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MILFORD HAVEN WATERWAY  
ENVIRONMENTAL SURVEILLANCE GROUP

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GRŴP CADW GOLWG AMGYLCHEDDOL  
AR DDYFRFFORDD ABERDAUGLEDDAU

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# **Daugleddau Estuary and Milford Haven Waterway Annual Surveillance of Summer Shelduck Populations 2021**

**J E Hodges**



**Daugleddau Estuary and Milford Haven Waterway  
annual surveillance of summer shelduck populations, 2021**

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

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COVER IMAGE: Male and female shelduck. Photo: Mike Camplin

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## **Daugleddau Estuary and Milford Haven Waterway: annual surveillance of summer shelduck populations 2021**

### **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 2020. In 2020, Welsh Government restrictions aimed at controlling the spread of the SARS-CoV-2 virus in response to the pandemic precluded the use of a boat for the two surveys. As a consequence, both surveys were carried out entirely on foot, using the standard BTO Wetland Bird Survey methodology. In 2021, the summer shelduck survey was repeated as part of a programme of environmental surveillance work in the estuary system coordinated by the Milford Haven Waterway Environmental Surveillance Group (MHWESG). The lifting of restrictions in the spring 2021 by the Welsh Government enabled a return to boat surveys supplemented by land-based surveys.

The aims, objectives and methods used to carry out the annual surveillance, and the data obtained, are described in this report.

The data indicate that in terms of the total number of broods seen in the estuary system (14), the 2021 breeding season was (along with the 2019 season) the best since 2006. The 2020 breeding season was less successful than the 2021 season, although it was on a par with the 2018 season. This suggests that the numbers of broods in the estuary system have over the past four seasons, been fluctuating, and there is currently no clear upwards or downwards trend. Although slightly lower than in 2019, the overall mean brood size was higher in 2021 than in 2020 (or in 2018), again suggesting fluctuating productivity levels over the same period of time.

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 2021 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 2021, it is possible that early-nesting shelducks may have been affected by heavy rain and low temperatures in May e.g., as a result of waterlogging of individual nests. It is unlikely, however, that adverse weather conditions were a significant factor affecting the number of ducklings once they had left their nests 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. In 2021, levels of water-borne recreation in the estuary system were higher than in recent years, as a consequence of an increase in the number of visitors opting for “stay-cations” in Pembrokeshire during the coronavirus pandemic. Although there is no evidence to suggest that shelducks were adversely affected by water-borne recreation in 2021,

the possibility that some disturbance of broods occurred as a result of water-borne recreational activities cannot be ruled out, especially in usually much quieter areas such as up-river from Lawrenny.

Other factors that may have localised impacts on the quality of foraging habitat (hence on shelduck productivity and development and survival of young) include 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. These are not, however, known or understood.

The number of non-breeding shelducks recorded during the June survey was 29, twice the number recorded in 2020, but lower than in 2019 and 2018. A review of the 1992-2019 data carried out by the BTO suggested a strong correlation between the trend in the number of adults in the estuary system in the winter (and which subsequently stay on in the estuary system in the spring) and national trends, and that the adult population is subject to the same influences as is the population at regional (Wales) and national (UK) levels.

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 the annual surveillance of the summer shelduck population in the estuary system be continued as part of the MHWESG'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.

## **Aber Daugleddau a Dyfrffordd Aberdaugleddau: gwyliadwriaeth flynyddol o boblogaethau haf hwyaid yr eithin, 2021**

### **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 arni rhwng 1991 a 2020. Oherwydd cyfyngiadau Llywodraeth Cymru yn 2020 i reoli lledaeniad y firws SARS-CoV-2 mewn ymateb i'r pandemig, ni chaniateid defnyddio cwch ar gyfer y ddau arolwg. O ganlyniad, gwnaethpwyd y ddau arolwg yn gyfangwbl ar droed gan ddefnyddio methodoleg safonol Arolwg Adar Gwlyptiroedd y BTO. Yn 2021, cafodd yr arolwg haf o hwyaid yr eithin ei wneud drachefn fel rhan o raglen waith gwyliadwriaeth amgylcheddol yn system yr aber. Grŵp Gwyliadwriaeth Amgylcheddol Dyfrffordd Aberdaugleddau (MHWESG) wnaeth gyd-gysylltu'r gwaith. Roedd y ffaith fod Llywodraeth Cymru wedi codi'r cyfyngiadau yng Ngwanwyn 2021 yn ei gwneud yn bosib unwaith eto i wneud arolygon gan ddefnyddio cwch ynghyd ag arolygon ychwanegol ar y tir.

Disgrifir yn yr adroddiad yma y nodau, yr amcanion, y dulliau a'r data a ddefnyddiwyd i gwblhau'r wyliadwriaeth flynyddol.

