

The *Eider* is the quarterly newsletter of the Argyll Bird Club (<http://www.argyllbirdclub.org>)

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The Eider



A tough time for seabirds as Avian Influenza takes a heavy toll, at times leaving beaches littered with corpses. More details about the outbreak appear on pages 12-17 ©Tom Lowe

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Editorial

Avian Flu is wreaking havoc amongst our bird populations, particularly in seabirds. Jim Dickson and David Jardine have produced an excellent update of the situation as it relates to Argyll (on pages 12-17). It appears that, so far, seabird colonies in Argyll have been spared any major infections. Only time will tell if the virus continues to increase mortality rates and its impact on our bird populations. This is a worldwide problem that may be with us for some time yet.

Only one field trip took place during this last quarter, and that was to Taynish NNR & Keills, led by Jim Dickson. Glorious weather helped to make this one of the best attended field trips for a while. One satisfied member sent the following to our membership Secretary after the trip:

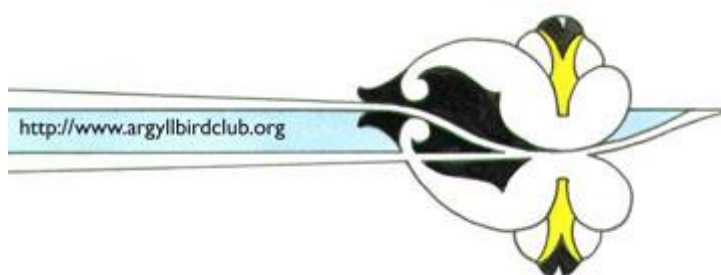
'Thank you for the reminder about this outing. I went and had the best day's birding ever! The weather was beautiful, there were about 15 of us and we saw 60 species, including a female Hen Harrier. There were lots of Garden Warblers, Blackcaps and a few Wood Warblers in the woods, most of which were identified by Jim from their songs. We also got some good views of a Redstart and enjoyed lunch on the shore of Linne Mhuirich, followed by a drive and walk to Keills, with wonderful views over to Jura. All in all a fabulous day which I'm sorry you missed'.

So, try not to miss any of the three field trips planned for this autumn (next page)!

We hope you'll be able to come to the autumn meeting and AGM at the Cairnbaan Hotel (next page for details) on Saturday 5 November. Nigel has arranged a very interesting programme for the day.

Acknowledgements

Very many thanks to the following for their contributions to this issue—John and Mary-Lou Aitchison, Bill Alexander, Anne Archer, Malcolm Chattwood, Jim Dickson, Ron Forrester, Lynsey Gibson, Jo Gilpin, Peter & Dorothy Hogbin (photocopying & dispatching the newsletter), David Jardine, Tom Lowe, Alistair McGregor, Linda Petty (proof reading), Nigel Scriven, and the late Margaret Staley.



Club News

CHANGING THE WAY TO PAY YOUR SUBSCRIPTION (IMPORTANT, PLEASE READ THIS)

The legal status of the club has been changed into a Scottish Charitable Incorporated Organisation, or SCIO for short. One result of this change is that the club had to open a new bank account and transfer all the club's funds into the new account. **A consequence of this is that old Standing Orders will no longer transfer members' subscriptions into the new club account and everyone will need to make new arrangements to pay the subscription.**

I started to contact members in June to give the options now available for paying subscriptions. Don't worry if you have not heard from me yet—it takes time to work through the membership list and we hope to complete the process of contacting members well before subscriptions are due at the start of 2023. Technology, including the way we use banking services, has gone through a revolution. We are now able to offer you a simple link to set up a direct debit, which will be easiest, and our preferred option, for the club to collect subscriptions in future. Many of our members who have already set it up say that it is very easy to do. Of course, it will still be possible to pay by a new standing order or by bank transfer (to our new bank account), or by cheque (made out to the 'Argyll Bird Club') or even cash if you prefer!

If you have any questions about the changes, do get in touch. Peter Hogbin, Treasurer

FIELD TRIPS 2022

The number of people on field trips is limited to a maximum of 20. Therefore, it is essential that you contact the leader of a trip beforehand to make sure a place is available, and to receive up-to-date rendezvous details.

If there is a chance that adverse weather might lead to the cancellation of a field trip, please check the club's website or contact the organiser the night before or prior to setting off. Please wear suitable footwear and bring waterproof clothing if rain is forecast.

There will be a risk assessment and safety briefing at the start of each field trip. Trip leaders will keep a record of folk attending each trip.

Saturday 24 September. Campbeltown/Machrihanish Seabird Observatory. Led by Malcolm Chattwood (phone 07422 718533; e-mail malcolmchattwood@gmail.com). Meet Malcolm in Campbeltown, at the end of the Old Quay by 'Tea on the Quay Café' opposite the Royal Hotel at 11.00hrs. Car parking is on the quay or along the road towards the Calmac Ferry Terminal. After visiting good birding spots

around the town and further east, the group will head for Machrihanish Seabird Observatory. The trip will involve several short level walks, each less than 500m. Please bring your own lunch.

Saturday 22 October. Toward and south Loch Striven. Led by Alistair McGregor (e-mail alistairmcgregor16@outlook.com, mobile phone 07754524240). Please contact Alistair if you want to go on this trip, to make sure there are places available and to receive rendezvous details. There will be three short walks of about 1km each along a mix of shore and track, suitable footwear is advised. Please bring your own packed lunch.

Saturday 3 December. Loch Laich. Led by David Jardine (dcjardine@btinternet.com). Please let David know if you would like to attend. There will be a walk along the cycleway from Appin Village Hall Car Park (NM 938460) and return, totalling 5km (3 miles), rendezvousing at 10.00hrs.

DECEMBER 2022 ZOOM MEETING

Thursday 8 December (19.30hrs). An 'online' evening with wildlife photographer, John Aitchison. Details about the Zoom connection will be sent out to members closer to the event.

INDOOR MEETINGS 2022-2023

Saturday 5 November 2022. Autumn Meeting and AGM. The meeting will be held at the Cairnbaan Hotel (www.cairnbaan.com), near Lochgilphead (phone 01546 603668). Lunches will be available in the hotel. The programme for the meeting will include talks on Greenland White-fronted Geese, moths in Argyll, raptors in Cowal, ecological surveys, bird flu and seabirds, and cats and birds. The full programme and papers for the AGM will be posted on the club's website prior to the event.

