

**Resolution CM/ResDip(2008)1  
on the revised regulations for the European Diploma for Protected Areas**

*(Adopted by the Committee of Ministers on 20 February 2008  
at the 1018th meeting of the Ministers' Deputies)<sup>1</sup>*

**Appendix 5: Model plan for annual reports**

**Annual report for the year 2020**

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. 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

Year and number of years since the award or renewal of the European Diploma for Protected Areas:  
*One year - Assessed and renewed in 2019*

**Central authority concerned:**

Name: The National Trust for Scotland

Address: Hermiston Quay, 5 Cultins Road, Edinburgh, Scotland, UK, EH11 4DF

Tel: 0131 458 0200

Fax:

e-mail: [information@nts.org.uk](mailto:information@nts.org.uk)

www: [nts.org.uk](http://nts.org.uk)

**Authority responsible for its management:**

Name: The National Trust for Scotland

Address: Balnain House, 40 Huntly Street, Inverness, IV3 5HR

Tel: 01463232034

Fax:

e-mail: [cwarner@nts.org.uk](mailto:cwarner@nts.org.uk)

www:

---

<sup>1</sup> As amended by Resolution CM/ResDip(2014)2 on 2 July 2014 at the 1204th meeting of the Ministers' Deputies.  
Internet : <http://www.coe.int/cm>

**1. Conditions:** List here all conditions which were attached to the award or the renewal of the European Diploma. Explain either how the conditions have been totally complied with or detail the progress in complying with the conditions. Please also indicate any unresolved difficulties that you have encountered.

1. in recognition of the internationally important seabird colonies and associated marine environment currently experiencing severe pressure, the United Kingdom and Scottish Governments should use the powers invested in them through the Marine and Coastal Access Act 2009 and the Marine (Scotland) Act 2010 to establish the protected marine area which has been called for in successive diploma renewals. A new protected marine area should be in conformity with the Fair Isle Marine Action Plan (FIMP);

**2. Recommendations:** List here all recommendations which were attached to the award or the renewal of the European Diploma. Explain either how the recommendations have been totally complied with or detail the progress in complying with the recommendations. Please also indicate any unresolved difficulties that you have encountered.

1. the needs and aspirations of the local community, as detailed in the FIMP, should be fully taken into account, as should the fragile socio-economic situation;

*The pandemic obviously limited what the Fair Isle Marine Research Organisation has been able to achieve in 2020. However, a major step forward was made with the appointment in September of a drMPA project officer. There were some very good applicants but one selected stood out, in experience, commitment and local knowledge, and that was Martha Thomson. Martha is currently based in Switzerland but comes from a Fair Isle family of many generations. It is currently a part-time one-year appointment, made possible through a partnership with Nature Scotland (for recruitment) and Fauna and Flora International (for grant funding\*). Martha starts in November 2020 and will alternate between Fair Isle and mainland Shetland. This gives her access to the relevant Shetland stakeholders and steering group members as well as the Fair Isle community.*

2. all efforts should be made to solve the problem of the disposal of plastic in general and agricultural baling plastic in particular.

*This remains a problem. In Fair Isle's high winds any loose material can be blown considerable distances. Most but not all the islanders are careful in stopping this from happening and/or tidying up after. A far greater problem is plastics and other materials washing ashore from shipping. Frequent cleaning of beaches by the island population makes only a brief impact. The beaches quickly fill up again with marine jetsam from cartons, bottles, portions of fishing net and much more.*

*Some recycling of specific plastics – cartons, tetrapacks etc, - along with metal cans is now taking place but no scheme exists for other plastics, from plastic bags to agricultural baling wrap. There was a recycling scheme for agricultural baling wrap, at a cost to the individual crofter, but this ceased a few years ago.*

*The island community is strongly aware of the problem but, apart from annual cleaning of beaches and drawing attention to the issues, is powerless to do anything about it.*

**3. Site Management:** List here any changes to the European Diploma holding site management, in relation to both terrestrial and aquatic environments (as appropriate), and in relation to staff and finances, since the last annual report was submitted to the Council of Europe. Please also indicate any unresolved difficulties that you have encountered.

*No notable changes*

**4. Boundaries:** Give details of any changes to the boundaries of the European Diploma holding site since the last annual report was submitted to the Council of Europe. If there are any changes, please attach an appropriate map to this report. Please also indicate any unresolved difficulties that you have encountered.

*No notable changes*

**5. Other information:** List here any other information about the European Diploma holding site which you consider should be provided to the Council of Europe.

