



NEWSLETTER 119

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RESEARCH NEWS

FOOD FOR THOUGHT: STUDYING FORAGING TO PROTECT SEABIRDS AT SEA

The UK government is committed to establishing an ecologically coherent network of Marine Protected Areas (MPAs) to manage and conserve marine ecosystems. Seabirds are vital to such ecosystems, but until now these species have received little protection at sea. This is partly because there is scant information available on the oceanic regions they use at the different stages of their lifecycle. A new study led by the BTO, in partnership with the RSPB and Birdlife International, has sought to address this by bringing together work on how far UK-breeding seabirds travel from their colonies (typically in search of food for themselves or their chicks) during the breeding season. This study used results from tracking, indirect measures and survey-based observations of seabird movements to calculate ranges over which seabirds might forage. It also assessed the validity of these ranges based on the quality of the methods underpinning them.

Manx Shearwater, Northern Gannet and Northern Fulmar had the largest maximum foraging ranges at 330, 590 and 580 km respectively, while Red-throated Diver (9 km) and Little Tern (11 km) had the smallest. The approach taken in this study can be used as a first step in identifying areas of ocean away from breeding colonies that may be crucial for sustaining seabirds. Further work would then be required to firm up the boundaries of



specific MPAs. This approach is however, relatively cheap and simple, and could easily be adopted outside the UK to become an important tool in protecting seabird habitat globally.

Full citation: **Thaxter, C.B., Lascelles, B., Sugar, K., Cook, A.S.C.P., Roos, S., Bolton, M., Langston, R.H.W. & Burton, N.H.K.** 2012. Seabird foraging ranges as a preliminary tool for identifying candidate Marine Protected Areas. *BIOLOGICAL CONSERVATION*. doi: 10.1016/j.biocon.2011.12.009

Adapted from www.bto.org

A NOVEL PROJECTION TECHNIQUE TO IDENTIFY IMPORTANT AT-SEA AREAS FOR SEABIRD CONSERVATION

A computer model which predicts the foraging habits of seabirds could be a vital tool for policy makers as they bid to determine where to set up MPAs around British shores.

The model was developed by former Plymouth student Dr James Grecian, who carried out the study as part of his PhD research into the ecology of seabirds. Supervised by Dr Stephen Votier, a Lecturer in Marine Ecology at the University, and working with other researchers from Plymouth, Exeter, Leeds and France, a model was constructed to predict the movements of gannets, using information gathered from tracking studies.

A technique was developed that identifies important areas for breeding seabirds based on at-sea projections from colonies. Synthesising data from colony surveys with detailed information on population dynamics, foraging ecology and near-colony behaviour (e.g. rafting) colony-specific foraging distributions of the Northern gannet (*Morus bassanus*) were projected at colonies in the UK, Ireland and France. The ability of the models to identify at-sea hotspots was then tested through comparison with existing data from biotelemetry studies and at-sea visual surveys. The model was built and tested using data from 25 gannet colonies around the UK, Ireland and France.

The predictions of habitat use by breeding northern gannets developed using this modelling approach show a statistically significant correlation with the European Seabirds At Sea dataset managed by the Joint Nature Conservation Committee, one of the most intensive at-sea seabird survey datasets. While there are limitations to estimating at-sea distributions of seabirds, implemented appropriately, it is proposed they could prove useful in identifying potential MPAs for seabirds. Moreover, these models could be developed to suit a range of species or whole communities and provide a theoretical framework for the study of factors such as colony size regulation.

It is suggested that the model could be applied to the large number of smaller seabirds that it is incredibly difficult to study using tags, such as storm petrels, terns and puffins.

Full citation: **Grecian, WJ, Witt, MJ, Attrill, MJ, Bearhop, S, Godley, BJ, Grémillet, D, Hames, KC & Votier, SC.** 2012. A novel projection technique to identify important at-sea areas for seabird conservation: An example using Northern gannets breeding in the North East Atlantic. *BIOLOGICAL CONSERVATION*.
<http://dx.doi.org/10.1016/j.biocon.2011.12.010>,

HUNDREDS OF AUKS KILLED IN ST IVES GILL NET FISHERY

On 7th January an estimated 200 auks were found in a gill net near St Ives in Cornwall and others washed up on local beaches. The previous week the Cornwall Inshore Fisheries and Conservation Authority (CIFCA) used a local bylaw to close part of the fishery after 100 birds were killed and a three-week fishing exclusion zone for gill nets was imposed in the bay. They also reacted rapidly along with local fishermen to remove nets.

At this time of the year guillemots and razorbills are frequently found near the coast feeding on sprats in the same areas used by local fishermen. Cornwall Wildlife Trust picked up a number of dead birds from Porthmeor Beach over several days. These were examined by Vic Simpson, vet with the Cornwall based Wildlife Veterinary Investigation Centre and their deaths were found to be entirely consistent with drowning whilst feeding on sprats. The birds that have been examined were healthy, had very recently been feeding, but had definitely died as a result of drowning in these nets.

The issue of bird bycatch around St Ives highlights a wider issue at a European level. Although much good work has been done in the southern oceans to prevent this with respect to albatrosses, there has, to date, been no clear and coherent plan to tackle bycatch of seabirds in European waters. This is of concern for a large number of seabirds, including the globally endangered Balearic shearwater that regularly feeds off north Cornwall at this time of year. On the 1 February 1988 536 dead auks were taken from just five nets within sight of shore.

Chief Officer for CIFCA Edwin Derriman said fishermen had “misjudged” the tides and left nets for two hours of daylight. He said restricting the setting of nets to the hours of darkness in the short-term was one solution. From 26 January 2012, the temporary closure to netting for seafish in St Ives Bay was lifted. CIFCA Officers will continue to monitor activity in the area and record incidents of accidental capture of seabirds

Adapted from www.rspb.org.uk

FAIR ISLE PROPOSES MARINE PROTECTED AREA

The [Fair Isle Marine Environment and Tourism Initiative](#), an initiative led by the Fair Isle Community in partnership with Fair Isle Bird Observatory Trust and The National Trust for Scotland has put forward a proposal for a Demonstration and Research Marine Protected Area within the Scottish MPA network as outlined in the Scottish Marine Bill (2010). The proposed MPA, which was sent to the Scottish Government’s Marine Scotland in December 2011, is intended to serve three purposes:

- to trial a series of management measures, supplemented by interpretation and dissemination, which demonstrate the role of MPAs in delivering fully sustainable marine management
- to demonstrate the relationship between a fully functioning marine environment and the socio-economic stability of peripheral coastal communities
- to meet a requirement of the Council of Europe in the form of a condition on the renewal of the Council of Europe Diploma for Fair Isle.

