

RESOLUTION ResDip (2008) 1

**ON THE REGULATIONS FOR THE EUROPEAN DIPLOMA
OF PROTECTED AREAS**

(Adopted by the Committee of Ministers on 20 February 2008
at the 1018th meeting of the Ministers' Deputies)

APPENDIX 5

MODEL PLAN FOR ANNUAL REPORTS

ANNUAL REPORT FOR 2013

Annual reports should describe the changes that have taken place since the previous year in dynamic terms of management and function and not be limited to basic data. They should not, without justification, exceed six pages. The report of the year preceding the one in which the validity of the European Diploma of Protected Areas is to be renewed should be more detailed. Any new text or map introducing a change in the situation of the area should be attached to the annual report.

State: Scotland

Name of the area: Fair Isle

Central authority concerned:

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I. General information

1. Natural heritage (general abiotic description: geomorphology, geology and hydrogeology, habitats, flora, fauna, landscape) – State of conservation

- 1.1. Environment: changes or deterioration in the environment, of natural or anthropic origin, accidental or permanent, actual or anticipated.

Climate change - Species moving north

The twin-spot plume moth *Stenoptilia bipunctidactyla* is a very recent colonist to the isle. In 2012 it was more noticeable than previously. In 2013, the population exploded and there were large numbers in rough grassland habitats throughout the in-bye area. It is a known feature of colonisations that population growth, at first tentative, can grow at a steep rate once species are established. This is often attributed to the absence of predators, parasites, diseases or competition in new localities.

The buff-tailed bumblebee *Bombus terrestris* invasion of 2012 failed to materialise into colonisation. None was reported in 2013. There was, however, several of a rather fine ichneumon on Angelica flower heads which several islanders noted as not seen before, although FIBO warden, David Parnaby, produced a photo from the year before. The species was eventually determined as *Diphyus (=Amblyteles) palliatorius*. The insect is so colourful and large that it seems implausible that it had been overlooked in previous years. Is it a recent arrival or has it been here overlooked all the time? Nick Riddiford considers that it is a recent immigrant as it is so distinctive that he and others on the isle would have noticed them if they had been around earlier. It will be interesting to see whether its population expands like the twin-spot plume moth.

Weather event impacts

The biggest event of the year, indeed for many years, was the storm surge of February 2013. Apart from the physical destruction of the South Light perimeter wall, the huge waves drove large stones from a protective wall for some considerable distance. Elsewhere, such as Bunes, massive rocks were lifted up 40 m cliffs gouging “plough lines” through the coastal turf.

Historically, jellyfish were common around the isle, including in the bays and havens, during the summer and early autumn but generally negotiated the inshore waters successfully. However, a pattern appears to be emerging of few offshore interspersed with moderate to large wrecks on Fair Isle beaches. There were three separate wrecks, two comprising moon jellyfish *Aurelia aurita*, in mid and late August, and one of mauve stingers *Pelagia noctiluca* in late September. Mauve stingers have only recently started to occur in Fair Isle waters but are now seen in abundance. The lion’s mane jellyfish *Cyanea capillata*, once abundant in Fair Isle waters, is now rarely seen and never in numbers. These altered patterns are indicative of the impact climate change appears to be having on Fair Isle’s marine ecosystem.

1.2. Flora and vegetation: changes in the plant population and in the vegetational cover; presumed causes Flora & Vegetation

Oysterplant

The biggest storm for many years created havoc around South Light. Huge rocks were thrown up, part of the lighthouse perimeter wall destroyed and the entire Muckle Uri Geo shingle beach completely restructured, leaving much of the area buried in medium to large angular stones. Opinions were offered that the oysterplant *Mertensia maritima* population would be lost but Nick Riddiford was more optimistic and, sure enough, some plants managed to appear.

This led to a 2013 aggregate count at and around Muckle Uri Geo of 157. In 2012, the count was 2363.

The 2013 counts were as follows (*with 2012 counts in parentheses*):

	Small	Medium	Large
Inside MUG enclosure	40 (c700)	47 (c890)	6 (318)
Outside, north	12 (66)	0 (1)	
Outside, east	1 (47)	0 (1)	
Outside, south	0 (278)	0 (4)	

Outside, west	0 (33)	0 (1)	
Peerie Uri Geo	0 (6)	0 (2)	
Sma Geo	51 (10)	0 (6)	

Key:

MUG = Muckle Uri Geo

In normal circumstances a decrease of 85% in one year would cause alarm but considering the extreme events of February 2013 it is comforting to know that a substantial number of plants survived, including some well established, flowering individuals. Inside the enclosure, the majority of “small” plants had already established good rosettes and are likely to flower next year.

