

## The Whinchat breeding in the Netherlands - Distribution, numbers, habitats and conservation

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### The Whinchat breeding in the Netherlands - Distribution, numbers, habitats and conservation

The Whinchat is a rare breeding bird in the Netherlands, with about 300 breeding pairs in 2013-2015. The distribution is confined to the north eastern parts of the country, mainly Drenthe. Core areas, all designated as Natura 2000 areas, are Fochteloërveen, Dwingelder Veld and Drents-Friese Wold. Most important habitats occupied by Whinchats are moors and open and wet heaths. Less important habitats are extensively grazed pastures, late-cut hay meadows, fields and field edges with oilseed rape, clover, rhubarb and wheat, set-aside fields, young plantations and primary, temporarily available habitats in nature development areas. Whinchats have declined heavily in the Netherlands in the last 60 years, especially during 1960-1980. The range of breeding Whinchats contracted significantly, with a virtually complete abandonment of western, central and southern parts of the Netherlands. Some habitats no longer attract breeding Whinchats, such as coastal dunes, small-scale farmland and floodplains of the large rivers. The decline of the species is mainly caused by agricultural intensification, resulting in severe habitat deterioration and loss. In nature reserves that still host breeding Whinchats, fluctuating trends are not fully understood but seem to be associated with management measures. It is unclear if and to what extent climate change, a limited dispersal capacity, the loss of micro relief, the loss of soil humidity and predation may have interacted with agricultural intensification and contributed to the disappearance of Whinchats in the Netherlands.

### 1 Introduction

Formerly widely distributed in large parts of the country, the Whinchat *Saxicola rubetra* was a fairly common breeding bird in the Netherlands. Nowadays it is a rare, Red Listed breeding species (KWAK et al 2018) with about 300 pairs, long term declines and a strongly contracted range. This paper summarises the current and past distribution, trends, habitats and conservation issues of the Whinchat in the Netherlands. The Dutch name "Paapje" refers to the nickname for Catholics "paap" (cf. papa, Pope; EIGENHUIS 2004). Presumably the brown colour of the Whinchat's upper side reminded people of the habits of monks or other clergymen.

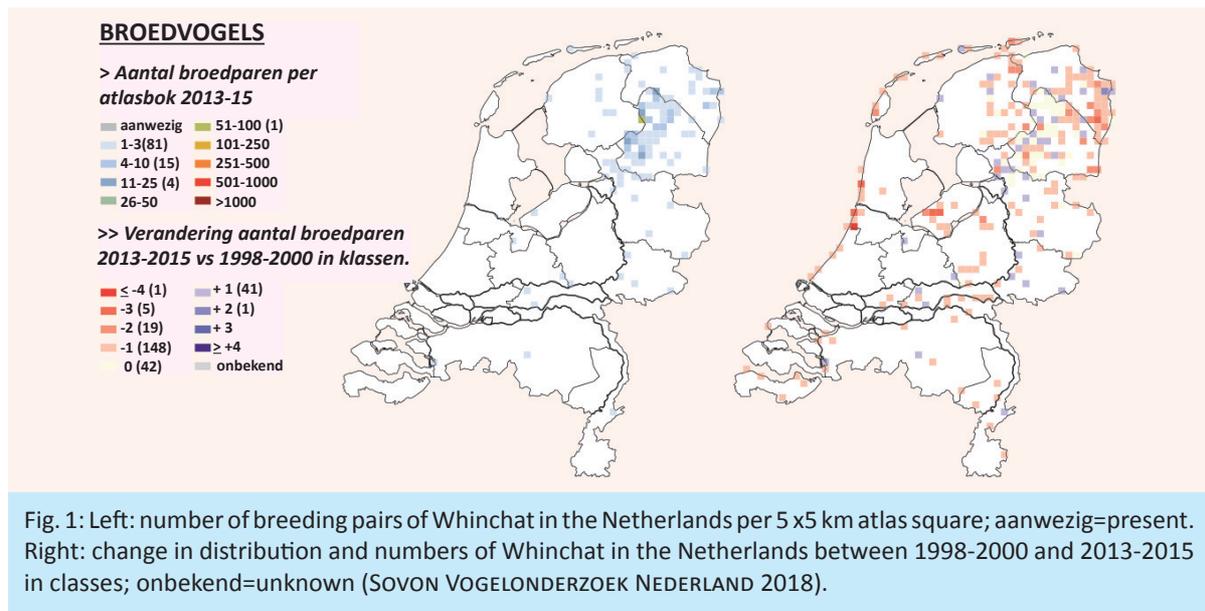
### 2 Present numbers and distribution

The distribution and numbers of the Whinchat have been well studied during fieldwork for several national breeding bird atlases, in 1973-1977 (TEIXEIRA 1979), in 1998-2000 (SOVON VOGELONDERZOEK NEDERLAND 2002) and most recently in

2013-2015 (SOVON VOGELONDERZOEK NEDERLAND 2018). Furthermore, local and regional breeding bird surveys and atlas and monitoring studies have been carried out.

