

Treshnish Isles Auk Ringing Group

Report for 2013



Great black-backed Gull chicks (*Andrew Carter*)

Compiled by
Robin M. Ward

Expedition dates:
22nd – 29th June 2013

Expedition members:
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INTRODUCTION

Since 1971, the Treshnish Isles Auk Ringing Group (TIARG) has monitored, through ringing and census work, the breeding seabird populations of the Treshnish Isles, Argyll. A summary of the early expeditions is given in *Birds on the Treshnish Isles 1971-1995* (Walker & Cooper 1996). Annual reports have been produced since 1996. This report summarises the results of the Group's 35th expedition to the Treshnish Isles, during 22nd – 29th June 2013.

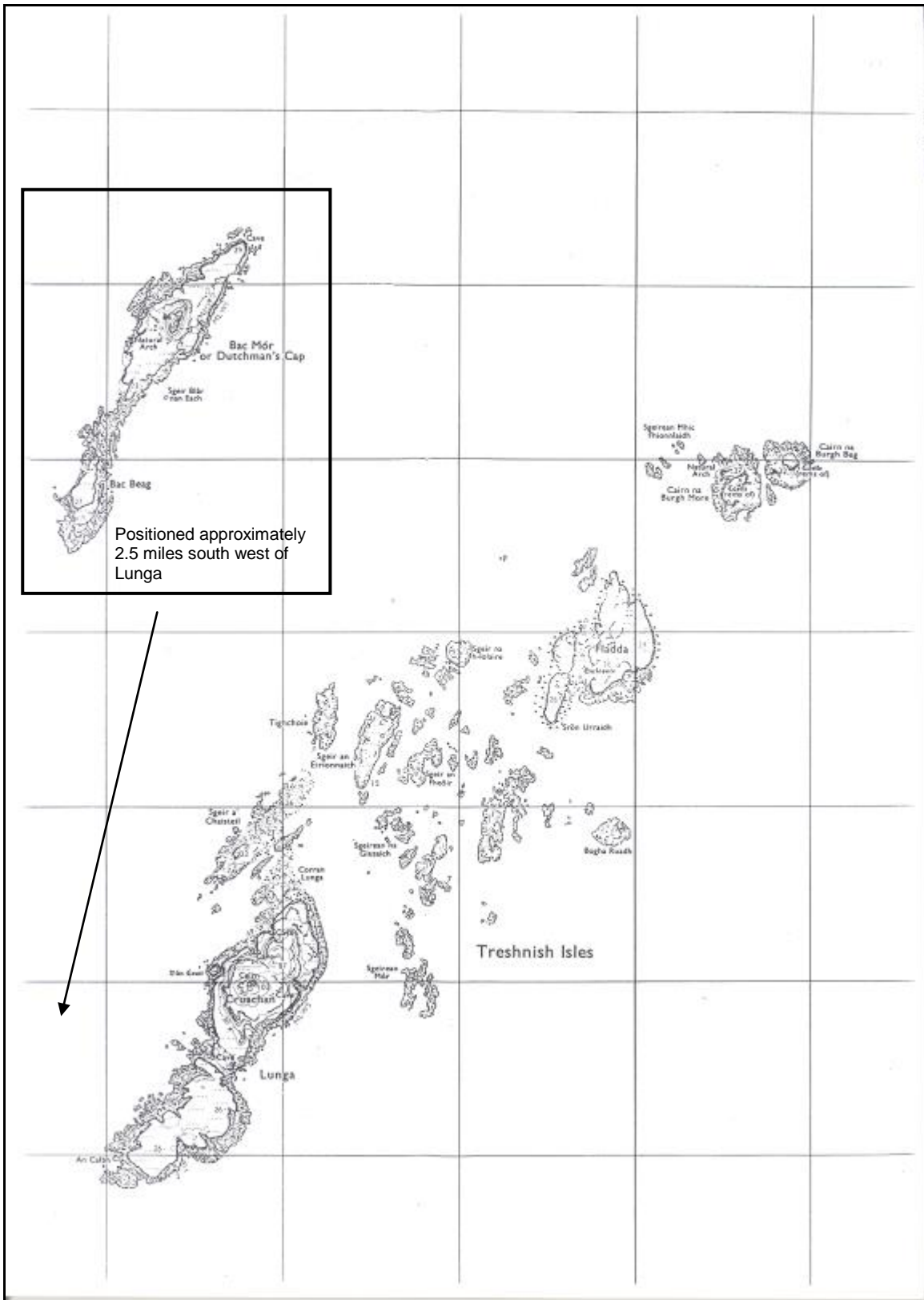
As in previous years, the expedition was based around the village ruins at the northern end of Lunga. The majority of the week's fieldwork was centred upon Lunga and Sgeir a' Chaisteil where the annual full seabird census and ringing of specific seabird colonies was carried out. The Group's activities were dictated as always by the prevailing weather conditions. Other than strong wind at times hindering activities, the week was dominated by very favourable weather that allowed the mist netting of Storm Petrels on Lunga during several nights. However, the light to moderate southerly winds resulted in very few auks close enough to our fleyg sites. This year was the eighth year of a Shag Retrap Adult Survival study (RAS); this entails ringing each adult with its own uniquely engraved colour-ring so that it can be re-identified in the field in future years. This is part of the British Trust for Ornithology's (BTO) Integrated Population Monitoring Programme, funded by the UK Government.