Saturday 4 March 2023. Spring Meeting. The meeting will be held at the Cairnbaan Hotel (www.cairnbaan.com), near Lochgilphead (phone 01546 603668). Lunches will be available in the hotel. We hope to include the programme for the meeting in the December issue of the *Eider*.

Raffle Prizes. Donations of raffle prizes for indoor meetings are always welcome.

FUNDING FOR BIRD CONSERVATION PROJECTS IN ARGYLL

The ABC is willing to fund or part-fund worthwhile bird conservation projects in Argyll. For example, help was given towards the costs of field work for the recent Seabird Monitoring Programme (seabird counts 2015-2019). The club has also helped to fund the provision of nest boxes for Grey Wagtails and Dippers in Kintyre (see article in the June 2021 *Eider*, page 12).

More recently, the club has bought ten Swift nest boxes, all of which have now been given a home. We can have more boxes made if anyone has a site in mind. If you know of a suitable building, please contact David Jardine (contact details on back page). Applications for funding other projects should be submitted to the secretary (contact details on the

back page).

ARGYLL BIRD REPORT 33 (2021)

ABC members can download the latest report from:

<https://argyllbirdclub.org/annual-bird-report-download/>

The report can only be accessed by members of the ABC by using a password that has been sent to each member by e-mail. If you are not a member of the club, please consider joining (details on back page).

MACHRIHANISH SEABIRD OBSERVATORY

If you are planning a visit to the observatory please contact Jo Goudie (jomitzi@yahoo.co.uk) to check if it will be open. MSBO reports (PDF

format) can still be downloaded at:

<http://www.machrihanishbirdobservatory.org.uk/reports.htm>

ABC COMMITTEE VACANCY

We are looking for one person to join the club's committee. If you are interested, please contact our secretary (contact details on back page) to find out more about the post. As all our committee meetings are now via zoom, it would be great to get a volunteer from the Argyll islands.

ARGYLL BIRD RECORDER AND EDITOR OF THE ARGYLL BIRD REPORT

We are still looking for one or two people to fill the above posts. Full details of both were given in the December Eider (pages 3-4). Please contact Jim Dickson if either post appeals to you.

ABC field trip to Taynish NNR and Keills Peninsula on 28 May 2022



A Willow Warbler photographed during the trip ©Jo Gilpin

After seemingly endless days of cold winds and rain the forecast for our outing to Taynish NNR, just south of Tayvallich, looked more promising and indeed around 10.00hrs the skies cleared and there was welcome warmth from the sun for the entire trip!

A larger than average number of club members appeared for this trip, with 17 of us meeting at the recently expanded and tarmacked car park, allaying any worries of having to find a space to park. Checking to see if everyone present was 'able and willing' to try the slightly more uneven and challenging coastal path route, there were no dissenters. Good news, as this stretch would potentially be better for a couple of target species that some of the group were keen to see for the

first time—namely Redstarts and Wood Warblers.

Robin Harvey kindly volunteered to keep the list of birds' seen (the full list is given later for each distinct section of the walks and areas covered). As usual with woodland birding most species are 'picked up' by song or calls rather than by sight. Therefore, a large group was challenging. However, this was compensated for by having more 'sets of eyes' to spot things! Ideally at this time of year an earlier start, at around 06.00hrs, would have been ideal, but of course it was not practical for such an outing. Nevertheless, many species were still in good voice. On the first section of the walk Blackcaps and Garden Warblers were in song at the same time—a feature to be



A male Reed Bunting photographed during the trip
©Bill Alexander

repeated over the day—and gave us several opportunities to compare the not too dissimilar songs. Song Thrushes seemed to be in song every hundred metres or so and other species such as Willow Warbler, Wren, Robins and Chaffinch were not far behind. Reed Buntings (photo above) were singing at the south end of Loch Taynish where the sun had 'brought out' several dragonflies and damselflies. A Jay was heard squawking, Cuckoos were calling, and a Buzzard 'drifted' over the trees. It wasn't too long before we heard our first Redstart, but looking through the dense foliage made views difficult for the whole group to see it. Fortunately it wasn't long until the next territory was encountered and a male carrying food gave us much better views. This was quickly followed by our first singing and 'parachute displaying' Tree Pipit which posed well for us and satisfied our photographers. A few more Tree Pipits were heard and seen later. Our first of three singing Wood Warblers soon followed, and although we had reasonable fleeting views, photographs were trickier to obtain. A Great Spotted Woodpecker was heard calling and Treecreepers were heard, then seen.

As the path left the woodland it then crossed the open meadow area which is managed for Marsh Fritillary. Unfortunately, it was still a bit early in the year to this attractive butterfly. This area produced several displaying Meadow Pipits, and we could compare these with the earlier Tree Pipits. Lesser Redpolls 'buzzed' overhead while we walked along the path towards the south tip of Taynish for our lunch stop. Here we heard Sedge Warbler in good voice, Linnets flitting in and out of the gorse, Rock Pipits in song, several groups of Canada Geese with young, Red-breasted Mergansers, Shag and Cormorants, Grey Heron, Skylarks and our first Swallows.

After lunch we headed back up the track about a mile or so towards the car park, and along the way came across Spotted Flycatchers, Siskins and Goldfinches. There was a possible sighting of a Kestrel disappearing into the high woods however it didn't

show again to be confirmed.

Some of the group needed to head off at this stage. The now smaller group, in a convoy of four cars, went down the Keills Peninsula towards Ulva Lagoon where the lead car, with John and Allison Boyd, stopped in the middle of the road, hurried out of the car and were looking skyward. Andrew John, in our following car, quickly pointed out what they were looking at—a large circling raptor—which turned out to be a female Hen Harrier, and gave us all terrific views. We then scanned the lagoon area and notched up Shelduck, Mute Swan and Black-headed Gull for the list. Heading towards Keills we saw lots more Canada Geese with broods of goslings and now also some Greylags with goslings too. A single Curlew was on the shore, small groups of Starling were zooming about, a Chiffchaff flitted onto the road and a female Stonechat was seen towards Keills Chapel. At the car park area, we were entertained by the feeding activities of a family of Wrens and at least two Spotted Flycatchers zipping about in the narrow woodland strip. A single Carrion Crow looked a bit out of place. It is a species that has increased in Mid-Argyll in recent years. Walking towards Keillmore and Keills Jetty we spotted our first of two Wheatears in the area, a Great Northern Diver out on the sea, and around 60+ Gannets feeding in the Sound of Jura along with groups of Kittiwakes. By the roadside our second Whitethroat of the day was in good voice. After an enjoyable 20 minutes or so looking out over the sound, having enjoyed the warm sunshine, we headed back to the car park and concluded the trip with the last recorded species for the day, a Common Sandpiper, that flew up from the side of the road, just before 16.30hrs.

