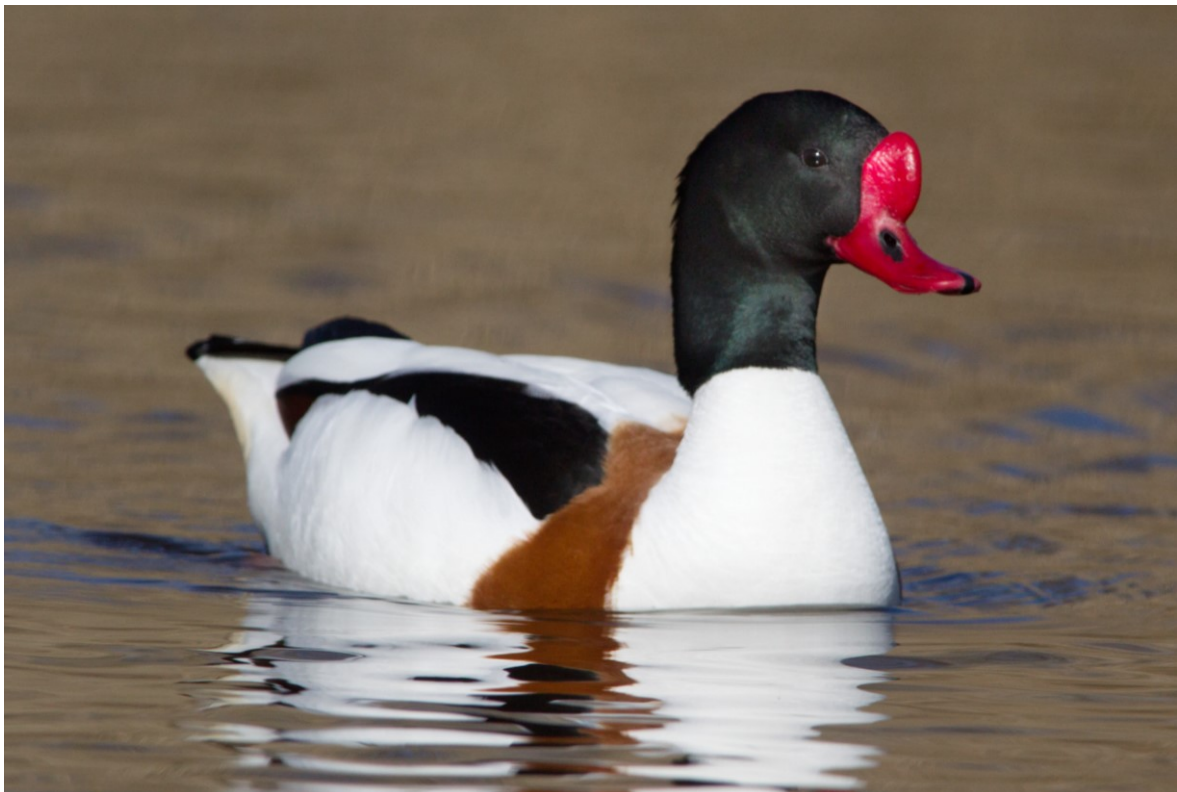




MILFORD HAVEN WATERWAY
ENVIRONMENTAL SURVEILLANCE GROUP

GRŴP CADW GOLWG AMGYLCHEDDOL
AR DDYFRFFORDD ABERDAUGLEDDAU



**Review of Milford Haven Waterway Environmental
Surveillance Group (MHWESG) Shelduck Data (1992-
2019) for the Milford Haven Waterway,
Pembrokeshire**

Authors

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Group (MHWESG) Shelduck Data (1992 – 2019) for the Milford
Haven Waterway, Pembrokeshire**

**Report to the Milford Haven Waterway Environmental Surveillance
Group from the British Trust for Ornithology**

Authors

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August 2020

Use of this document to inform environmental decision-making in the Milford Haven Waterway and Daugleddau Estuary is welcomed, however:

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A note about the data

Wetland Bird Survey (WeBS) Data were provided by WeBS, a Partnership jointly funded by the British Trust for Ornithology, Royal Society for the Protection of Birds and Joint Nature Conservation Committee, in association with The Wildfowl & Wetlands Trust, with fieldwork conducted by volunteers. Anyone (including members of the MHWESG) wishing to refer to WeBS data from within this report for any other regulatory purpose e.g. Environmental Impact Assessment, public inquiries etc. needs to submit a data request to the BTO - please visit www.bto.org/webs-data.