All TIARG census and ringing data are submitted to two national monitoring programmes, the Seabird Colony Register (J.N.C.C.) and National Ringing Database (BTO), respectively. The data supplied are of great conservation value, being the sole means of monitoring the seabird colonies of the Treshnish Isles. The conservation importance of these islands is recognised by their designation by the UK Government as a Special Protection Area for internationally important populations of breeding Storm Petrel *Hydrobates pelagicus* and wintering Barnacle Geese *Branta leucopsis*. The islands have also been designated a Site of Special Scientific Interest (SSSI) for seabird breeding colonies of national importance. Financial support for the monitoring work TIARG undertook in 2013 was provided by the Hebridean Trust (www.hebrideantrust.org), owners of the islands.



Expedition participants 2013 (left to right): George Henderson, Robin Ward, Jurjen Annen, Andrew Carter, Shaun Micklewright, Tim Dixon, Dennis Cooper & John Hodson (*Andrew Carter*)

MAP OF THE TRESHNISH ISLES



WEATHER

Date	Time	Wind direction	Wind force (Beaufort scale)	Max wind speed (mph)	Average wind speed (mph)	Temp (° C)	Pressure (mmHg)	Cloud cover (Oktas)	Visibility	Notes
22.06.13	14:00									Bright sunshine
	20:00	NW	3	12	10	11	29.1	8		Light rain
23.06.13	08:00		4-5	22	16					
	10:45	NW	7-8	40	31					
	17:00		6-7	34	26	11	29.59	8	Tiree	Showers
24.06.13	09:00	NW	3-4	15	11	11	29.8	3	Rum	
	19:00	W	3-4	15	12	14	29.9	7	Rum	Showers
25.06.13	12:00	SW	2-4	13	9	14	29.9	8	Eigg	
	19:45	W	3-4	14	12	14	30.03	8	Eigg	Hazy sunshine
26.08.13	12:00	NE	3	11	9	16	30.15	8	Skye	Occasional sunshine
	16:00	W	3-4	13	10	15	30.16	3	Skye	Sunshine
	22:30	NW	2-3	8	6	11	30.13	8	Rum	High cloud
27.06.13	12:00	NW	3-4	15	12	12	29.9		100m	Mist - by 14:00 mist started to lift
28.06.13	12:00	SW	4-5	21	15	13	29.61	8	Ardnamurchan Point	Rain - Heavy rain during the previous night (27-28 th August)
	17:20	NW	4-5	22	15	13	29.67	8	Ardnamurchan Point	
29.06.13	08:00	SW	3	11	8	11	29.77	7	Ross of Mull	High cloud
	12:00									Start of rain - visibility dropped to half a mile during boat journey

All readings were taken from the slope of Cruachan directly above the Village site at the NE end of Lunga, unless otherwise noted.

