Firth of Clyde Eider News

No 2. January 2002

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Introduction

A happy new year to all eider counters. The first newssheet was generally well received. In this issue there are the results of the September 2001 count. A special thanks to everybody who counted in September. In addition, there are some recent updates from the last breeding season. Also included is a table from WWT demonstrating that 50% of nationally important sites in Britain are in the Firth of Clyde. The Firth of Clyde, with its 800km coastline, clearly contains important concentrations of breeding, moulting and wintering eider.

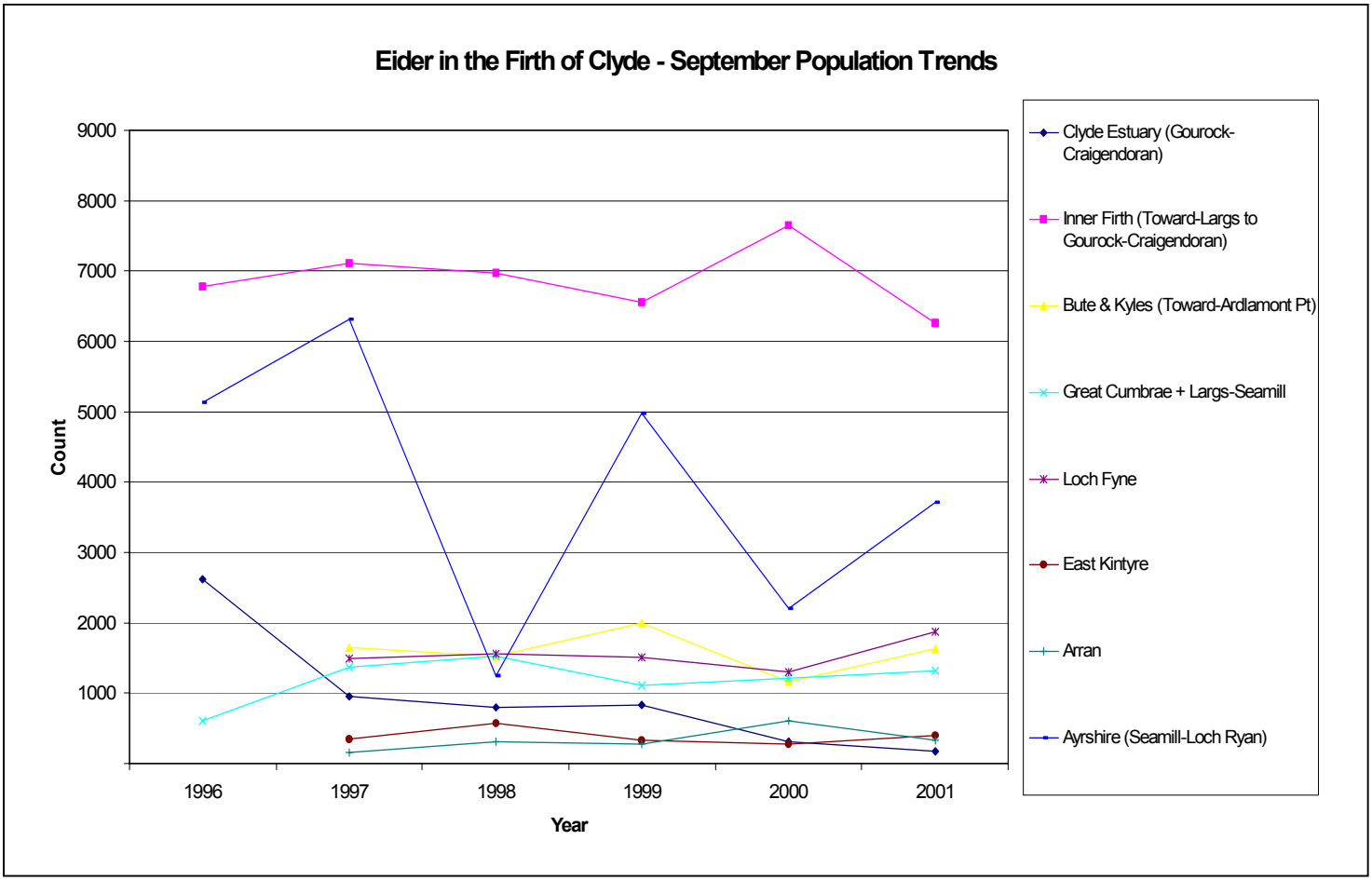
There is also some data presented that suggests that fewer birds in the Gare Loch area during the autumn may be related to fewer mussels being available and that those birds remaining were switching more to sea urchins.