## ENVIRONMENT

### **North Haven Dredging**

Shetland Port and Harbours sent a dredger to remove a limited area of sand just inside the breakwater. This work is very needful to maintain safe access for the ferry service. The work took place over three days from 10th August with the excavated sand distributed above the beach. This had no material impact on the natural environment apart from a low level of disturbance for some marine biota (see 6.3 Fauna).

### **Water Treatment Improvements**

Major works are underway to install a water purification unit designed to remove chemicals from the water supply. The main objective is to remove manganese which causes issues in home central heating systems but the new unit will take out other trace elements too. Activities associated with these works risked some disruption and damage to the local environment, all of which lies in a Special Area of Conservation and Special Protection Area for Birds. However, this was managed carefully by the Constructors under guidance from the local environmental consultant and damage was minimal. For further information, see 7.1 Cultural Heritage and socio-economic context.

### **Fair Isle weather**

It has been a year of contrasts. After a generally wet winter a period of dry weather from April lasted well into summer. From late summer onwards northerly winds set in, often accompanied by prolonged bouts of rain. In mid October there was continuous precipitation for more than three days. Water bodies which looked like drying out by late June were topped up again by late summer and into the autumn.

### **Change**

Natural fluctuations and changes in land management are inevitable factors in changes registered from year to year. These tend to be slow and gradual over many years. However, the isle has for some time – noticeably from the late 1980s and increasingly during the most recent decade – experienced a marked pattern of changing phenology and range shifts which are hard to relate to other than the effects of climate change. These are outlined as they apply to 2020 in Sections 6.2 and 6.3 which follow.

## FLORA AND VEGETATION

Phenology: the earliest ever flowering dates for a large number of flowers were flagged up in the 2019 report. That pattern continues with several species flowering even earlier in 2020.

Newcomers: four species were new to Fair Isle. One, large-flowered pink sorrel *Oxalis debilis*, was a garden escape. Two species of *Centaurea* more associated with the Mediterranean than northern climes flowered in a rig of turnips and oats at Field. These were annual cornflower *Centaurea cyanus* and perennial cornflower *Centaurea montana*. It is assumed both arrived with seeds purchased for the rig. These were a 'Shetland mix' sourced from Shetland, but clearly provenience for at least some of the seed must have been much farther afield. The fourth species, false fox sedge *Carex otrubae*, was found a few metres beyond the rig. It may also have arrived with the seed mix but colonisation by other means – for instance from seed transported by migrant birds – cannot be ruled out. *Carex otrubae* is native to the UK but infrequent and coastal from northern England northwards. All four species are new to Shetland.

New flora are reported on a regular basis (e.g. Riddiford & Quinteros Peñafiel et al. 2020) but rarely survive more than a year or two. One exception is perennial wall rocket *Diplotaxis tenuifolia*. A small plant appeared, source unknown, in 2013 at Upper Leogh. It appeared to struggle, flowering poorly at the end of each summer. But in 2020 there was an explosion of growth with strong flowering from the end of May through into October. It has clearly adapted to local conditions. The three 'exotics' listed above are not expected to establish but it will be interesting to monitor whether the false fox sedge survives. In Scotland it is generally restricted to coastal regions. The Fair Isle plant is some 200 m from the sea.

The survivorship of two potentially invasive species first noted in 2018 is being closely monitored. There are now two additional small rosettes of common ragwort *Senecio jacobaea* close to the original but the rosebay willow-herb *Chamaenerion angustifolium*, noted in 2018 & 2019, appears to have gone.

Species of conservation interest, juniper: moderate berry production was registered amongst Fair Isle's internationally important prostrate juniper *Juniperus communis alpina* population within the Special Area of Conservation (SAC). Until 2014 berry production was very low and often nil. The high number of berries that year was unprecedented in living memory. Moderate berry production was recorded again in 2018 & 2019; similar amounts in 2020 made it three years in a row.

Species of conservation interest, oysterplant *Mertensia maritima*: with Fair Isle Bird Observatory staff delayed by Covid lockdown, the population was left exposed to sheep grazing until the fencing was erected in June. There was clear damage to plants at this stage but they recovered strongly and an estimate in August put the population at about the same level as in 2019. The enclosure is currently protecting several other important plants including *Atriplex praecox* and sea sandwort *Honckenya peploides*. The sandwort returned in 2018 after a 40 years absence from the isle so there was concern it would be targeted by the sheep. One of 2019's two plants was lost but the other grew robustly. Its tenuous hold on the isle was further threatened by lambs which had jumped into the enclosure in late summer so it will not be known until next year whether it has survived.

## FAUNA

### **Seabirds** (information provided by David Parnaby, Fair Isle Bird Observatory)

Seabird monitoring begins as early as April for species such as the black guillemot *Cephus grylle* so with the late arrival of field staff in June there was some reduction in what could be achieved in beforehand. However, final results ensured that sufficient data were collected to maintain the high level of monitoring expected of Fair Isle, which has been continuous since 1986.

