also checked material they had collected in the Lista area, but no specimen of *A. neurica* were present in their collections.

Material

1♀ **VAY**, Farsund: Lista Fyr, 32V LK 567 434, 2 August 2008, leg. J.E. Røer, genitalia slide NHMO 1945, coll. NHMO; 1♀ Farsund: Kviljo, 32VLK 636 439, 2 August 2008, leg. J.E. Røer, coll. NHMO; 1♂, Lista Fyr, 1 August 2008, leg. & coll. J.E. Røer.

Abbreviation: NHMO = Natural History Museum, University of Oslo. All specimens were caught in light traps with 125 W mercury vapour bulbs.

Distribution

The species occurs by the North Sea in southern England, Belgium, Holland, northern Germany

and Denmark. It is present along the Baltic Sea in eastern Denmark, southernmost Sweden, north Germany, north Poland, Lithuania and Latvia. In central and southern Europe from south-east France eastwards to the Caspian Sea. Outside Europe it is only reported from Morocco. It occurs sporadically within its range, often present in small colonies that may remain overlooked for years (Zilli et al. 2005).

Diagnostic characters

A. neurica (Figure 2) may easily be confused with its congener, *A. dissoluta*, which is a more widespread and generally more common species. The following characters may serve to distinguish the two species. *A. neurica* has broad reniform stigma marked with whitish dots at each end of

lower edge; the hindwing is uniformly brownish grey, without discal spot, and both wings are practically without pattern ventrally. *A. dissoluta* has narrower reniform stigma, whitish hindwing, basally with darker veins and well-marked discal spot. The discal spot and transverse lines are present on the underside of both wings. *A. neurica* is a more slender-bodied species than *A. dissoluta*, and has also a white patagial collar on thorax. The latter character is clearly visible on the photo of the first recognised Norwegian specimen. The two species show clear cut differences in the genitalia of both sexes; they are figured by Zilli et al. (2005).

Habitat and biology

The habitat is marshes with the foodplant, *Phragmites australis* (Cav.) Trin. ex Steudel. The moth prefers the drier parts of the marsh. This is probably because the larva, unlike its relatives,



FIGURE 1. *Archanara neurica* (Hübner, 1808) male from Lista Fyr 1 August 2008. Wingspan 25 mm. Photo: Karsten Sund.

is unable to swim (Goater 1983). The larva feeds within the stem of the foodplant, and it usually selects the thinner and weaker examples. The larva pupates head downwards inside a dead stem. The flight period is in July–August. They are rarely encountered outside their habitat, although they are attracted to light (Zilli et al. 2005).

The two Norwegian localities are sheltered gardens, partly within plantations dominated by spruce, *Picea sitchensis* (Bong.) Carrière, only 50–100 m from the sea shore. There are 8 km between the two sites, but the main landscape surrounding the sites is the same. Historically this was a mosaic of marshes, bogs and shallow ponds. Subsequently most of it was drained, and now mainly consists of farmed grassland with some remaining large lakes. The smaller ponds are in general drained out, but in the whole area there are patches of marsh and draining channels between the farmed fields with growth of reeds (*P.*

australis) (Figure 3). This is most prominent near Lista Fyr, which also has the lake Slevdalsvann only two kilometers away. Slevdalsvann is an area covered with ca. 200 daa reedbeds with very little standing water. The area has a potential for large populations of moths in the *Rhizodra* genus-group, but is poorly investigated for moths.

Archanara dissoluta has been collected in numbers at Røyrtjønn 6 km to the east from Kviljo. No specimen of *A. neurica* was found at this site in spite of light trapping for many years. The reason may be that Røyrtjønn is too wet for *A. neurica*. This indicates that the two species occupy separate niches in the wetlands of the Lista area.

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FIGURE 1. Reeds, *Phragmites australis* (Cav.) Trin. ex Steudel., growing close to the collecting site at Lista Fyr. Photo: Jan Erik Røer.

Porsgrunn, for their search for *A. neurica* in their collections, and to Karsten Sund, Oslo, for taking the photo of the male *A. neurica* specimen.

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