

Monitoring of Aquatic Warbler *Acrocephalus paludicola* in southern England in 2007

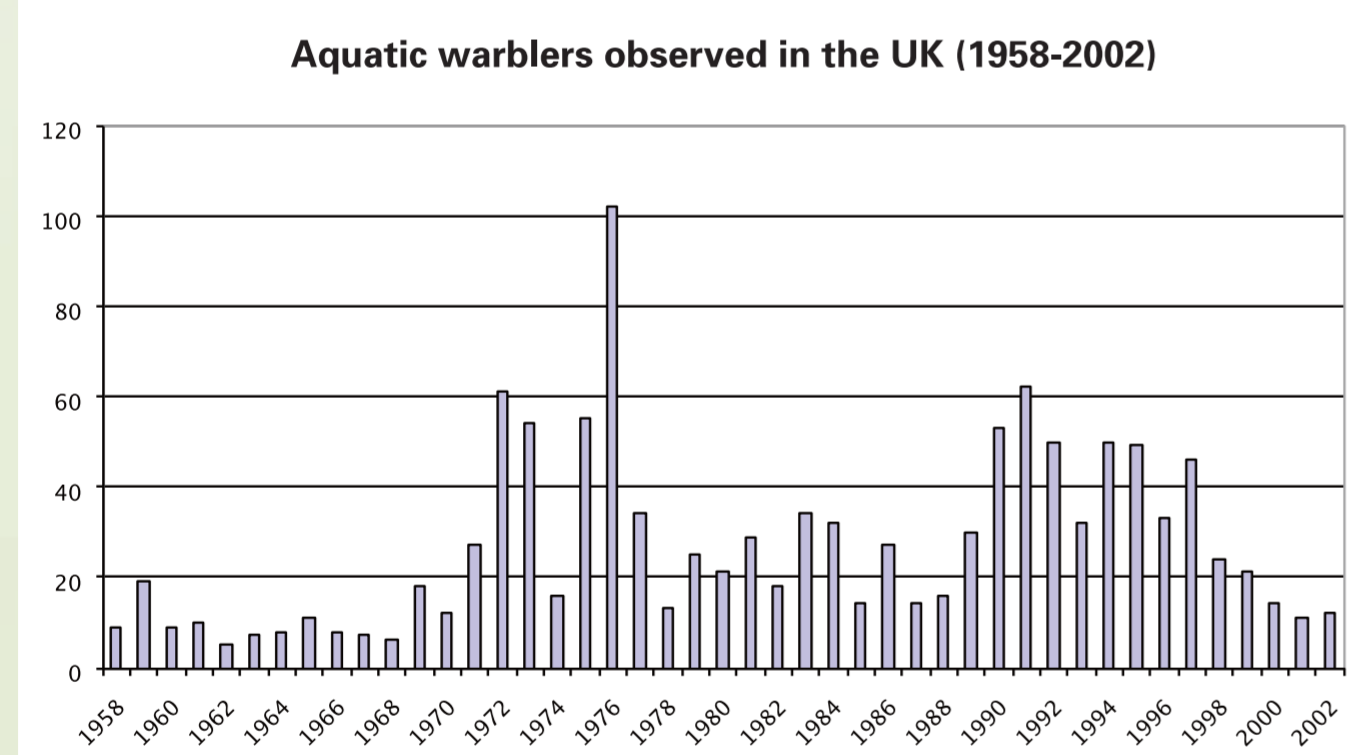