The overall picture over the last 30 years has been frequent failures for a number of species so it is good to report that it was a decent breeding season for the second year running. There was particular encouragement for those whose populations have been most severely affected. Kittiwake *Rissa tridactyla*, the most badly affected of all, managed to raise a good number of young (actual productivity per nest not calculated because of no early season coverage). The same applied to three other species under recent pressure: Arctic skua *Stercorarius parasiticus*, Arctic tern *Sterna paradisaea* and shag *Phalacrocorax aristotelis*. The gannet *Morus bassanus* population continued to grow, Northern fulmar *Fulmarus glacialis*, Atlantic puffin *Fratercula arctica*, razorbill *Alca torda* and guillemot *Uria aalge* were also relatively successful.

The one species defying the trend was great skua *Stercorarius skua*. With the population now topping 400 pairs, fledging success was very poor. This is not an area of concern as the population has expanded hugely over the last 40 years and its predatory habits have been a factor impacting other seabirds and their chicks.

### **The Breeding Season on Land**

Fair Isle is not renowned for its passerine breeding list but a trend is emerging of colonisation by landbirds previously only seen on migration. Linnets *Carduelis cannabina* have only recently colonised but in 2020 three pairs bred, with young raised, while mealy redpoll *Carduelis flammea* bred for the first time, fledging at least 2 young. Other infrequent breeders included blackbird *Turdus merula* and swallow *Hirundo rustica*. While there may be a trend of taxa moving north, this cannot be said of the redwing which raised at least 3 chicks; they were of the Icelandic race *Turdus iliacus coburni*. The only previous breeding record was in 1935.

Amongst the waders, lapwing *Vanellus vanellus* had a good breeding season. Snipe *Gallinago gallinago* and curlew *Numenius arquata* also fledged young. Dunlin *Calidris alpina* with three chicks was recorded on the hill, the fourth time in six years that this previously very infrequent breeder has nested. On the downside, red-necked phalaropes *Phalaropus lobatus* returned for the fourth consecutive year but, for the first time, failed to produce young. The reasons are unknown but a lowering water table through the spring drought may have been a factor.

### **Migrations**

A feature of spring and autumn was the paucity of common migrants. But the rarities kept coming. A long list in spring included stone-curlew *Burinus oedicephalus*, European crane *Grus grus*, Blyth's reed warbler *Acrocephalus dumetorum*, river warbler *Locustella fluviatilis*, booted warbler *Iduna caligata*, barred warbler *Sylvia nisoria*, green warbler *Phylloscopus nitidus*, rose-coloured starlings *Sturnus roseus*, citrine wagtail *Motacilla citreola*, calandra lark *Melanocorypha calandra* and song sparrow *Melospiza melodia*. The last was a stray from North America, the others from eastern Europe or farther east. The green warbler was only the 8th to be seen in the UK but was the second for Fair Isle. Barred warbler and booted warbler were a surprise because they normally occur only in autumn. So too the citrine wagtail. A male set up residence at Da Water calling forlornly for a mate. The rose-coloured starlings were part of a major irruption into western Europe from farther east.

The autumn was dominated by northerly winds, ideal for passage from Greenland, Iceland and the Faeroe Islands by meadow pipits *Anthus pratensis*, wheatears *Oenanthe oenanthe* and pink-footed geese *Anser brachyrhynchus*. Migrants from Scandinavia were generally scarce though a short spell of north-easterlies in

early October brought a large number of robins *Erithacus rubecula* and wrens *Troglodytes troglodytes*; similar conditions towards the end of the month saw considerable numbers of redwings *Turdus iliacus* and fieldfares *Turdus pilaris* arrive. The wrens were notable because Fair Isle has its own endemic race, *T. t. fridariensis*. The migrants were noticeably smaller and lighter coloured and clearly outstripped in numbers the total Fair Isle wren population. This is the second successive year of migrant wrens and an even larger passage than the year before. They have either had two very productive seasons in Scandinavia or it may be that the species is pushing north as a breeding species in that part of the world, which would increase the pool of migrants available to pass through in autumn.