The isle is concerned about recent seabird trends, and other signs of stress within the marine ecosystem, as much for the negative impact on the social and economic well-being of the community as for environmental reasons.

You can download the Fair Isle MPA proposal at:

http://www.fairisle.org.uk/FIMETI/Reports/MPA/FAIR_ISLE_MPA_Proposal_Parts%20I&2_smaller.pdf

Nick Riddiford

Coordinator, FIMETI

CARIBBEAN SEABIRD STUDY

Documenting new seabird-colony Important Bird Areas, finding previously undocumented colonies and colonies thought to be extirpated: these are just some of the exciting discoveries reported within Environmental Protection in the Caribbean's (EPIC's) ground-breaking *Seabird Breeding Atlas of the Lesser Antilles*.

Stretching in an arc from Anguilla to Grenada, the Lesser Antilles are the final frontier between the Caribbean Sea and the vast expanses of the Atlantic Ocean. A full seabird census had previously never been undertaken in the region – our knowledge often being based on anecdotal notes from the early 19th century.

Over an 11-month study period (2009 – 2010), EPIC's partners Katharine and David Lowrie, sailed 3,162 nautical miles, surveying by land and/or sea 200 islands capable of supporting seabirds, with each island surveyed in the winter breeding season and again during the summer.

Visiting remote islands that few other sailors will venture near, the study was dubbed by the sailing community as, “a survey of the worst anchorages of the Caribbean.”

Prior to European contact, it is believed there were tens of millions of seabirds breeding in the Caribbean region, now there are under two million.

The EPIC *Seabird Breeding Atlas of the Lesser Antilles* reveals that four of the 18 species recorded are present at globally significant levels. It also reports that Battowia IBA (St Vincent and the Grenadines), followed by Dog Island IBA (Anguilla), are the most important individual islands for globally-significant seabird colonies in the eastern Caribbean.

One of the distressing discoveries of the study, however, was the extent to which egg collection and hunting for seabird chicks and adults still persists throughout the island chain. David Lowrie recounts, “We repeatedly encountered fishermen whose only reference to the species we were studying was their relative taste. On one island during one day we were greeted by tens of decapitated Brown Booby heads representing 39% of that colony's generation of chicks. On another island Sooty Terns are practically ‘farmed’ for their eggs, with ‘shoot outs’ being reported between rival hunters”.

The EPIC Atlas provides vital data on this poorly studied group of birds. It includes species accounts for all 18 species; island accounts including abundance and distribution of breeding colonies and threats; detailed methods and data analysis and discussion of the priority breeding sites and species of concern in the study area.

EPIC's Atlas is available from the CreateSpace online store <https://www.createspace.com/3565696> as well as Amazon.com where a Kindle version will soon be available. Purchases through CreateSpace and Kindle return a greater percentage of royalties to EPIC to help cover expenses incurred during the project.

RAZORBILL PAIR SUCCESSFULLY FLEDGES GUILLEMOT CHICK



Location of neighbouring guillemot and razorbill foster pair sites on the Isle of May 2011 (Mark Newell)

In 2011, six pairs of Razorbills and three pairs of Guillemots bred on a steeply sloping ledge at the fringe of a colony on the Isle of May, south-east Scotland and were observed at least daily throughout the breeding season. One pair of Razorbills laid on 18 April 2011, and appeared to incubate successfully through a severe storm that hit the island on 23 May causing many losses of eggs and small chicks. Hatched egg shell was seen at this site on 27 May but when the chick was first seen clearly on 3 June it turned out to be a Guillemot. The Razorbills brooded and fed the chick in the normal way until it was seen to fledge on the evening of 20 June. It was then about 22 days old which is within the range of fledging age of both Razorbills and Common Guillemots. Both foster-parents were present as the chick prepared to leave and went down to the sea before the chick jumped. Here they harassed other Guillemot chicks that were landing around them, a not uncommon happening, but ignored Razorbill chicks. Eventually, 'their' chick leapt and successfully met up with the Razorbill pair and the whole family headed for the open sea. Normally, only the male Razorbill takes the chick to sea and the female returns to the nest-site for several days. The adults were not ringed so I could not be sure whether the female returned the next morning.

During the storm, a pair of Guillemots about 120 cm up the ledge from this Razorbill site lost their egg and it appears as though this must have rolled down and been 'adopted' by the Razorbill pair which had lost their egg (or newly hatched) chick at the same time. This is the third case of Razorbills successfully rearing Guillemot chicks to be recorded on the Isle of May (Harris & Wanless 2001, *Atlantic Seabirds* 3:89-93). However, these previous cases were the result of competition for nesting sites and associated fights during which an egg rolled between sites.

Mark Newell

Centre for Ecology & Hydrology

ORKNEY SUMMARY 2011

Red-throated Diver

Sadly, the data from the long-running study on Hoy is now considered commercially valuable and therefore confidential. All that the observers felt able to say was that 2011 was an almost exact re-run of 2010 when there were 58 occupied sites of which 36 were successful in rearing 44 chicks. The data from the RSPB Hoy Reserve (which forms part of the above study) is known and there, 23 pairs reared 18 chicks, productivity 0.78.

On the Mainland, 16 pairs were present on RSPB reserves; 11 nests were located and seven chicks were fledged. On Rousay, five lochs held eight pairs; only three pairs were seen with young but each had b/2. Two breeding attempts by a pair on Fara both failed.