During fieldwork for the Dutch bird atlas in 2013 - 2015, about 260-320 breeding pairs of Whinchats were found. Breeding was confirmed in (only) 6% of the 5 x 5 km atlas squares. This number is comparable to the Wheatear *Oenanthe oenanthe*, with 210-310 breeding pairs, distributed in 5% of the squares. In huge contrast to these figures are the numbers for the Whinchat's closest relative, the Stonechat *S. rubicola* (15,000 - 18,000 pairs, 72% of squares). This species has shown a large increase in numbers in the last few decades (SOVON VOGELONDERZOEK NEDERLAND 2018).

The distribution of the Whinchat is confined to provinces in the northeast of the country, mainly northern and western Drenthe, eastern Groningen and north-western Overijssel (Fig. 1). Elsewhere in the Netherlands the Whinchat is a rare, irregular breeder.



### 3 Core areas and present habitats

The largest numbers of breeding Whinchats in the Netherlands are found on the moors of Fochteloërveen (60 pairs, 2017-2019), situated on the border of the provinces Friesland and Drenthe. Other important areas are the open and wet heaths of Dwingelderveld (23-34 pairs, 2017-2019) and Drents-Friese Wold (25-28 pairs, 2017-2019) in Drenthe. These areas are all designated as Natura 2000 areas. The Whinchat is also distributed in extensively grazed pastures and late-cut hay meadows along streams in Drenthe, like Drentse Aa, Eelderdiep and Vledder Aa (10-20 pairs in each of these stream valleys in 2017-19). In eastern Groningen, small numbers (probably 20-40 pairs) breed in fields or in field edges with crops like oilseed rape, clover, rhubarb, wheat and in other marginal habitats rich in invertebrate prey. Besides these habitats Whinchats occupy set-aside fields, young plantations and other primary, usually temporarily available habitats in nature development areas.

### 4 Changes in distribution

The Whinchat has contracted its breeding range in the Netherlands significantly during the last decades. Fig. 1 shows the change in distribution and numbers between 1998-2000 and 2013-2015. In 1998-2000, Whinchats bred in 13% of the 5 x 5 km squares, a loss of 7% compared to 2013-2015 in just 15 years. The erosion of the breeding range is much larger comparing the

present distribution with the distribution almost 50 years ago, in 1973-1977 – the period of the first national breeding bird atlas (Fig. 2). Breeding Whinchats were confirmed in no less than 29% of all squares in the country during that time (SOVON VOGELONDERZOEK NEDERLAND 2018). The greatest losses in distribution have been in the south, west (coast) and central parts.

Habitats where Whinchats used to breed in those days are small-scale farmland with pastures and meadows, and floodplains of the rivers Rijn, Maas and IJssel, with late-cut hay meadows. These habitats have now been completely abandoned. Moors and heathland in this part of the country – usually nature reserves – no longer attract Whinchats, neither do the coastal dunes. In 1998-2000, the dunes of Zeeland, Noord-Holland, Zuid-Holland and the Wadden Sea Islands still hosted Whinchats, albeit in low densities. Whinchats used to breed here in wet, low-vegetated, dune valleys, quite often in densities of more than 5 pairs per km<sup>2</sup> (KONING 2019, RUITENBEEK et al 1990).

### 5 Trends in breeding numbers

Breeding Whinchats in the Netherlands have been monitored annually by volunteers and professionals from about 1980, coordinated by Sovon Vogelonderzoek Nederland, but in some areas since 1970, like Southwest Drenthe by Arend VAN DIJK.