The big surprise was the increase in plants at neighbouring Små Geo. This is the highest total recorded there, suggesting that seed dispersal as well as recovery by established plants from root stocks had occurred. Plants were scattered throughout the upper part of the geo in substrate which was re-graded by the storm into substantial patches of small rounded pebbles whereas previously the main surface material was larger angular rocks. The opposite has occurred on Muckle Uri Geo beach, which is now dominated (within the enclosure) by large angular rocks. The core of the current Muckle Uri Geo population is concentrated in a relatively small area in the north-central part of the enclosure. However, other plants are distributed more widely to the west and east within the enclosure, boding well for population growth.

Apart from the oysterplant, the area was generally bereft of vascular plants. Losses include the enclosure’s Scots lovage *Ligusticum scoticum*.

Oysterplant seeds are dispersed by sea. It is possible that there has been some new input into the Muckle Uri Geo colony. This is certainly the case for one small plant, found on North Haven beach in August. This is the first record away from the main population. As soon as it was found, FIBO staff built a chicken wire cage to protect against sheep grazing. FIBO and its ranger service were also responsible for maintaining, and in 2013, re-establishing the protective fence at Muckle Uri Geo.

Orchids

The number of flowering Northern marsh orchids *Dactylorhiza purpurella* in Schoolton meadow in 2013 was 1323, down from 2012 but still the second highest count in 20 years of monitoring. This is part of a general trend. The species is present in large numbers throughout the in-bye, in every damp patch free from grazing animals. The population growth largely reflects changes in sheep management to benefit the orchids.

New species

Fair Isle is extremely well studied botanically and new colonisation is infrequent. Nevertheless, two species were recorded for the first time in 2013. A strong population of soft rush *Juncus effusus* in the Chalet pond, indicating that the rush had been overlooked for a number of years; and a vigorous plant of perennial wall rocket *Diplotaxis tenuifolia* in an untended patch of garden at Upper Leogh. Perennial wall rocket is extremely rare in northern Scotland. There is just one previous Shetland record and that was 50 years ago. It is always a puzzle explaining the arrival of plants reliant on substantial (as opposed to dust-light) seed. Arrival with garden produce or wild bird seed is always possible but in the case of the *Diplotaxis* this seems unlikely. Migrant birds may also spread seed, either attached to their plumage or passing undigested through the alimentary tract. Time will tell whether the *Diplotaxis* can be added to the trend of species moving north in response to climate change.

1.3. Fauna: changes in the sedentary or migratory populations; congregating, egg-laying and breeding grounds

Birds - General

A total of 213 species was recorded in the year to November. Fair Isle’s reputation for rare birds never dwindles and in 2013 included the extraordinary record of two Swinhoe’s petrels *Oceandroma monorhis*, a species normally associated with islands off Japan! One was in residence for much of the late summer. An American species, red-eyed vireo *Vireo olivaceus*, was also a first for the isle, while a host of vagrants from the east included a Sykes’s warbler *Iduna rama* and a male Siberian rubythroat *Luscinia calliope*. Both are extreme rarities in Europe. On the debit side, some previously common passage migrants such as woodcock *Scolopax rusticola*, whinchat *Saxicola rubetra* and song thrush *Turdus philomelos* are becoming scarce, a factor reported widely from migration stations in Britain.

Seabirds (*with thanks to FIBO*)

Every year the Bird Observatory and its associated research partners draw together a huge amount of information related to seabird numbers, breeding success, feeding and other essential parameters for understanding the ecological trends and requirements of each species. And almost every year in the last 20 there has been a downward spiral in the fortunes of most. Usually the only ones bucking the trend are gannet *Morus bassanus* and great skua *Stercorarius skua*. But in 2013 even great skua breeding numbers declined, and chick productivity was down too. The most severe long-term declines have been endured by kittiwakes *Rissa tridactyla* and shags *Phalacrocorax aristotelis*. No kittiwake chicks were fledged for the fifth year in the last ten; and the populations of shag and kittiwake are now at risk of becoming too low for meaningful monitoring. Observations of prey brought to chicks and data logger information highlighted food shortages, forcing adults of some species to forage at large distances from the isle.

Sea Mammals

Cetaceans seen during the year included minke whale *Balaenoptera acutorostrata*, harbour porpoise *Phocoena phocoena*, white-sided dolphin *Lagenorhynchus acutus*, white-beaked dolphin *Lagenorhynchus albirostris*, Risso's dolphin *Grampus griseus* and killer whale *Orcinus orca*. There has been an increase in killer whales sightings in recent years and in 2013 groups of 5 or 6 animals, sometimes more, were seen in just about every month. On occasions they were seen at close quarters trying to lure Atlantic grey seals *Halichoerus grypus* off rocks including, in late October, entering the isle's harbour at North Haven.

If the frequency of sightings remains at this level, killer whales may become a real attraction for visitors. A lot will depend on good fish stocks and the isle's Atlantic grey seal population maintaining itself. Over 50 pups were counted by November and the final count is likely to be higher...