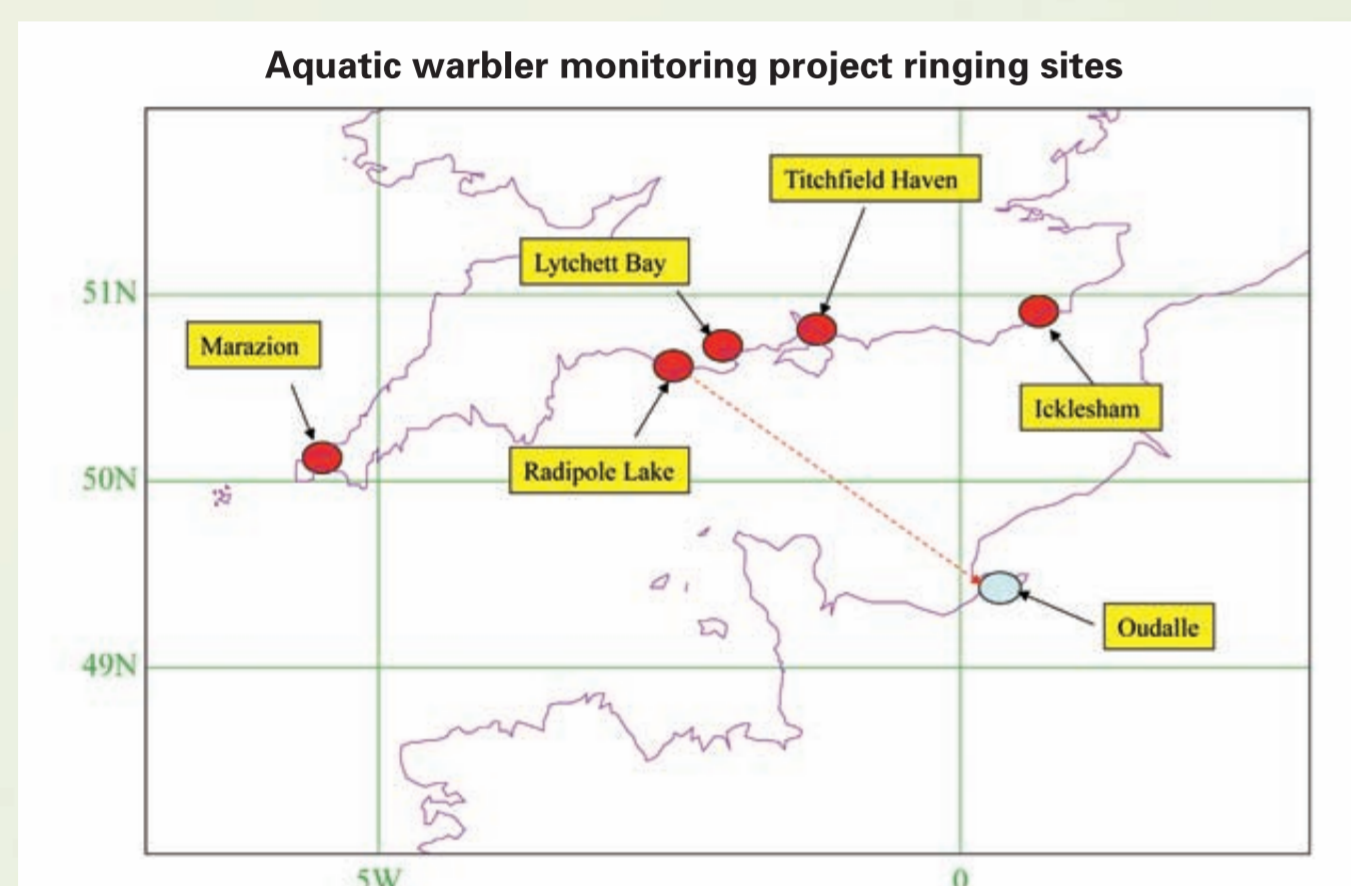
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Introduction

