

Humane Wildlife Solutions Gull Trial 2021

This trial has been carried out to see if offering a non-lethal option as a non mandatory alternative to current licensed gull chick and egg removal and destruction would work. This involved taking gull eggs and chicks under NatureScot licenses to select approved wildlife rescue centres around Scotland.

NatureScot raised 4 challenges to consider for the trial which are as follows:

1. Availability of wildlife rescue centres and their ability to cope with large numbers
2. Engagement of pest control companies
3. The logistics and welfare implications of transporting eggs/chicks to wildlife rescue centres
4. The logistics and welfare implications of releasing juvenile gulls once rehabilitated

Each of the above will be addressed separately below in the relevant section.

Challenge 1 - Availability of wildlife rescue centres and their ability to cope with large numbers.

From the start it was accepted that the trial would not be able to cover the entirety of Scotland as this would not be possible with the many Isles and Highland communities not having wildlife rescue centres within a reasonable distance.

This, therefore, would make any potential new licenses non mandatory and accepting of the fact that not all places where gull work is required are within a reasonable distance of a wildlife rescue centre. The acceptable length of time, with some ambiguity, was addressed in the Logistics and Welfare policy document sent out to partaking pest control technicians.

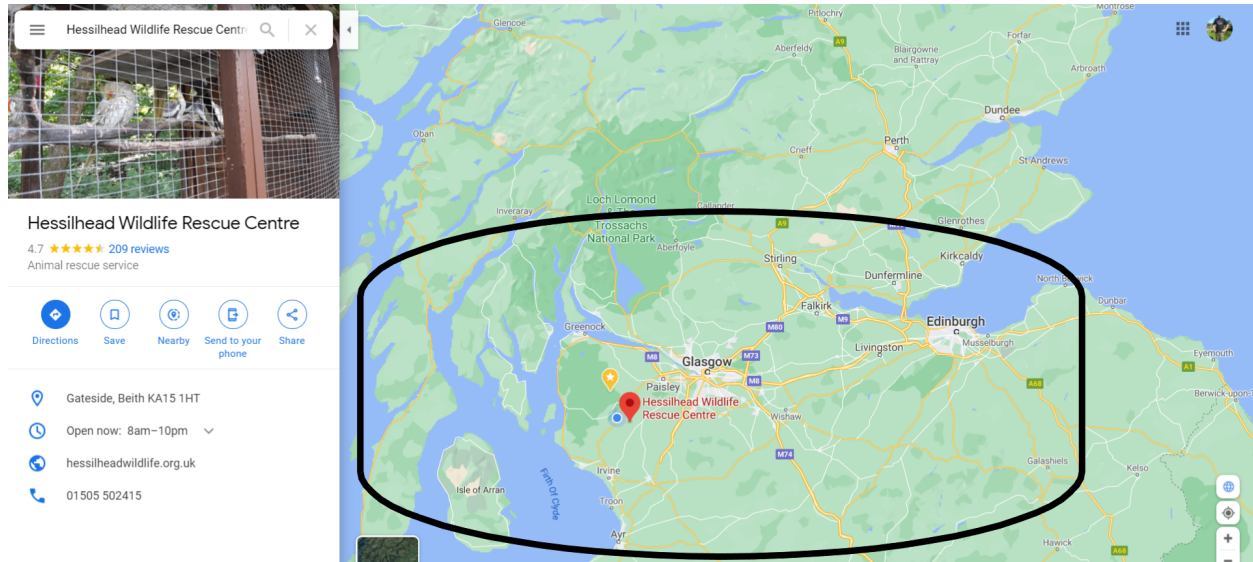
Another consideration was for the egg/chick and their welfare in transportation and again, as above, in some cases a lengthy journey would not be ethical or in the best welfare interest of the chick or eggs.

The trial started with three wildlife rescue centres in participation, with a fourth added just after the start of the trial. Each of these centres covered a separate area of Scotland and each was given a catchment area, which was selected by having a maximum of two hours' transportation time from potential gull removal areas to the nearest rescue centre.

The wildlife rescue centres that took part were:

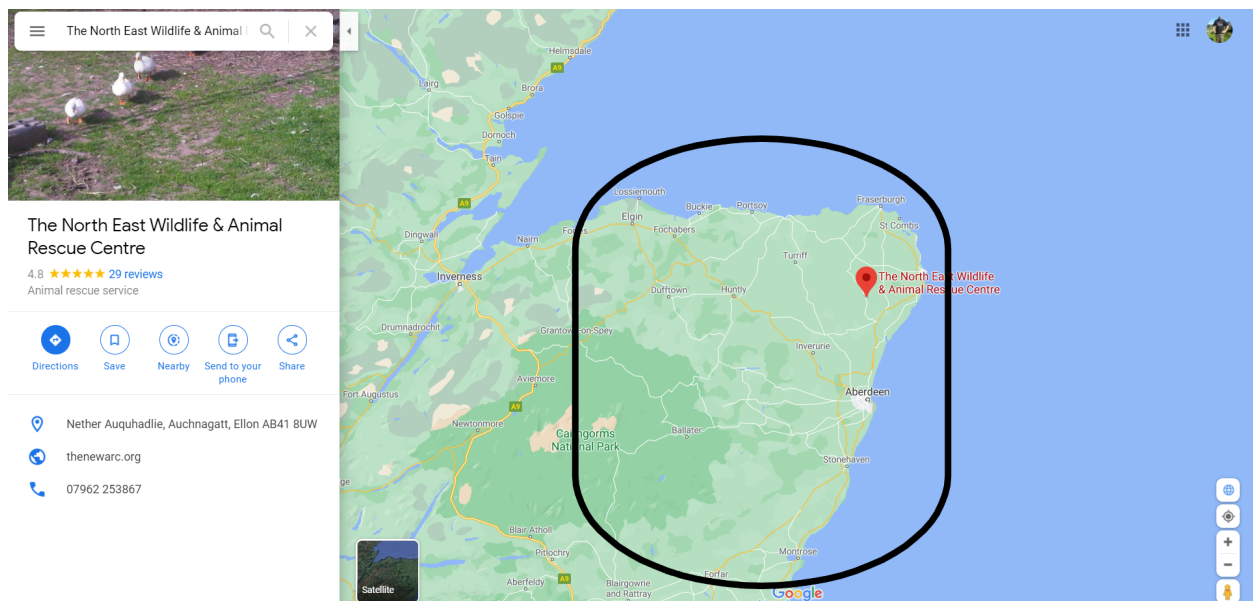
Hessilhead Wildlife Rescue

Contacts : Andy & Gay Christie
 Address: Gateside, Beith KA15 1HT



The NEW ARC (North East Wildlife & Animal Rescue Centre)

Contacts : Pauline & Keith Marley
 Address: Nether Auquhadlie, Auchnagatt, Ellon AB41 8UW



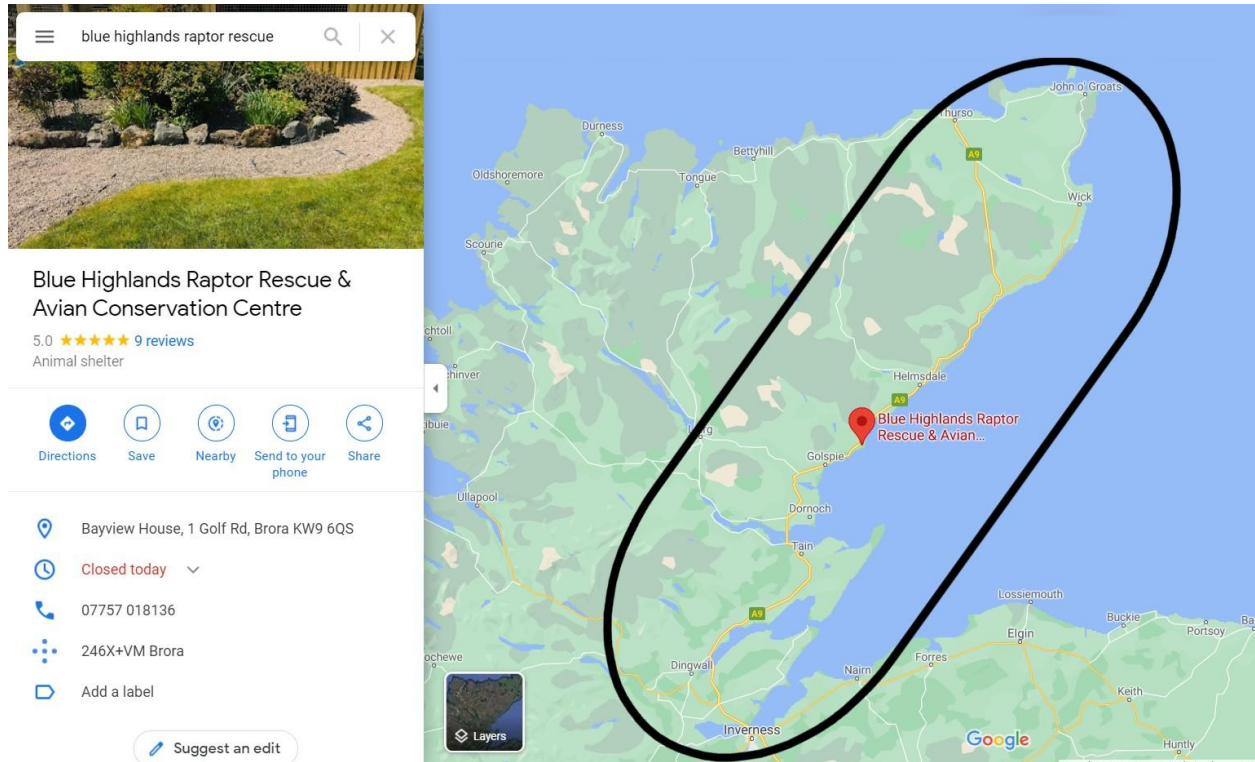
The South of Scotland Wildlife Hospital (later referred to as SOSWH)

Contacts : Lorna
Address: Barony College, Parkgate, Dumfries DG1 3NE



Blue Highlands Raptor/Bird Rescue

Contacts : Jayne Wilson
Address: Bayview House, 1 Golf Rd, Brora KW9 6QS



From the locations of the four centres the trial had a wide range covering large parts of Scotland and more importantly areas where there are large gull populations.