I hope that you find something of interest in this issue.

September 2001 results

Count stretch	Sep-01	mean 1996-2000	new 5yr mean
Clyde Estuary (Gourock-Craigendoran)	172	1106	617
Craigendoran-Kilcreggan (Gare Loch)	3252	2750	2793
Kilcreggan-Strone Point (L Long/Goil)	1299	1856	1859
Holy Loch to Toward Pt	615	1366	1285
Gourock-Largs	1097	1040	973
Toward Pt-Strone Pt (Loch Striven)	255	300	291
Kyles of Bute (mainland) & L Ridden	228	319	301
Bute	1143	884	999
Great Cumbrae	717	602	676
Outer Loch Fyne (L Gilp-Tarbert & Otter Ferry-Ardlamont Pt)	227	210	213
Inner Loch Fyne (Otter Ferry - Port Ann)	1647	1256	1334
E Kintyre (Skipness-Southend)	406	379	385
Arran	326	338	336
Gogo Burn, Largs - Fairlie Pier	434	291	324
Fairlie Pier-Seamill	169	343	308
Seamill-Saltcoats	169	643	507
Saltcoats-Stinking Rock Barassie	800	802	682
Sinking Rock-Pow Burn	1134	602	650
Pow Burn-Ayr Harbour	69	234	155
Ayr Harbour-Greenan Castle	14	236	191
Dunure-Culzean	20	34	30
Maidens-Dipple	306	698	455
Dipple-Girvan	129	249	225
Girvan-Ballantrae	109	238	213
Loch Ryan	955	497	588
Total	15692	17012	16370

Overall, there were 1000 more birds around than in September 2000, but still nearly 4000 fewer than 5 years ago. The inner Firth contained fewer birds, but this was largely compensated by the increase along the outer Ayrshire coast. The graph below also show a dramatic decline in September numbers in the Clyde Estuary during the past 6 years, from more than 2500 in 1996 down to less than 200 in 2001.