George Henderson

SYSTEMATIC LIST OF BIRDS FOR 2013

The following systematic list describes those bird species seen during the Treshnish Isles Auk Ringing Group's presence on the Treshnish Isles, 22nd – 29th June 2013. The introductory comments (first paragraph) refer to the species' status during the breeding season as recorded by previous expeditions.

A detailed breakdown of breeding seabird numbers on Lunga and Sgeir a' Chaisteil in 2013 is provided on page 17. For some seabird species, average rates of population change have been calculated by linear regression of the natural logarithms of the breeding numbers year on year. The significance of the slope of the regression equivalent to the average annual rate of increase or decrease in the population is then assessed using the *t*-statistic (Fowler & Cohen 1986).

Greylag Goose *Anser anser*

Breeding noted in some years, with a moulting flock present during late summer.

The moult flock had built up to at least 140 birds by 28th June, typically most were around the islands of Sgeir an Eirionnaich, Fladda and Sgeir an Fheòir. No breeding was confirmed.

Year	1998	1999	2000	2001	2002	2003	2004	2005
Peak count	25	160	240	268	79	101	316	90
Year	2006	2007	2008	2009	2010	2011	2012	2013
Peak count	164	77	80	225	160	140	50	140

Shelduck *Tadorna tadorna*

Until recently a rare visitor with one pair having bred occasionally since 2003

A pair of adults accompanied by a third adult were seen in flight around the northern half of Lunga on 25th June. Up to two birds were seen on other occasions during the week in the 'dirty inlet' at Corran Lunga or in flight along Lunga's north east coast. One bird was flushed from Sgeirean na Giusaich when visited by the Group on 26th June.

Eider *Somateria mollissima*

Breeds regularly in small numbers.

The only evidence of confirmed breeding were two nests with eggs on Sgeir a' Chaisteil where two females and a male were also noted on 25th June.

The waters between Fladda and Lunga supported small numbers of late-summer moulting birds, typically male-biased with a maximum of 5 males and 2 females. Two females were noted at North Haven, Fladda on 26th June.

Diver *Gavia spp.*

Rare visitor.

A single bird was seen flying south past Lunga on 23rd June. Though not specifically identified, it was considered either a Red-throated or Black-throated Diver on size and structure. This sighting represents the third record by TIARG of a *Gavia* species seen from the Treshnish Isles, both the previous two being single Red-throated Divers.

Fulmar *Fulmarus glacialis*

A common breeding species. The Treshnish Isles supported 0.2% of the Great Britain population as estimated by *Seabird 2000*.

Breeding was confirmed on Lunga, Sgeir a' Chaisteil and Fladda. Eight apparently occupied nests were also visible from Lunga on the east side of Bac Mór. The breeding population for Lunga and Sgeir a' Chaisteil was estimated at 356 pairs based upon apparently occupied sites (AOS). Last year's first sizable increase in the population in some years has not been repeated or maintained into 2013. Over the longer term, 1994-2013, the average annual rate of change in the numbers of breeding birds on Lunga is calculated at -3.5% per annum, this trend being very highly significant ($P < 0.001$). This is consistent with a decline nationally which may be due to declines in offal from trawlers, representing a 're-adjustment' to more natural levels following a period of artificially elevated population size (JNCC 2013).

On the expedition's visit to Fladda when the south and west facing coasts were surveyed on 26th June, a total of 14 birds were counted on apparently occupied breeding sites (AOS). A minimum of eight AOS's were viewable on Bac Mór when using a telescope on Lunga.

A previously unrecorded observation were two separate AOS's on old Shag nests, one at each of the gullies north of Harp Rock.