Species seen on each section of the walk—with thanks to Robin Harvey for taking notes:

In the woods. Blackcap, Wren, Chaffinch, Willow Warbler, Garden Warbler, Wood Warbler, Robin, Blue Tit, Great Tit, Reed Bunting, Redstart, Spotted Flycatcher, Tree Creeper, Buzzard, Jay, Song Thrush, Cuckoo, Tree Pipit, Siskin, Great-spotted Woodpecker.

In the open and near the shore at Linne Mhuirich. Meadow Pipit, Pied Wagtail, Blackbird, Mistle Thrush, Lesser Redpoll, Linnet, Whitethroat, Sedge Warbler, Red-breasted Merganser, Canada Geese, Cormorant, Shag, Oystercatcher, Common Gull, Herring Gull, Great Black-backed Gull, Lesser Black-backed Gull, Heron, Rock Pipit, Swallow, Skylark, Goldfinch

En route to Keills and the final walk. Hen Harrier, Mute Swan, Shelduck, Curlew, Greylag Goose, Chiffchaff, Black-headed Gull, Eider, Mallard, Carrion Crow, Hooded Crow, Stonechat, Starling, Wheatear, Great Northern Diver, Kittiwake, Gannet, Common Sandpiper.

Total number of species—60

Jim Dickson

A new moth for Scotland

One of the joys of moth trapping is that you are never sure of what you'll catch. As you'd expect, many of the species caught in light traps are often those that are common and widespread. However, just like birds, some moths are migratory, and with the right weather conditions unexpected species can turn up. There is also the chance of discovering resident species that have not been detected before. Western Scotland has relatively few 'mothaholics' compared to some other parts of the United Kingdom, so the chance of locating a previously unidentified species is probably greater than in many other areas.

On 26 June 2021, the light trap at Steve Petty's house in Ardentinnny produced a reasonable haul of 52 moths of 25 species. There was just one pug moth (*Eupithecia* sp.) amongst these. It looked a little strange and was initially recorded as a female Freyer's Pug *Eupithecia intricata*, a species that was being caught around the same time. As its identity was wasn't certain, the specimen was saved. Further examination indicated that it might be a Fletcher's Pug (*Eupithecia egenaria*), a species that Steve had previously caught in Spain. Photographs of the moth were circulated to folk with experience of this species, and they all agreed it was Fletcher's Pug.

This was quite remarkable because all previous records of Fletcher's Pug had occurred south of a line drawn from the estuaries of the rivers Mersey (west coast) to the Humber (east coast). Ardentinnny is significantly further north and, in any event, there were no published records of this species anywhere in Scotland. Pug moths are quite small and delicate, and are not known to disperse long distances. So, the chance of this specimen arriving, under its own steam, from one of the known English populations was miniscule.

The larvae of Fletcher's Pug feed on flowers of mature lime trees, and it was once thought that they fed only on the flowers of Small-leaved Lime, but it is now known that they use all three species of lime that commonly occur in the United Kingdom—Small-leaved, Large-leaved and Hybrid Lime. No lime trees occur naturally around Ardentinnny, but planted ex-

amples can be found in gardens and policy woodlands. One large lime tree (probably Hybrid Lime), that is around 150 years old, is growing in a garden about 200m from the trap site, and other old examples can be found in remnants of policy woodlands around the village of Ardentinnny.

This record suggested that there could be an unrecorded population of Fletcher's Pug in this part of western Scotland, as there are many old lime trees in gardens along the Cowal coastline, including Benmore Botanical Gardens. Support for this idea came in 2022 when a Fletcher's Pug was caught at Mount Stuart, on the Isle of Bute on 16 May 2022 and another a few hundred yards away on 12 June 2022 by Ron Forrester and colleagues. Mount Stuart is approximately 30km from Ardentinnny. These two moths were within the estate's ornamental gardens, both being very close to 'Lime Tree Avenue', with c.200 lime trees. The abundance of mature Hybrid Limes had almost certainly played a significant part in providing suitable habitat to attract what is most probably a small breeding population within the estate. These two records, the second and third for Scotland help to reinforce the probability that there is a population of Fletcher's Pug established within Argyll & Bute. It will be very interesting to see whether more records of this species are recorded within the area in 2023. Therefore, it may be rewarding to undertake further moth trapping around old lime trees in the area at the appropriate time of year (May-June).

The origin of this population of Fletcher's Pug is unknown, but they could have been brought in from the south when ornamental gardens were established in this part of the world in the 18th and 19th centuries as lime trees were frequently planted at that time.

Steve Petty and Ron Forrester



Female Fletcher's Pug caught at Ardentinnny on 26 June 2021
©Steve Petty

Book reviews

Gulls by John Coulson. 2019. Collins New Naturalist 139. Hardback 496 pages, ISBN 10: 0008201420

The author needs little introduction in the sea-bird field, with publications from the 1960's up to the present day. Few people could have been better qualified to write such a book, and he doesn't disappoint. Beginning at chapter 1 with an overview of gulls, there follows a chapter on each of nine species of British gulls, then a chapter on rarer gulls. The best studied species have the largest chapters. He goes into all aspects of their taxonomy, characteristics, ecology, breeding biology and movements. As you would expect from a New Naturalist tome, it is eminently readable.

Perhaps just as interesting are the chapters on methods of study, which includes early ringing studies, especially his own on Kittiwakes, and his innovation of using coloured Darvic plastic (with the help of ICI) for unique numbered and easily visible leg rings, followed by wing tags.