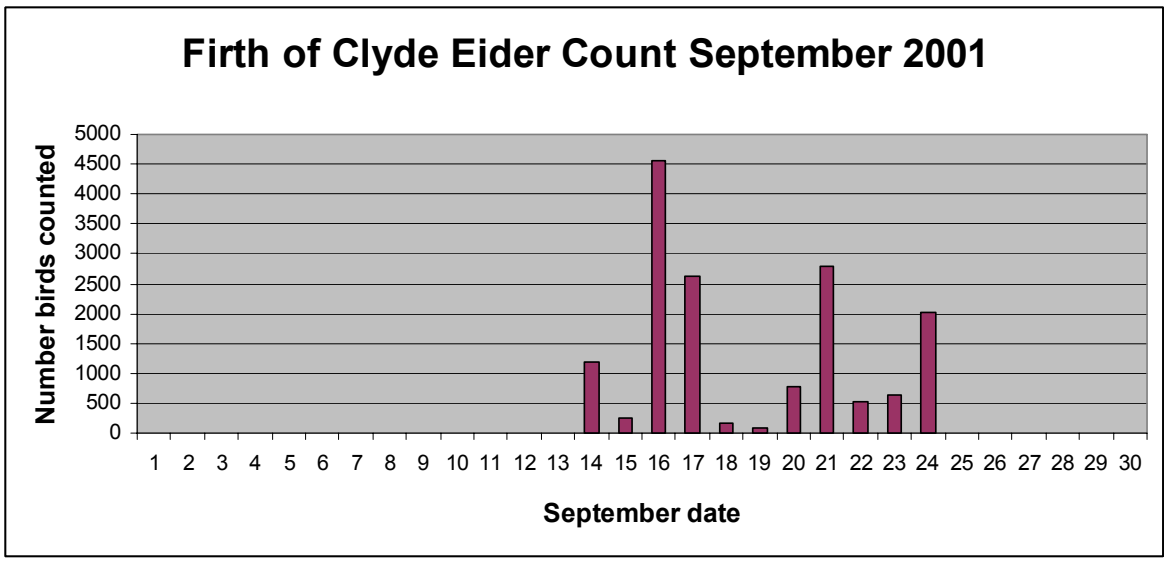


Count stretch	***1996***	***1997***	***1998***	***1999***	***2000***	***2001***
Clyde Estuary (Gourock-Craigendoran)	2616	962	797	841	313	172
Inner Firth (Toward-Largs to Gourock-Craigendoran)	6776	7117	6969	6556	7643	6263
Bute & Kyles (Toward-Ardlamont Pt)	571	1641	1534	1992	1160	1626
Great Cumbrae + Largs-Seamill	612	1373	1532	1114	1206	1320
Loch Fyne		1499	1558	1510	1297	1874
East Kintyre		339	579	322	277	406
Arran		155	318	278	603	326
estimate for remainder of Argyll and Arran	3200					
Firth of Clyde except Ayrshire Coast	**13775**	**13086**	**13287**	**12613**	**12499**	**11987**
Ayrshire (Seamill-Loch Ryan)	5127	6307	1242	4983	2577	3705
Total Firth of Clyde	**18902**	**19393**	**14529**	**17596**	**14679**	**15692**

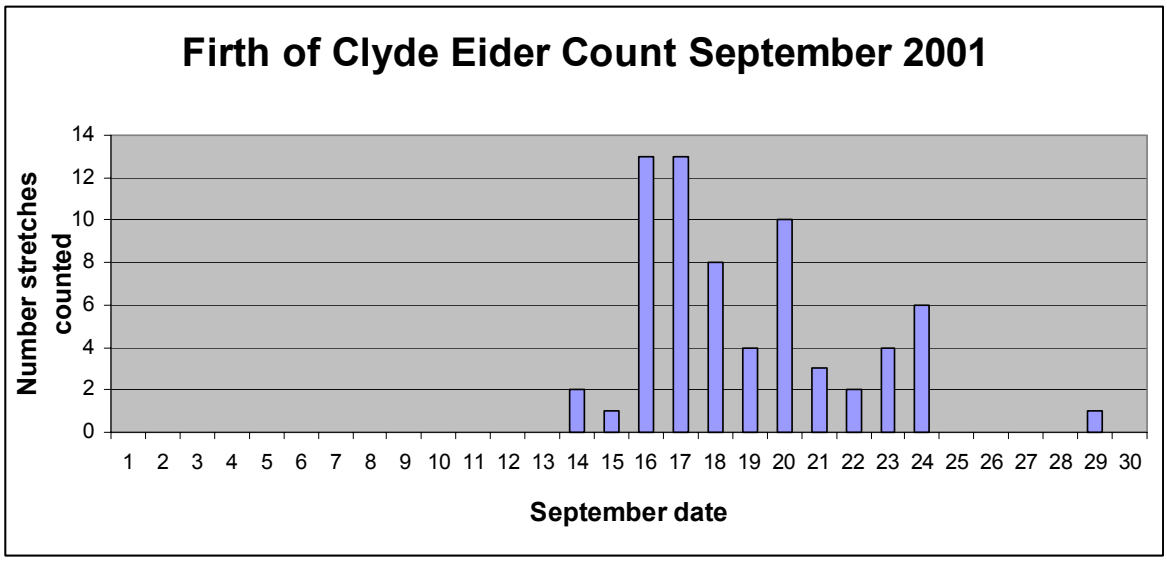
Additional records

Loch Ryan 1999

Peter Cranswick from WWT has drawn my attention to a WeBs count of 1400 for Loch Ryan from Sept 1999. This replaces the 350 recorded by Geoff Sheppard on 10 Oct 1999. Therefore, the Firth of Clyde total for Sept 1999 should be increased by 1050 to 17,596. The tables and graph in this newssheet have now been updated accordingly.