Fish

Fair Islander Stewart Thomson (Quoy) keeps a monitoring eye on fish stocks and provides the following information:

The season started fairly quiet with cold northerly winds, which are not particularly good fishing conditions. Coalfish *Pollachius virens* were fairly sparse on the ground, but reasonable catches of pollack *Pollachius pollachius* made up for that. As the summer went on, there was a good supply of "May-Piltock" i.e the size of fish you would expect to find in April-May. However, good quality fish appeared in late August on all the usual *hands*. Mackerel *Scomber scombrus* were about three weeks late on the grounds, but improved in July and August, with substantial marks showing on the fish-finder. The fish were of good size and condition, and their main diet, as with the coalfish, consisted of young haddock *Melanogrammus aeglefinus* and whiting *Merlangius merlangus*. The Whitefish grounds were another story however, with very few fish of any size. All the inshore grounds were similar, with minimal numbers of cod *Gadus morhua* and haddock of below average size and quality. Ling *Molva molva* have also been scarce on the ground, although they have been good quality fish. Again their diet was mostly small haddock & whiting. The lack of reasonable weather at the best time could have affected this fishery to a significant degree. One thing of note: whilst investigating small marks on the fish-finder, we found a large number of these marks consisted of greater sand-eel *Hyperoplus* species! These have always been present in small numbers but this year the increase has been dramatic. There was a large fleet of pelagic trawlers around the Isle this summer, fishing for both herring *Clupea harengus* and mackerel, with as many as 30 boats visible on one occasion. Checking their identities on A.I.S. we have boats from Norway, Denmark, Holland, Ireland, Scotland and, of course, our own Shetland boats.

A basking shark *Cetorhinus maximus*, formerly a regular visitor to Fair Isle waters, was seen in August.

Invertebrates (terrestrial, aquatic and marine)

Knowledge of Fair Isle's lesser known groups continues to expand. Local expertise is provided by resident naturalist, Nick Riddiford but there is a high level of interest amongst the community, not least the children, and a many of the interesting finds are theirs.

Marine species new to Fair Isle in 2013, mainly found by the children, were the sea-spider *Pycnogonum littorale*, the nudibranch *Lamellaria perspicua* and the marine worm *Marphysa sanguinea*. Terrestrial additions included the sawfly *Dolerus aeneus*, the caddis *Tinodes waeneri*, and the flies *Argyra perplexa*, *Tomocerus longicornis* and *Ilione albisetata*.

Residency, colonisation & invasive species

The majority of finds relate to residents not previously studied. The *Ilione albiseta* was particularly notable as it is the first snail-eating fly, Sciomyzidae, for Fair Isle and the northernmost UK record. There were several in one locality, indicating an established population. Another important record, a fly tentatively identified as *Meoneura lamellata* belongs to the Carniidae and that is a new family for the Northern Isles. These northernmost records may have climate change significance.

The sawfly was intercepted as it hitched a lift on the island plane, a novel way to arrive, but demonstrates that the 42 km between Fair Isle and other land is not a complete obstacle to new arrivals. Another novel arrival was the southern ladybird *Cleobora mellyi*, a species resident in the Melbourne area which was found recently dead amongst llama wool from that part of Australia sent to an islander for spinning purposes.

A more worrying arrival from Australasia was the New Zealand flatworm *Arthurdendyus triangulatus*, two of which were discovered at Setter in February. Islanders have been sent advice on how to capture and destroy any further individuals. None other was reported during the year, so it may have been an isolated event related to horticultural produce sent in from Shetland where the species is known to be present. The event demonstrates the importance of vigilance in bringing produce to the isle.

Despite Fair Isle's vulnerability to colonisers, it does remain mercifully free of certain less than welcome biota (from a human standpoint): no wasps, no mosquitoes, no horse flies and no external parasites to bother then animals. Nevertheless, two sheep ticks *Ixodes ricinus* were found on sheep dogs within a few days of each other. Comments from the isle unearthed three previous records, only one of which was on a sheep. Older islanders recalled that sheep keds *Melophagus ovinus* were extremely common on the isle until eliminated through more thorough treatment of the entire Fair Isle flock once a purpose-built dip was put into place at the hill crù in the 1980s. No sheep ked has been reported since.

Until 2013 there were just two records of the garden snail *Helix aspera*. Fair Isle gardeners may be dismayed to learn that a strong colony of full-grown garden snails is now established amongst a pile of stones behind the house at Burkle. All these snails will have arrived with imported produce, or attached to packaging. There are very few terrestrial snails on Fair Isle because there are no base-rich rocks. These snails appear to be surviving by deriving calcium from the odd scattered breeze block and mortar from a nearby low walled enclosure.