Another key challenge was to make sure the centres could cope with the potential of receiving large numbers of eggs and chicks. To safeguard the centres and the chicks we decided to set capacity limits for each centre so that we knew realistically what they could deal with. This varies between centres as each centre has different set ups, facilities and staffing levels.

By asking the centres to give a set capacity we then could make sure that none of them were overrun with more eggs/chicks than they could manage. The chart below shows this limits Hesselhead have the capacity for eggs and chicks the total would always be 300 for both combined but they can manage up to 300 eggs at a time.

Rescue Centre	Egg Capacity	Chick Capacity	Total Capacity
Hessilhead	150	200	350
The NEW ARC	125	75	200
Blue Highlands Bird Rescue	0	20	20
SOSWH	0	30	30

No rescue exceeded these capacity limits as they were managed by myself (Kevin Newell).

Some pest controllers were happy to travel outwith the selected areas so they could take part in the trial and were happy to have an alternative to destroying the gull eggs/chicks. Where requests were made by participating pest controllers that would involve travel time of close to or over two hours, this was handled on a case by case basis (see below). This was taken as a positive as it showed even at chick removal locations that did not fall within catchment areas pest controllers were willing to make the longer journeys.

There were a couple of cases in which the gulls were too far from the nearest rescue centre and we had to be realistic and say it would not be practical for the pest controller or in the best welfare interests of the gulls in these two cases.

Each rescue centre was sent a policy pack which listed some of the welfare aspects to consider for the process for hatching eggs and rearing gulls. These were written into the logistic and welfare policies. However, these were more like very brief guidelines, as the rescue centres have many years of working with and rearing gull chicks and we did not believe that telling them to make any changes after their years of experience rearing gulls would be of any benefit.

A number of the rescue centres have already started work on increasing their gull facilities for their next gull season which will increase their care level and numbers they can take in.

Challenge 2 - Engagement of Pest Controllers

Engaging traditional pest control companies to take part in the gull trial was easier than expected. All the companies who joined chose to be a part of the trial after reading the license notification e-mail from NatureScot at the beginning of the gull season before they applied for licenses.

These companies were very keen to take part and help in any way they could, and for them they were excited to be taking part in the trial as a new way of working with gulls. They saw the trial

as a conservation project and one that they could contribute towards, as the species they were commonly removing were mainly red and amber listed.

In total the trial saw fifteen different pest control companies from across Scotland join and contribute batches of either eggs or chicks. These ranged from international, national, regional and sole trader businesses. Their attitudes were really positive towards the aims of the trial and they were happy to promote to their clients that they were taking part. There were four other pest control companies who registered to take part but didn't need to bring in any eggs or chicks.

These pest controllers combined helped to bring in thirty-eight different batches of eggs and chicks from nine different areas of Scotland.

To help the pest controllers understand the trial and where their local rescue centre was, they each were e-mailed a 'pest controllers pack'. This pack consisted of detailed process maps and policies and were titled:

- Gull Trial Process Map (detailing the full trial process)
- Pest Controllers Handout (breakdown sheet of key points from them to follow)
- Gull Removal Policy
- Transporting of Gulls Policy (this is in direct reference to challenge 3, The logistics and welfare implications of transporting eggs/chicks to wildlife rescue centres)

The vast majority of pest controllers appeared to follow these policies and protocols, but we did have one pest controller admit that policies were not followed despite them having access to the guidelines. This would then highlight that despite providing them with the detailed processes to make sure the welfare of eggs/chicks are followed, they are not bound by these policies and had no reason to stick to them if they chose not to. The transporting policy was the one known not to have been followed which resulted in damage to the eggs.

To make sure that this works better in the future I would make sure the pest control companies received these documents before the gull season starts and have them confirm that they have read and understood them before any work is done.

As mentioned above there were several occasions where pest controllers outside the catchment areas wanted to be a part of the trial and managed to bring over eggs/chicks under the trial guidance to make sure the journey didn't have any negative impacts on the eggs/chicks. This again showed the enthusiasm of some pest controllers to be a part of the trial.

There are many pest control businesses in Scotland and the majority didn't approach the trial to take gulls under the trial conditions and that is not deemed to be a failing. The hope of

non-lethal removal of chicks becoming licensed is so as to have the option of not destroying chicks, rather than any necessity not to do so, and the interest of the many pest controllers who did take part, which was above our expectations, is therefore deemed a success. Again, if any future changes were to be made to licensing to include a non-lethal option like the trial we feel it would need to be non-mandatory to make sure it is a choice for pest controllers to take part rather than enforcement, and because rescue centres would simply not have the space to take all chicks and eggs in and rear.