79.5% of birds were counted during 9 day target count period (15-23 September) and 100% within 1 day either side of target period (i.e. during 11 day period)



88.1% of stretches were counted during the 9 day target period, and 98.5% within 1 day either side of target period

September 2001 counters

Arran Ranger Service, Tom Callan, Paul Daw, Aiden Doherty, Lindsay Dunlop, Bob Furness, Frances Gatens, Iain Gibson, Eileen Graham, Dave Grant, Audrey & Peter Handley, Keith Hoey, Frances Hood, Ian Hopkins, Jean Howie, Bill & Elinor Kinnaird, Fiona Laing, Simon Lawrence, Jim McGrady, Mary McMillan, Eddie Maguire, Susan Mills, Jane Mitchell, Rab Morton, Bob & Moira Nuttall, Crystal Paterson, Billy Planck, Livingston Russell, Kate Sampson, Tony Smith, Terry Southall, Peter & Margaret Staley, Peter Tupman, Kevin Waite, Audrey Walters, Chris Waltho, Jim & Val Wilson, Alan Wood

Firth of Clyde Eider September 2001 - sex breakdown					
stretch	**male**	**% m**	**female/imm**	**%f/imm**	**sample**
Clyde estuary (Craigendoran-Gourock)	108	**68.8**	49	**31.2**	157
Craigendoran-Kilcreggan (Gareloch)	1967	**60.5**	1285	**39.5**	3252
Kilcreggan-Strone Pt (L Long/Goil)	828	**63.8**	470	**36.2**	1298
Holy Loch-Toward Pt	389	**63.6**	223	**36.4**	612
Gourock-Largs	977	**63.8**	554	**36.2**	1531
Toward Pt-Strone Pt (L Striven)	131	**51.4**	124	**48.6**	255
Kyles of Bute mainland & L Ridden	122	**53.5**	106	**46.5**	228
Bute	657	**57.5**	486	**42.5**	1143
Inchmarnock					
Great Cumbrae	400	**55.8**	317	**44.2**	717
Little Cumbrae					
Outer Loch Fyne	110	**48.5**	117	**51.5**	227
Inner Loch Fyne	276	**60.0**	184	**40.0**	460
E Kintyre	249	**61.3**	157	**38.7**	406
Arran	162	**74.0**	57	**26.0**	219
Largs-Seamill	no data		no data		
Seamill-Saltcoats inc Horse Island	no data		no data		
Saltcoats-Barassie	no data		no data		
Garnock/Irvine estuary	no data		no data		
Barassie-Pow Burn inc Lady Isle	no data		no data		
Pow Burn-Ayr Harbour	no data		no data		
Ayr Harbour-Greenan Castle	9	**64.3**	5	**35.7**	14
Dunure-Culzean	14	**70.0**	6	**30.0**	20
Maidens-Dipple	204	**66.7**	102	**33.3**	306
Dipple-Girvan	78	**60.5**	51	**39.5**	129
Girvan-Ballantrae	40	**36.7**	69	**63.3**	109
Loch Ryan	900	**94.2**	55	**5.8**	955
TOTAL	**7621**	**63.3**	**4417**	**36.7**	**12038**

Additional Records

First broods 2001

Sunday 27 May 10 ducklings at Irvine Harbour (Marco McGinty)

Broods rearing areas 2001

Sunday 3 June 10 ducklings at Hunterston Pier (Marco McGinty)

Sunday 3 June 118 ducklings at Hunterston Lagoon (Marco McGinty)

In-flight males 2001

31 August at Machrihanish Seabird Observatory (Eddie Maguire)

2 September at Otter Spit (Tom Callan)

This Table is reproduced (courtesy of The Wildfowl & Wetlands Trust per Peter Cranswick) from **Musgrove, A.J., Pollit, M.S., Hall, C., Hearn R.D., Holloway, S.J., Marshall, P.E., Robinson, J.A. & Cranswick, P.A.** 2001 *The Wetland Bird Survey 1999-2000: Wildfowl and Wader Counts*. BTO/WWT/RSPB/JNCC, Slimbridge.

