



MILFORD HAVEN WATERWAY
ENVIRONMENTAL SURVEILLANCE GROUP

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**Daugleddau Estuary and Milford Haven Waterway
annual surveillance of summer shelduck
population 2017**

J E Hodges

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Annual surveillance of summer shelduck populations-2017**

**Report to the Milford Haven Waterway Environmental Surveillance
Group**

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Daugleddau Estuary and Milford Haven Waterway: annual surveillance of summer shelduck populations 2017

EXECUTIVE SUMMARY

The Daugleddau Estuary and Milford Haven Waterway hold regionally important numbers of shelducks during the winter months. There is also a small summer population that has been the subject of annual surveillance carried out between 1991 and 2016. The summer shelduck survey was repeated in 2017 as part of a co-ordinated programme of environmental surveillance work in the estuary system. The aims, objectives and methods used together with the data obtained are described in this report.

The results indicate that the number of broods of ducklings seen on the water in 2017 was (in terms of the number of broods seen during the survey) the poorest year since 2013. The data suggest that following a brief period of recovery, the long-term decline of the breeding population has resumed. The average brood size recorded in June 2017 was however, the highest since 1991 and suggested good survival of ducklings at least as far as getting onto the water from their nest sites. By the second part of the survey in late July, the average brood size had only dropped to 7.8 young per pair, indicating relatively good survival of young once they were on the water.

As in previous years, predation (by avian and/or mammalian predators) is likely to have been a significant factor affecting the number and size of broods recorded in the estuary system in 2017. Adverse weather conditions in early and late June (notably heavy and persistent rain) may have affected any late clutches of eggs or very small ducklings that may still have been in the nest although it is unlikely to have been a significant factor affecting the survival of ducklings that were already on the water. Disturbance (on land and/or on the water) may have affected breeding success and subsequent survival of ducklings, although there is little evidence on which an assessment of the significance of this factor can be based. Other factors such as thick “mattresses” of green macro-algae (linked to high levels of nutrients in the estuary system) deposited on mudflats by falling tides and the redistribution of (contaminated) sediments as a result of anthropogenic activities may have had localised effects on access to and/or the quality of foraging habitat, hence on fitness and survival of adult and young shelducks.

Since the mid-1990s, there has been a downward trend in the numbers of shelducks over-wintering in the UK. This national trend has been mirrored by a decline in the numbers of shelducks over-wintering in the estuary system which continued in the 2016/17 winter. This downward trend is likely to be linked to factors such as the increasing tendency for birds to “short-stop” in mainland Europe in response to the recent trend towards mild winters across Western Europe, and possibly to changes in the annual moult grounds. As a consequence of the decline in the numbers of shelducks electing to over-winter in the estuary system, fewer are remaining to

breed. This is likely to have been a significant contributory factor to the decline in the numbers of broods seen during the survey. Local environmental factors are however, more likely to have influenced the declines in brood sizes that have been observed up to and including 2016.

Data collected for other wetland birds once again underlined the importance of the estuary system during migration, especially for species such as curlew.

The report concludes with a recommendation for the continuation of the annual surveillance of the summer shelduck population in the estuary system as part of the Milford Haven Waterway Environmental Surveillance Group's annual work programme. Potential lines of enquiry into the continued decline in the numbers and size of broods are also suggested and, in addition, it is recommended that actions to address the high nutrient status of the waters of the estuary system be urgently identified and implemented.