Challenge 3 - The Logistics & Welfare Implications of Transporting Eggs/Chicks to Wildlife Rescue Centres

This challenge was one that wildlife rescue centres have been dealing with in some cases for decades through transporting mainly chicks to their centres from all over Scotland. However, knowing how to safely transport eggs/chicks from their work sites to the nearest wildlife rescue centres would be new to many pest controllers.

Zoologist and experienced wildlife rehabilitator Flo Blackbourn researched, designed, and wrote up policy documents for the best way to transport both eggs and chicks. This detailed plan outlined the key guidance and requirements needing to be followed when transporting chicks and eggs.

Not only did this policy document involve the safe transportation of eggs/chicks to rescue centres, it also detailed ways in which to ensure safe removal of these eggs and chicks from the roofs in question. The removal of eggs in particular was considered to be the action of highest risk when it comes to welfare and risk of the whole trial.

There were a couple of occasions where pest controllers wished to bring in gull chicks from nearly three hours away and they asked for us to collect these for them. This was not a viable option as the time from collection and then travel would have impacted on the young birds' welfare. We were also not in the situation to provide a collection service, especially given what would have been a six to seven hour round trip. Wildlife rescue centres are equally stretched, usually being small charities which are particularly strained in the summer months when the eggs and chicks were coming in, so are not usually in the position to collect animals from very far away, if able to leave the site of the centre at all.

Challenge 4 - The Logistics & Welfare Implications of Releasing Juvenile Gulls Once Rehabilitated

The releasing of gulls after being in rescue centres has been practised for decades by many wildlife rescue centres not just in Scotland but in the wider UK. We reached out to these experts

in this field to ask for their evidence and experience to show that this process has been a successful one over the years and that being reared and released from captivity is not detrimental to their long term survival.

These experts' statements in response NatureScot's challenges can be seen below.

The NEW ARC - Keith Marley

As a wildlife rescue centre that has dealt with gulls for over 15 years we wish to suggest that the answers we provide are based on personal experience of rescuing and raising over 2000 gulls of various breeds.

You are quite correct concerning the 'fledging' of gulls and their following parental dependence. This is something we have been aware of since before the first chick arrived. Gull chicks are kept in groups dependent upon their breed and their size. As they grow in size they are progressed into further groups until fledging is complete. At this stage they are often introduced into pens with recovering adult birds to allow socialisation and observe natural behaviour.

We see no reason why gulls would be released into 'unfamiliar' or unsuitable areas. Rescue centres by their very nature tend to deal with animals and birds that exist within their geographical location. In an area with little or no gull population then it is unlikely that they will have large numbers of gulls to contend with whilst areas with larger populations will be something they are already familiar with. In situations where relocation or introduction is desired then suitable advice can be given by rescue centres from the originating location.

Having raised many hundreds of gulls we have found them very adaptable. Over the years we have on occasion released gulls here at the centre. Their natural inclination is to flock together and it is not long before they tag on to other young gulls. This can be seen quite often in their roosting behaviour when it is not uncommon to pass a roost comprising almost purely of juveniles and a few miles on to find a roost consisting mainly of adults. Young do learn from adults and each other and it does not take long before mixed groups can be observed converging on suitable food sources. Tractors ploughing, fishing boats and open refuse tips being prime examples. Common Gulls, Herring Gulls and Black Headed Gulls have all adapted to take advantage of the available food sources whether it be by sea or land. We see very few gulls or evidence of starvation so the supposition that there may be a high mortality due to being raised in this manner is simply conjecture.

We would have to disagree with the comments regarding centres being 'not generally in places where the problems Gulls cause occur'. As pointed out previously, centres deal within defined geographical locations and generally have to deal with what they are presented with. In an area where there are gulls they will deal with many gulls. Based in the North East of Scotland we would not expect a centre in the London area to suddenly be forced to deal with an influx of



Scottish Crossbills, Gannets or Little Auks, just as we would not expect to deal with an influx of Ring Necked Parakeets. Fortunately Wildlife rescuers are, as pointed out, adaptable and often seek help or advice within the rescue community should they be faced with unusual circumstances.

It is quite correct that no centre can currently be expected to have facilities to cope with the large numbers of eggs and the resulting chicks, however, if a small proportion of the money spent on 'Gull Management' can be directed to suitable centres then we are confident that such facilities can and would be made available.

Keith & Pauline

The New Arc

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Keith Marley
Trustee and Director
The New Arc

Richard Thompson RSPCA Mallydams Wood

In the past 20 years we have taken in over 15,000 gulls of all ages.

This prompted me to do a project on survival through ringing and recovery data, to provide some evidence that rehab is appropriate and successful.

Here is my thesis to support that work, it's a few years old now, but still valid.

