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MILFORD HAVEN WATERWAY  
ENVIRONMENTAL SURVEILLANCE GROUP

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**Daugleddau Estuary and Milford Haven Waterway  
Annual Surveillance of Summer Shelduck Populations  
2019**

**J E Hodges**



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**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 2019**

### **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 between 1991 and 2018. The summer shelduck survey was repeated in 2019 as part of a programme of environmental surveillance work in the estuary system coordinated by the Milford Haven Waterway Environmental Surveillance Group (MHWESG). The aims, objectives and methods used to carry out the annual surveillance, and the data obtained, are described in this report.

The results indicate that in terms of the total number of broods seen in the estuary system (14), the 2019 breeding season was the best since 2006. This suggests a continuation of the modest recovery in the number of broods seen in 2018. The average brood size of 6.9 ducklings per pair recorded in 2019 suggests a resumption in the recovery (of average brood sizes) observed between 2014 and 2017 following a dip (to 5.5) in 2018.

As in previous years, predation (by avian and/or mammalian predators) is likely to have been a (or the most) significant factor affecting the numbers and sizes of broods recorded in the estuary system during the 2019 survey. Adverse weather conditions (e.g. heavy rain accompanied by low temperatures) in late April, May and June can impact on the survival of eggs to hatching and/or recently hatched ducklings. In 2019, it is possible that early-nesting shelducks may have been affected by Storm Hannah in late April e.g. as a result of water-logging of individual nests. It is unlikely however, that adverse weather conditions were a significant factor affecting the number of ducklings making it onto the water or their survival once on the water in 2019.

Disturbance e.g. from recreational activities (on land and/or on the water) may affect breeding success and subsequent survival of ducklings, although there is little evidence to suggest that this was the case in 2019. Localised impacts of factors affecting the quality of foraging habitat such as the presence of dense mats of green macro-algae (linked to elevated levels of nutrients in the estuary system) on mud flats at low tide may have played a part in breeding success and duckling growth and survival.

The number of non-breeding shelducks recorded during the June survey was 42 which was significantly lower than in 2018, and one of the lowest numbers recorded during the annual surveillance of summer shelduck populations in the estuary system. Numbers of shelduck present in the estuary system during the 2018/19 winter peaked at 336, suggesting that the decline in the numbers of shelducks electing to over-winter in the estuary system has continued. The relatively low numbers present in the winter (which are most likely to be linked to external factors

such as prevailing weather conditions in the UK and in north-west Europe; the tendency for birds to “short-stop” in mild winters, and changes in the annual moult grounds (rather than local factors)) may explain the low numbers of non-breeding shelducks recorded in June 2019.

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 that (subject to the outcome of a separate review and evaluation of the annual surveillance of summer shelduck populations to be commissioned by the MHWESG in early 2020), the annual surveillance of the summer shelduck population in the estuary system be continued as part of the Group’s annual work programme. In addition to this recommendation, potential lines of inquiry into the distribution and abundance of the favoured prey of shelducks (the mud snail *Peringia ulvae*) and links to factors affecting environmental conditions in the estuary system are identified for further consideration by the MHWESG and/or individual group members.

## CRYNODEB GWEITHREDOL

Yn ystod misoedd y gaeaf, bydd Aber a Dyfrffordd Degolid yn cynnwys niferoedd rhanbarthol-bwysig o hwyaid yr eithin. Mae yno hefyd boblogaeth haf fechan o'r hwyaid hyn, a fu'n destun gwyladwriaeth flynyddol rhwng 1991 a 2018. Cynhaliwyd arolwg o'r hwyaid haf hyn eto yn 2019, yn rhan o'r rhaglen o wyladwriaeth amgylcheddol o fewn y system aberol, a gyd-gysylltir gan Grŵp Goruchwylio Amgylcheddol Dyfrffordd Aberdaugleddau (MHWESG). Yn yr adroddiad hwn, disgrifir nodau ac amcanion yr wyladwriaeth flynyddol honno, y dulliau a ddefnyddiwyd ynnddi a'r data a gasglwyd.