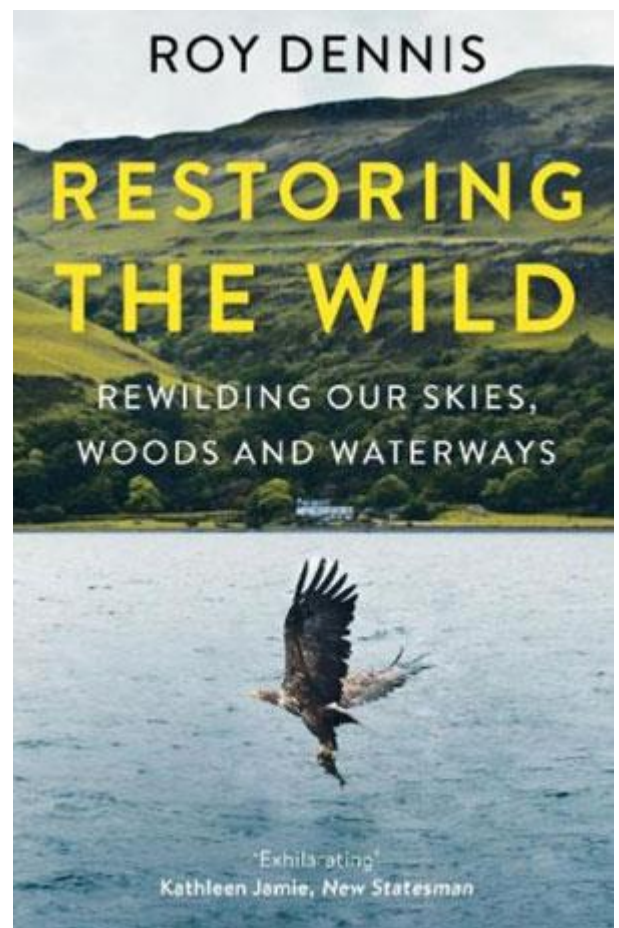
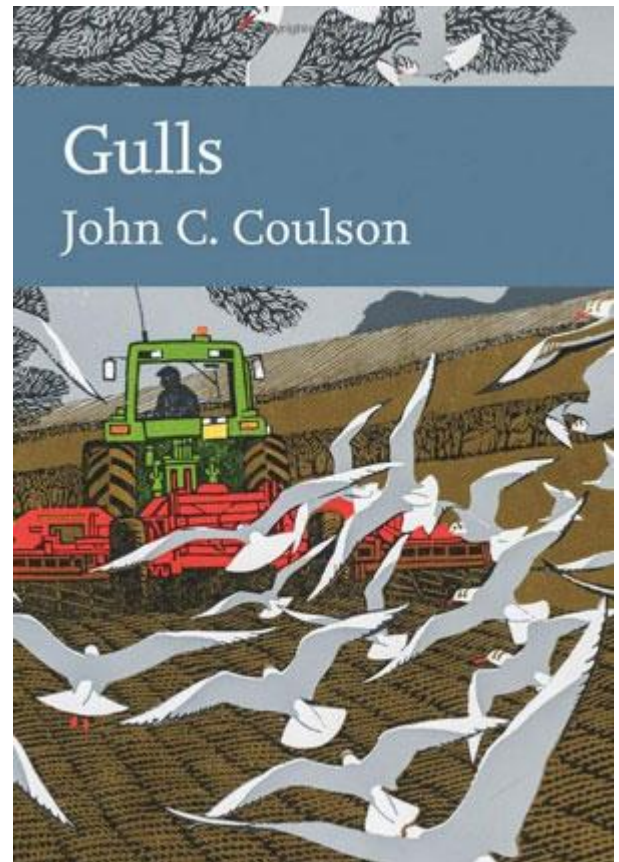
Closer to home, the chapter on urban gulls charts the historical path of this shift from maritime to built-up areas by a remarkable variety of species, noting the challenges of surveying them, and the problems these birds are accused of causing.

The concluding chapter covers conservation, management and exploitation, where he looks at various issues with an historical perspective, and covers case studies that illustrate some attempts at management. It looks at the conservation status of the various species, and with a view to the future, casts a critical eye over the evaluation of conservation status, and how useful current assessments are. Well worth its place in your New Naturalist collection and the go to book for gull biology

Restoring the Wild: Rewilding our skies, woods and waterways by Roy Dennis. 2022 HarperCollins. Softback 464 pages., ISBN978 0008368821.

Yes. Yet another rewilding book. So, what makes this one different from all the others, and worth the read? The name of the author says it all in many ways. Roy Dennis is deservedly a well-kent name in Scottish ornithology, and has been for half a century, or more. That's about how long he has been working for rewilding, but it wasn't always called that, so he was very much ahead of the curve.

It is a series of stories through which the author relates episodes in his career of involvement in nature conservation. It began properly on Fair Isle, working at the bird observatory as a field ornithologist, and subsequently becoming warden during the first attempt to re-introduce White-tailed Eagles in 1968. The



book ends with the re-introduction of these same eagles to the Isle of Wight, in the 2020s. The meat of the book is a fascinating succession of stories, many overlapping and interlinking.

Ospreys also play their part. Roy was RSPB warden at Loch Garten in the early days of their return to breed in Scotland, and while there, did much to encourage the expansion of breeding Goldeneye in Speyside. One thing led to many others, including the successful re-introductions of Red Kites, Red Squirrels, and Beavers along the way. Unsuccessful and yet-to-be-enacted projects are included too, involving examples across Europe. The stories are not just about Roy and his travels, but also the

birds, and he recognises the importance of teamwork with copious acknowledgements of his numerous collaborators within in Britain, Europe and North America. He narrates some of the problems too, including the inertia and mindsets that entrap governments and organisations.

For me it was a fascinating read, and opened my eyes to how many re-introductions he has been involved with as a principal instigator. While a lot has been achieved under his guidance and advocacy, it is just the start of a process with masses of potential, if only it can be implemented. Reading his book might just help.

Nigel Scriven

Swifts struggle in Spain

On 16 June the *Guardian* ran an article about how high temperatures were affecting swifts (both Common and Pallid) in Spain. Temperatures in southern Spain don't usually go above 40 degrees until late July and August, by which time most young swifts have fledged. However, this year the heatwave came early. In fact, it was the earliest for 40 years, with temperatures in June exceeding 40 degrees. In Spain, many swifts nest under tiles or other roof structures that become like ovens with such high temperatures.

In an attempt to escape this excessive heat, hundreds of nestlings crawled out of their nest sites and fell to the ground. Many of

these perished although some were recovered by care centres. Such early heatwaves are more likely to occur in the future and could have a severe impact on swift populations (thanks to Anne Archer for bringing this article to my notice).

In the north of Spain, Common Swifts face another problem. Access to nest sites are being blocked off when properties are renovated, by placing cement or other substances at the entrance to nest sites (see photo). This has happened in the village where we have a holiday home, and a once thriving swift colony has now almost disappeared.