Aquatic warbler is the rarest and globally threatened bird found in mainland Europe. It breeds in wetlands of central and eastern Europe but follows a westerly migration route through western Europe, occurring as a regular passage migrant in the UK. Aquatic warblers migrate through a series of short hops, and need a network of stopover sites throughout the migratory range. Although numbers in the UK are low (average of 33 birds/year 1996-2000), conservation effort in the UK is an important part of international work for this species, and is included in an international action plan.

The Aquatic Warbler Monitoring Project aims to establish a systematic and repeatable survey of aquatic warblers across key sites in southern England and to gather information to inform site protection and management across this network. Through ringing and visual observations, aquatic warblers have been recorded regularly at sites in southern England and one, Marazion Marsh Site of Special Scientific Interest (SSSI), is classified as a Special Protection Area (SPA) for the autumn passage of this species. Monitoring the numbers passing through sites relies mainly on ringing during August and September. Although a number of sites have recorded aquatic warbler, there has been no co-ordinated long-term effort. The RSPB undertook mist-netting at several of its southern England reserves over two seasons in 1995 (Elmley, Dungeness, Radipole Lake and Marazion) and 1996 (Marazion and Dungeness). The lack of ringing effort since resulted in only a few sight records being reported here and elsewhere.

In 2006 ringing was again trialled at Marazion, as part of the English Nature (now Natural England)/RSPB *Action for Birds in England* programme, and at Radipole Lake (unfunded). In 2007, this was extended across a network of sites in southern England and it is hoped, in future years, to expand the network further. Interestingly, an aquatic warbler caught at Radipole Lake in 2006 was re-caught in Oudalle the next morning, a distance of 233 km, and was the first UK ringed aquatic warbler to be re-caught outside the UK.



Methodology

All ringing adhered to standard British Trust for Ornithology (BTO) guidelines. Mist nets were set in ringing rides cut through *Phragmites* and *Schoenoplectus/Juncus* beds based, where applicable, upon the 1995 and 1996 survey locations (or in previous ringing effort at the site). Net lengths were recorded and set, locations mapped and repeated hereafter. Tapes, switched on no more than 30 minutes prior to first light, were to be used to maximise numbers of birds.

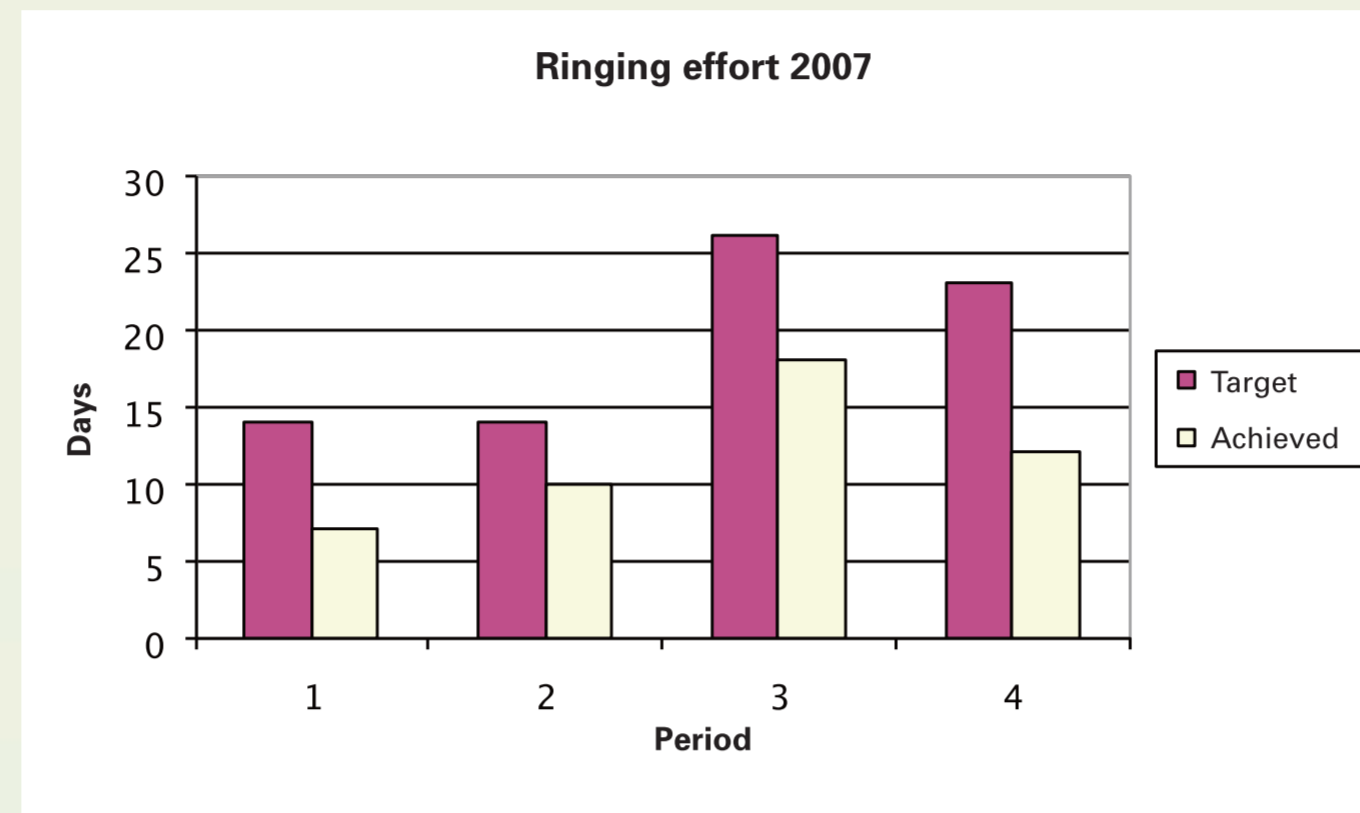
As well as standard data (e.g. time of capture, age, sex and ring number [either new or existing]), an additional set of biometrics was to be taken, to include wing length (maximum chord), weight, fat and muscle scores and overall moult score (primary moult score optional). Photographs were to be taken of key plumage characteristics (e.g. degree of wear in feathers, streaking of flanks etc), and a single feather was to be removed from each bird, labelled and stored for future isotope studies to determine the origin of the birds.