The rarities which found the isle this autumn were mainly species which occur on a near annual basis: red-throated pipit *Anthus cervinus*, olive-backed pipit *Anthus hodgsoni*, two thrush nightingales *Luscinia luscinia*, two red-flanked bluetails *Tarsiger cyanurus*, several little buntings *Emberiza pusilla*, rustic bunting *Emberiza rustica*, dusky warbler *Phylloscopus fuscatus*, several yellow-browed warblers *Phylloscopus inornatus*, more Blyth's reed warblers and citrine wagtails. The rarest bird of the autumn in UK status was brown shrike *Lanius cristatus*, recorded for the second successive year. This remains a very rare visitor to the UK, though becoming more regular. Ironically, one of the rarest birds from a Fair Isle standpoint is blue tit *Parus caeruleus*. There was a small influx in October also including small numbers of great tits *Parus major*. Neither of these common European garden birds are familiar migrants to the isle. The bird which impressed the island community most was a white-tailed eagle *Haliaeetus albicilla*, also in October, which had people out and looking as it cruised up and down the isle.

### **Biodiversity (Invertebrates)**

There has been a push over the last 40 years to increase knowledge of biodiversity on the isle and in its surrounding waters. A baseline of resident species is necessary at this time of major shifts in distribution and population levels brought about by climate change. The investigation takes two forms: 1) a desk study of historical faunal (and floral) records, published and unpublished, dating back to the late nineteenth century; 2) field activities.

Field activities in 2020 particularly targeted taxa of direct relevance to birds as food resources; namely flies (Diptera) and aphids (Homoptera). The searches inevitably led to other previously overlooked resident taxa. In addition, time spent investigating the maritime fringe provided new records amongst the resident marine fauna. The full list of additions is as follows.

Flies: *Osmia depilata*, *Dicramomyia autumnalis* (craneflies), the fever fly *Dilophus febrilis*, the black fungus gnat *Schwenckfeldina carbonaria*, the Muscid *Coenosia antennata*.

Aphids: willow-angelica aphid *Cavariella archangelicae*, olive-brown grass aphid *Jacksonia papillata*, orange grass aphid *Atheroides serrulatus*

Beetles: *Cartodere nodifer*, Clay-coloured weevil *Otiorhynchus singularis*

Marine: the northern lucine *Lucinoma borealis*, thin tellin *Macomangulus tenuis* (both molluscs), the harbour crab *Liocarcinus depurator*, the Cnidarian *Clytia islandica*, the bryozoan *Celleporella hyalina*, the alga *Chaetomorpha ligustica*.

### **Invertebrates and Climate Change**

Reference has already been made (Sections 6.1 & 6.2) of observed events which bring climate change into sharp focus. There is ample evidence of this effect amongst the invertebrates. One indicator is increasingly earlier first dates amongst the Lepidoptera. The most extreme was a small tortoiseshell butterfly *Aglais urticae* on 20th April which preceded the previous earliest by nearly a month. A silver y moth *Autographa gamma* on 2nd May 2020 was the earlier ever by eleven days and a large yellow underwing *Noctua pronuba* on 13th June was the earliest by 4 days.

Insect studies in the UK are registering considerable population shifts northwards for some species and this is reflected by the arrival of taxa well beyond their known range. Such species appearing for the first time included triangle plume *Platyptilia gonodactyla* and white satin *Leucoma salicis* (both moths) and the distinctive parasitic wasp *Ophion mocsaryi* (Ichneumonidae). Further scarce moths were diamond-spot pearl *Loxostege sticticalis*, recorded for only the second time, and garden grass-veneer *Chrysoteuchia culmella* for just the third time. Several other migrant moths seldom recorded on the isle were also recorded.

The impact of climate change on the marine ecosystem is becoming well known and a cause for concern. This is driving dramatic changes in the biota occurring in Fair Isle waters. Changes in the species composition of jellyfish have been noted in previous reports and they continue. Many-ribbed jellyfish *Aequorea forskalea* was first recorded in 2011 and again in 2013. It has been annual since 2017 and in increasing numbers. In late July-August a number of Neoturris *pileata* were recorded. The only previous record was one in August 2017. *Neoturris* does not have a vernacular name, an indicator of how infrequent it is in UK waters. The same applies to *Clytia islandica*. Several were observed over a three day period in

August. There are no previous records in Fair Isle waters of this little known northern species. In addition to the Cnidaria, there was an unprecedented wreck of buoy barnacles *Dosima fascicularis*. Previous records were limited to 'single clumps' in 1982 and 2006 and several small clumps in 2018. The 2018 event was a precursor to dozens littering South Haven beach in mid August this year. All these taxa are pelagic species which seem to be drifting into northern UK waters.

### Accidental imports

Not all arrivals can be associated with climate change. The most curious arrival in 2020 was two European pepper moths *Duponchelia fovealis* found indoors in January and April, presumably imported as larvae or pupae with plants. This species, more associated with the Mediterranean, is unlikely to survive but the vine weevil *Otiorhynchus sulcatus*, first reported in 2009, is well established though so far restricted to domestic premises and gardens.