EIDER
Somateria mollissima

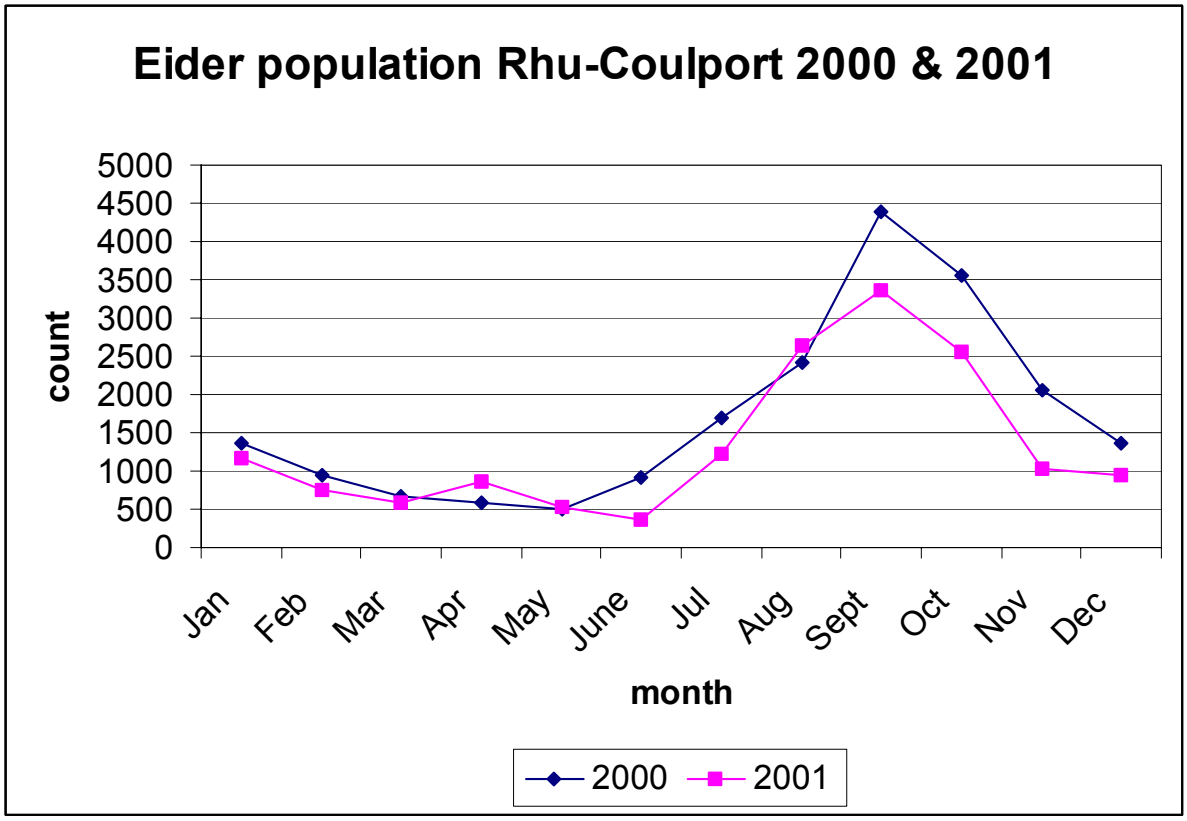
International threshold: 20,000
Great Britain threshold: 750