<http://sro.sussex.ac.uk/id/eprint/46889/>

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Richard Thompson.
Wildlife Rehabilitation Team Manager
RSPCA Mallydams Wood

BIRDAID GULL RESCUE

Gulls are cooperative feeders. This means that when food is found they make a noise that alerts surrounding gulls. This way there are many eyes on the lookout for food sources. They are also attracted to other gulls. A group will be seen and investigated. That means that any good food source will be known by all. Any chicks reared with others will have an advantage over wild counterparts. When released, our babies are more independent than those with adults, and are used to rushing toward, and fighting for, food. In the aviary they learn to fend for themselves amongst competition. We release babies where other adults are gathered and they immediately integrate with the group. They are experiential learners and quickly follow the wild ones. They don't need to copy a parent anymore than an unrelated adult. We find that there are large groups of 1 and 2 year old that keep together. We often release over 100 fledglings in the same week and have never had an increase in casualty numbers as a result. We cover a wide area and would know if any starving youngsters appeared. A lone gull chick would be at a huge disadvantage, but reared in groups will result in socialised and independent birds.

HESSILHEAD WILDLIFE RESCUE

As a person that has spent his adult life studying these increasingly rare and intelligent animals I am well placed to shed some light on the discussion. Since 1980 I have been involved in ringing wild gulls, I have been a licenced ringer since 1982 and a trainer since 1994 with the British Trust for Ornithology (BTO). I am an active member and secretary of the Clyde Ringing Group and have ringed all five species of Scottish Gulls (breeding) annually since 1984.

Since 1999 we have been ringing rehabilitated gulls annually at Hessilhead Wildlife Trust, and this year began a project with SSPCA at Fishcross in Fife. As a Ringing Group we have been ringing nestling and adult gulls since 1976 so we have a huge database to prove the following.

Compared to parent reared chicks, rehabilitated chicks have a **higher post fledging survival rate**. Any concerns that these rehabilitated chicks will not thrive and will be caused unnecessary suffering as a result of being released into the wild without parental assistance is **unfounded**.

When released at the correct age more go on to complete their migration to West Africa (Lesser Black-backed Gulls) and return to breed as adults than parent reared birds. Similarly for Herring Gulls and Common Gulls that stay more locally we can prove higher survival rates.

~ Dr Iain Livingstone BVMS MRCVS



These many different expert accounts show that both the logistics and welfare of rehabilitated gulls is an area that has a lot of experience behind it.

To complement and back up their experience Flo Blackburn also created a policy covering the release of rehabilitated gulls. This document was sent to all wildlife rescue centres taking part in the trial and is called 'Intake, Rearing and Release of Gulls - Logistics and Welfare Considerations' This document covers the welfare of gulls through their journey in wildlife rescue centres.

To help try and gauge the gulls' post release success we have had BTO ringers ring gulls with both standard metal rings and Darvic coloured rings so we can try and get sightings reported of them in the wild in the future.

Trial Data

This section will break down the data gathered from the trial.

The trial saw 474 eggs/chicks brought in from fifteen pest control companies. These came in thirty-eight batches of eggs and chicks being brought into the four different rescue centres. This 474 was broken down to 391 eggs and 83 chicks.

Only two of the four rescue centres were required for the trial and so two didn't receive any eggs or chicks, but were open to being 'overflow' centres were it to be needed, as well as being continually available for any gulls picked up by pest controllers in their catchment areas.

The gulls consisted of three different species and can be broken down as follows:

Gull Species	Eggs	Chicks	Total
Common Gull	25	4	29
Herring Gull	87	59	146
Lesser Black Backed Gull	279	20	299
Totals	392	83	474

The first batch of eggs arrived on the 4th May and the first chicks arrived on the 29th May.

The first eggs hatched on the 18th May and the first chicks were released on 14th July.

Eggs and chicks came in from ten areas of Scotland which were:

North East Scotland

- Aberdeen City
- Aberdeenshire
- Moray

East Scotland

- Edinburgh
- Glenrothes
- Tayport

West Scotland

- Ayr
- Glasgow
- Kilmarnock
- Saltcoats

The breakdown of data for the eggs is as follows:

Rescue Centres	Eggs	Hatched	Didn't Hatch	Hatch Rate (%)
Hessilhead	289	208	81	72
NEW ARC	102	91	11	89
Totals	391	299	92	76

Even with the high number of eggs at both sites the hatch rates were very successful and in line with natural hatch rates which vary, but have been found to be anything from 56-63% to 70-85% (Camphuysen, 2013; Parsons, 1975)

The policy documents and incubator instructions helped with the temperature and humidity control whilst the eggs were being incubated. The care from staff at both centres proved fantastic in the initial care after hatching and throughout the rearing process.

One aspect that needs looking at for any future project like this is the key factor of making sure the water levels are topped up in the incubators so that they are never allowed to run dry and/or become dirty. This involves changing the water daily. The water being allowed to run out was observed a few times at Hessilhead and action was taken by notification and reminders to staff to monitor the levels of water. A training guide will be considered for future projects to try and make sure this does not occur again.