Fulmar

It was a very poor season at the Aberdeen University study site on Eynhallow where 93 AONs were found on 20th May but which produced only 15 chicks, a productivity of just 0.16. Bad weather in June was believed to be the main cause of losses. The situation on Papa Westray was very similar with 131 AONs fledging only 18 chicks, productivity 0.14. Again poor late May/early June weather was thought to be the main problem but predation also occurred and, interestingly, most of the successful nests were inland. Copinsay also had a poor season with 160 monitored nests having a productivity of just 0.14

Areas that fared better included: Rousay- 53 AONs were monitored and 36 chicks remained on 26th July, a productivity of 0.68 if all reached fledging: Swona – productivity 0.47 (n = 17): Muckle Skerry – productivity 0.58 (n = 31): Hoy – productivity 0.46 (n = 104).

A whole colony count on the RSPB Marwick Head Reserve gave a total of 455 AONs, a 9% increase on the 1999 count.

Gannet

No count was made on the traditional colony of Sule Stack but a visit in late July resulted in 1450 chicks being ringed. On nearby Sule Skerry, first colonised in 2003 and where, by 2009, 1000 AONs were counted, only a small further increase to 1100 AONs had taken place by this summer. The Noup Cliffs on Westray were also colonised in 2003 and held 583 AONs by 2010. This colony too has slowed its growth with 600 AONs counted this summer. 352 chicks were counted here, a productivity of 0.59.

Shag

73 monitored nests on six different islands reared 110 chicks, a productivity of 1.51 the most productive island being Swona (2.22, n = 9) and the least being Westray (0.78, n = 9). On Sule Skerry, c.200 pairs were thought to be nesting and 258 chicks were ringed, a much lower figure than the 800-1200 ringed there on each visit in the late '80s to mid '90s.

Bonxie

There were 28 AOTs on the North Hill Reserve, Papa Westray and they reared 25 chicks, a productivity of 0.96. On Hoy, the Stourdale monitoring plot held 50 AOTs and productivity was thought to be c.0.50.

Transects through the Birsay Moors RSPB Reserve revealed 36 AOTs compared to 45 in 2010. On Sule Skerry, three pairs are now breeding with a fourth pair prospecting.

Arctic Skua

Yet another appalling season for this species. On Papa Westray, only 25 AOTs could be located on the North Hill Reserve and only a single chick was reared, productivity 0.04. Similarly on Fara, 17 AOTs were located but only a single chick fledged, productivity 0.06.

Elsewhere the picture seemed to be the same with declining numbers and very poor breeding success. Only 16 AOTs were found on transects on the Birsay Moors Reserve compared to 34 in 2010. On Rousay, a late season check revealed only four pairs still on territory.

Black-headed Gull

73 AONs were located on Papa Westray where productivity was thought to be about 1.00. On Shapinsay, however, the once huge colony at Mill Dam held only 12 AONs and all had failed by 6th June. Similarly, success was poor on Egilsay where there were 39 AONs most failing at the egg stage, perhaps as a result of Otter predation.

Common Gull

Early season signs were not promising for this species but things picked up as the season progressed with late occupation of some colonies. However, some traditional colonies such as Stines Moss and Brown Hill (in the Orphir & Stenness Hills), remained unused while that at nearby Scorradaile held only 19 adults on 10th April and had failed by 29th June. In contrast, at Viewfield, Orphir, a colony of 130 adults (counted on 17th May) had at least 50 fledged young on 29th June. There were 'lots' of almost fledged young in a colony in Stenness on 30th June but on Enyass Hill, Rendall, 44 AONs in two colonies produced no young at all.

On Papa Westray, 137 AONs in four colonies were thought to have had a productivity of c. 1.00 but colonies on Hoy, though not failing completely, seemed to have rather low breeding success.

Lesser Black-backed Gull

There was little significant information on this species. Three pairs nesting on the North Hill Reserve, Papa Westray all failed. At least some young were known to have fledged from a colony of 160 adults at Swart Howe, Holm.

Herring Gull

Breeding numbers have fallen on Papa Westray, only two pairs attempting to nest on the North Hill Reserve, neither of them successfully. On the nearby Holm of Papay, there were 25 AONs but several chicks 'in the last throes of starvation' were seen in early June. The situation appeared somewhat better on Fara where 17 AONs were located and at least 13 young reared, productivity 0.76.

Great Black-backed Gull

On the North Hill, Papa Westray, 15 AONs fledged 12 chicks, productivity 0.80 while on Fara, 26 AONs fledged c. 33, productivity 1.27.

Numbers continue to decline. There were only nine AONs on Auskerry on 11th-13th July compared to 41 at the same time in 2007. On Hoy, the once huge colony at Stourdale held no more than 15 AONs.

Kittiwake

At Marwick Head RSPB Reserve, a whole colony count gave a figure of 1371 AONs, a 63% decline on the figure of 3761 AONs in 1999.

Breeding success monitoring at this site resulted in 96 completed nests being under observation – not a single chick is believed to have fledged from any of them! Similarly on the Muckle Skerry, 97 monitored nests again produced no young while on Copinsay, 64 nests there had a productivity of just 0.19. To the north, on the Noup Cliffs, Westray, 119 AONs were kept under observation and, again, no chicks fledged. On nearby Papa Westray, the once thriving 'Kitty-

City' on Fowl Craig held only a single nest and it failed! Monitoring plots on Rousay held no Kittiwake nests at all and the situation was similar on Auskerry where there were no nesting attempts on cliffs that held 57 nests as recently as 2007.

Sandwich Tern

The only hint of nesting being attempted was the presence of two pairs in the Well Park, Papa Westray late in the season; if breeding did indeed occur, no young were reared.

Common Tern

The major Orkney colony at the old wartime pier in Lyness held a maximum of 70 adults. However, no fledged young were ever seen at this site.

Arctic Tern

Yet another disastrous season as this species continues to decline and have very poor breeding success.

On Papa Westray, only 418 adults were counted on the North Hill Reserve but all nests failed during incubation and no young were reared. On Westray, 1060 adults were counted in 12 colonies but only three fledged young were ever seen. Smaller colonies on the Holm of Papay, North Ronaldsay, Rousay, Egilsay and Auskerry all failed totally.

On the Mainland, the Skipi Geo colony held only ten adults on 31st May and they had deserted by 7th June. At Breck of Linkquoy, a tight aggressive colony of 200 adults on 10th June had declined to only 15 adults by 6th July, only one fledged chick being seen. On Hoy and South Walls, fewer than 30 pairs nested and only two fledged young were seen – at the mouth of the Lyrava Burn. On Swona, 220 adults occupied a colony in the north-west of the island but it too failed completely.