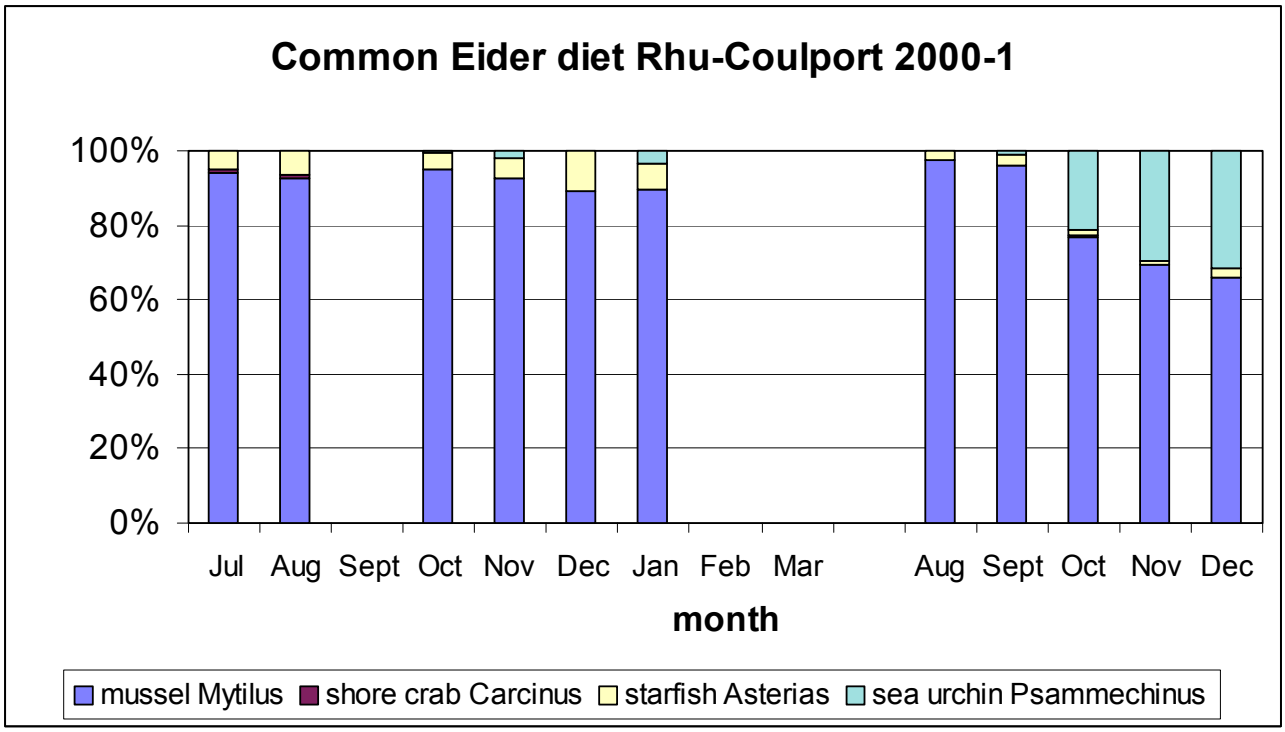
	95-96	96-97	97-98	98-99	99-00	Mon	Mean
Sites of national importance in Great Britain							
Tay Estuary	12,250	12,255	9,500	6,028	-		10,008
Forth Estuary	9,764	9,166	6,937	7,171	6,283	Sep	7,864
Morecambe Bay	4,882	6,073	8,200	8,131	6,713	Nov	6,800
Clyde Estuary	4,238	5,779	3,299	3,944	4,454	Oct	4,343
Ayr to North Troon	8,000	1,359	3,767	4,355	775	Sep	4,251
Ythan Estuary	3,700	3,216	3,366	3,116	3,944	Jun	3,468
Gare Loch	-	3,037	2,419	2,156	2,261	Sep	2,468
Montrose Basin	(2,100)	2,100	2,163	3,365	2,214	Nov	2,461
Scapa Flow	-	-	-	2,308	-		2,308
Girvan to Turnberry	1,846	2,835	2,645	1,589	1,083	Nov	2,000
Loch Long/Loch Goil	-	1,285	1,331	2,960	2,164	Sep	1,935
Lindisfarne	2,474	1,255	1,209	2,106	1,258	Oct	1,660
Loch Fyne	-	-	1,499	1,558	1,510	Sep	1,522
Farne Islands	-	-	-	2,500	200	Oct	1,350
Irvine to Saltcoats	(600)	(1,400)	(1,550)	-	789	Sep	1,170
Loch Ryan	606	1,161	228	1,202	1,400	Sep	1,119
Ardrossan-West Kilbride	-	-	-	-	937	Sep	937
Bute	-	571	763	949	1,367	Sep	913
Don Mouth to Ythan Mouth	107	1,215	2,159	360	634	Aug	895
Isle of Cumbrae	1,077	941	833	909	577	Nov	867
Seahouses to Budle Point	1,221	903	671	(800)	655	Dec	863
Wash	1,639	1,569	638	266	199	Jan	862
Irvine/Garnock Estuary	(1,200)	(500)	(1,200)	(400)	74	Jan	825
Dee Estuary (Scotland)	639	1,492	677	805	421	Aug	807
Sites of all-Ireland importance in Northern Ireland							
Belfast Lough	1,020	448	922	913	1,076	Sep	876
Outer Ards	255	709	470	716	382	Feb	506
Lough Foyle	83	452	161	130	11	Mar	167
Larne Lough	157	96	39	100	157	Sep	110
Strangford Lough	43	61	52	95	122	Jan	75