### Aeronauts

It has long been known that spiders and other tiny invertebrates can displace large distances through the air; indeed, a Linyphiid spider was the first terrestrial taxon recorded on Surtsey after it arose from the sea. A new study has been registering arrivals on Fair Isle based on captures in light traps and recording associated weather conditions. The first year's work shows a close relationship between slack winds over the North Sea incorporating an east to south-east element and the capture of Linyphiid and other small spiders. These conditions were recorded on 26 occasions between 8th April & the end of October and each brought at least one spider. The most intense displacements were from 16th-25th April (16 of 6 taxa) with another strong movement from mid September to early October. Over the entire study period 48 individuals (males & females) and 11 species were intercepted. The study also suggested that aeronaut spiders are attracted to ultraviolet light.

### Mammals

#### Marine

There were a good number of cetacean sightings, impressively because without visitors there were fewer eyes to observe. killer whales *Orcinus orca* and Risso's dolphin *Grampus griseus* were seen regularly, the latter passing through as usual in late summer-early autumn. Harbour porpoises were seen occasionally and white-beaked dolphins *Lagenorhynchus albirostris*, white-sided dolphins *Lagenorhynchus acutus* and minke whales *Balaenoptera acutorostrata* were also recorded.

Fair Isle's grey seals *Halichoerus grypus* pup from October into late November or December so it is too early to give a full count. However, at the end of October there were 22 confirmed pups and no substantial losses despite some severe gales. Common seals *Phoca vitulina* have become very scarce. The pattern over the last three years has been none in 2018, one briefly in 2019 and none again in 2020.

#### Terrestrial

The recovery of rabbit numbers after suspected Rabbit Haemorrhagic Disease (RHG) continued into early summer but appears to have suffered another setback as islanders noted increasing scarcity into the autumn. A large bat was seen on a couple of nights in September but its identity was not resolved. Further studies of night-time mammal activity, particularly of the Fair Isle field mouse *Apodemus sylvaticus fridariensis*, and their relationship with seabirds such as storm petrels *Hydrobates pelagicus*, were suspended because of Covid-19.

### Fish (summary provided by Stewart Thomson, Quoy)

The monitoring season in 2020 was shorter than usual, limited at the beginning by Covid-19 restrictions and curtailed from late summer by seas too rough to contemplate leaving the harbour. However, sufficient information was gathered to follow the fluctuations of most of the main species.

There was a very low catch rate of coalfish *Pollachius virens* and pollack *Pollachius pollachius* at the beginning of the season, especially at North Light where it did not improve through the summer at all. There was an improvement at the Ruff with some good quality sillocks (immature coalfish). They were about 15 cm long, indicating a phenological change in the breeding cycle.

There were decent-sized cod *Gadus morhua* in May and June, mostly off North Light where the Good Shepherd crosses the tide at Lowrie's String. They were also present at the Bight of Hesswalls where they averaged 1.7 to 1.8 kg. They remained until mid July.

There was a big improvement in haddock *Melanogrammus aeglefinus* stocks, with fish in most of the inshore grounds from late June until the end of July. Most were just over the legal take limit. On two occasions a group of larger fish was located, averaging nearly 2 kg, a size reminiscent of catches in the 1970s.

Mackerel *Scomber scombrus* were very slow coming and very sporadic to begin with but by July the meters were showing shoals far bigger than seen before. They appeared to be gorging on small shrimps and the fry of whiting *Merlangius merlangus* and herring. They were not always feeding, as at times there was no response to fishing tackle as it descended through a dense shoal.

Ling *Molva molva* were fairly scarce and slow to come to bait, but those caught were in good condition. They appeared to have access to plentiful food sources. Those examined were mainly targeting butterfish and squat lobster.

Sand-eels *Ammodytes*: it was a moderate season with shoals of smaller fish inshore at times. Availability was good during the guillemot and Arctic tern breeding periods, though it was noted that seabirds generally were bringing in mixed prey items, including young Gadoids.

Conservation priority species: Spur dogfish *Squalus acanthias* and tope *Galeorhinus galeus*, two members of the shark family classified as Vulnerable (VU) globally by the IUCN and also British Action Plan (BAP) species, were caught and released in May. Historically both were relatively common in Fair Isle waters but were targeted by Norwegian vessels in 1960s, possibly fishing them to near local extinction. For tope this is the first record since, while the spur dogfish was only the second this century. It is possible that a small population of tope may be re-establishing, based on incidental evidence of a distinctive form of slash marks on mackerel (a prey item) taken in August. Another Critically Endangered (CE) species, the European eel *Anguilla anguilla* continues to be seen during ditch maintenance activities.