Steve Petty



Access to Swift nest sites, under the tiles, are being blocked off by cementing the ends of the roof tiles ©Steve Petty

Nuthatches in Argyll

The results of the 2021 Argyll Bird Club Nuthatch survey have now been published in *Scottish Birds*:

M. Chattwood., J.M. Dickson & D.C. Jardine (2022). Nuthatches in Argyll. *Scottish Birds* 42 (2): 124-129.

Summary: Following a failed 19th century introduction attempt there was a low level of largely unconfirmed sightings during the latter half of the 20th century. Sightings have been annual since 1999, increasing in 2008, but then stalling until 2013, following which there has been a rapid expansion in the number of sites occupied. A survey in 2021 found that the species was well established in Cowal, mid and north Argyll, and established in north Kintyre and on Mull. The survey in 2021 found Nuthatches in 109 1-km squares (40 10-km squares) and the population is estimated at around 130-150 pairs, which is expanding rapidly.

An article on the status of Nuthatches in Argyll by Jim Dickson also appeared in the March 2021 issue of the *Eider* (pages 8-12).

Editor



Nuthatch ©Gordon Holm

Rock Doves

Feral Pigeons are a highly successful bird having colonised most habitats within Europe, and particularly urban environments. Historically they were also bred for food, a practice that probably goes back thousands of years. So, after this close association with man for so long, do we still have populations that resemble their wild ancestors, the Rock Dove?

An Oxford University PhD student (Will Smith) has been investigating this and has just published the results of his study (Smith *et al.* 2022). He used genetic and morphological data obtained from populations sampled throughout the British Isles. This showed that the birds with the least gene flow with Feral Pigeons came from the Outer Hebrides. Populations from the Inner Hebrides (including Argyll) were close to their ancestral types too. Surprisingly, those from Orkney and Shetland showed extensive inbreeding with feral Pigeons, as did other populations in Britain.

Editor



Rock Doves on Colonsay. Doves that are close to their ancestral types show very little individual variation in plumage pattern and colouration (as in this photograph) unlike those with a history of domestication ©Steve Petty

Reference

Smith *et al.* (2022). Limited domestic introgression in a final refuge of the wild pigeon. *iScience* 25, 104620.
<https://doi.org/10.1016/j.isci.2022.104620>

Tayvallich Wildlife Club's trip to the Treshnish Isles, July 2022



Enjoying Puffins at close quarters ©John Aitchison

In July, twenty-six members of the Tayvallich Wildlife Club packed into two minibuses and headed for Mull and beyond.

The excitement was huge. Many of us had never been camping before and lots had never been on a boat trip or seen dolphins or Puffins. The camping gear took up lots of space but there was room for all and we set off to meet the 09.55hrs ferry from Oban to Craginure on Mull, with all present and correct. It was fun on the ferry and a big relief that nothing had been cancelled or curtailed by Covid.

More minibus miles followed, to Ulva Ferry across on the west side of Mull. We made it to the Turus Mara tour boat (just) and off we went in search of seabirds.

We saw our first Puffins at sea. There were rafts of them just offshore from our first island stop, Staffa.

We disembarked here to visit Fingal's Cave, full of amazing basalt columns, stretching up high. They made a good background for our group photo.

Soon we were back on the boat heading for our next island when a very exciting thing happened. Four Common Dolphins came to see us. They were just beautiful, whizzing around the boat and bow riding on both sides. Iain our skipper did a brilliant job at keeping their interest and he steered us so that we all got great views. Everyone was thrilled. Twelve-year-old Cerys said "the dolphins were definitely the best part of the boat trip".

Next stop was Lunga in the Treshnish Isles, home to hundreds of Puffins. Everyone was surprised by how small the Puffins were. Eight-year-old Lena said "the Puffins were

really cute, especially how they flew. They don't look like they're made for flying!".



A proud artist (Ellie Grafton)

©Mary-Lou Aitchison



Another budding artist (Maya Nef Lowrie)
©Mary-Lou Aitchison

Some of the kids drew them, lying on their bellies close to the birds. The Puffins don't mind people as long as you are quiet, still and lying down at their eye level. Seven-year-old Jenna said "they are just fantastic and I definitely want to go back". Six-year-old Maya said "I loved drawing the Puffins and watching them close up, and I also really liked the dolphins".

There was a more diverse seabird colony a short walk away from Puffin central. Everyone who made it to the further colony was just delighted. Some were mesmerised by the first Puffins they saw and decided to spend their whole time ashore with them.

Eleven-year-old Cara said she loved the fact that "Puffins live in burrows just like Rabbits". Seven-year-old Maisie said "I liked when they landed because it looked like they were going to fall but they put their feet out and crash landed every time!".

We had two hours on Lunga—enough time to watch, draw, photograph and imagine being left on a seabird island like that for ever.

The sun shone and the smiles were fantastic. What a great opportunity for everyone, both children and parents. I was proud to give our village community an opportunity to experience such cool local wildlife and to be amazed by what lives so close to our homes.

Back on mainland Mull we drove to our camping spot. On the way one of our members, seven-year-old Maisie, spotted a bird she'd been desperate to see for ages. Afterwards she said "my favourite animal was the Golden Eagle in flight!".

We spent the night camping at the most beautiful coastal location on the NW corner of Mull, thanks to a friend who generously said we could camp there. She had guests staying too, who helped us put tents up before the rain started.

The evening was fun and I think everyone enjoyed camping, especially the first timers; although seven-year-old Ewan said "camping was alright and he would like to go back, but next time he would like his tent to be further away from the girls"! One of the highlights of the camp was definitely our trusty port-a-loo, delivered to this wee corner of Mull all the way from Oban.

Sunday morning was a staggered start, with everyone emerging from tents in various states of dishevelment. We spent the morning in camp and pottering along the shore looking for interesting things.

We had a grand closing ceremony where rosettes were awarded for "kindest camper", "best wildlife spotter" and best "give-it-a-goer"!

A fun and awe-inspiring time was had by all, with many people being pushed out of their comfort zones but also well supported by each other and there were lots of "proud of myself" moments.

None of this would have been possible without our generous sponsors. Thank you all very much.

Many of you will remember moments in your own childhoods where someone gave you an opportunity that fuelled a life-long interest in wildlife and the environment. Let's hope this fun weekend away to Mull has sown some seeds of wonder and caring about wildlife, in the children that came along.