The Hessilhead eggs that didn't hatch were attributed to eggs already being damaged when collected and some being damaged during transportation by pest controllers. It was accepted that even with utmost care being taken, the occasional damage of eggs during transportation may happen. Further guidance and education would hopefully help reduce damage to eggs whilst being transported.

The Blue Highlands and South of Scotland Wildlife centres currently do have the facilities for egg incubation.

The breakdown for chicks is as follows:

Rescue Centres	Hatched	Wild Chicks	Total	Deaths	Released	Success Rate (%)
Hessilhead	208	28	236	38	198	84
NEW ARC	91	55	146	4	139	95
Totals	299	83	382	41	337	88

With 474 patients being brought in and a total of 337 released the overall success rate was 71%

Hessilhead Wildlife Rescue Stats

Hessilhead Wildlife Rescue saw the largest number of patients arrive totalling 317. This was broken down as follows:

Total Patients	317	Percentage of Total (%)
Eggs	289	91
Chicks	28	9

Eggs statistics

Eggs	Hatched	Hatch Rate (%)	Failed to Hatch	Fail Rate (%)	Wild Success Rates (%)
289	208	72	81	28	70-85

Chick statistics

Chicks Hatched	Chick In-takes	Total Chicks	Chick Deaths	Chicks Released	Success Rate (%)	Wild Success Rates (%)
208	28	236	38	198	84	50*

*As found in a study by Kadlec *et al*, 1969 regarding herring gulls

Chick release statistics

Of Those Released	Total	Percentage of Total (%)
Hatched Chicks	171	86
In-take Chicks	27	14

If you look at the 317 patients that were released into the wild it makes for an overall success rate of 62%. Although, this is an oversimplification since this figure is determined by two different stages (hatching and rearing) with two very different success rates.

Species statistics

Only two different species of gull arrived at Hessilhead Wildlife Rescue. These were Herring Gulls and Lesser Black Backed Gulls. Their numbers were as follows:

Species	Total	Eggs	Hatched	In-take Chicks	Total Chicks	Chick Deaths	Released
Herring Gull	18	10	10	8	18	1	17
Lesser Black Backed Gull	299	279	198	20	218	37	181

Hessilhead saw five different pest control companies bringing in batches and this accounted for a total of fourteen batches.

Company	Eggs	Chicks	Total Patients	Total Batches
Humane Wildlife Solutions	242	10	252	6
Rentokil	37	12	49	5
Graham Pest Control	10	0	10	1
Scottish Pest Control Solutions	0	3	3	1
Edinburgh Environmental Services	0	3	3	1

These batches came in from the following places:

Location	Eggs	Chicks	Total
Ayr	1	6	7
Edinburgh	0	6	6

Glasgow	278	4	282
Glenrothes	0	3	3
Kilmarnock	0	5	5
Saltcoats	0	4	4
Tayport	10	0	10

NEW ARC Stats

The NEW ARC saw patients totalling 157. This was broken down as follows:

	No. of Patients	Percentage of Total (%)
Eggs	102	65
Chicks	55	35
Total	157	-

Eggs statistics

Eggs	Hatched	Hatch Rate (%)	Failed to Hatch	Fail Rate (%)	Wild Success Rates (%)
102	91	89	11	11	70-85

Chick statistics

Chicks Hatched	Chick In-takes	Total Chicks	Chick Deaths	Chicks Released	Success Rate (%)	Wild Success Rates (%)
91	55	146	7	139	95	50*

*As found in a study by Kadlec *et al*, 1969 regarding herring gulls

Chick release statistics

Released Gulls	Total	% of Total
Hatched in Captivity	84	60
Taken in as Chicks	55	40

If you look at the 139 patients that were released into the wild it makes for an overall success rate of 88%. Although, this is an oversimplification since this figure is determined by two different stages (hatching and rearing) with two very different success rates.

Species statistics

Only two different species of gull arrived at the NEW ARC. These were Herring Gulls and Common Gulls. Their numbers were as follows:

Herring Gull Statistics (128 In total)

Species	Total	Eggs	Hatched	In-take Chicks	Total Chicks	Chick Deaths	Released
Herring Gull	128	77	66	51	117	7	110
Common Gull	29	25	25	4	29	0	29

The NEW ARC saw five different pest controller companies bringing in batches and some they brought in themselves under license. This accounted to a total of 24 batches.

Company	Eggs	Chicks	Total Patients	Total Batches
NEW ARC	7	4	11	3
NBC	9	0	9	1
GD Pest Control	22	14	36	10
BM Pest Control	59	0	59	3
Specialist Vermin Control	5	30	35	4
Presley Pest Control	0	7	7	3

These batches came in from the following places:

Location	Eggs	Chicks	Total
Aberdeen City	57	8	65
Aberdeenshire/Moray	45	47	92

Things that didn't work

Despite all the guidance and experience involved in the trial there will always be cases where things go wrong. Below is a list of things that didn't work and how they can be changed or safeguarded against in the future.

