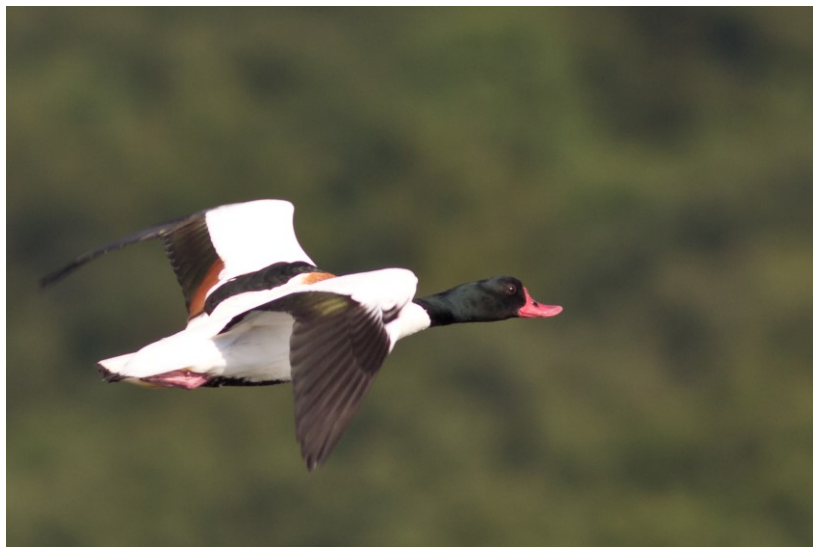




MILFORD HAVEN WATERWAY
ENVIRONMENTAL SURVEILLANCE GROUP

GRŴP CADW GOLWG AMGYLCHEDDOL
AR DDYFRFFORDD ABERDAUGLEDDAU



**Daugleddau Estuary and Milford Haven Waterway
Annual Surveillance of Summer Shelduck Populations
2020**

J E Hodges

**Daugleddau Estuary and Milford Haven Waterway
annual surveillance of summer shelduck populations, 2020**

**A report to the Milford Haven Waterway Environmental Surveillance
Group**

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COVER IMAGE: Adult shelduck in flight. Photo: Mike Camplin

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Daugleddau Estuary and Milford Haven Waterway: annual surveillance of summer shelduck populations-2020

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 2019. The summer shelduck survey was repeated in 2020 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 number of broods seen in the estuary system (11), the 2020 breeding season was less successful than in 2019 (which was the best since 2006), although it was on a par with the 2018 breeding season. This suggests that the breeding population is fluctuating, although it may also point towards a decline following the modest recovery (in brood numbers) in 2019. The mean brood size of 5.8 ducklings per pair recorded in 2020 was also lower than that in 2019, and similar to that recorded 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 2020 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. The spring in 2020 was, however, marked by largely dry, settled, warm weather and it is unlikely 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.

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 2020. 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 14 which was significantly lower than in 2019, and is the lowest recorded since the annual surveillance of summer shelduck populations in the estuary system began in 1992. Numbers of shelducks present in the estuary system during the 2019/20 winter peaked at 393, slightly higher than in the previous winter (although still low). This suggests that following a steady decline over a number of years, the numbers of shelducks electing to over-winter in the estuary system has stabilised.

The relatively low numbers present in the winter may help to explain the low numbers of non-breeding shelducks recorded in June 2020, although reports from local observers suggest that non-breeders had left the estuary system shortly before the June survey.

Low numbers of shelducks in the winter months (hence low numbers of non-breeders present during the June survey) are most likely to be linked to regional/national trends, and be driven by large-scale “external” (rather than local) factors such as prevailing weather conditions in north-west Europe and shifts in the annual moult grounds.

The report concludes with a recommendation that the annual surveillance of the summer shelduck population in the estuary system be continued as part of the MHWESG 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, individual group members or appropriate third party.

Aber Daugleddau a Dyfrffordd Aberdaugleddau: gwyliadwriaeth flynyddol o boblogaethau haf hwyaid yr eithin, 2020

CRYNODEB GWEITHREDOL

Yn ystod misoedd y gaeaf, ceir niferoedd o hwyaid yr eithin o bwysigrwydd rhanbarthol yn Aber Daugleddau ac ar Ddyfrffordd Aberdaugleddau. Ceir hefyd boblogaeth haf fechan y bu gwyliadwriaeth flynyddol arnynt rhwng 1991 a 2019. Cafodd yr arolwg haf o hwyaid yr eithin ei wneud drachefn yn 2020 fel rhan o raglen waith gwyliadwriaeth amgylcheddol yn system yr aber. Grŵp Gwyliadwriaeth Amgylcheddol Dyfrffordd Aberdaugleddau (MHWESG) wnaeth gyd-gysylltu'r gwaith. Disgrifir yn yr adroddiad yma y nodau, yr amcanion, y dulliau a'r data a ddefnyddiwyd i gwblhau'r wylidwriaeth flynyddol.