Little Tern

The regular south isles breeding site held a maximum of 22 adults on 23rd July. Three newly-hatched chicks were seen on 3rd July with five close to fledging on 16th July.

Guillemot

A whole-colony count at Marwick Head RSPB Reserve gave a total of 12421 individual adults, a decline of 53% since the Seabird 2000 survey in 1999 when 26469 were counted. 73 'active sites' were monitored within this colony and only two chicks are believed to have fledged giving a meagre productivity of just 0.03. On Copinsay productivity from 124 monitored nests gave a productivity of 0.27 but this was thought to be an overestimate as chicks seen on 17th June count but not on a 3rd July check were counted as fledged. 30 AOTs on Swona had a decidedly better productivity of 0.43.

To the north, on Westray 351 monitored nests fledged just three chicks (productivity 0.01) while on Papa Westray, 117 nests also fledged three chicks, productivity 0.03.

Years and years of poor breeding success are finally emptying the cliffs of this species and the 'Wow!' factor is fast disappearing from our Orkney seabird cities.

Razorbill

A whole-colony count at Marwick Head revealed 626 adults, a decline of 11.5% on the 708 adults counted there in 1999.

Productivity could not be measured at Marwick Head but at Fowl Craig, Papa Westray it was just 0.01 (n = 14); at Noup, Westray it was 0.31 (n = 36); on Copinsay it was 0.17 (n = 6); on the Muckle Skerry it was 0.33 (n = 21); and on Swona it was a remarkable 0.80 (n = 25).

Black Guillemot

An April count around North Ronaldsay produced a total of 568 adults, only a little down on the 596 counted in 2010. Breeding success was, however, very poor, only a single chick being found for ringing. April counts around North Hill, Papa Westray revealed 311 adults compared to 375 in 2010 and 234 in 2009. 179 adults were found around the Holm of Papay.

Puffin

A difficult species for which to obtain meaningful data. Observations during the Sule Skerry Ringing Group's visit to that island suggested that fewer birds were present than the 60000 counted during the Seabird 2000 surveys. However, this did not prevent the SSRG from ringing 8000 new adults and recapturing a further 5000 already-ringed birds.

Elsewhere, significant counts were made at Castle o' Burrian, Westray (600 on 31st July), on Copinsay (496 on 12th June) and Swona (c.600 on 25th June).

Acknowledgements

My thanks to the following for all their efforts in gathering the information that has gone into this report:

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SHIANT ISLANDS : 26TH JUNE - 10TH JULY 2011

Members of the Shiant Auk Ringing Group visited the Shiant Islands from Sunday 26th June to Sunday 10th July. This was the fourth consecutive annual visit by the group since 2008, when visits were restarted by Jim Lennon following the long gap after the original series of visits in the 1970s and 1980s. The dates were chosen as a compromise between the needs for sample auk colony counts to be completed before the end of June and the best time for pulli ringing in early July. The Group also visited Fladaigh Chuain, off Skye, on passage to monitor the Arctic Tern colony there.

Shag

There are undoubtedly fewer breeding in the main boulder scree on the east of Garbh Eilean compared with the 1970s and 1980s. Murray and Love (Seabird Group Newsletter 110) referred to over 1000 nests here in 1986 where the group ringed over 600 pulli from 348 broods in 1985, but only 128 pulli were ringed from only 64 broods here in 2011 and this was not for lack of effort. At the same time there has clearly been an increase in the number of areas now occupied by Guillemots but whether this is cause or effect is unknown. There were 28 nests with either eggs or young on the west side of Mianais on Eilean an Taighe where Murray and Love found nine in 2008 (3rd to 8th July, prior to the group's visit 12th to 19th July). A total of 51 pulli were ringed from 23 broods in this area.

Great Black-backed Gull

Breeding numbers are well down with barely 20 AONs and only four pulli ringed from two broods on Eilean Mhuire where there used to be 100+ in the 1970s and 1980s.

Kittiwake

There was no attempt to make a complete count, as made by Murray and Love in 2008. However, they seem to be having a better season than recently, with eight out of 20 AONs in a sample colony count definitely containing chicks, three of them with a full complement of three young.

Arctic Tern

The Group made two visits to Fladaigh Chuain on 3rd and 10th July. On the 3rd we counted a total of 233 nests and 407 eggs (66 nests containing one egg, 160 nests containing two eggs and seven nests containing three eggs). nests with eggs or small pulli, though there was the. We ringed 125 pulli on each date, totaling 250 pulli. In ringing terms, this is quite significant compared to the five year mean (2006-10) for Britain and Ireland of 2119. We estimate that, conservatively, there are a total of about 350 breeding pairs.

Guillemot

They have further expanded their nesting areas within the boulder scree on Garbh Eilean but their season was obviously running later than Razorbills with not many ringable young until the second week. Sample colony counts were: Garbh Eilean section 6, 1853 compared with 1743 in 2010 and typically 1800 in the 1970s and 2400 in the 1980s; Eilean an Taighe section 12, 67 compared with 33 in 2010 and typically 40 to 60 in the 1970s and 1980s; Eilean Mhuire section 36, 133 compared with 116 in 2010 and typically 100 to 150 in the 1970s and 1980s; Eilean Mhuire section 37, 763 (but there may be an error with respect to the boundaries used) compared with 653 in 2010 typically 600 to 800 in the 1970s and 1980s.

Razorbill

They were clearly having a good breeding season but seemed not to be as synchronized as in some previous years. Some young were already leaving the main colony on 5th July with many leaving on 8th July when there were still downy young in the colony. This is slightly earlier than the major departures noted overnight 9/10 and 10/11 July in 2009. The Group ringed 878 pulli, the highest number since 1985, which is two-thirds of the total for the whole of Britain and Ireland in 2010. Sample colony counts were: Garbh Eilean section 6, 132 compared with 76 in 2010 and typically 150 to 250 in the 1970s and 1980s; Eilean an Taighe section 12, 20 compared with 19 in 2010 and typically 20 to 25 in the 1970s and 1980s; Eilean Mhuire section 36, 36 compared with 41 in 2010 and typically 20 in the 1970s and 1980s; Eilean Mhuire section 37, 37 (but there may be an error with respect to the boundaries used) compared with 80 in 2010 and typically 50 to 110 in the 1970s and 1980s.