Egg Transportation Guidelines Not Followed

This happened on one occasion where a pest controller bringing eggs had not followed the policy and guidance documents. The pest controller said that the eggs had spent up to 12 hours from collection to drop off at the rescue centre in a plastic bag. These eggs didn't hatch. The company had the guidance and policy documents but the staff member who had them had not passed these down to the worker. This was raised with the manager of the company and didn't happen again. To try and guard against this again it may be an idea to make sure the pest

control company confirms any staff collecting eggs and chicks have read and understood the documents.

Egg Condition on Collection

Eggs received from pest controllers were not always in good condition or already broken/damaged when collected, but as the pest controllers' job is to clear their work sites the eggs were brought in anyway. Quite a few damaged, cracked and dead eggs were handed in to Hesselhead over the trial and this may go some way in explaining the high egg failure. Egg failure in the wild is naturally high due to many reasons. To counter this pest controllers should be aware that if eggs are already not valid then they should not be handed into the trial.

Bird and Egg ID by Pest Controllers

Pest controllers at some sites had taken in eggs to a rescue centre which were not licensed to be removed and these eggs were not counted into the trial. Some Oystercatcher and Eider duck eggs had been removed and this shows a failure on the pest controllers' side to identify the correct eggs that they were allowed to remove under license. A pest controller could therefore simply remove all the eggs on a roof if they did not know the difference or notice the difference between species' eggs and nest sites. Further training for those using the licenses to remove eggs could be considered to stop this from happening.

Housing Conditions of Gull Chicks

The housing of gull chicks is a very important part of the process and normally rescue centres already know how this works best. There was one occasion using wood chips which resulted in gull chicks becoming ill due to respiratory illness since the wood chip could not be kept sufficiently clean in the warm weather.. The gulls were treated for their condition and many were fit for release after further care. The rescue centre agreed that they would go back to their tried and tested way and not use wood chips again.

Egg Care Whilst in Incubation

Another issue noticed was where the egg incubator was not having its water replaced daily, which is necessary to keep the eggs at the correct humidity. As this kept happening, notices and concerns were raised and the incubator was maintained properly. Some eggs may have failed due to this early issue and any future project staff would need to be trained to make sure they include it in their daily routine.

Predator Proof Enclosures

One issue found was that foxes were able to get at and kill several gull chicks through the mesh of two of the enclosures and these pens should be predator proofed before being used again for gulls.

There are other areas that we noticed along the process of the project that could be done better and this would be handled by introducing new guidance and policy documents for the following areas:

- Best practice for gull housing
- Best Practice for gull feeding
- Best practice for incubating eggs
- Staff manual for general egg care
- Staff manual for general gull care

Our Recommended Changes to the Licenses

During the trial we did notice a few issues that we found relating to the entire process. The concerns are listed below:

Limited Egg Removal Times

One big issue that was found was that pest controllers were removing eggs which were starting to hatch and then bagging them up and putting them into skips. This means eggs hatching would result in chicks hatching and slowly dying in the bags and skips. This is of great concern as these chicks would have suffered greatly before dying. We would like this area to be looked at and for egg removal to have a closing date by which eggs must be removed so this does not happen any more. In cases where eggs are hatching on a site or due to hatch then we feel they should not be destroyed or skipped but taken to rescue centres to avoid unnecessary suffering of the chicks. That, or they should be treated as chicks under license conditions once they reach a certain age at which they are fully formed chicks waiting to hatch.

Lack of Species ID Skills for Pest Controllers

As mentioned above there have been cases where pest controllers have removed Oystercatcher and Eider eggs which they thought were gulls' eggs. This could be in breach of licenses and basic ID training should be a minimum before allowing eggs to be removed from sites.

Additional Notes

NatureScots own report in breeding success of coastal birds (Scottish Biodiversity Indicator – The Numbers and Breeding Success of Seabirds (1986 to 2019) indicates that one of the high risks to Herring Gulls is Intentional taking of adults/eggs, which could be linked to licenses



issued for gull and egg removal. The results of the trial show this approach to gull control may help reduce this high risk to gulls.

(<https://www.nature.scot/doc/scottish-biodiversity-indicator-numbers-and-breeding-success-seabirds-1986-2019>)

The NEW ARC has written up their own summary covering their work through the trial and their thoughts and ideas on how to progress the project. This is their summary:

The New Arc – Gull Project

Summary

In total The New Arc received 102 eggs and 55 chicks (of varying ages) from various Pest control companies.

11 eggs did not hatch and only 3 chicks did not survive until fledging. 4 Chicks have been 'held back' due to insufficient feather development.(These may not be releasable)

A total of 29 Common Gulls and 110 Herring Gulls have been released.

From Hatched and handed in Gulls the success rate was 95%

An overall success rate of 88.5% was achieved.