Mary-Lou Aitchison and children of the Tayvallich Wildlife Club



The end of a marvellous weekend
©John Aitchison

Avian Influenza outbreak in seabirds in Argyll in 2022

An initial assessment



A sad-looking Common Guillemot, Kintyre, mid-July ©Tom Lowe

Introduction

Many members will be aware from media coverage of the devastating impact of Avian Influenza on bird populations in the UK and elsewhere in the world. In this article we focus on what has been happening this summer to seabirds in Argyll in relation to the biology behind the virus (H5N1), and explain what has been happening elsewhere and discuss possible future impacts.

Comment from ornithologist Mark Avery: "Britain has about eight million seabirds, including 90% of the world's Manx Shearwater and about two-thirds of Northern Gannets and Great Skuas. Any impact on these populations is of global conservation significance. "Tens of thousands of birds must have died, maybe hundreds of thousands. It appears this breeding season will have been a disaster. Many will have died on remote islands, but the monitoring is nowhere near good enough. Already, it looks very serious, and I fear this is just the start."

Comments from Niall Burton of the BTO: "Seabirds are particularly vulnerable because they are typically long-lived animals that don't reach breeding age until they are about five years old. They generally only have a few chicks, so populations take longer to recover. Nationally, the three species that are most at risk are the Great Skua, Gannet and Sandwich Tern"

"The world population of Great Skua is about 16,000 and early research on the impact of the disease suggests that up to 85% of the population at some sites have died, mainly in Shetland, Orkney and the Outer Hebrides." Burton says it will take several years for populations to recover but that it was too early to be more exact.

"The biggest population of Gannets on the planet, at the Bass Rock has been halved. About 10% of France's total breeding population of Sandwich Terns is believed to have died in the space of a week, with high casualties also reported in the Netherlands. Coquet Island, off the Northumberland coast, is the UK's only colony for breeding Roseate Terns, with about 150 breeding pairs. More than two-thirds of chicks have died."

Comment from RSPB Scotland's Kirsty Nutt: "I don't think it's going, sadly, anytime soon, and it could have a catastrophic impact on some of our wild birds. We could be a long way from the end of this. The only snapshots we've got are where colonies are being counted, and where that's happening, it looks really frightening."

Comment from Francesca Osowska at NatureScot: "Large numbers of dying seabirds have been seen across Scotland. The new strain of the virus was devastating wild bird populations and the disease could remain for some time. The figures are likely a significant underestimate of the true number, as they only include dead birds that have been reported to the Department for Environment, Food and Rural Affairs (DEFRA)."

Background to avian influenza

In a similar way that COVID-19 has rapidly spread through the human population, wild birds have been increasingly affected by highly pathogenic strains of the H5N1 virus with genotypes that can be traced back to China in 1996, when this strain was found in a population of commercial geese. In 2005, wild birds started dying en masse and this strain is now endemic in south-east Asia. Mutations occurring

within this genotype are increasing their pathogenicity and are associated with poultry production practices.

H5N1 is a subtype of the Influenza A virus of the genus *Alphainfluenzavirus* of the family Orthomyxoviridae. Like all other influenza A subtypes, the H5N1 subtype is an RNA virus. This is not the first time that Avian Flu has reached pandemic levels. Research shows that it was a potent combination of genetic material from both human and bird flu viruses that combined to create the highly contagious Spanish Flu pandemic of 1917.

Low pathogenic avian influenza H5N1 also called "North American" H5N1 commonly occurs in wild birds. In most cases, it causes minor sickness or no noticeable signs of disease in birds. It is not known to affect humans. The main concern is that it can be transmitted to poultry where it can mutate into highly pathogenic strains.

Highly pathogenic H5N1 is easily transmissible between birds, facilitating a potential global spread of H5N1. While H5N1 undergoes mutation and reassortment, it can create variations which can infect species not previously known to carry the virus. H5N1 is mainly spread by domestic poultry, both through the movements of infected birds and poultry products, and through use of infected poultry manure in fertilizer or feed. Migrating waterfowl carry H5N1, often without becoming sick. Many species of birds and mammals can be infected with H5N1, but the role of animals other than poultry and waterfowl as disease-spreading hosts is unknown.

Infected birds transmit H5N1 through their saliva, nasal secretions, faeces, and blood. Other animals may become infected with the virus through direct contact with these bodily fluids or through contact with surfaces contaminated with them. H5N1 remains infectious for over 30 days at 0°C

The international poultry trade is the main driver of the virus and stopping imports of chicks and birds would be an important step in reducing the risk of future outbreaks. Originally, for these highly virulent strains, the main problem was poultry to wild bird transfer, and it is frustrating to see wild birds being blamed. One of the biosecurity control methods which has been introduced to help control the spread of H5N1 has been a ban on import of poultry products, which will mean that there will be fewer Pheasants and Red-legged Partridges (many of which were reared in France) released into the countryside in 2022.

For the first half of this year, H5N1 was a problem for domestic poultry, leading all chickens to be shut inside between November 2021 year and May this year, with the result that at one point it was impossible to get UK free-range eggs. Already there were reports of the disease's impact on wild wintering pop-

ulations, including the death of more than one-third of the Svalbard Barnacle Goose population on the Solway Firth (16,500 out of a total population of 43,000). There were even reports of birds "falling from the sky in distress."

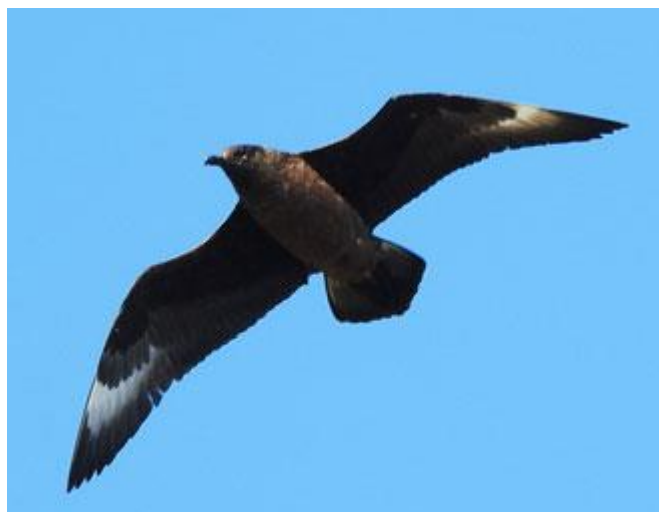
With the arrival of spring, the problem escalated. It is now considered to be the worst ever Bird Flu outbreak in the UK, noted not only for the large area affected, but also high levels of chick mortality. Almost every country in Europe has had cases in the latest outbreak, as well as countries in North America, West Africa, and Asia.