Mae'r canlyniadau'n dangos fod tymor bridio 2020 yn nhermau'r nifer o nytheidiau a welwyd yn system yr aber (11) yn llai llwyddiannus nag ydoedd yn 2019 (y tymor gorau ers 2006), er ei fod cystal tymor bridio ag un 2018. Mae hyn yn awgrymu fod y boblogaeth fridio yn amrywio er y gallai hefyd fod yn arwydd o ostyngiad yn dilyn yr adferiad bychan (yn niferoedd y nytheidiau) yn 2019. Roedd maint cymedrig y nythod o 5.8 hwyaden fesul pâr a gofnodwyd yn 2020 hefyd yn is na'r hyn ydoedd yn 2019 ac roedd yn debyg i'r hyn a gofnodwyd yn 2018.

Fel yn y blynyddoedd blaenorol, mae ysglyfaethu (ysglyfaethwyr adaraidd a / neu famaliaidd) yn debygol o fod wedi bod yn ffactor arwyddocaol (neu'r mwyaf arwyddocaol) sy'n effeithio niferoedd a maint y nytheidiau a gofnodwyd yn system yr aber yn ystod arolwg 2020. Gall tywydd gwael (e.e.glaw trwm ynghyd â thymheredd isel) ddiwedd Ebrill, Mai a Mehefin gael effaith ar allu'r wyau i ddeor a / neu ar hwyaid sydd ond newydd ddeor. Roedd Gwanwyn 2020, fodd bynnag, yn un sych ar y cyfan, ac yn un sefydlog a chynnes ac mae'n anhebygol fod tywydd gwael wedi bod yn ffactor arwyddocaol a effeithiodd ar y nifer o hwyaid wnaeth lwyddo i fynd ar y dŵr am y tro cyntaf neu ar eu goroesiad unwaith iddynt gyrraedd y dŵr.

Gallai ymyrraeth e.e. oddi wrth weithgareddau adloniadol (ar y tir ac / neu ar y dŵr) effeithio llwyddiant y bridio ac o ganlyniad goroesiad yr hwyaid bach, er nad oes fawr ddim tystiolaeth i awgrymu mai dyma oedd yr achos yn 2020. Gallai ffactorau lleol sy'n effeithio ansawdd y cynefin porthiant fel matiau trwchus o facro – algâu gwyrdd (yn gysylltiedig â lefelau uwch o faetholion yn system yr aber) ar wastadeddau mwd ar lanw isel fod wedi chwarae rhan yn llwyddiant y bridio a thwf yr hwyaid a'u goroesiad.

Yn ystod arolwg Mehefin cofnodwyd 14 o hwyaid ifainc oedd ddim yn bridio, nifer sylweddol is nag yn 2019, a'r nifer isaf a gofnodwyd ers i'r wylidwriaeth flynyddol o boblogaethau haf hwyaid yr hesg ddechrau yn 1992. Y nifer uchaf o hwyaid yr hesg oedd yn bresennol yn system yr aber yn ystod gaeaf 2019/20 oedd 393, nifer ychydig yn uwch na'r gaeaf blaenorol (er yn dal yn isel). Mae hyn yn awgrymu, ar ôl gostyngiad cyson dros nifer o flynyddoedd, fod y niferoedd o hwyaid yr hesg sy'n dewis aros yn system yr aber dros y gaeaf wedi sefydlogi.

Gallai'r nifer cymharol isel sydd yma yn y gaeaf fod o gymorth i egluro'r niferoedd isel o hwyaid yr eithin sydd ddim yn bridio ac a gofnodwyd ym mis Mehefin 2020, er bod adroddiadau gan wylwyr lleol yn awgrymu bod hwyaid yr eithin oedd ddim yn bridio wedi gadael system yr aber ychydig cyn arolwg mis Mehefin.

Mae'r niferoedd isel o hwyaid yr hesg yn ystod misoedd y gaeaf (ac o ganlyniad presenoldeb niferoedd isel o hwyaid oedd ddim yn bridio yn ystod arolwg Mehefin) yn fwyaf tebygol o fod yn gysylltiedig â thueddiadau rhanbarthol / cenedlaethol, ac yn cael eu gyrru gan ffactorau 'allanol' ar raddfa fawr (yn hytrach na lleol) megis amgylchiadau tywydd ar y pryd yng ngogledd-orllewin Ewrop a newidiadau yn y manau bwrw plu blynyddol.

Mae'r adroddiad yn cloi trwy argymhell fod y wyliadwriaeth flynyddol o boblogaeth haf hwyaid yr hesg yn system yr aber yn parhau fel rhan o raglen waith flynyddol MHWESG. Yn ogystal â'r argymhelliad yma, nodir y gallai MHWESG, aelodau grwpiau unigol neu drydydd person addas edrych ar ddsbarthiad ac amllder hoff ysglyfaeth hwyaid yr hesg (sef malwoden y llaid *Peringia ulvae*) a hefyd ar y cysylltiadau â ffactorau sy'n effeithio amgylchiadau amgylcheddol yn system yr aber.