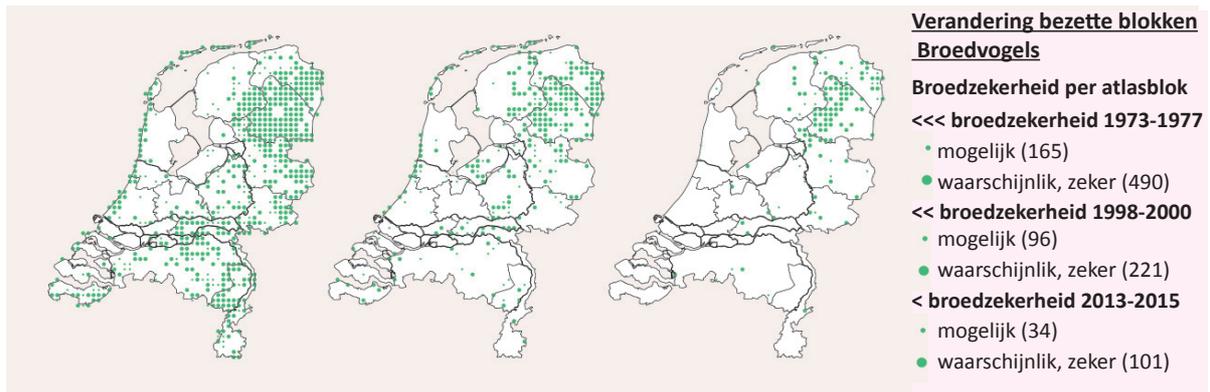


Fig. 2: Distribution of breeding Whinchats in the Netherlands in 1973-1977, 1998-2000 and 2013-2015 (SOVON VOGELONDERZOEK NEDERLAND 2018). Broedzekerheid=breeding status, mogelijk=possible, waarschijnlijk= probable, zeker= confirmed.

The trend in breeding Whinchats in 1960-2018 is shown in Fig. 3. The species decreased heavily during 1960-1980. From 1980 onwards, the rate of decline slowed down and is classified as moderate (annual decline of about 4%). Reliable, stratified monitoring results are available from 1990 onwards (Fig. 4). It is clear that small-scale farmland suffered the heaviest losses. In – maybe surprising – contrast, the trend on heathland and moors is positive (NEM: Sovon Vogelonderzoek Nederland, CBS, Provinces).

## 6 Discussion

Several studies focussing on breeding ecology and habitat choice in the Netherlands have contributed to our current knowledge of the Whinchat in the country (e.g. BIJLSMA 1992, VAN DIJK & GOUTBEEK 2000). Recently an interesting historical study on Whinchat breeding ecology in the coastal dunes – where the species has disappeared – during 1960-1980 has been published (KONING 2019). Having said this, compared to other countries in Western Europe and especially the United Kingdom and Germany, the ecology of the species has been far less well studied in the Netherlands.

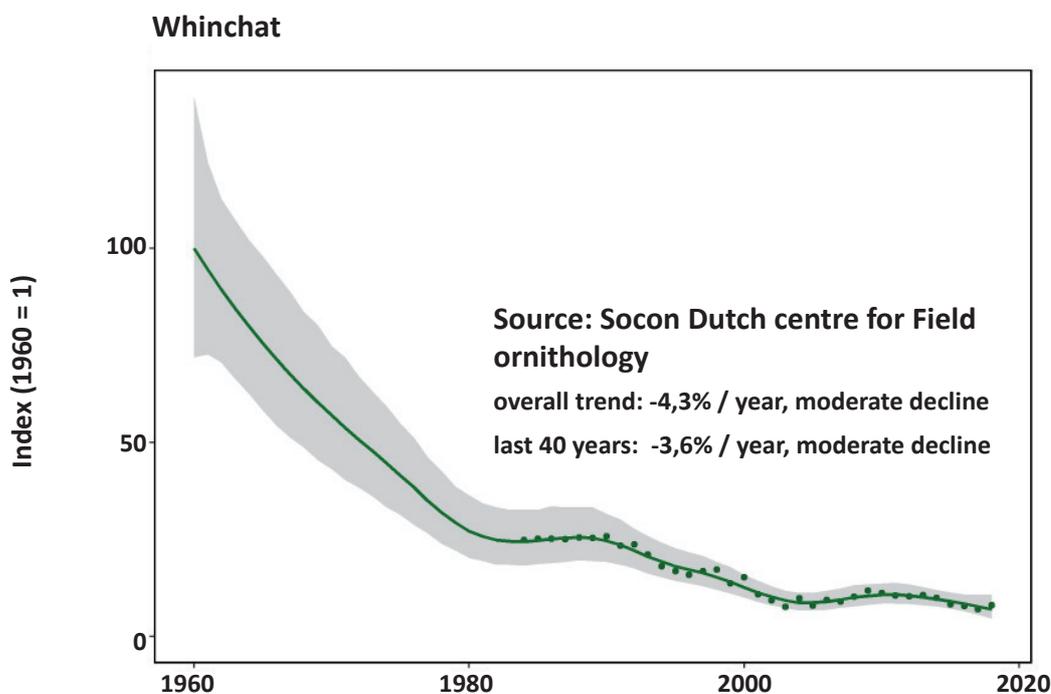


Fig. 3: Trend in breeding Whinchats in the Netherlands in 1960-2018 (SOVON VOGELONDERZOEK NEDERLAND).

