



ESWG project register

Questionnaire completed by:	
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Date of completion	26/6/2014

Project title	Studies of the Common Scoter <i>Melanitta nigra nigra</i> killed during the Sea Empress oil spill
Project coordinator(s)	Wildfowl & Wetlands Trust (WWT) Wetlands Advisory Service
Project partners and funders	Countryside Council for Wales
Main individual / organisation to contact for information about project	
Project website	

Target species and population [enter X against all that apply] <i>Population boundaries can be viewed on the CSN too!</i>			
Greater Scaup (W Europe)		King Eider (N Europe/W Siberia)	
Greater Scaup (Black Sea/Caspian Sea)		Steller's Eider (NW Europe)	
Common Eider <i>S. m. mollissima</i> (Britain/Ireland)		Harlequin Duck (Iceland)	
Common Eider <i>S. m. mollissima</i> (Baltic/Wadden Sea)		Long-tailed Duck (Iceland/Greenland)	
Common Eider <i>S. m. mollissima</i> (Norway/NW Russia)		Long-tailed Duck (W Siberia/N Europe)	
Common Eider <i>S. m. mollissima</i> (White Sea)		Common Scoter (European)	X
Common Eider <i>S. m. mollissima</i> (Black Sea)		Velvet Scoter (W European)	
Common Eider <i>S. m. faeroeensis</i> (Faeroe Islands)		Velvet Scoter (Black Sea)	
Common Eider <i>S. m. faeroeensis</i> (Shetland Islands)		Red-breasted Merganser (NW & C Europe)	
Common Eider <i>S. m. borealis</i> (Svalbard/Franz Joseph Land)		Red-breasted Merganser (Mediterranean/Black Sea)	
Common Eider <i>S. m. borealis</i> (Iceland)		Red-breasted Merganser (Greenland)	
Common Eider <i>S. m. borealis</i> (NE Greenland)			

Project type [enter X against all that apply and/or specify other]	
Abundance/distribution	
Life history (breeding success/survival/recruitment)	
Population delineation / migration	
Ecological research (e.g. habitat use, diet)	X
Methodological / techniques	
Anthropomorphic (e.g. contaminants, aquaculture)	X
Physiology/energetic/genetics/disease	X
Other (please specify below)	
Specify other here	

Project description	
Project duration	
Start date	1996
End data/expected end date	1997
Will the project be repeated?	No
If yes, please provided estimated start year and end year	
Bird season [enter X against all that apply]	
Breeding	
Non-breeding	X
Moulting	
Migration	
Geographical location	
Birds were collected from Carmarthen Bay and sites in Dyfed and West Glamorgan, Wales, UK.	
Main aims and objectives	
This study aimed to describe the population structure, body condition, level of oiling, biometrics, moult, diet and cause of death of Common Scoter killed by the Sea Empress oil spill [in Carmarthen Bay, south Wales], and to investigate factors affecting body condition, diet and cause of death.	

Methods

After retrieval, Common Scoter killed during the oil spill were stored at the National Museum of Wales where the majority were categorised in terms of data and location of recovery, rehabilitation status (i.e. whether supplied from bird hospitals) and the condition of the corpse. The birds were then transported to WWT Slimbridge where each specimen was categorised in terms of the degree of oiling suffered, physical condition, sex and age: as listed below.

Body condition and level of oiling

The amount of oiling exhibited was likely to be related to the birds' physical condition – heavily oiled birds were likely to die quicker and thus show greater fat scores. A six point scoring system was devised to assess the level of oiling, ranging from none (0) to 'body completely covered in thick layer of oil (5). The fat score was assessed through dissection using a six point scale, ranging from 'no subcutaneous fat' (0) to 'extensive thick fat deposits' (5).

Sex and age determination

Sex was determined on plumage characteristics or for partial or badly oiled corpses by internal examination.

Biometrics

Standard biometrics were taken from a sub-sample of the collection. Seven measurements were taken: skull, bill length, bill depth, width of yellow at base of bill (males), tarsus, wing chord and tail.

Moult

A sub-sample of the birds was assessed for moult; scored as either present or absent in 16 regions of the birds.

Cause of death

Post-mortems were carried out on a randomly selected sample of birds, half of which were heavily oiled and half clean. Associations in cause of death frequency data were analysed using Chi-squared tests, while multiple regression modelling in GLIM was used to gain insight into the influence of oil score, rehabilitation status, fat score, age and sex on the proportion of birds dying.

Diet

The oesophagus, proventriculus and gizzard of each bird were removed and immediately frozen at -20°C. Gut contents were extracted for analysis at a later date.

Datasets

Project outputs

Reports and papers	
<p>Hughes, B., B. Stewart, M. Brown & R. Hearn. 1996. <i>Biometric and gut contents analyses of Common Scoter Melanitta nigra nigra</i>. WWT Wetlands Advisory Service preliminary report to CCW.</p> <p>Stewart, B., B. Hughes, I. Bullock & R. Haycock. 1997. <i>Common Scoter Melanitta nigra monitoring in Carmarthen Bay following the Sea Empress oil spill</i>. WWT Wetlands Advisory Service Report to CCW.</p>	
Other outputs	
Data ownership and access	
Are data collated during the project available to external users?	
Person/organisation that owns the data	
Contact name	
Organisation	
Contact email	
Person/organisation responsible for maintaining the dataset	
Contact name	
Organisation	
Contact email	

Person/organisation that can be contacted for accessing the data

Contact name	
Organisation	
Contact email	

Additional information

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