Manx Shearwater *Puffinus puffinus*

A common breeding species. The Treshnish Isles supported 0.4% of the Great Britain population as estimated by *Seabird 2000* (1998 – 2002).

Presumed breeding birds were seen and heard at night on Lunga. During the week up to 70 birds per 10 minutes were noted by day, passing offshore along the west coast of Lunga.

Storm Petrel *Hydrobates pelagicus*

A common breeding species. The Treshnish Isles supported 20% of the Great Britain population and between 0.7 – 1.7% of the Atlantic (north-eastern) population as estimated by *Seabird 2000*.

Many birds were heard churring from burrows on Lunga and Sgeir a' Chaisteil. A total of seven birds were heard churring during the week from the walls of the Village.

Several nights of light winds gave the opportunity to mist net for Storm Petrels on Lunga at the Village and the Boulder Beach. On the Boulder Beach, traditionally ringed localities near the Well and below the Village on single nights, provided catches of 43 and 142 birds using one 12m (for 1¾ hours), and one 12m net (2¼ hours) respectively. At the Village, 84 birds were caught using three 18m nets over three nights (for 5½ hour period in total). Numbers caught at the Village and Boulder Beach colonies were, as in other recent years, less than during the 1990s and early 2000s.

Gannet *Morus bassanus*

Regularly seen offshore

Small numbers of adult birds were seen daily, feeding or passing offshore of Lunga. Of particular note were two 'pairs' of birds seen flying uncharacteristically close into Bac Mór, suggestive of nest site prospecting.

Cormorant *Phalacrocorax carbo*

Rare visitor.

A single immature bird in wing moult, was seen flying over the north end of Lunga on 22nd June.

Shag *Phalacrocorax aristotelis*

A common breeding species. The Treshnish Isles supported 2.1% of the Great Britain population and between 0.8 – 0.9% of the Atlantic (northeastern) population as estimated by *Seabird 2000* (1998 – 2002).

Breeding was confirmed on Cairn na Burgh Beg, Fladda, Lunga, Sgeir a' Chaisteil and Sgeir an Eirionnaich. The breeding populations on Lunga and Sgeir a' Chaisteil were 159 and 21 pairs respectively, based on nest counts. Following a marked decline in the numbers of active nests in 2005 and 2006, numbers have since fluctuated between 73 and 178 active nests, with an overall small increase.

Large numbers of adults were in the vicinity of the colonies with up to 450 birds moving offshore from the islands in the mornings to forage. It was presumed many of these were in too poor condition to breed successfully or had failed. Of those birds that were breeding on Lunga and Sgeir a' Chaisteil, great variation was once again found in the progress of breeding, with all stages from eggs to already fledged young noted. Brood sizes were mostly small, typically only two or three young.

2013 was the eighth year of a Retrap Adult Survival study (RAS) that entails ringing each adult with its own uniquely engraved colour-ring so that it can be identified in the field in future years. This is part of the BTO's Integrated Population Monitoring Programme funded by the UK Government (<http://www.bto.org/ringing/ringinfo/ras/index.htm>). In 2013, of the birds marked from 2006 to 2012 on Lunga, 2, 12, 15, 5, 4, 1 and 8 were re-sighted by TIARG respectively involving 47 out of a possible 214 individuals. A further 33 breeding adults were colour-ringed on Lunga in 2013.

Grey Heron *Ardea cinerea*

Rare visitor.

A single bird was seen on a single occasion flying over Lunga on 22nd June.

Buzzard *Buteo buteo*

Until recently, one pair bred in most years

Regular sightings suggested the presence of two adults and one juvenile on Lunga and Sgeir a' Chaisteil.

Peregrine *Falco peregrinus*

Seen most years with breeding known to occur on adjacent coasts.

A single bird was seen on most days, with sightings relating to at least two individuals, one of each sex.

Corncrake *Crex crex*

Recorded almost annually and probably a regular breeder in small numbers.

A single male was heard briefly calling from the general vicinity of Tarbet, Lunga, on the 25th June.