Puffin

Breeding birds in the designated RAS colony were bringing in good loads of sand eels on the session in the second week. A number of these loads were collected, measured and weighed and will be compared with the results for loads collected in 2010. No count carried out this year of occupied versus unoccupied burrows in sample quadrats at Airighean a' Bhaigh on Garbh Eilean to compare with breeding density in 2010 and the counts from the 1970s and 1980s. Note that a new transect had to be defined for the count in 2009 because the post marking the start of the line defined in 2000 by Mike Brooke et al could not be found. The marker pegs for the transect laid out by Mike Harris in 1973 have long since gone.

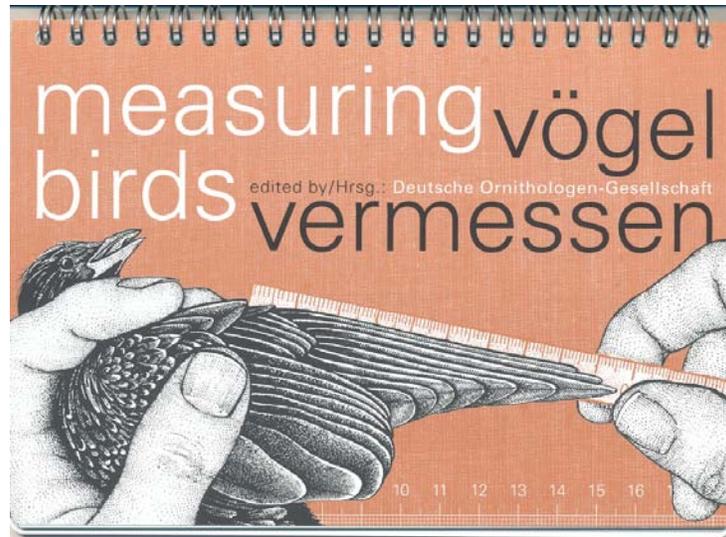
Summary

Reasonable weather allowed us to complete the ongoing point counts, which seem to show that the auks are holding their own, but that the large gull species have declined significantly. Whereas the picture is mixed with the Shags and more counts are needed on Garbh Eilean. We hit the Razorbill fledging just right and caught the start of the Guillemot fledging. That and some experienced ringers allowed us to ring some 3,500 seabirds, and the 400 re-traps, mainly at the Puffin & Razorbill Re-trapping Adults for Survival sites, should eventually allow us to get annual survival rates for these species.

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Measuring birds By Siegfried Eck, Jurgen Fiebig, Wolfgang Fiedler, Iris Heynen, Bernd Nicolai, Till Topfer, Renate van den Eizen, Raffael Winkler and Friederike Woog. Deutsche Ornithologen-Gesellschaft, Wilhelmshaven. 2011. ISBN 978-3-923757-05-3. 122 pages. Spiral-bound softback, 18.6 x 13.0 cm. Numerous drawings. Euros 24.90.

Available from www.media-natur.de

Taking measurements from birds, whether dead or alive, sounds like a fairly straight-forward process. Doing it accurately is important if you want to determine the identification or race or sex of a particular bird or to look at the variability of size within and between different populations. What many ornithologists may not realise is that there are lots of different bits of a bird that can be measured and lots of different ways to take the actual measurement. This handy little book attempts to describe how to do it.

The main aim of the book is to bring consistency to the use of both terminology and methodology and thus improve the comparability of morphological data. This is important so that the results of published studies can be compared on a like-by-like basis. It also aims to give some advice on which methods are most preferred, based on accuracy and practical considerations. Throughout the book two languages are used. The left half of the page of text is in English, the right half in German.

The book starts with various sections discussing the basic methods and potential problems of obtaining accurate repeatable measurements on live birds along with comparisons on dead specimens. Suggestions, based on the results of tests looking at the repeatability and accuracy of measurements between observers, are made about whether measurements should be made to the nearest 0.1 mm, 0.5 mm or 1.0 mm. Everything is explained very clearly. For the first time in my life I actually understood what is meant by skull ossification and how it progresses in juvenile passerines. The different types of required measuring equipment are described with comments on their suitability, reliability and accuracy.

We then come on to the main part of the book describing in detail the most important measurements and measuring techniques. The measurements described include total length, bill, wing, tail, tarsus, toes, muscle scores and fat scores as well as minor features ranging from nasal bristles to wing span. For bills, thirteen different measurements are described covering length, depth and width. In each section recommendations are made on the techniques the authors deem to be

most appropriate and whether they should be used on live birds, dead birds or skins and what equipment is most suitable.

The recruitment of an experienced graphic designer to the team has resulted in the production of excellent, clear, unambiguous diagrams showing the different measuring methods, which exact bits to measure and in some cases the correct way to hold the bird. The book concludes with a comprehensive reference section and a detailed index.

With robust metal spiral bounding and protective plastic outer covers front and back, the book appears to be designed for use out in the field. It does contain useful information for bird ringers but at almost 25 Euros I suspect it is unlikely that many individual ringers will purchase it, as the most regularly used techniques are already well explained in other publications such as the BTO Ringers Manual. It would however be a useful reference book in bird observatories and field centres. I suspect its main market will be in laboratories or, most especially, museums, where the taking of accurate measurements is a vital aspect of ornithological studies.

Bob Swann

SEAWATCH NEWS

SEAWATCH SW 2011 REVIEW

SeaWatch SW 2011 survey at Gwennap Head

The 2011 SeaWatch SW effort-based survey at Gwennap Head (near Land's End in Cornwall) took place between 15 July and 15 Oct for the fifth consecutive year; daily sightings can be viewed using the link on the front page of the project website at www.seawatch-sw.org. We would like to say a big thank you to all SeaWatch SW observers during 2011, particularly those who have participated in every year since 2007! As originally planned this will be the final year of effort-based monitoring at Gwennap Head, and we have now collected almost 5000 hours of observations for a variety of migratory seabirds from this key flyway. Regional context for the data are provided by several thousand hours of observations from our sister sites at Berry Head, Pendeen, Trevoze Head, Strumble Head and Whitburn. The SeaWatch SW dataset is increasingly being recognised as a unique resource by the science and conservation community, and a team of postgraduate students at the National Oceanography Centre are currently assisting with data analysis and interpretation. SeaWatch SW will continue to undertake fieldwork in southwest UK in 2012 and beyond, but this will be in a more targeted fashion in order to tackle some of the scientific questions thrown up by the existing survey data!