## CULTURAL HERITAGE AND SOCIO-ECONOMIC CONTEXT

### **Impacts of Covid-19**

Fair Isle has been in virtual lockdown for most of the year. Travel has been restricted to islanders and essential visitors only. The air service and Good Shepherd ferry have continued to operate but with strict regulations and restrictions applied. The Fair Isle shop has imposed measures including sanitising hands before entering and on exit and strict limitations on numbers at any one time. The Fair Isle Nurse has given clear guidance, with regular updates, to advise members of the community in keeping themselves safe.

Those affected most, economically, are the guest houses and outlets selling directly on the isle – foremost of those the shop, which has already taken the knock of much reduced income from visitors after the Bird Observatory fire. The isle's knitwear operators do use internet sales and the postal service but a considerable proportion of their sales comes from cruise ship passengers. All planned cruise ship visits for 2020, 14 in all, were cancelled.

Major works put on hold during the pandemic include the Bird Observatory re-build and improvements to the Fair Isle Water Treatment Plant by Scottish Water. The latter works are to eliminate trace elements currently present in the water supply, bringing water quality to the highest achievable standard. At the end of summer it was considered safe enough to bring back the workmen. Part of the operation saw two heavy cranes and associated plant, equipment and materials brought by barge. The most critical part of this episode from an environmental aspect was transporting one of the cranes to the Treatment Plant at Tarryfield, requiring passage through Fair Isle's Special Area of Conservation. Initially there were fears this would require clearance of bordering vegetation including plant species designated under the SAC. Fortunately, a very skilled heavy goods operator was able to negotiate the entire distance with no damage to the vegetation and its environmental interests.

### **Community Resilience Funding**

One positive, already in the pipeline, was funding through the Community Resilience Funding scheme. The funding came from Highlands & Islands Enterprise and was distributed through the Fair Isle Development Company. This amounted to

- Securing the island's off grid electricity supply for an isolation period and the foreseeable future; building in an additional layer of resilience through purchase of a higher than normal level of diesel back up.
- A supply of additional kerosene to pensioner and vulnerable households for the lockdown/shielding duration. Kerosene is used for hot water boilers and heating.
- Securing a regular supply of all goods to the island during the time of a restricted ferry service.
- Delivery of a local Contingency Fund for unforeseen needs which could develop as the situation continues.

The Fair Isle Development Company also established that support was available from the Shetland Support Hub, CAB Lerwick and the Business Gateway.

### **The Fair Isle Locality Partnership Plan**

Ana Arnette, Community Involvement and Development Officer for Shetland North Mainland, South Mainland and Fair Isle has been working with the community to produce a Shetland's Islands with Small Populations Draft Locality Plan. The initial draft drew considerable comments, corrections and concerns by community members. These were taken on board by the Development Officer and an amended version was signed off by the island's Committee Chairman on behalf of the community in early October. The Plan is expected to encourage progress towards local goals such as attracting more residents.

### **Fair Isle Unified Low Carbon Electricity Storage and Generation Project**

This new "green" system is working effectively, continuing the pattern of major reduction in the use of fossil fuels (diesel). However, the turbines have continued to give issues. The turbine which has failed to function since the start remains in that position and it has been joined for parts of the summer to the present time by a second one, leaving just one working. There was already a problem with access to spares and technical support because the suppliers had wound up their business. The Covid-19 pandemic did not help in terms of getting anyone in to sort the technical issues. The Fair Isle Electricity Company has applied for funding to bring three workmen to the isle to do the essential repairs required. Getting them on to the isle will be determined not just on funds being granted but on pandemic rules and regulations in place at the time. At the time of writing, technical experts are planning to visit shortly.

### **Fair Isle Kirk**

It is fair to say that a number of Fair Islanders were dismayed to learn that the Church of Scotland had decided to relinquish the Fair Isle Kirk, with one of the suggestions that responsibility should be given over to the community. The Church set up a consultation though there were strong indications – including directly from the representative who visited – that the decision had been made. The consultation focused more on alternative uses for the building. The concern over this change may be reflected in the high level of responses (21) coming from the isle over the matter.

The Fair Isle Kirk has high historical and cultural values including a magnificent and much admired stained glass window montage of high artistic value. There is also concern from an environmental point of view about future use of the Kirk yard. This is one of Fair Isle's "hot spots" for flowers, including a population approaching a thousand of field gentian *Gentianella campestris* and a summer riot of colour from the large range of species growing there. Field gentian is a threatened species in the UK and this is by far the strongest population on the isle. This could be lost, depending on what the Kirk becomes.

### **Fair Isle Nurse**

Since October the isle has been without a resident nurse. The NHS is covering the position with a series of temporary nurses though this can lead occasionally to short periods without medical cover. Previously the appointment of a new resident nurse was a slow process. There is always a level of anxiety amongst the community while this situation persists.