2. Cultural heritage and socio-economic context

2.1. Cultural heritage

Agriculture & the Environment - Environmental condition of the moorland heath

Schoolton Croft continues to be operated as something of an environmental experiment. One of the studies, to return a silage park into a flower-rich meadow, is showing real dividends. Yellow rattle *Rhinanthus minor*, a classic indicator of grassland of high environmental quality, is now widespread in all the cut over parts of the study field. It is also beginning to colonize disturbed ground (sheep track) in the south-east of the field. The most interesting find was a small patch of bush vetch *Vicia sepium*, in flower on the western edge of the cut over area. This is on the other side of the field from the usual site. The tufted vetch *Vicia cracca* patch continues to expand. White clover *Trifolium repens* had a very good season in the study area and more widely. Apart from bringing colour and landscape values to the fields, clovers and vetches fix nitrogen thus acting as natural substitutes to agricultural nitrogen-based chemicals. The study site has not received agricultural chemicals of any kind since 1995.

The moorland heath

Fair Isle's Special Area of Conservation was designated for its northern dry heath. However, as noted in previous reports, it supports a whole range of special biota – particularly biota restricted to extreme north Atlantic coastal conditions. These biota require a mosaic of low habitats. Heather *Calluna vulgaris* moorland is just one component and peat banks, lightly eroded patches and coastal grassland are all contributory factors.

To demonstrate this, local ecologist Nick Riddiford accompanied SNH field officers across the SAC area during the summer and was able to show how various biota needed specific micro habitat requirements. A classic example of this is Wilson's filmy fern *Hymenophyllum wilsonii*. This species is found across the hill, but always in damp overhangs on north facing slopes. Indeed, Riddiford was able to show the officers a previously unknown colony by just looking for the right conditions. Later in the summer Riddiford did a day's assessment of this scarce fern and found it just about everywhere that the micro conditions were right. The most important sites are the Vaadal, where there is an immense colony and the north facing slope below Ward Hill where it is also super abundant and extensive. One of its most favoured micro habitats is small overhangs at the side of sheep tracks; sheep tracks which SNH consultants had previously described as "unfavourable erosion".

Another discovery from Riddiford's assessment was that the floating rush *Scirpus fluitans* population has migrated upstream. Previously known from above the Vaadal, it moved into Sukka Mire drains in recent years and has now expanded into the small burn at Brunt Brae and the main drain at Mire o Vatnagaard. As there are gaps of unsuitable habitat between sites, the expansion is a puzzle. Sheep often have material entangled within the wool and they may be the unwitting distributors of seeds or plants to higher ground.

Notable plants of the in-bye

There is a distinct northern flavour to Fair Isle's fungi, many being species largely or entirely confined to northern Scotland. One of the most interesting, because it has a Holarctic distribution, is the boreal blewits *Lepista multiforme*. Its presence was confirmed by Professor Roy Watling (Royal Botanic Garden, Edinburgh) in the 1990s and was known from two sites, both in the Fair Isle SAC heath habitat. Two new sites were found in October for this high-Arctic species of fungus, including the first for the in-bye at Hjukni Geo.

2.2.1. Changes concerning the socio-economic context

Scheduled flights to the island have been maintained at the increased 2012 rates, this has posed some staffing problems which must be monitored.

3. Education and scientific interest

3.1. Visitors – Information policy - Ranger Service

The Ranger Service was again hosted by the Bird Observatory. Apart from the work with the schoolchildren, tasks included interpretive walks with visitors, organizing craft fairs, meeting and advising cruise ships, giving talks, maintaining the visitor noticeboard at the Bird Observatory and providing information to all visitors.

3.1.1. Arrangements for receiving and informing the public (building, booklets, maps, cards, etc.) Visitors

Information is available to the public at the Museum, shop and The Bird Observatory. The Observatory can cater for up to 20 general guests and 10 researchers and additional features include research facilities, a lounge with library and bar, and a spacious multi-purpose room set up for presentations, displays, interpretation materials, access to the internet and conference facilities.

Events/ Awards

It has been a year of awards. 2013 was declared the Year of Natural Scotland and this generated an award related to Fair Isle's marine initiative to two of Fair Isle's home-grown talents, Inge Thomson and Lise Sinclair. The press statement by the creators of the award, Creative Scotland and Scottish Natural Heritage, read:

"Year of Natural Scotland 2013 Award. The Award recognises the work of FIMETI in seeking "to ensure the waters surrounding the isle are used sustainably". FIMETI will work with talented Fair Isle composers, Inge Thomson and Lise Sinclair, to create Da Fishing Hands, a project featuring music and song inspired by documentation about Fair Isle's fishing grounds and their changing use since 1900."

Tragically, half way through the year Lise Sinclair passed away after a short illness, leaving a question mark over the project. However, Inge Thomson has informed that 80% of the songs and writings were completely before Lise's

untimely death and Inge felt confident that the project would be fulfilled. The Year of Scotland organisers have given permission for the project to be extended into 2014 in light of the circumstances.