Mae'r data'n dangos mai tymor bridio 2021, yn nhermau'r nifer o nytheidiau a welwyd yn system yr aber (14), oedd (ynghyd â thymor 2019) y gorau ers 2006. Roedd tymor bridio 2020 yn llai llwyddiannus na thymor 2021, er ei fod cystal â thymor 2018. Mae hyn yn awgrymu fod niferoedd y nytheidiau yn system yr aber dros y pedwar tymor diwethaf wedi bod yn amrywio ac nad oes ar hyn o bryd unrhyw duedd clir at i fyny nac at i lawr. Er ei fod ychydig yn llai nag yn 2019, roedd maint cymedrig y nythaid yn gyffredinol yn uwch yn 2021 nag yn 2020 (neu yn 2018), sydd unwaith eto'n awgrymu lefelau cynhyrchiant amrywiol dros yr un cyfnod o amser.

Fel yn ystod y blynyddoedd blaenorol, ysglyfaethu (gan ysglyfaethwyr adarol a / neu famalaidd) sy'n debygol o fod wedi bod yn ffactor arwyddocaol (os nad y mwyaf arwyddocaol) yn effeithio'r niferoedd a maint y nytheidiau a gofnodwyd yn system yr aber yn ystod arolwg 2021. Gall tywydd gwael (e.e.glaw trwm ynghyd â thymereddau isel) ddiwedd Ebrill ac ym mis Mai a Mehefin gael effaith ar allu'r wyau i oroesi hyd amser deor a / neu ar gywion hwyaid sydd newydd ddeor. Yn 2021, mae'n bosib fod hwyaid yr eithin oedd yn nythu'n gynnar wedi cael eu heffeithio gan law trwm a thymereddau isel ym mis Mai e.e. o ganlyniad i nythod unigol fod yn llawn dŵr. Mae'n anhebygol fod amgylchiadau tywydd gwael wedi bod yn ffactor arwyddocaol yn effeithio ar y nifer o gywion hwyaid unwaith yr oeddent wedi gadael eu nythod neu ar eu goroesiad unwaith iddynt gyrraedd y dŵr.

Gallai ymyrraeth e.e. oddi wrth weithgareddau adloniadol (ar y tir a / neu ar y dŵr) effeithio llwyddiant y bridio ac o ganlyniad goroesiad y cywion hwyaid. Roedd lefelau'r adloniant dŵr yn uwch yn 2021 nag yn y blynyddoedd diwethaf o ganlyniad i gynnydd yn y nifer o ymwelwyr oedd yn dewis gwyliau 'stay-cations' yn Sir Benfro yn ystod y pandemig coronafirws. Er nad oes tystiolaeth i awgrymu fod hwyaid yr eithin wedi cael eu heffeithio'n ddrwg gan adloniant dŵr yn 2021, ni ellir diystyrru'n llwyr y posibilrwydd fod peth aflonyddu ar y nythod o ganlyniad i weithgareddau dŵr adloniadol, yn enwedig mewn ardaloedd sydd fel arfer yn llawer distawach fel fyny'r afon o Lawrenny.

Gallai ffactorau eraill fod wedi cael effaith ar ansawdd porthiant y cynefin yn lleol (ac felly ar gynhyrchiant hwyaid yr eithin ac ar ddatblygiad a goroesiad y cywion). Mae'r ffactorau yma

yn cynnwys presenoldeb matiau trwchus o facro – algâu gwyrdd (yn gysylltiedig â lefelau uwch o faetholion yn system yr aber) ar wastadeddau mwd ar lanw isel. Nid oes gwybodaeth na dealltwriaeth ynglŷn â hyn.

Yn ystod arolwg Mehefin cofnodwyd 29 o hwyaid yr eithin oedd ddim yn bridio, ddwywaith y nifer a gofnodwyd yn 2020 ond nifer is nag yn 2019 a 2018. Yn dilyn adolygiad y BTO o ddata 1992- 2019, awgrymwyd cydberthynas gref rhwng y duedd yn nifer yr oedolion yn system yr aber yn y gaeaf (ac sydd wedyn yn aros ar system yr aber yn y gwanwyn) a thueddiadau cenedlaethol. Awgrymwyd bod y boblogaeth o oedolion yn agored i'r un dylanwadau â'r boblogaeth ar lefel ranbarthol (Cymru) a chenedlaethol (DU).

Roedd y data a gasglwyd ar gyfer adar eraill y gwlyptiroedd unwaith eto'n pwysleisio pwysigrwydd system yr aber yn ystod y cyfnod ymfudo, yn enwedig yn achos rhywogaethau fel y gylfinir.

Mae'r adroddiad yn cloi trwy argymhell fod y wylidwriaeth flynyddol o boblogaeth haf hwyaid yr eithin 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 amlder 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.