The sites highlighted (50% of GB sites) in the Table all fall within the Firth of Clyde. While, in some cases they represent traditional count stretches and are important for historical purposes, for eider they now require to be reassessed as components of the Firth of Clyde site. This would enable the Firth of Clyde population to be more accurately compared with sites such as Tay Estuary, Forth Estuary, Morecambe Bay or Scapa Flow. For example, Ayr to Troon should be more compared to Largo Bay (not the Forth Estuary), Ardrossan to West Kilbride compared with Gosford to Gullane (not Forth Estuary), Bute compared to South Ronaldsay (not to Scapa Flow) or Great Cumbrae compared to Walney Island (not to Morecambe Bay). Therefore, if the Firth of Clyde can be broken down into 12+ sites for comparative reasons, then why not other large sites. Conversely, if complex composite sites are included as single entries, the Firth of Clyde total should be used for comparative purposes. Its time to compare like with like! Only then will the scale of the Firth of Clyde eider population be properly recognised. This issue will be addressed by The Wildfowl & Wetlands Trust in the development of a British Seaduck Monitoring Strategy.

Rhu-Coulport 2000 & 2001

The monthly pattern between the two years is strikingly similar. However, during the period September to November, there were 1000 fewer birds in each monthly total in 2001 compared to 2000. What were the causes of this decline?