### **Fair Isle Bird Observatory**

#### **The Re-build**

The Bird Observatory re-build after the 2019 fire has been another casualty of the pandemic. Behind the scenes, however, there has been progress. Architects were appointed in November 2019, Shetland Islands Council granted planning permission in May 2020 and work on layout, interiors and procurement continued through the summer. Three companies have been invited to tender with contractors to be appointed shortly. Some ground work and clearance of the site is expected during the winter with construction to begin in spring 2021. The projected opening date for receipt of guests is spring 2022.

The insurance claim has been settled in full and will meet the costs of a straight re-build. However, the Fair Isle Bird Observatory Trustees are taking the opportunity to improve the offer, including better research facilities and a visitor service which widens the appeal to 'tourists' as well as 'birders'; in particular by making the visitor centre more focused on the isle as a whole. To achieve this, FIBOT has launched a public fund-raising campaign, with celebrated author (and former FIBO staff member) Ann Cleeves as Patron. It has already garnered a lot of positive publicity and donations from near and far. FIBOT is in discussions with a number of potential funders including local and national governments, NGOs, Heritage Lottery and various charitable foundations.



Details of the appeal, including explanatory video and supporting comment from eminent UK naturalist Chris Packham, are on the FIBO website: <http://www.fairislebirdobs.co.uk/appeal>.

The Bird Observatory plays a key role in the environmental, social and economic well-being of the isle. The community recognises this and has issued a letter of support through the Fair Isle Community Chairman, Kathy Coul (Appendix 1).

#### The work

Despite the lack of a building, FIBO's internationally important monitoring work continues. The Schoolhouse was currently unoccupied so the warden and family were able to decant there until the new building is complete. The seasonal staff were held back during the spring lockdown, arriving eventually on 8th June. They were billeted in an unoccupied flat at South Light. Prior to that, members of the community assisted by supplementing the warden's daily bird counts.

#### Da Voar Redd Up

For the first time in many years there was no official Redd Up in Shetland as it became a casualty of Covid-19 restrictions. However, some tidying up was done on the isle by individuals.

#### Workcamps

For the first time in many years there were no workcamps on the isle, another consequence of Covid.

### EDUCATION & SCIENTIFIC INTEREST

#### Education

##### Fair Isle School

The pandemic saw the school closed until August. There after the children did – in the words of the Headmistress – “a lot of science”.

The school participated in e-Sgoils, a Scottish government online initiative designed to supplement parts of the school curriculum. The course covered the following topics:

- Living and non-living
- Growing plants with and without fertiliser
- Food chains and eco-systems
- Physical and behavioural characteristics for survival

In addition, teacher Pat Thomson used moth trapping as an educational tool. She took her moth trap to the school on several occasions. The children not only helped record the moths but were encouraged to draw them as an art project and to undertake further research, using moth books and the internet to learn more about their ecology.

An outcome of the children's work was a series of three display panels, one on the e-Sgoils project, one on the moths and a third on the ecology of Fair Isle habitats. The last panel incorporated work done with the Fair Isle Ranger (see The Ranger Service below).

##### The Ranger Service

The ranger service, hosted by FIBOT, was in place from June to October. The absence of visitors prompted a rearrangement of priorities and the ranger focused instead on projects with the Fair Isle School and the preparation of interpretive material to be used in the planned Visitor Centre and more widely. However, outside the main lockdown period a handful of guided walks to both visitors and residents took place, mostly with a wildlife/birding theme. A five week programme of weekly outdoor sessions with the school included visiting different habitats on Fair Isle and exploring the wildlife within them, whilst adding an artistic element to the session as well – drawing/sketching any wildlife or plants that were found, creating art using natural resources etc, which was then displayed at the school. A few short impromptu bird ringing demonstrations were given to an audience including adults and children of residents and visitors. As there was not much opportunity for visitor engagement, some time was spent preparing for next season by creating visitor information packs and information outlets, as well as improvement of some elements of the Observatory website (<http://www.fairislebirdobs.co.uk/>), to be implemented shortly.

## Scientific Research

This was largely limited in 2020 to what could be achieved by residents and the FIBO staff. The migration monitoring programme was maintained despite a shortage of staff in the spring – with records from island residents supplementing the Warden's counts – and a return to full staff coverage for the autumn. The field staff arrival in early June ensured that the seabird monitoring programme could be maintained. Butterfly and Cetacean records along with grey seal productivity counts were collected as usual.

Light traps were operated at three sites, mainly to monitor moths but extended this year to investigate displacement by 'aeronaut' spiders. The moth records go to Butterfly Conservation's National Moth Recording Programme ([www.mothscount.org](http://www.mothscount.org)). Fair Isle's Meteorological Station is now automatised so operated undisturbed by Covid.