This was not the only award to recognise the work of FIMETI. Its co-ordinator, Nick Riddiford, was selected from some impressive nominees to win the Marine Conservation category 2013 at the RSPB's prestigious Nature of Scotland Environmental Awards ceremony in Edinburgh in October. The award was sponsored by Marine Scotland and presented by Richard Lochhead, Scottish Cabinet Secretary for Rural Affairs and the Environment. The RSPB issued a press release after the ceremony which read:

“Dedicated conservationist Nick Riddiford of the Fair Isle Marine Environment and Tourism Initiative was honoured with the Marine Conservation Award for his years of work campaigning for integrated marine resource management of the seas around Fair Isle, as well as for his efforts to preserve traditional values and practices.”

For more details, see <http://www.rspb.org.uk/things/todo/natureofscotland/2013-winners.aspx>

The third award was also related to the environment, this time the birds. Liz Musser of The Haa, Fair Isle, was chosen British Wildlife Photography Awards 2013 HD Video category winner for her short film *Henry and the Waxwings*. Featuring, and with very professional commentary by her 11 year old son Henry, it showed a series of waxwings *Bombycilla garrulus* sitting on his arm and hand as they fed voraciously on apple Henry had provided for them. The video, which has also featured on BBC environment programmes, can be viewed at the following link <http://www.bwpawards.org/galleries/wildlife-in-hd-video>

3.1.2. *Frequentation by visitors and behaviour (number, distribution in time and space)*

The popularity of Fair Isle does not diminish. Boat and plane services were heavily used throughout the spring, summer and autumn.

Education – Publicity

The Fair Isle pupils attended a four day outdoor education experience with other primary schools where they looked at the sustainability of different eco-systems within Shetland.

Fair Isle School

Over the past year the school has participated in a large number of environmental activities. Pupils at the school have collaborated with the ranger and other staff at the Fair Isle Bird Observatory to participate in beach clean ups, island clean ups, as well as environmental education. Pupils have focused on environmentally sustainable energy and participated in a project where they created an electrical generator powered by waves.

3.2. *Scientific research*

A number of core activities were carried on from previous years. The RSPB-led *Future of the Marine Atlantic Environment* (FAME) project continued to research into foraging patterns of Fair Isle seabirds using GPS tracking devices and depth recorders. FIBO's long-term seabird monitoring as part of the national Seabird Monitoring Scheme, co-ordinated by the UK's Joint Nature Conservation Committee, entered its 28th year. The long-term investigation into the genetics and ecology of Fair Isle starlings *Sturnus vulgaris*, continued under the leadership of Dr PGH Evans (now of Bangor University) and Dr Jane Reid of Aberdeen University. Post-graduate studies are part of that project, the most recent example being the PhD thesis *Small-scale spatial variation in phenotype, genotype and selection in starlings on Fair Isle* (Walkup 2013 – see Publications below).

Away from the birds, a sample of the case-bearing moth *Coleophora discordella* was collected and raised by Derek Parkinson as part of a UK study into parasitisation of larvae. Whereas samples from other parts of Britain showed a parasite load, the Fair Isle sample of 18 had none – an interesting commentary on the isolation factor of Fair Isle.

Fair Isle Wildlife Club

As usual, the “Wildlife Club” organized a wide range of activities. FIWC is particularly popular with the island children and their parents but is open to all and, during the tourist season also attracted visitors staying at the bird observatory

and other accommodation outlets. Activities including simple monitoring such as studying the impact of the invasive *Notonecta* water boatman on the relict resident *Corixa iberica*; basic knowledge enhancement such as recognizing common flowering plants; ecological studies such as the plant communities of Sukka Mire wetland and streams; and extending biodiversity knowledge, for instance within coastal habitats, shoreline and rock pools.

3.2.2. Scientific publications

Scientific publications incorporating Fair Isle material appearing in 2013

Bolton, M. & Owen, E. 2013. RSPB FAME seabird tracking project: Annual research report summary. *FIBO Rep* 63: 105-106.

Collinson, M., Miles, W., Parnaby, D., Moss, J. & Rosser, B. 2013. A female 'Eastern Subalpine Warbler' on Fair Isle. *British Birds* 106: 287-288.

Lees, A.C. & Gilroy, J.J. 2013. Vagrancy fails to predict colonization of oceanic islands. In *Global Ecology & Biogeography*. Wiley & Sons. DOI: 10.1111/geb. 12129.

Miles, W. 2013. Fair Isle's seabirds in 2011. *FIBO Rep* 63: 82-86.

Miles, W.T.S. 2013. Long-term declines in Scottish seabird populations. *Scottish Birds* 33: 145-152.

Miquel Riera, E. 2013. L'Illa de Fair. *Es Busqueret* 31: 24-31. ["Fair Isle" – article in Catalan]

Nilsson, J. 2013. Oxidative stress and life history trade-offs project report. *FIBO Rep* 63: 110.

Parnaby, D. (ed.). 2013. *Fair Isle Bird Observatory Report for 2011*. FIBOT, Fair Isle.

Parnaby, D. 2013. Cetaceans and other wildlife. *FIBO Rep* 63: 102-103.