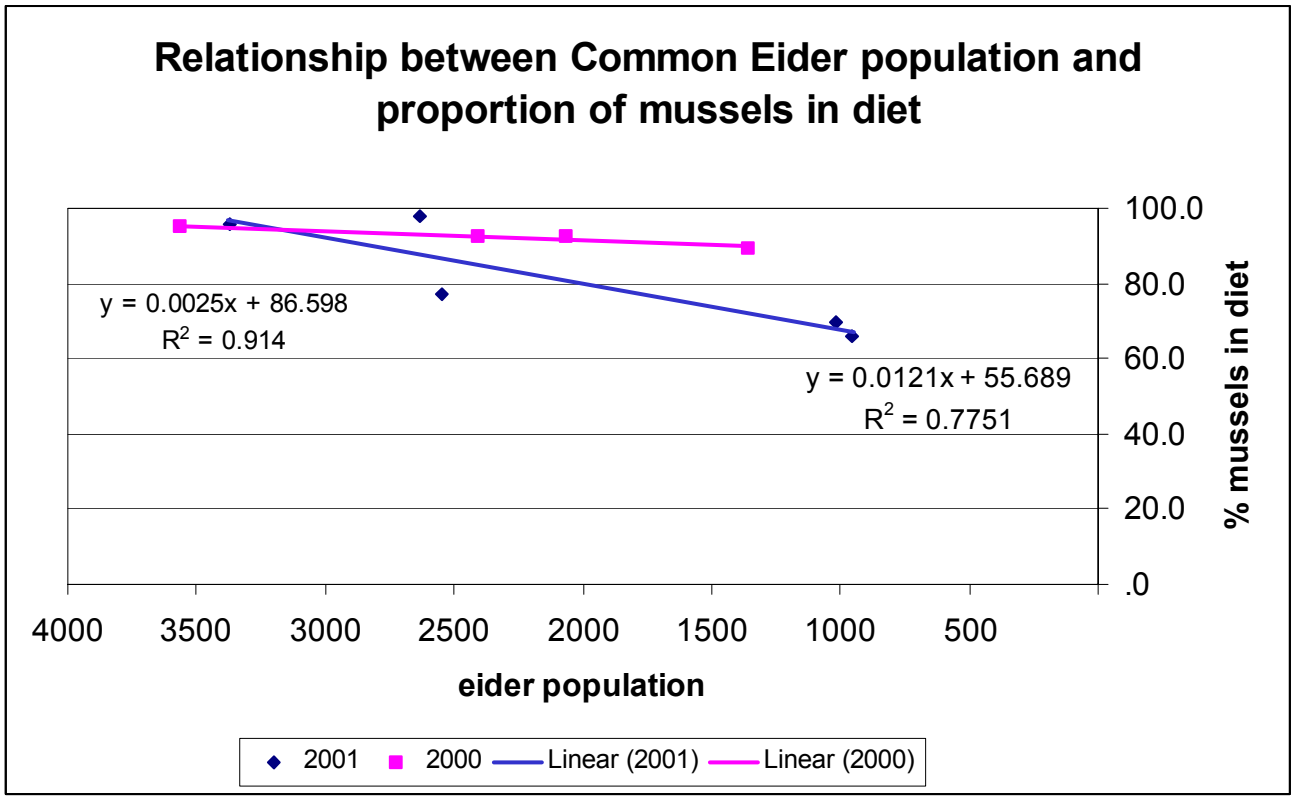


Diet changes
During the autumn and winter of 2000 and 2001, Chris Waltho has been monitoring the prey items brought to surface by feeding eider in the Rhu to Coulport stretch.

Nearly 3000 prey items have been identified. This will not include all the range of prey taken by eider, as small items, such as periwinkles and small whelks, can be swallowed underwater. However, much of the prey is brought to the surface to be processed before swallowing. The monthly variation is highlighted in the above graph.

The most prominent prey item is unsurprisingly the mussel *Mytilus edulis* (>90% in each month in 2000). Minor prey items include the common starfish *Asterias rubens*, the Shore Crab *Carcinus maenas,* and the small urchin *Psammechinus miliaris*.

The most obvious difference between the two years is the lower proportion of mussels and the higher proportion of the small urchin in the diet in 2001, suggesting a switch in the diet in favour of urchins. The lesser proportion of mussel in the diet and the fewer birds during the autumn and winter, suggest that there were comparatively fewer available mussels in the Gare Loch and Loch Long in 2001.



Roosting habits

The short winter days give a good opportunity in late afternoon to watch where eider go to roost. From observations made last winter in the Gare Loch and Loch Long (Chris Waltho), it appears that flocks of eider there move offshore to roost at dusk. Flocks that had been feeding on opposite sides of these lochs swam to the central parts of the loch forming into larger amalgamated flocks to roost. Movements of up to 3km were recorded and each loch appeared to have several roost flocks. At dawn, birds were found inshore and feeding well before sunrise. It is not known if the birds had swum or flown from the roost site to the feeding site. Swimming would be much less costly in terms of energy loss, but, with day-length short, feeding time is valuable.

Angus Hogg (in Ayrshire Bird Report 1999) comments: *early morning movements of eiders back towards Turnberry Bay appear to be a regular winter feature, the birds presumably feeding to the north of the bay and flying back at first light*. However, it is likely that these birds were roosting offshore in the area north of Turnberry and returned at dawn to feed in the area south of Turnberry (e.g. Brest Rocks). It is interesting that these birds flew to their feeding sites at dawn. It is worth checking there for offshore movements at dusk.

Offshore roost movements were also recorded last winter at Lunderston Bay, Dunoon and Seamill.
Is there any onshore roosting on breeding islands? e.g. Horse Island, Burnt Islands or near Otter Ferry. A safe island would cost less energy than roosting on water.

These offshore roosting flocks would be particularly vulnerable in an oil pollution incident.

Any further observations of roosting eider in the Firth of Clyde would be welcomed.

North American satellite tracking study

Following recent concern over declines in the populations of several seaduck species across North America, the US and Canada governments have established a co-ordinated research and conservation programme, the North American Joint Seaduck Venture. Part of the research is aimed at discovering key breeding, moulting and wintering grounds.

In June 2001, 8 male and 6 female Common Eider breeding in the western Canadian arctic were fitted with satellite transmitters. Their subsequent movements can be followed through a series of maps published and regularly updated on the internet at the following address
http://seaduckjv.org/maps/index.html.

The maps are fascinating. These birds had moved over 3000km by late October, west and south into the Bering Sea. These represent some of the longest movements yet recorded for common eider.
By comparison, few British eider have ever moved more than 250km.

Ringed Eider

Readers are asked to regularly check shorelines for corpses and to inspect birds for rings. To date there have been no recoveries of the 200+ females recently ringed in the Firth of Clyde.
Any rings found should be reported to the **Ringing Office, British Trust for Ornithology, The Nunnery, Thetford, Norfolk IP24 2PU**.

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