2021/2022 outbreaks in UK & Europe

Over the winters of 2021 and 2022 Avian Flu spread among the population of Barnacle Geese on the Solway Firth. Pink-footed Geese there were also affected and it seems likely they carried the virus to new sites in northern Scotland. In late spring 2022 Avian Flu outbreaks affected many species of wild bird in the UK, with heavy losses reported among seabirds returning to breed at colonies in the Northern Isles and Outer Hebrides. Species included the Great Skua (Bonxie, photo below), for which outbreaks had initially been reported in 2021. Scotland hosts c.60% of the world breeding population of this species. The 2022 census on St Kilda showed a 64% decline since 2019 with 106 dead birds recorded to 6 June 2022.

The range of species affected also seems to be increasing, with reports for many wildfowl species, seabirds (auks, terns and gulls) and scavenging species (corvids and raptors). In northeast England at Coquet Island "Of the 2,000 nesting pairs of Sandwich Terns we believe up to 4,000 chicks have died." and of the 160 pairs of Roseate Tern this year "70% of nests had so far been lost and the figure was increasing daily..." (RSPB). On the Farne Island where 23 species of seabird breed, more than 3,000 dead birds have been found by the National Trust, but approximately ten times more may have dropped into the sea.

Elsewhere in Europe the virus killed hundreds



Great Skua. Some UK populations have been greatly affected by Avian Flu ©David Jardine

(574+) of Dalmatian Pelicans in Greece, and in Israel around 6,000 Common Cranes were found dead at Hula in December 2021.

Fragmented bird populations are most at risk. "We are facing an event of mass extinction of animals. Entire populations are affected by this virus" says Uri Naveh, a senior scientist at the Israel Parks and Nature Authority.

2022 outbreaks outside Europe

The most recent outbreak of Bird Flu began in late 2019 in Africa and Asia, and since then recurrent outbreaks have resulted in multiple countries culling tens of millions of captive and wild birds over the past two years. In parallel to above reports, similar outbreaks have been noted from Gannet colonies in Canada, with thousands of birds dead in June 2022, as well as Common Eiders and Great Black-backed Gulls. Prior to that, there were reports of spread in wild birds in over 30 states in the US, including major mortalities in a Double-crested Cormorant colony in Illinois. The virus also spreading to scavengers including three Bald Eagles in Georgia. The disease was confirmed in Sandwich Terns in South Africa in April 2022.

2022 outbreak in Argyll

With news of outbreaks of Avian Flu on the Northern Isles and east coast of Scotland, seabird workers in Argyll were keeping a careful watch for any signs of the disease. During mid-June background levels of seabird mortality (beached bird surveys) on Colonsay and Oronsay were 3.8 birds/km based on a sample of 6.1 km of beaches checked, compared with an historic average (1993-2017) of 4.62 birds/km (sample =15.6km), suggesting that H5N1 had not yet arrived in the area.

The first reports of significant seabird mortality were reported from Kintyre on 4 July and Islay on 5 July, with further birds being found on Colonsay and Oronsay on 7 July. As the disease is reported to have a gestation period of 2-8 days it looks as if seabirds around Argyll were first infected at the very end of June or the beginning of July. While transmission routes of the disease are poorly understood it is possible that it was transmitted by infected sub-adult Guillemots which are known, through ringing studies, to visit various breeding colonies during the summer.

Numerous accounts of dead and dying birds along Argyll's coastline have been reported on various social media forums. For example, from ornithologist Tom Lowe "Kintyre beachcombing was overshadowed by the sickening results of Avian Flu—in one mile of Westport Beach I counted 148 Guillemots and five Razorbills (including jumplings), a Puffin, two Gannets and a Slavonian Grebe (photos above). A shocking 91 Guillemots in just half



Dead auks (above) and a Gannet (below) on Westport Beach, Kintyre, mid-July 2022 ©Tom Lowe

a mile further up Kintyre at Chleit along with three Razorbills and one each of Kittiwake, Gannet, Great Black-backed Gull and juvenile Herring Gull"

It is difficult to be certain how many birds have died. The sheer scale of the numbers of birds involved and their clearance by a wide range of groups and individuals has led to variable recording and reporting. Furthermore, it is not known what proportion of dying birds were lost at sea. Because of the difficulties in sampling for H5N1 (which requires full protective clothing) very few of the strandline corpses in Argyll have been tested, but it is probably safe to assume that many of the casualties have died from the disease.

Guillemots have been the species reported in the highest numbers (probably over 95% of the corpses) with lesser numbers of Gannets, Kittiwakes, and the large gulls (Herring and Great Black-backed). Smaller numbers of Razorbills and Puffins have been reported, but no Black Guillemots. While the numbers may reflect the size of breeding populations (see later) they may

Table. Historical seabird counts in Argyll (excluding Rathlin) (adapted from ap Rheinallt et al. 2007)

	1968-70	1985-87	1998-2002	2016-2021 *
Kittiwake	3983 (prs)	9690 (prs)	8976 (AON)	5680 (AON)
Guillemot (ind)	4056	23289	42697	40743
Razorbill (ind)	2737	4454	9056	4809

* = main colonies only, prs = pairs, ind = individuals, AON = apparently occupied nests

also reflect the breeding habits of the different species, with those that nest in the densest aggregations (e.g. Guillemot, photo below) more affected than those which nest further apart (e.g. Black Guillemot). Some of the gulls (and Bonxies), along with corvids, may have been infected by feeding on infected corpses, or through the use of communal bathing areas near breeding colonies.

The largest number of deaths have been reported on Islay (over 3,000 birds), the west coast of Kintyre (3,000 birds—estimate based on 100/km) and Gigha (over 300 birds). Lesser numbers of corpses have been found on the east coast of Kintyre, Loch Fyne, the coast of Mid-Argyll and on Colonsay and Oronsay, with relatively few being reported on Mull, Coll and Tiree. This distribution of deaths suggests that most birds may come from the large seabird

colony on Rathlin Island (Co Antrim). This idea is supported by the fact that no ringed birds have yet been reported from those found along shores. There have been long-term ringing projects of seabirds on the Treshnish Isles, Sanda and on Colonsay. So, the lack of reports of ringed birds hints that these colonies may not have been affected (or less so) than the large colony on Rathlin Island, where it is thought no Guillemots have been ringed. The relatively small number of Gannets found, in relation to the population size (see page 16) either suggests that few of the birds on Ailsa Craig have been infected, or if they have, they are not being washed ashore in Argyll.