Pauline ALEFS and Arend VAN DIJK (Sovon Vogelonderzoek Nederland) have recently analysed many data on habitat choice of Whinchats and trends in different habitats, in order to design conservation strategies and set up directives for conservation practice in the Netherlands, especially in De Wieden, a Natura 2000 area in Overijssel (in prep.). From the preliminary results of this analysis and from available literature it is quite obvious that many, often interacting, factors are driving changes in breeding numbers.

The decline of Whinchats in the Netherlands is mainly caused by agricultural intensification, similar to other European countries. Consequences are a loss of plant diversity resulting in a monotonous vegetation in terms of vegetation structure where Whinchats cannot find suitable nest sites nor appropriate plant stems for perching. Extremely efficient land use and drainage led to the disappearance of fence posts and replacement of fences by ditches. Moreover, the monotonous and insecticide-treated vegetation can no longer accommodate a diversity of insects, reducing food availability for Whinchats.

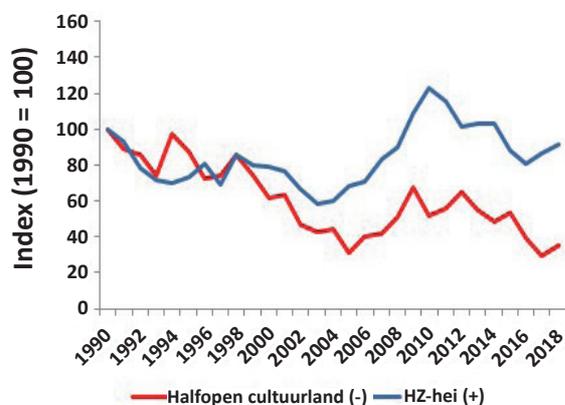


Fig. 4: Trends in breeding Whinchats in the Netherlands in small-scale farmland (halfopen cultuurland) and heaths and moors (HZ-hei), 1990-2018 (NEM: Sovon Vogelonderzoek Nederland, CBS, Provinces).

Intensified cutting regimes where not even edges are spared, have driven the last Whinchats from farmland and still cause isolated breeding pairs to abandon clutches and to avoid the location in the next breeding season. Despite the effort of nature conservationists, in coastal dunes high nitrogen deposition, loss of or reduced grazing by

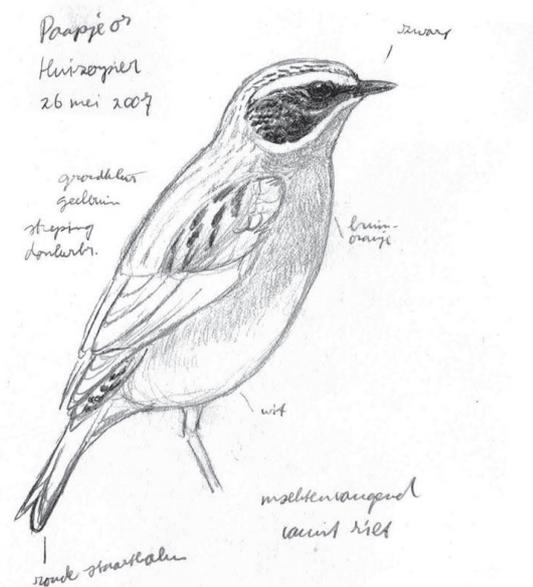


Fig. 5: Field sketch by Ruud VAN BEUSEKOM.

sheep and rabbits, intensified cutting regimes, low water tables and decrease of landscape dynamics led to dominance of shrubs and the disappearance of the necessary vegetation structure for Whinchats. Hence, breeding populations of Whinchats in the Netherlands are nowadays confined to just three nature reserves. It is unclear if and to what extent climate change, a limited dispersal capacity, the loss of microrelief, the loss of soil humidity and predation may have interacted with agricultural intensification and contributed to the disappearance of Whinchats in the Netherlands.

The last three breeding populations of Whinchats in the Netherlands are situated in three different habitat types, which resemble each other only with regard to the diversity in vegetation structure. Fluctuation of trends are not fully understood but seem to be associated with management measures. Removal of young trees, waterlogging, top soil removal, cutting regimes for the reduction of soil richness and to increase botanic quality all led to local declines of Whinchats. Whereas successfully creating and maintaining a succession stage with some young trees, low shrubs or plant stems in an insect-rich habitat led to a local increase of Whinchats.

As in most European countries, the Whinchat is obviously suffering hard times in the Nether-

lands. Because of the Red List status of the species, there is a very welcome recent upsurge in interest in the conservation of the Whinchat by reserve managers and other conservation bodies. At present Vogelbescherming Nederland and Sovon Vogelonderzoek Nederland are joining efforts, which it is hoped will result in a solid conservation strategy and concrete, effective conservation actions in the upcoming years. To start with, we as authors have embraced the Whinchat, het Paapje!

### Literature

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