Rhodes, A., Archer, M. & Clements, A. 2013. Bird Observatories: Encouraging young people to get involved. *BTO News* 304: 19-20.

Riddiford, N.J. 2013. Fair Isle invertebrates in 2011. *FIBO Rep* 63: 101.

Riddiford, N.J. & Riddiford, E.A. 2013. Making Waves. *FIMETI newsletter* 10 (March 2013). http://www.fairisle.org.uk/FIMETI/Making_Waves/FIMETI_Newsletter_No10_March_2013.pdf?pageid=122001.

Stevenson, J.A., Loughlin, S.C., Font, A., Fuller, G.W., MacLeod, A., Oliver, I.W., Jackson, B., Horwell, C.J., Thordarson, T. & Dawson, I. 2013. UK monitoring and deposition of tephra from the May 2011 eruption of Grímsvötn, Iceland. *Journal of Applied Volcanology* 2: 3 <http://www.appliedvolc.com/content/2/1/3> doi:10.1186/2191-5040-2-3"

Walkup, J. 2013. *Small-scale spatial variation in phenotype, genotype and selection in starlings on Fair Isle*. PhD dissertation, Univ Aberdeen.

Wheeler, D. 2013. Meteorological data, Fair Isle 2011. *FIBO Rep* 63: 104.

Walkup, J., Evans, P.G.H. & Reid, J. 2013. Small-scale spatial variation in phenotype, genotype and selection in Starlings on Fair Isle. *FIBO Rep* 63: 106-109.

Note

See also www.fairisle.org.uk for web publications and general information about the island; www.fimeti.org.uk for marine environment news and www.fairislebirdobs.co.uk for greater detail on the ornithology.

4. Site description (vulnerability, protection status, ownership, documentation)

4.1. Changes in legislation or regulations

Marine Environment

Marine Protected Area (MPA)

Marine Scotland has announced that it will not be assessing the Fair Isle Demonstration & Research MPA proposal until the first half of 2014. This was because 2013 was devoted entirely to consultation and further evidence gathering for the Nature Conservation MPAs.

In the meantime the community has attempted to engage with the various Scottish fishermen's associations, considered by Marine Scotland as "main stakeholders" in the Fair Isle marine resource. The community has developed an outline plan which seeks to involve the fishermen in the process. The basis of the plan is not to exclude the fishermen but to steer them towards management measures which address the issue of sustainability and recovery of the resource. The isle believes that such measures would have long-term benefits for all stakeholders, including the fishermen.

To this end, the Fair Isle community Chair, Fiona Mitchell, issued invitations to the Shetland Fishermen's Association (SFA) and to the Scottish Fishermen's Federation (SFF) which acts as the umbrella organisation for the various Scottish fishing groups. As both the resource and the community are located at Fair Isle, the invitation was for discussions to be held on the isle. The SFA accepted but the SFF declined, arguing first that the meeting should be held on the Scottish mainland as Fair Isle was too distant and expensive to visit; then, when it was pointed out that it was a community invitation and it would be impossible to take an entire community to a mainland meeting, that there was plenty of time so date and venue could be determined later – in other words, still no commitment to engage with the community on the isle.

The meeting with the SFA has also not taken place. Dates were arranged but on each occasion genuine attempts by the SFA to visit were defeated by weather disruptions to transport.

In late October the isle was informed by Marine Scotland that stakeholder meetings had to happen by early spring 2014 at the latest. So from stalemate, the timetable looks like rushing forward. The community's response will be to issue renewed invitations to the fishermen's organisations for the early part of 2014.

Fishermen's meetings: challenges ahead. Initial written responses from the various fishermen's organisations demonstrate the task in hand. Orkney Fisheries stated that their policy was "access to any waters that their licences allow them legally into." Leslie Tait of the Shetland Fishermen's Association replied that the SFA cannot form an opinion about the proposal without further details but that "we are not generally in favour of additional restrictions on access to established fishing grounds". The Scottish Fishermen's Federation indicated that it was willing to meet, but it would host the meeting. On the merit side, Alistair Sinclair of the Scottish Creel Fishermen's Association said his association is happy to support the MPA proposal "in principle".

Shetland and Orkney are pushing the line that there is not enough detail in the Fair Isle proposal for them to take a view. Those who have studied the proposal may disagree! However, it is likely to be the prevailing view of the fishermen's groups. Nick Riddiford has written to point out that the proposal outlines the aims and objectives and makes management suggestions; but it requires Marine Scotland, in conjunction with scientific bodies, to develop the protocols and measures required to achieve those objectives. Riddiford also pointed out that this presented an opportunity for the fishermen to participate in the process.

Support

Official support for the Fair Isle MPA proposal has come from:

- The Shetland Marine Spatial Plan Advisory Group (SMSPAG), minuted with follow up letter from its Co-ordinator to the Chair of the Fair Isle Community Association.
- The Shetland MSP, Tavish Scott, verbally and publicly in The Shetland Times newspaper.
- The Chief Executive of the Shetland Islands Council, Mark Boden, who indicated to the SMSPAG and the Fair Isle community that he wishes to see progress towards a positive outcome.