Marine life feeding frenzy attracts the media

One of the main events of the 2011 survey was an amazing feeding aggregation of marine life off the Gwennap Head watchpoint from 19-23 July. On the first date several thousand Manx Shearwaters were feeding close inshore, accompanied by hundreds of Gannets and a good early count of 32 Sooty Shearwaters. Accurate counting was made difficult by birds lingering in the area and moving randomly east and west offshore. However, the true number of Manx Shearwaters was revealed when 10,500 flew east in a single hour on 22 July! This is easily the largest count of this species recorded during the five years of SeaWatch SW survey work at this site, and comes against a backdrop of increasing numbers in the western English Channel. Large numbers of Common Dolphins (mostly in small pods of 5-50 animals) and Harbour Porpoises were also recorded at this time. This impressive foraging aggregation featured in a news release by our colleagues at RSPB, which made it on to the BBC News website, BBC Radio Cornwall, and other regional media (see weblinks below):

<http://www.birdguides.com/webzine/article.asp?print=0&a=2833>

<http://www.bbc.co.uk/news/uk-england-cornwall-14444004>

Huge influx of Great Shearwaters off Gwennap Head

The other seabird highlight of the autumn was an incredible count of 2000+ Great Shearwaters on 3 Sept, one of the highest day counts ever made in the UK. Most of the birds were seen in the last two hours of daylight, and at one stage there were so many passing through and lingering offshore that they were impossible to count accurately! The news of this influx certainly created quite a stir when it reached participants at the Seabird Group Conference in Plymouth that evening, leading to a few divided loyalties! However, the following day 'only' 154 Great Shearwaters were seen off Gwennap Head, and outside of this two-day period only six Great and nine Cory's Shearwaters were recorded.



Great Shearwater photographed in the western English Channel during a Marineliflife survey on 26 August 2011 (Mark Darlaston)

Record numbers of Balearic Shearwater arrive off southwest UK

The SeaWatch SW team recorded unprecedented numbers of Balearic Shearwaters off southwest UK this autumn. The first significant influx occurred on 3 Sept with 101 seen off Start Point, and numbers then rapidly built up in western Lyme Bay with peak counts including 300+ off Berry Head on 5-6 Sept (part of a feeding flock of several thousand Manx Shearwaters), 376 off Orcombe Point on 11 Sept and a new Devon record of 383 moving southwest off Start Point on 12 Sept. Many of these birds apparently continued westwards, as a total of 416 were seen moving west off Gwennap Head on 12-13 Sept. Up to 200 Balearic Shearwaters continued feeding in Lyme Bay on 15-16 Sept (including counts of 50+ birds following trawlers off Berry Head) and it is possible that the westwards exodus of these birds contributed to a new Cornish record day count of 283 passing Gwennap Head on 18 Sept. Few remained in Lyme Bay after this date but good numbers continued to circulate off Gwennap Head, with three day counts of 150-200 in the period from 19-26 Sept. It is likely that over 600 birds were present off Devon and Cornwall in mid-September, equating to about 2.5% of the World population and highlighting the increasing importance of this region for this Critically Endangered seabird. A short note on this influx was published in *British Birds* in January 2012.

Other marine life, and updates from SeaWatch SW sister sites and partners

Updates on autumn 2011 sightings from the SeaWatch SW sister sites can be found in the news updates on the project website, together with information on cetacean and Basking Shark sightings at Gwennap Head. In addition to land-based survey work, our partners at *Marineliflife* have continued to undertake small-boat surveys off southwest UK. Of particular note was a satellite-tagged Great Skua from Shetland or Orkney that was photographed in Lyme Bay on 12 Oct. Full details of their recent offshore sightings are at <http://marineliflife-charm3.blogspot.com/>.



Satellite-tagged Great Skua photographed in Lyme Bay during a Marinelife survey on 12 October 2011 (Mark Darlaston)

Balearic Shearwater recording in 2011

One of the main aims of SeaWatch SW has been to provide a focal point for land-based recording of the Critically Endangered Balearic Shearwater in UK and Irish waters. Our partners at *Marinelife* are also leading intensive boat-based recording of this species in the English Channel. Data collected between 2007 and 2010 are feeding into ongoing conservation efforts, for example SeaWatch SW have recently provided input to the updated Balearic Shearwater Species Action Plan and have submitted a report on the species status in UK waters to JNCC. We are grateful to all observers who have provided us with records, and are now in a position to generate a research paper based on data collected in the last four years. We will therefore not be collating UK and Irish records from 1 Jan 2011 onwards, but urge all observers to submit their records to *Birdguides* so they can be extracted and used in the future.

Balearic Shearwater tagging and tracking yields first results

The SeaWatch SW team (in collaboration with our partners at University of Oxford and Skua SLP Mallorca) has successfully tracked the year-round migration of the Balearic Shearwater for the first time. The team deployed geolocators on 34 breeding birds in spring 2010, and recovered 27 of the devices in spring 2011. The results are providing important insights into favoured feeding areas during the inter-breeding period. GPS data have also provided information into feeding areas and flyways during the incubation phase. A two-part report on the spring 2011 expedition can be found using the weblinks below, and the initial geocator results have recently been submitted for publication to the online journal *PLoS One*.

<http://www.birdguides.com/webzine/article.asp?a=2853>

<http://www.birdguides.com/webzine/article.asp?a=2855>

SeaWatch SW Annual Report 2009 available online

This 118-page report, illustrated throughout with colour images, includes a summary of all Balearic Shearwater records from the UK and Ireland during the year as well as all the data from the SeaWatch SW survey 15 July and 15 Oct 2009. A summary of boat-based observations in the western English Channel has again been provided by our partners at *Marinelife*. Note that the 2010 and 2011 data will be combined into a single report that is currently in preparation.