First eggs handed in 04-May

Last eggs handed in 13-Jun

First Eggs Hatched 29-May

Last Eggs Hatched 30-Jun

First chicks handed in 29-May

Last Chicks handed in 23-Jul

First chicks released 28-Jul

Last chicks released 25-Aug

This success rate has been significantly better than we have experienced in previous years.

A number of various factors may have led to this improvement.

Less crowding and reduced numbers per pen reducing squabbling, bullying and predation from within the groups.

Improved facilities ensuring predation from outside sources was not a factor.

Improved diet, mainly mackerel and sprats with occasional cat food. (Previous years have mainly been cat food and softened cat biscuits with occasional fish)

Improved flooring of pens. Each pen was floored with AstroTurf strips which could be removed daily for power washing.

Weather conditions may also be a factor with no major storms/ heavy continued rain, moderate temperatures ensuring that chicks did not suffer either undue hot or cold spells.

This compares very favorably with the success rate of the other gulls taken in by the centre which were not part of the project where the release success rate was 51%. It should be noted though that Gull chicks handed in to the centre have often fallen from buildings, been hit by cars, predated or attacked by cats and dogs or mis-treated by humans.

Natural' Success Rates

The JNCC Gull survey (as included in the [Scottish Biodiversity Indicator – The Numbers and Breeding Success of Seabirds \(1986 to 2019\) | NatureScot](#)) puts current success rates of productivity as an average of 0.60 chicks fledged per pair annually from an average of 2.7 eggs laid per breeding pair.

It is estimated that 1.3 – 1.5 chicks reared per pair is required to prevent population decline (John C. Coulson – 'Gulls').

Coulson also estimates that mortality of recently fledged Herring Gulls is high. 'Preliminary analyses of ringing recoveries suggest that about 40 – 50% of fledglings die during their first year of life, but by the end of their first year their mortality rate decreases and approaches that of adults at between 7% and 15% per year.'

To put these figures into perspective: - To attain the breeding age of approximately 4 years from a high average (as above) of 270 eggs laid, 60 chicks would survive to fledging with 30 of them surviving the first year. 11% average mortality over the next 3 years would give a total survival of 24 birds or 12 pairs from the 270 eggs laid.

The JNCC report also highlights 'the removal of Eggs as one of 7 'High Threats' to breeding gulls.

Potential Improvements

Construction of new facilities are underway for next year and will include individual ponds for each pen which can be cleaned using pumps, minimising time and staff interaction.

Temporary coloured leg rings will be used for 'egg hatched' chicks as opposed to 'handed in' chicks to see if this has any effect on behaviour such as minimising 'parental begging' when interacting with Staff or members of the public.



A mutually acceptable recognised release sight which can be agreed between various interested parties.

Recommendations

The trial in its initial stages has proved conclusively that relocated gull eggs and chicks can be successfully raised to the point of fledging and release.

It will take several years to establish success and survival rates overall and whether this has any significant impact on the gull population in general. We thoroughly recommend a continuation of this project. It should be noted that if increased numbers of Gulls (or other seabirds) are to be catered for on a larger scale then additional funding would have to become available.

The [Scottish Biodiversity Indicator – The Numbers and Breeding Success of Seabirds \(1986 to 2019\) | NatureScot](#) highlights the severe decrease in Herring Gull population and subsequent rise in nesting Urban Gulls.

‘In Scotland, the SMP index (Figure 5) shows a steady decline in natural nesting herring gull abundance to 56% below the 1986 baseline in 2009. Since then, the abundance index has fluctuated, although has remained well below the baseline. In 2019, the index had fallen to 60% below the baseline, the third lowest value recorded since monitoring began.

At the last census, Scotland held the second largest proportion of urban roof-nesting gulls within the UK (33%). Numbers nesting on buildings in towns and cities increased from 1976¹ (55 pairs) to 1993–1995² (3,568 pairs) and to 1998–2002 (5,843 pairs)³. The current number of urban nesting gulls in Scotland is unknown but is likely to have increased in some areas. Very few urban areas have been surveyed since the last census, so no meaningful summary can be provided to indicate if herring gulls are increasing or decreasing in these areas.’

We understand that Nature.scot is placed in a potential conflict situation. On one side there is considerable pressure to license the removal of Herring Gulls from towns and cities while on the other hand their duty and obligation to preserve a population which has been in severe decline over the past several decades.

The Ideal Solution

The licensing and removal of ‘nuisance’ Gulls nests and eggs should only be undertaken when sufficient facilities are available to take and rear the chicks to the point of fledging in order to attain a viable and sustainable population.

The establishing or creation of suitable sites where the birds may be ‘soft released’ with the aim to encourage them to return and set up ‘natural’ breeding colonies away from towns and city centres should be considered.



The cost of setting up such sites as opposed to the cost to councils and businesses of ongoing annual pest control, installation and maintenance of expensive netting, spikes and various other deterrents, staff time, leafletting / media information etc. could prove a long-term more cost-effective option benefitting councils, licensing agencies and gulls.

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