

## A migration of the Hoverfly *Helophilus trivittatus* (Fabricius, 1805) (Diptera, Syrphidae) to SW Norway in 2010

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A migration of the hoverfly species *Helophilus trivittatus* (Fabricius, 1805) was observed in Vest-Agder and Rogaland counties of SW Norway in July–August 2010.

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### Introduction

*Helophilus trivittatus* (Fabricius, 1805) is a rather easily recognisable hoverfly species, due to its large size, the yellow facial stripe and the rather slender abdomen (Fig. 2). It is normally a scarce species, most often met with in single specimens. It is also regarded as a migrating species, giving sudden rise in numbers (Bartsch 2009: 263, Speight 2008: 102, Stubbs & Falk 2002: 297), as reported here from the counties Vest-Agder (EIS 1, 2, 5) and Rogaland (EIS 7), SW Norway (Fig. 1).

An immigration of the drone fly *Eristalis similis* (Fallén, 1817) was published the previous year from the same region (Nielsen 2009).

### Material and methods

There were no observations of the species in

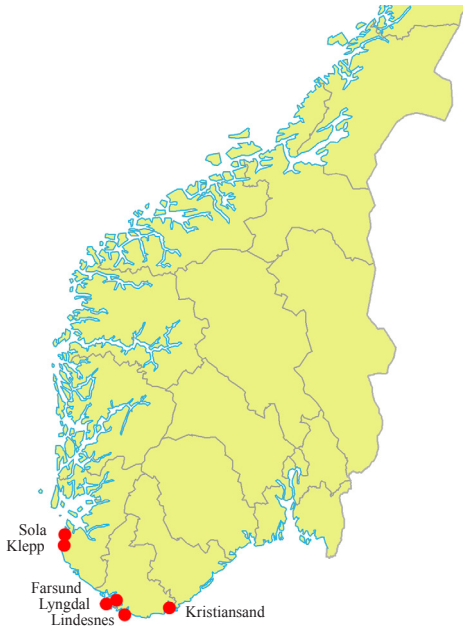
the beginning of July, followed by a series of observations with numerous specimens; VAY, Lindesnes: Jørgenstad and Nydal 16–25 July many *H. trivittatus* on flowering *Potentilla fruticosa* and *Angelica sylvestris*; Hægebostad, Audnedalen 18 July everywhere on the meadows (on *A. sylvestris*, *Filipendula ulmaria* and *Hieracium* sp.); Svennevik 23 July numerous specimens on *A. sylvestris*. Lyngdal: Aunevik 22 July large numbers on *A. sylvestris*. Farsund: Lista, near the lighthouse 24 July, in large numbers on *A. sylvestris* (up to five specimens in one flower). Kristiansand: Randesund, 25 July a few specimens on *A. sylvestris*. RY, Sola: Røyneberg 24 July, 5 individuals on *Astrantia major* in a garden. Klepp: Revtangen, 25 July, appr. 20 individuals on *Crambe maritima* and *Hieracium* sp. and 14 August, thousands of specimens on a field with flowering thistle *Cirsium* sp. (up to 10 specimens on each thistle). Also 2 specimens of *H. hybridus* were collected at the same location that day.

## Comments

June was very dry in the southernmost part of Norway, with severe drought and reduced breeding possibilities for aquatic species like *Helophilus*. The sudden high numbers of *H. trivittatus* from mid July therefore is unlikely to origin from the same area.

July and August have been extremely hot and dry in Eastern Europe, a.o. in Russia, Belarus and Ukraine. We propose the hypothesis that the sudden rise in numbers of *H. trivittatus* were caused by local climatic conditions in Eastern Europe. An analysis of the weather conditions with southeastern winds prior to peak observations in Norway seem to support the possibility of this eastern origin of the flies (Fig. 3).

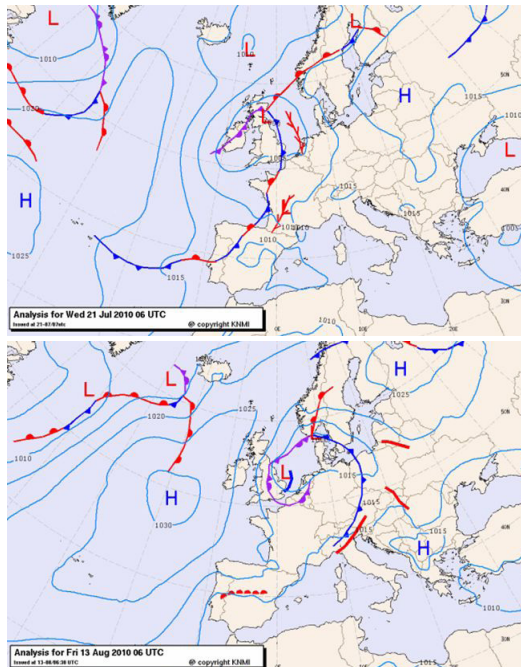
It is interesting to note that also in the Netherlands (Waarneming n.d.), multiple specimens of *H. trivittatus* were reported in July–August (amongst numerous reports of single specimens). Noteworthy are the following reports: 13 July: 35 specimens in Groningen province (Northeast



**FIGURE 1.** Observations of migrating *Helophilus trivittatus* in Norway in 2010. Mapsource: Statens kartverk.



**FIGURE 2.** *Helophilus trivittatus*, male (left) and female (right) in *Angelica sylvestris* flower. Aunevik, Lyngdal 22 July 2010. Photo: TRN.



**FIGURE 3.** Weather conditions on 21 July 2010 (upper) and 13 August 2010 (lower) (source: KNMI). These dates correspond to assumed peak arrival dates in Norway and are dominated by southeasterly winds.

NL) and 53 in Zeeland province (Southwest NL), 6 August: 40 and 60 specimens on 2 locations in Gelderland (central east NL) and 14 August: a hundred specimens on the shore of Friesland province in the Northwest of the Netherlands.

This might indicate a westerly dispersion on a European scale in two distinct migration waves: one 13–25 July and a second, probably more intense wave 6–14 August.

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