Messages, verbal and written, have also been received from a number of people and organisations copied into the Fishermen's correspondence, including the Blue Marine Foundation, fauna & flora international (ffi) and the RSPB. All have been supportive.

Petition to the Scottish Parliament

The Fair Isle petition to the Scottish Parliament Public Petitions Committee received further hearings in March, June, October and November. All four meetings were deferred, the committee deciding it would wait until Marine Scotland was in a position to consider the proposal.

Prior to the October hearing, Nick Riddiford sent advice notes to the Committee outlining the efforts being put into engaging with stakeholders and the failure of the SFF to respond favourably.

As a reminder, the wording of the petition was: “calling on the Scottish Parliament to urge the Scottish Government to implement a condition of the Council of Europe Diploma to Fair Isle by designating Fair Isle waters as a Marine Protected Area”

Scottish Government consultation

The Scottish government has put out a series of consultation documents under the general heading *Planning Scotland's Seas*. It is full of brave words which mirror closely the aspirations of the islanders; but of course there is a gulf between the rhetoric and reality. The Fair Isle Marine Environment & Tourism Initiative (FIMETI) team has responded on behalf of the isle emphasising various points, not least the need to widen the assessment of economic benefits to include the many values that a healthy fully sustainable resource brings to Scotland and particularly to coastal communities such as Fair Isle. Official statements regarding economic benefit still tend to talk exclusively of fishing, oil and green energy resources.

The consultation documents can be found via the web link: www.scotland.gov.uk/marineconsultation.

Fair Isle Marine Environment & Tourism Initiative (FIMETI)

A travel grant from the Blue Marine Foundation allowed various members of the Fair Isle community to attend meetings, conferences and events during the year with the express aims of widening the profile of the isle's MPA aspirations and engaging in MPA developments.

In May, James W Stout and Nick Riddiford met with Food Certification International consultants in Lerwick, Shetland, to raise the issue of the imbalance between the low impact activities of the resident, licensed, creel fisherman and the occasional intensive exploitation of the local stock by visiting boats. The consultants had come to consider whether Shetland's sustainable shell-fishery certificate, issued by the Marine Stewardship Council, should be renewed. The consultants informed the islanders that lobsters were not being considered for certification – which spoke volumes about the stock pressure in the northern isles!

Also in May, Stewart Thomson (Quoy) and Nick Riddiford attended an event at North Atlantic Fisheries College entitled *The Business of Fishing*. The main feature was a video of this title but there were also speeches. The message was that the fishing industry is concerned by recent negative press and the video was to show them in a more positive light. This was a learning exercise for the Fair Islanders. The isle feels that the fishermen would not only benefit but get good publicity if they chose to work with the isle on the MPA.

In July Nick Riddiford joined a discussion panel at an event in Edinburgh entitled *Ocean of Life*. A brief summary of the isle's MPA efforts was well received by the 200+ attendees. This was part of the isle's public awareness drive.

In September, Neil Thomson and Nick Riddiford accepted an invitation from the Blue Marine Foundation to represent Fair Isle at a *Managing Marine Protected Areas* conference at the National Sailing Academy, Portland, England. It gave the opportunity to raise the profile of the Fair Isle initiative amongst a number of influential contacts; and to interact with inshore fishermen working with Blue Marine on sustainable fisheries along the English south coast.

And on the Isle

Fair Isle's efforts to get sustainable measures for its marine resource prompted a visit in August by “Cape Farewell”. Cape Farewell is formed by an international group of artists and scientists promoting a cultural response to climate change. The group “works in partnership with scientific and cultural institutions to deliver an innovative climate programme of public engagement”. Their visit was to find out more about the isle's marine initiative and was partly prompted by the work of Fair Isle musicians Inge Thomson and the late Lise Sinclair on the cultural and natural values of the isle's marine resource.

FIMETI, dissemination

FIMETI again kept all interested parties informed through its website www.fimeti.org.uk, at quarterly Fair Isle Community meetings, other meetings, through correspondence, word of mouth, poster displays at the Bird Observatory and during cruise ship visits at the Hall. Issue 10 of the FIMETI newsletter *Making Waves* was published in March 2013, distributed widely and placed on the website. FIMETI received some support funding from the National Trust for Scotland; and help with travel expenses from the Blue Marine Foundation. A lot of additional work and effort is done in a voluntary capacity by various members of the Fair Isle community.

Shetland Marine Spatial Planning Advisory Group (formerly SSMEI Shetland pilot study)

The SMSPAG has now produced a draft Shetland Marine Spatial Plan which includes details of the proposed Fair Isle MPA. The Plan lists the various natural and cultural designations held by Fair Isle and an outline of the MPA proposal including its objectives and statements of the benefits this would bring to Fair Isle and to Scotland. The Plan also links through to the FIMETI website and proposal document for those wishing further detail. For the full text please see Appendix 1 of this report.