Based on a study of previous records, and to maximise the potential for catching birds, the project proposed a number of trapping days per period, with most effort concentrated on the peak period towards the end of August and the start of September, as shown in the table below.

Trapping days	16 - 29 July	30 July - 12 August	13 August - 7 September	8 - 30 September
Trapping days target	2	4	9	6

Ringing effort

Ringing covered the period 19 July to 30 September. All sites had a good spread of coverage with Radipole Lake, Titchfield Haven and Icklesham more or less covered fully. At Marazion, trapping finished on 9 September as the wind made the site unsuitable on days available for trapping.

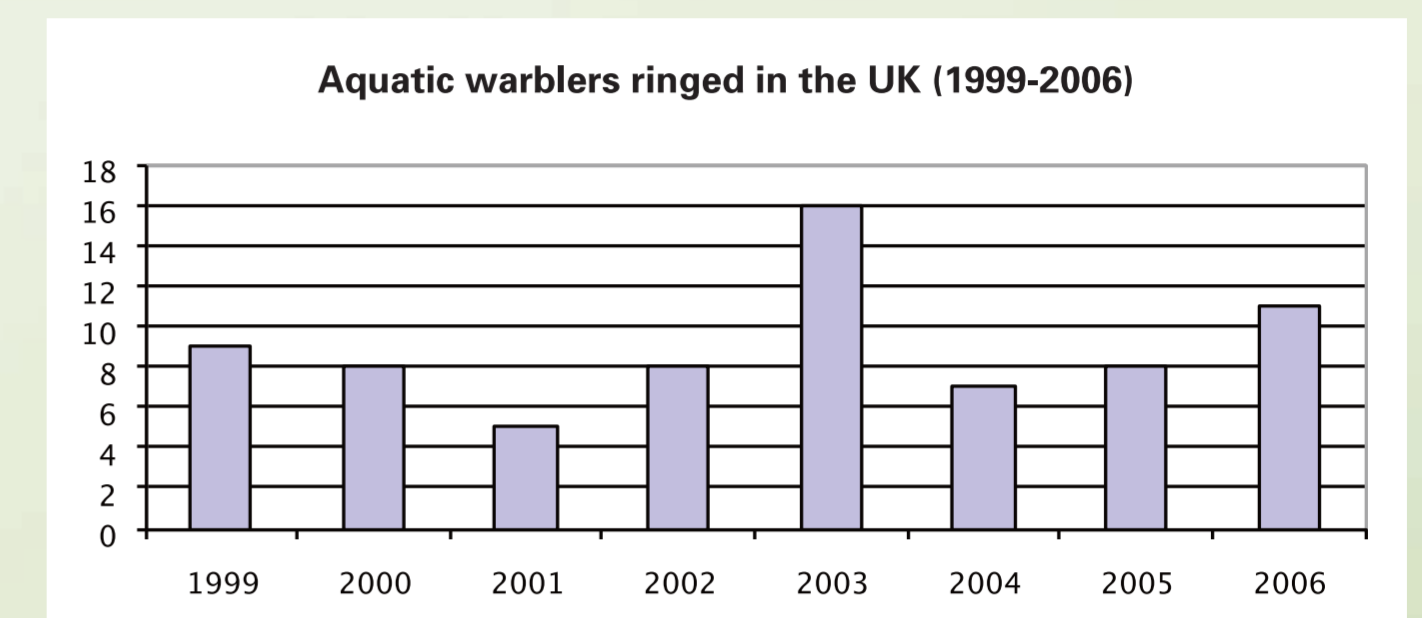


In total, 243 trapping hours were achieved across four sites with reasonable coverage across all periods, however weather and the availability of volunteers affected effort. Wet, cool conditions until the end of August interrupted ringing. High pressure dominated thereafter but many of the winds were northerly. In prior years there has been strong evidence that birds are brought to the UK on easterly winds so, with predominantly westerly and northerly airstreams, the season was considered unsuitable for significant movements of birds across the English Channel. The weather was also thought to have affected breeding success of *acrocephalus* warblers, with some sites reporting a significant reduction in birds caught compared to previous years.



Results

Four aquatic warblers were trapped: one at Radipole Lake on 12 August, two at Icklesham on 23 and 25 August, and one at Titchfield Haven on 29 September. Including these four, only 11 birds were recorded in 2007 in the UK. The earliest record was 7 August in Kent, and the latest was 1 October on the Isles of Scilly. Total records were Devon (two), Hampshire (two), Dorset (two), West Sussex (two), Gwent (one), Kent (one) and the Isles of Scilly (one); the lowest count since 1968. The prior eight years' ringing results are presented in the graph below.



In addition, nearly 12,000 *acrocephalus* warblers were caught. The ratio of juveniles to adults of *acrocephalus* indicated a poor breeding season, and ringing totals were down at most sites.

One aquatic warbler feather was collected at Radipole Lake and awaits isotope testing.



The Future

Aquatic warbler is a UK Biodiversity Action Plan Species. Of the project sites, only Marazion Marsh is designated (as an SPA) for its aquatic warbler interest. Other sites receive protection through SSSI status (and are managed as nature reserves); however aquatic warbler is a notified feature, and therefore there is no requirement for specific management or monitoring. Both Marazion Marsh and Radipole Lake include aquatic warbler within their RSPB nature reserve management plans.

Whilst most sites have some level of protection, understanding of the requirements of aquatic warbler on migration in the UK is poor.

Key recommendations from this project are:

- Increase the number of monitoring sites to include locations in Devon and Somerset
- Improve understanding of habitat requirements and develop management practices for actual and potential sites for aquatic warbler, through work with international partners
- Encourage the dissemination of information through e-mail groups



Acknowledgements

The Aquatic Warbler Monitoring Project is part of *Action for Birds in England*, a conservation partnership programme between Natural England and the RSPB taking action for priority bird species in England.

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Photos: All RSPB except for Rye Bay Ringing Group (bird in hand facing left) and Mike Lane (rspb-images.com) (aquatic warbler and caterpillar)

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