Dr Russell B Wynn - SeaWatch SW co-ordinator

<http://www.seawatch-sw.org>

HERRING GULL CATCHING AND EATING LIVE BATS

A remarkable piece of video taken by Maureen Nicol shows a Herring Gull (*Larus argentatus*) standing on the edge of a tiled roof and very adeptly catching bats as they leave a roost. This footage was taken by Maureen whilst visiting Garlieston in Wigtownshire, south-west Scotland. The video was taken during July 2011, and, although edited, shows the gull gulping down five bats in a few minutes.

The activity of the Herring Gull was first noted in the third week of July and it visited regularly but not daily until the end of the first week of August. The last bats were seen on about 10 August. It appears that only a single bird had learnt the skill of catching bats; on occasions a second gull was in attendance, but never seen to attempt to catch a bat.

The bats were roosting below the cement roof tiles and had not entered the roof space. They were leaving the roost by a number of holes below the ridge tile and at a point where the cement pointing at the gable end of the tiles was cracked. The size of the roost was not known, but it was thought to hold hundreds of bats; this is supported by the frequency of bats leaving the roost on the video. It was assumed to be a maternal roost of Common Pipistrelles (*Pipistrellus pipistrellus*).

On one evening the gull was seen to consume 11 bats in a 15 minute period. In addition the house owner regularly had to collect dead and injured bats from the path below the roost. The gull quickly grabbed the bats as they exited but before they could take flight. It then simply swallowed them whole and alive within a few seconds. There was no thrashing or beating of the prey to stun or kill it. Over a three week period this gull could have consumed in the region of 50 to 100 bats, which would have had a significant effect on that particular roost. The house was an end of row terrace, south-west facing, over-looking a wooded estate of grazed pasture, about 500m from the shore. By early August, 400 Herring Gulls were roosting on the shore.

Eleven species of birds have been recorded consuming bats in the British Isles and it is estimated that they consume in the order of 200,000 bats a year (Speakman 1991). Cramp & Simmons (1982) quote a wide range of food items both predated and scavenged by Herring Gulls and mention Herring Gulls recorded in aerial pursuit of a number of items including a large bat, possibly a Noctule (*Nyctalus noctula*) which was killed and partially eaten (Cleeves, 1969).

The video can be viewed at: www.youtube.com/watch?v=AffGN50YCFY

I thank Stephen Welch for bringing the video to my attention.

References

- Cleeves, TR. 1969. Herring Gull catching and eating bat. *British Birds* 62:333
Cramp S & Simmons KEL (eds) 1982. *The Birds of the Western Palearctic*. Volume 3. Oxford University Press.
Speakman JR 1991. The impact of predation by birds on bat populations in the British Isles. *Mammal Review* 21: 123-142.

Paul N Collin

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This article first appeared in *Scottish Birds* 31:4 (2011)

MARINE RENEWABLES AND BIRDS

BOU Autumn Conference 2012

Great Northern Hotel, Peterborough, UK

26 November 2012

<http://bouconfs.blogspot.com/2012/01/marine-renewables-and-birds.html>

Marine renewable developments are playing an increasing role in the delivery of clean and secure energy, as governments strive to meet targets to combat climate change.

Large numbers of seabirds, seaduck and other waterbirds, including those breeding at protected sites may utilise proposed areas for marine renewable developments. As such, there is concern regarding the potential impacts of marine renewable projects on bird populations.

Following on from the BOU's "Wind, fire and water: renewable energy and birds" conference in 2005, this conference will consolidate our understanding of the potential impacts that renewable developments may have on birds in the marine environment by showcasing current research. It will explore effects ranging from displacement, barrier effects, and collision, to changes in habitat or prey availability. The conference will review these effects, present case studies and highlight the importance of being able to understand the population-level consequences of impacts.

The conference will cover the following topics:

- An overview of marine renewables, their potential impacts on birds and the importance of population-level research;
- Displacement and the use of habitat association studies to evaluate this effect;
- Studies of avoidance behaviour and turbine collision;
- Environmental and prey effects;
- Connectivity between bird features of protected sites and marine renewable developments;
- Population modelling studies.

The conference will be international in scope, though with a particular emphasis on knowledge gained from northwest Europe.

The conference is aimed at academics, conservation organisations, industry, statutory government agencies and those engaged in policy, advocacy and conservation management.

Conference aims:

- To demonstrate how scientific study has informed our understanding of the effects of marine renewable developments on bird populations;
- To provide effective links between research and policy so that advisors and regulators can make informed decisions;
- To highlight knowledge gaps;
- To provide recommendations as to the best way forward in addressing these gaps

NATIONAL BEACHED BIRD SURVEY 2011

The 2011 National Beached Bird Survey was held during the weekend of 26th and 27th of February. Around 650 volunteers participated, walking just over 2200 km of UK beaches. A total of 484 dead birds (excluding 'wings only' specimens) were found. Of these, 331 were seabirds (including seaducks, divers and grebes), an overall density of 0.15 birds per km walked. This is very similar to the densities of the previous two surveys and the third lowest density recorded since 1991 (range: 0.14 to 3.80).

Despite the early and harsh winter that preceded the survey no 'wrecks' (mass mortality incidents) were reported. Fortunately, there were also no reports of oiling incidents.

Of the 638 beaches surveyed, five of the nine Beached Bird Survey regions were reported to show some slight oiling, mostly confined to a few small lumps of oil. Beaches in Orkney and the Southwest were oil free. Plastic debris, debris from the fishing industry and other rubbish was recorded at many beaches and a Gannet and a Herring gull were found entangled in netting.

As in 2010, all species groups were recorded at or below long-term average densities. Although gulls now make up over 40% of all seabirds found, this is due to the low number of auks found rather than an increase in the number of gulls (Table 1).