Mae'r canlyniadau, yn nhermau niferoedd y nytheidiau a welwyd yn y system aberol (sef 14), yn dynodi mai tymor nythu 2019 oedd y gorau ers 2006. Mae hyn yn awgrymu bod y cynnydd gweddol, y sylwyd arno yn nifer y nytheidiau yn 2018, wedi parhau. Mae maint cyfartalog nythaid, sef 6.9 o gywion am bob pâr a gofnodwyd yn 2019, yn awgrymu hefyd bod yr adferiad ym maint nytheidiau rhwng 2014 a 2017 bellach wedi ailgychwyn ar ôl y gostyngiad i 5.5 yn 2018.

Fel yn ystod y blynyddoedd blaenorol, mae'n debygol bod ysglyfaethu (gan adar a/neu famaliaid ysglyfaethus) yn ffactor arwyddocaol yn nifer a maint y nytheidiau a gofnodwyd o fewn y system aberol yn 2018. Gall amodau tywydd anffafriol yn niwedd Ebrill neu ym Mai a Mehefin (megis glaw trwm ar y cyd â thymheredd isel) effeithio ar ddeor yr wyau ac ar y cywion sydd newydd ddeor. Mae'n bosibl y bu nythod rhai hwyaid a nythod yn gynnar yn llawn o ddŵr oherwydd y storm Hannah tua diwedd Ebrill 2019. Fodd bynnag, nid yw'n debygol y bu tywydd gwael yn ffactor a effeithiodd yn sylweddol ar nifer y cywion a lwyddodd i gyrraedd y dŵr yn 2019, nac ar eu goroesiad ar ôl cyrraedd y dŵr. Gall ymyrraeth gan weithgareddau hamdden (ar y tir a/neu ar y dŵr) effeithio ar lwyddiant y nythu ac ar oroesiad y cywion; ond prin yw'r dystiolaeth bod hynny wedi digwydd yn 2019. Gall fod ffactorau eraill, megis presenoldeb 'matresi' trwchus o facro-algâu gwyrdd, a gysylltir â'r lefelau uwch o faethynnau yn y system aberol mewn manau penodol ar y gwastadeddau llaid, wedi effeithio ar lwyddiant y nythu a thwf a goroesiad y cywion.

Y nifer o hwyaid yr eithin nad oeddent yn nythu, a gofnodwyd yn ystod yr arolwg ym Mehefin, oedd 42, sy'n sylweddol is na'r nifer yn 2018, ac yn un o'r niferoedd isaf a gofnodwyd yn ystod yr oruchwyliaeth o'r poblogaethau haf o'r hwyaid hyn yn y system aberol. Y nifer brig o hwyaid yr eithin a oedd yn bresennol yn ystod gaeaf 2018/19 oedd 336, sy'n awgrymu bod y nifer o'r hwyaid sy'n dewis treulio'r gaeaf yn y system aberol yn parhau i ostwng. Dichon fod y niferoedd cymharol isel a oedd yn bresennol yn y gaeaf (sy'n fwy tebygol o fod yn gysylltiedig â ffactorau allanol megis y tywydd yn y DU a gogledd-orllewin Ewrop, tuedd yr adar i aros am gyfnodau byr yn ystod gaeafau tyner, a newidiadau yn eu manau bwrw plu blynyddol, yn hytrach nag unrhyw ffactorau lleol) yn esbonio'r nifer isel o hwyaid yr eithin a gofnodwyd nad oeddent yn nythu ym Mehefin 2019.

Roedd y data a gasglwyd am adar gwlyptir eraill unwaith eto'n tanlinellu pwysigrwydd y system aberol yn ystod ymfudo, yn enwedig i rywogaethau fel y gylfinir.

Mae'r adroddiad yn terfynu gydag argymhelliad i barhau'r wyliadwriaeth flynyddol o'r boblogaeth haf o hwyaid yr eithin yn y system aberol, yn rhan o raglen waith flynyddol y Grŵp (yn ddarostyngedig i ganlyniad adolygiad a gwerthusiad ar wahân o'r wyliadwriaeth flynyddol o'r poblogaethau o hwyaid yr eithin, a gomisiynir gan MHWESG yn gynnar yn 2020). Yn ychwanegol at yr argymhelliad hwn, nodir y posibilrwydd y gall MHWESG a/neu aelodau unigol o'r Grŵp ymchwilio ymhellach i ddsbarthiad a niferoedd hoff ysglyfaeth hwyaid yr eithin (sef y falwoden y llaid, *Peringia ulvae*) ac i'r cysylltiadau â'r ffactorau sy'n effeithio ar amodau amgylcheddol yn y system aberol.