Overall, over 7,000 dead birds are thought to have been washed ashore in Argyll, but it is difficult to estimate the total number of deaths as the number which were not washed ashore is



A Common Guillemot colony on Lunga, Treshnish Islands in June 2008. Viruses can spread quickly when nests are so close together ©Steve Petty

unknown.

Argyll Seabird Populations

The main seabird colonies in Argyll are on Colonsay, Sanda, the Treshnish Isles (off Mull) and Tiree, with smaller colonies on Islay and around Mull and Iona. When considering the impact of this Avian Flu outbreak it is also sensible to consider the very large seabird colony on the island of Rathlin Island (County Antrim) and the Gannet population on Ailsa Craig, as many of the birds which breed there feed in the waters around the southern coast of Argyll and the southern Hebrides.

Seabird population monitoring in the British Isles is carried out periodically, with major surveys conducted in 1968, 1987 and 2000 (see table, page 15). More recently a survey has been underway since 2015 but has suffered difficulties through lack of funding and disruption by the Covid pandemic, although all the populations which use the seas around Argyll had been counted by 2021.

These counts show that while there have been declines since the turn of the 21st century, numbers are much greater than around 50 years ago, particularly so for Guillemot (table on page 15). Studies on some seabirds have shown that density dependence impacts such as changes in survival

and reproductive rates, dispersal and the impacts of disease can appear as populations increase.

Seabird monitoring is carried out on a regular basis at the major Argyll colonies by a variety of groups (mainly volunteers):

- **Tiree.** Counted annually by RSPB Scotland
- **Treshnish Isles.** Counted annually by Treshnish Isles Auk Ringing Group (TIARG website)
- **Colonsay.** Whole colony counted periodically, with sample sites for the main species counted annually
- **Sanda.** Formerly counted annually, but recently counts have been irregular, because of access restrictions

Fortunately, a full count was also made at Rathlin in 2021 as part of the MARPAMM project (BTO Northern Ireland Seabird Report 2021) and the numbers of Gannets on Ailsa Craig are reasonably well known.

These counts (which use different methods for different species, for example nests or individual birds) allow estimates of the minimum number of the most common species using Argyll waters in 2021, which are:

- **Common Guillemot**—254,900 (includes birds



A Kittiwake colony on Colonsay. One of the most abundant breeding seabirds in Argyll ©David Jardine

from Rathlin Island)

- **Gannet**—72,000 (a proportion of these are confined to the Clyde waters)
- **Razorbill**—36,500
- **Kittiwake**—28,700

Preliminary information from Tiree (RSPB Scotland) and Colonsay for 2022, suggest that breeding numbers were 20-30% higher than in 2021, so the number of birds in the Argyll area when the Avian Flu outbreak took place may have been even higher.

Ringling studies carried out at Argyll Seabird colonies have found that normally around 95% of adult Guillemots survive from one year to the next. This indicates that around 12,500. Guillemots die every year in the seas around Argyll, which helps put this summer's observed deaths in context.

In an international context, Argyll has no breeding Gannets or Sandwich Terns, and only a small population (<100 pairs) of Great Skuas. These Great Skuas are nesting at a low density (they are distancing socially) and, to date, there is little evidence that they have been affected by the H5N1 outbreak, with successful fledging reported on Oronsay.

Conclusion

So, what should be our response to this outbreak? It is clear there has been a very significant mortality event in Argyll, particularly for Guillemots, but given the size of the population involved it is not yet clear whether it will have a long-term population impact. To help assess this it will be important for seabird population monitoring in Argyll to be maintained, and increased, with recounts of complete colonies on Colonsay and Sanda in 2023. Tiree and the Treshnish Isles colonies are counted annually.

In the event of a further mortality event occurring, it would be helpful if there was better

co-ordination of the counts of dead birds along with increased checks for ringed birds to help establish which colonies have been affected. It will also be helpful to resume ringing (with suitable safeguards) to ensure the existing capture/recapture studies can more clearly establish the survival rates in relation to this outbreak of Avian Influenza.

In terms of how the virus will spread, Prof Paul Digard, the chair of virology at the Roslin Institute, University of Edinburgh, says it is impossible to generalize from one species to another. He doesn't believe it will kill 100% of those infected, partly because of intrinsic genetic differences, and partly because of factors such as stress, age, and other traits in specific populations.

He says H5N1 is causing a huge amount of damage because it is spreading among populations that have not had the virus before, but that this will change in the future because some will survive. "My guess is that things will calm down over time as populations gain immunity to this circulating strain of virus. I would hope not to see the same levels of mortality in the coming years, but that's something of a guess," he says.

Only time will tell if this year's outbreak of the Avian Flu will have an impact on our seabird populations in the future.

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Jim Dickson & David Jardine

Gannets @Margaret Staley



Contributions for the December *Eider* should be sent to the editor before the 20 November 2022

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Suitable illustrations greatly enhance the attractiveness of the *Eider*, and artists and photographers are encouraged to submit artwork and unedited digital photographs (jpeg files only) of birds and their habitats to the editor. **Please do not embed digital images in word files.** Digital photographs of Schedule 1 species taken at or near the nest will not be accepted for publication unless the photographer was covered by an appropriate SNH licence.

The *Eider* is published during the first week of March, June, September and December. Articles for each issue must be with the editor **before** the 20th day of the month prior to publication. However, it greatly helps if material can be submitted well before these deadline dates. Contributions are accepted in the order they are received, which may result in some late submissions being held over until the next issue. Ideally, contributions should be less than 1500 words

Opinions expressed in articles are those of the author/s and not necessarily those of the **Argyll Bird Club**.

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The club was established in 1985 and currently has 313 members. Its main role is to encourage an interest in wild birds and their habitats in Argyll; an area of outstanding natural beauty and biological diversity.

The club endeavours to provide a friendly and sociable forum for members of all ages, to meet and enjoy their common interest. This in itself provides a challenge as the human population of Argyll is relatively small and widely dispersed. The club hosts two one-day indoor meetings each year, in spring and autumn. The venue of the spring meeting is rotated between different towns, including Dunoon, Inveraray, Lochgilphead and Oban. The autumn meeting/AGM is held in a convenient central location, usually near Lochgilphead. The club organises field trips for members. Your annual subscription entitles you to one copy of the *Argyll Bird Report* (PDF file), four issues of the *Eider* (PDF files) and free admission to the two indoor meetings. New members are always welcome, whether you live in Argyll or not. Membership categories and rates are:

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