Species Group	Number found		Density (no./km)		% Oiled	
	2011	2010	2011	2010	2011	2010
Auks	54	46	0.02	0.02	14.8	10.9
Gulls	138	137	0.6	0.06	0.0	2.2
Cormorant & Shag	81	53	0.4	0.02	1.2	1.9
Fulmar	18	25	<0.01	0.01	16.7	4.0
Gannet	13	13	<0.01	<0.01	15.4	15.4
Kittiwake	9	3	<0.01	<0.01	0.0	0.0
Seaducks	13	16	<0.01	<0.01	7.7	0.0
Divers	2	4	<0.01	<0.01	50.0	0.0
Grebes	1	1	<0.01	<0.01	0.0	0.0
Terns	1	0	<0.01	0	0.0	N/A
Skuas	1	0	<0.01	0	0.0	N/A
Petrels	0	0	0	0	N/A	N/A

Table 1: Numbers, density and % oiled for different groups of seabird species found during the 2011 National Beached Bird Survey, with 2010 results for comparison

Auks: guillemot, black guillemot, razorbill, puffin, little auk, auk sp. Gulls: great black-backed, lesser black-backed, herring, common, black-headed, gull sp. Seaducks: eider, red-breasted merganser, common scoter. Divers: great northern, red throated, diver sp. Grebes: great crested, Slavonian. Terns: tern sp. Skuas: pomarine.

Overall, only 4.8% of all seabirds found were oiled: their joint third lowest value since 1991 (range: 3.4% - 26.8%) and very similar to the oiling rates of the previous two years. The oiling rate for divers appears high with 50% of birds found being oiled but it has to be noted that only a very small number of birds were involved.

The highest oiling rate was recorded in Shetland whereas the oiling rate in the South was the third lowest in 20 years. In four of the nine Beached Bird Survey regions no oiled birds were found (Table 2)

We are very grateful to all the volunteers who took part in this survey. Many thanks go to Martin Heubeck from the Shetland Oil Terminal Environmental Advisory Group SOTEAG for making available the data for Shetland and also to the regional RSPB co-ordinators for organising the survey in their respective regions. The next National Beached Bird Survey will be held on **25/26 February 2012**.

NB. Results presented here are those from surveys carried out 19 February to 06 March 2011 (a week either side of 26/27 Feb). No data were available for Lancashire or Cheshire (southwest region).

Sabine Schmitt – RSPB

Region	Distance walked (km)		Number of dead seabirds		Density (no. dead birds/km)		% Oiled	
	2011	2010	2011	2010	2011	2010	2011	2010
Shetland	48.4	48.4	22	7	0.45	0.14	18.2	28.6
Orkney	48.1	46	17	10	0.35	0.22	0.0	0.0
North-East	522.3	563.7	112	141	0.21	0.25	1.8	2.1
South-East	261	236.8	32	38	0.12	0.16	12.5	13.2
South	305.1	228.9	21	8	0.07	0.03	14.3	12.5
South-West	44.4	26.8	1	2	0.02	0.07	0.0	0.0
Wales	227.2	227.1	12	20	0.05	0.09	0.0	0.0
North-West	616.8	596.2	108	69	0.18	0.12	2.8	1.4
N. Ireland	129.4	167.2	6	3	0.05	0.02	0.0	0.0

N.B.: South region includes Channel Islands

Table 2: Numbers, density and % oiled for all seabirds in each region found during the 2011 National Beached Bird Survey, with 2010 results for comparison.

SEABIRD UPDATE

The corrected proofs of **SEABIRD 24** went to the printers on 19th December, not in time for members to receive a copy in 2011, but at least before the end of the calendar year. Many thanks to all the authors for their patience, to the referees of manuscripts, and to those who provided other comments and photographs. We hope you enjoy it! Work is already underway on **SEABIRD 25**, and we welcome any submissions of papers and short notes as soon as possible, so they can be progressed before the northern hemisphere breeding season kicks off again. If you have a half-finished manuscript on your computer, a story to tell, or know of colleagues in this situation, please consider publishing in **SEABIRD** this year – we'd be delighted to hear from you.

Martin Heubeck (Editor), Andy Webb (Publishing Editor).

SEABIRD GROUP GRANTS

A grant was awarded to Stuart Murray in the October 2011 round to conduct a 'Survey of Great Skua and Great Black-backed Gull on North Rona, Western Isles in 2012'

The deadline for the next grant round is **31st March**; please see www.seabirdgroup.org.uk for application form and guidelines.





Website: www.seabirdgroup.org.uk

Seabird Group Forum:

<http://pets.groups.yahoo.com/group/seabirdgroupforum>

Registered charity No. 260907

The Seabird Group promotes and helps co-ordinate the study and conservation of seabirds. Members also receive the journal *Seabird*. The Group organises regular conferences and provides small grants towards research.

CURRENT SEABIRD GROUP COMMITTEE

Current retiral dates (at AGM) are shown in brackets:

Chairman	Russell Wyn (2015)	rbwl@noc.ac.uk
Secretary	Linda Wilson (2012)	Linda.wilson@jncc.gov.uk
Treasurer	Kerry Leonard (2014)	kerryleonard@hotmail.com
Membership Secretary	Ilka Win (2012)	seabirdgroup.membership@gmail.com
Seabird Editor	Martin Heubeck (2015)	martinheubeck@btinternet.com
Seabird Publishing Editor	Andy Webb (2012)	andy@andywebb.org.uk
Newsletter Editor	Claire Smith (2014)	seabirdgroup.newsletter@gmail.com
Newsletter Assistant Editor	Mark Newell (2014)	manew@ceh.ac.uk
Ordinary members	Chris Thaxter (2014)	chris.thaxter@bto.org

Current membership rates	
Standing Order	£20.00
Concession	£15.00
Institution	£35.00
International:	£21
Life	£300

The Newsletter is published three times a year. The editor welcomes articles from members and others on issues relating to Seabird research and conservation. Deadlines are: 15th May (June edition); 15th September (October edition) and 15th January (February edition).

Submissions for the newsletter must be in electronic format, preferably in word and should be no more than 1500 words. Please email photographs/figures as separate files and with full credits.

Every effort is made to check the content of the material that we publish. It is not, however, always possible to check comprehensively every piece of information back to its original source as well as keeping news timely. Please will readers make further checks at their own discretion, if they have any concerns about any of the information or contacts provided and contact me to allow feedback to other readers if necessary. **We also try to provide a forum for readers' views so that those provided in the Newsletter are not necessarily those of the Editor or Seabird Group.**