The pandemic and associated lockdown did, however, force studies by outside researchers, including several ongoing projects and at least one new study into Fair Isle bees *Bombus*, to be put on hold until circumstances improve.

## Publications reported since the last report using Fair Isle data

Andrews, I. & Nightingale, B. (eds.). 2020. Fair Isle Bird Observatory Report for 2019. Fair Isle Bird Observatory Trust, Fair Isle.

Becher, H., Brown, M., Powell, G., Metherell, C., Riddiford, N. J. & Twyford, A. D. 2020. Maintenance of species differences in closely related tetraploid parasitic *Euphrasia* (Orobanchaceae) on an isolated island. *Plant Communications* 1. <https://doi.org/10.1016/j.xplc.2020.100105>

Broomfield, E. R. 2020. Tourism and Biosecurity Management: How Biosecurity is Managed in the Tourism and Transport Sector on Shetland, Orkney, Fair Isle and Foula. MSc thesis in Management & Sustainable Tourism. School of Interdisciplinary Studies, Univ Edinburgh, Edinburgh.

Hemmings, N. & Birkhead, T. R. 2020. Extraordinary sperm to egg ratios in seabirds. *Auk* 137: 1-8. DOI: 10.1093/auk/ukaa052

Holling, M. & the Rare Breeding Birds Panel. 2020. Rare breeding birds in the UK in 2018. *Brit. Birds* 113: 737-791.

Holt, C., French, P & the Rarities Committee. 2020. Report on rare birds in Great Britain in 2018. *Brit. Birds* 113: 585–655.

Riddiford, N. J. and Young, M. R. 2020. *Coleophora saxicolella* Duponchel, 1843 corrigendum and *Coleophora versurella* Zeller, 1849 from Fair Isle, Shetland. *Ent. Rec.* 132: 105.

Riddiford, N. J., Quinteros Peñafiel, C. V., Metherell, C., Ferguson-Smyth, C. C., Twyford, A. D. 2020. A floristic survey of Fair Isle II: new and notable records and the status of *Euphrasia*. *British & Irish Botany* 2(2): 144-153.

Riddiford, N. J. and Watling, R. 2020. RSPB Management News: Response of grassland fungi to an agricultural change. *British Wildlife* 31: 412-413.

Riddiford, N. J. and Watling, R. 2020. Response of grassland fungi to an agricultural change. [http://www.fairislebirdobs.co.uk/grassland\\_fungi.html](http://www.fairislebirdobs.co.uk/grassland_fungi.html), FIBO, Fair Isle.

White, S. & Kehoe, C. 2020. Report on scarce migrant birds in Britain in 2018: non-passerines. *Brit. Birds* 113: 461–482.

White, S. & Kehoe, C. 2020. Report on scarce migrant birds in Britain in 2018: passerines. *Brit. Birds* 113: 533–554.

## Videos

Musser, L. 2020. Fair Isle Bird Observatory Appeal. <https://vimeo.com/447154598>

## The FIBO Report for 2019

This comprehensive report, published in 2020, included the following informative papers

Harris, S. Chasing skuas. FIBO Rep. 71: 149-155.

Parnaby, D. Cetaceans and other marine wildlife. FIBO Rep. 71: 172-173.

Parnaby, D. Butterflies, insects and other wildlife. FIBO Rep. 70: 169-173.

Riddiford, N. J. Some non-avian highlights. FIBO Rep. 70: 174-178.

### Appendix 1. Community letter of support to Fair Isle Bird Observatory Trust

I am writing on behalf of the Fair Isle Committee and Community Association in support of FIBOT's efforts to secure funding for the rebuilding of the Bird Observatory.

For generations the Bird Obs. has been essential to the community in social and economic ways. Its reach is global through general visitors, ornithological research and its relationship to worldwide issues such as species preservation, climate change and education. It is more than an island asset it is a major asset for Shetland and the nation.

Helping to fund its rebuilding after the catastrophic fire last year, and now compounded by the impacts of Covid 19, is a major challenge for our small community. Our island will benefit from every contribution made to re-establish the building by ensuring our continuing common objectives of sustainability. These benefits are shared by all who collaborate with, as well as those who visit the island.

Building a new Bird Observatory will help build a better future in the 'New Normal' world we face in many tangible ways and perhaps some less tangible too. It is in the gift of others to help support and enable us to share that future.

K Coull, Chair, FICCA, Upper Leogh, Fair Isle, September 2020

The following sections of the form should only be filled in if your area is in the year before a renewal of its European Diploma for Protected Areas, i.e. year 4 after the award of the European Diploma or year 9 after its renewal.