5. Site management (management plans, budget and personnel)

5.1. Improvements made

Safety: a *via ferrata* system was installed in early 2013 to improve access to two cliff seabird sites. The scheme ensures safe access for the seabird researchers. The considerable cost was met by Fair Isle Bird Observatory Trust, with contributions from the Joint Nature Conservation Committee and the Seabird Group.

5.1.1. Ecological action affecting the flora and biotopes; controls of fauna

See 2.1 above “The moorland heath” NTS working closely with Islanders changed SNH views on this important habitat, effecting a change in designation from unfavourable status and mitigating the requirement for a change in grazing management at this time.

5.1.2. Protection against the elements (fire, water regime)

The roof of the Puffin Hostel which provides accommodation for the annual work parties will be replaced in late 2013 early 2014, better securing it from the elements in this exposed location. Fire risk assessments were also updated.

5.1.3. Approaches and thoroughfares (paths, roads, car parks, signposting, fencing, etc.)

5.1.4. Field equipment (hides and study facilities)

5.1.5. Waste management

Da Voar Redd Up

As usual, the entire community took part in the May Da Voar Redd Up, the countryside spring-clean undertaken throughout Shetland. The main organisers of this annual event, Shetland Amenity Trust, was shortlisted for the Nature of Scotland 2013 Community award but failed to win it.

5.1.6. Use of renewable energy systems

The island has utilised renewable energy since the 1980s in the form of two wind turbines which are backed up by generators and a project is currently underway to upgrade the system possibly with the use of battery storage.

5.2. Management

The renewable energy system is managed as an enterprise by the Fair Isle Community. The land on Fair Isle is subject in the main part to crofting tenure so again it is managed by the crofters and in some cases has been by many generations of the same family. Fair Isle boasts a considerable number of long running scientific studies again initiated and managed by islanders and these ensure good data on weather, sea salinity, flora and fauna including birds, fish and sea mammals. The National Trust for Scotland are involved in the maintenance of properties, preparation of management plans and assist in helping to fund some of the pre-mentioned studies.

Fair Isle holds considerable potential for monitoring climate change due to its isolated location.

5.2.1. Administrative department: changes made

No Changes

II. Influence of the award of the European Diploma of Protected Areas

The European Diploma of Protected Areas is a statement about Fair Isle of which the Islanders are rightly proud, it is recognition of the islands conservation and sustainable attributes and this in turn facilitates community understanding and desire to build on previous successes and remain abreast of new developments and opportunities.

III. Conditions and/or recommendations for award or renewal

The considerable efforts taken to meet the requirements of the diploma are detailed in 4.1 above.

The Fair Isle Community and the National Trust for Scotland are very keen to retain the status afforded by the European Diploma of Protected Areas and continue to believe that the determined and forward looking approach to custodianship and management of the island only serves to builds on the Diplomas core principles.

The following text appears in the draft Shetland Marine Spatial Plan, developed by the Shetland Marine Spatial Plan Advisory Group:

*Under the general heading: **Designated Nature Conservation Sites***

Fair Isle holds the Council of Europe Diploma, Map 5b(xvi). The European Diploma of Protected Areas is a prestigious international award granted since 1965 by the Committee of Ministers of the Council of Europe to natural and semi-natural areas and landscapes of exceptional European importance for the preservation of biological, geological and landscape diversity and managed in an exemplary way (Council of Europe, 2012).

*Highlighted in box, under general heading: **MPA search areas and proposals***

FIMETI proposal for a Demonstration and Research Marine Protected Area for the Waters around Fair Isle

The Fair Isle Marine Environment and Tourism Initiative, an initiative led by the Fair Isle community in partnership with Fair Isle Bird Observatory and The National Trust for Scotland, has put forward Fair Isle's case for a Demonstration and Research Marine Protected Area. The proposed MPA 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 proposal states:

'The suitability of Fair Isle stems from its rich marine environment, a considerable amount of biological and physical data already amassed and co-operative studies with academic institutions already under way. Above all, Fair Isle Bird Observatory Trust, assisted by the public purse, has invested heavily in a new building with excellent research facilities; and the community is fully in favour of and keen to support the MPA development. It is anticipated that sustainable management of the marine resource will bring many benefits. For the isle it means making full use of the research facilities on offer, the potential for development and extension of marine-related economic activities of benefit to all stakeholders, bringing Fair Isle's marine values to a wider audience to the benefit of tourism and allied ventures, and strengthening services, facilities and transport systems. For Scotland it offers the chance to address knowledge gaps while piloting measures of wide benefit to other coastal communities which depend on maintenance and enhancement of an essential socio-economic resource in the form of tourism, interpretation, education, heritage protection, recreation and sustainable economic use of the sea.'