COVER IMAGE: Adult male Shelduck, Edmund Fellowes.

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EXECUTIVE SUMMARY

The Daugleddau Estuary and Milford Haven Waterway (the estuary system) has historically held nationally important numbers of wintering Shelduck within Great Britain. This is no longer the case however as the five-year mean count between 2014/15-2018/19 (387) represents a decline in numbers from the mean peak of 1,564 between 1982/83-1986/87. A small breeding population of Shelduck using the estuary system has been the subject of a systematic annual survey commissioned by the Milford Haven Waterway Environmental Surveillance Group (MHWESG) from 1992 to 2020. In addition to commissioning long-term environmental surveillance projects, the MHWESG also carry out periodic reviews and analysis of its data so that MHWESG members can use the data to inform management decisions. It is for this reason that the BTO were invited to provide an independent evaluation and review of the annual summer Shelduck surveys that have been carried out between 1992 and 2019.

The objectives outlined for this report were (i) Review and analyse the data obtained during the summer surveys between 1992-2019; (ii) Evaluate the survey methodology employed over this same period; and (iii) Provide recommendations to the MHWESG to inform the future surveillance of the Shelduck population on the estuary system.

The dataset was of sufficient quality to produce robust trends in the numbers of ducklings, broods and adults present on the estuary system during the survey period. The trends in these figures all broadly matched each other, with a large peak in numbers, followed by a decline then smaller peak, and then a decline below initial count figures, followed by an increase returning to the approximate population size counted at the beginning of the survey period. Robust national trends for Shelduck are only available from the Wetland Bird Survey for adults counted in winter. The trends in the estimated number of adults present during the MHWESG surveys were well correlated with national trends for Wales, and also the entire UK.

The survey methodology employed seems very robust, and only minor amendments to data recording are recommended. The long-term MHWESG Shelduck dataset is unique within Wales so there is value in continuing the survey in its current format on that merit alone. If resource availability becomes a limiting factor, then recommendations for reducing the frequency of surveys are outlined.

Recommendations are made for improvements in data recording and curating, for future analyses that would be possible with this dataset and which would benefit the current poor level of understanding about Shelduck populations nationally. Options for developing the project further are also outlined, which would give the dataset even more power and increase the profile of MHWESG. Publishing results from this dataset is a key recommendation, as this would make the MHWESG dataset more widely available, in a research area with a paucity of data.

In conclusion, the BTO recommend that the MHWESG annual Shelduck surveys continue in their current format, and that the data be made more widely available as they are unique and valuable.

CRYNODEB GWEITHREDOL

Yn hanesyddol, mae Aber y Daugleddau a Dyfrffordd Aberdaugleddau (system yr aber) wedi dal niferoedd o bwys cenedlaethol o Hwyaidd yr Eithin sy'n gaeafu ym Mhrydain Fawr. Nid yw hyn, fodd bynnag, yn wir bellach gan fod y cyfrif cymedrig pum mlynedd rhwng 2014/15 - 2018/19 (387) yn dangos dirywiad yn y niferoedd o'r brig cymedrig o 1,564 rhwng 1982/83 -1986/87. Mae poblogaeth fechan o Hwyaidd yr Eithin sy'n nythu'n lleol ac sy'n defnyddio system yr aber wedi bod yn destun arolwg blynyddol systematig a gomisiynwyd gan Grŵp Gwylidwriaeth Amgylcheddol Dyfrffordd Aberdaugleddau (GGADA) rhwng 1992 a 2020. Yn ogystal â chomisiynu prosiectau monitro amgylcheddol tymor hir, mae'r GGADA hefyd yn cynnal adolygiadau a dadansoddiadau rheolaidd o'i ddata fel y gall aelodau GGADA ddefnyddio'r data i lywio penderfyniadau rheoli. Am y rheswm hwn y gwahoddwyd y BTO i ddarparu gwerthusiad ac adolygiad annibynnol o'r arolygon Hwyaidd yr Eithin hynny a gynhaliwyd yn ystod tymor yr haf yn flynyddol rhwng 1992 a 2019.

Yr amcanion a amlinellwyd ar gyfer yr adroddiad hwn oedd (i) Adolygu a dadansoddi'r data a gasglwyd yn ystod yr arolygon haf hynny a gynhaliwyd rhwng 1992-2019; (ii) Gwerthuso methodoleg yr arolwg a ddefnyddiwyd dros yr un cyfnod a (iii) Darparu argymhellion i'r GGADA a fydd yn llywio'r gwaith monitro o boblogaeth yr Hwyaidd yr Eithin ar system yr aber yn y dyfodol.

Roedd y set ddata o ansawdd digonol i gynhyrchu tueddiadau cadarn am nifer yr hwyaid bychain, nytheidiau ac oedolion a oedd yn bresennol ar system yr aber yn ystod cyfnod yr arolwg. Roedd pob un o'r tueddiadau yn y ffigurau hyn yn cyfateb yn fras i'w gilydd, gyda brig mawr mewn niferoedd yn cael ei ddilyn gan niferoedd llai, yna brig llai, ac yna niferoedd yn is na'r ffigurau cyfrif cyntaf, ac yna cynnydd fel bod maint y boblogaeth yn dychwelyd yn fras i faint a gyfrifwyd ar ddechrau cyfnod yr arolwg. Dim ond ar gyfer oedolion sy'n cael eu cyfrif yn y gaeaf gan Arolwg Adar y Gwlyptir y mae tueddiadau cenedlaethol cadarn ar gael ar gyfer Hwyaidd yr Eithin. Roedd y tueddiadau yn y nifer o oedolion a amcangyfrifywd yn ystod arolygon yr GGADA yn cyfateb yn dda â thueddiadau cenedlaethol Cymru, a hefyd y DU gyfan.

Mae methodoleg yr arolwg a ddefnyddir i'w weld yn gadarn iawn a dim ond mân newidiadau i gofnodi data sy'n cael eu hargymell. Mae set ddata hirdymor Hwyaidd yr Eithin yr GGADA yn unigryw yng Nghymru ac felly mae gwerth parhau â'r arolwg yn ei fformat cyfredol am hynny'n unig. Os daw argaeledd adnoddau yn ffactor sy'n cyfyngu ar y gwaith hwn, yna amlinellir argymhellion ar gyfer lleihau pa mor aml mae'r arolygon yn cael eu cynnal.

Gwneir argymhellion ar gyfer gwella cofnodi a churadu'r data, ac ar gyfer cynnal gwaith dadansoddi posib yn y dyfodol gan ddefnyddio'r set ddata hon a fyddai'n mynd i'r afael â'n diffyg dealltwriaeth am boblogaethau Hwyaidd yr Eithin ar lefel genedlaethol. Amlinellir opsiynau ar gyfer datblygu'r prosiect ymhellach a fyddai'n rhoi mwy fyth o rym i'r set ddata ac yn cynyddu proffil GGADA. Mae cyhoeddi canlyniadau o'r set ddata hon yn argymhelliad allweddol, gan y byddai'n sicrhau bod set ddata GGADA ar gael i fwy o bobl, mewn maes ymchwil sydd â phrinder data.

I gloi, mae'r BTO yn argymhell bod arolygon Hwyaidd yr Eithin blynyddol GGADA yn parhau yn eu fformat presennol, a bod y data ar gael i fwy o bobl gan eu bod yn unigryw ac yn werthfawr.