Oystercatcher *Haematopus ostralegus*

Breeds regularly in small numbers.

On Lunga's beaches and rocky outcrops, 6 pairs were behaving as though on breeding territory, alarming at human intruders and performing displays on the appearance of other Oystercatchers (2 pairs at Corran Lunga, 1 in area 6a, 2 in area 8 and 1 in area 9). Confirmed breeding records were of single pairs with a chick at Corran Lunga, area 2, area 3 and area 11. Away from Lunga, breeding pairs held territories on Sgeir an Eirionnaich (1 pair with 1 chick), Sgeir a' Chaisteil (2 pairs), Sgeir an Fheòir (1), Sgeir na H-lolaire (1), Sgeirean na Giusaich (2) and Fladda (4 including one pair with chick). Additional adults may have attempted to breed and were found during brief census visits to islets between Lunga and Fladda, these being Sgeir a' Chaisteil (8 birds), Sgeir an Eirionnaich (16) and Sgeir an Fheòir (3).

Small flocks of presumed failed breeders/non-breeders were evident on Lunga, typically at high tide, in the area of Sgeir a' Chaisteil and Corran Lunga where there would generally be up to 13 birds roosting.

Ringed Plover *Charadrius hiaticula*

One or two pairs breed annually.

Typically, the only breeding pair on Lunga was confined to Corran Lunga and the adjacent boulder beach, where a pair became agitated at the approach of a human intruder. During a visit to Sgeir an Eirionnaich on 26th June, one pair was noted, though with no behavioural response to suggest breeding was occurring.

Golden Plover *Pluvialis apricaria*

An irregular passage migrant.

One bird was heard calling, flying north over Lunga on 25th June.

Snipe *Gallinago gallinago*

Breeds regularly in small numbers.

A lone bird could be heard drumming/chipping over the Village on most days, with singles flushed on occasions in the vicinity of the area. Elsewhere on the north end of Lunga, single birds were noted in the vicinity of Shearwater Gulley, Area 10, Corran Lunga (drumming) and to the south-east of the Village (drumming). At the south end of Lunga, a minimum of five birds were flushed in areas 7 and 6. These data suggest a minimum population of 3+ breeding pairs.

One bird was recorded near South Haven during a brief visit to Fladda.

Curlew *Numenius arquatus*

An irregular visitor.

Single birds were noted calling on three occasions during the week from Lunga.

Common Sandpiper *Actitis hypoleucos*

One or two pairs usually breed.

One pair was holding breeding territory on Corran Lunga with a third adult noted on a single occasion. Additional adults may have attempted to breed and were found during brief census visits to Sgeir an Eirionnaich, Fladda and Sgeir an Fheòir.

Arctic Skua *Stercorarius parasiticus*

Small numbers seen daily, presumably from the breeding grounds on Coll.

Up to two birds at any one time, of both dark and light phases, were seen on three dates, generally

offshore from Harp Rock.

Great Skua *Stercorarius skua*

A small but regular breeding population has become established since the first confirmed breeding by a pair in 1998.

On Lunga breeding was confirmed by the presence of one chick and egg on the high ground south of Tarbet (area 6), and a second pair with nest and two eggs immediately south of Tarbet (area 7). In area 6, a third pair were holding territory in which an empty nest was located. Elsewhere, up to four adult birds were seen regularly flying over Lunga. On two occasions birds were seen to predate other species through drowning the victim, these being a gull and a Shag colour-ringed by TIARG in a previous year.

On Fladda, two apparently occupied territories were being held at locations where breeding has also previously occurred. These were on the west and east sides of Fladda.

Kittiwake *Rissa tridactyla*

A localised breeding species. The Treshnish Isles supported 0.2% of the Great Britain population as estimated by *Seabird 2000* (1998 – 2002).

Breeding was confirmed only on Lunga, where the main colony is around Harp Rock. The number of apparently occupied nests on Lunga was 223, a 41% decrease from 2012. This is a continuation of the marked decline in the population since 2008, totalling a 74% reduction in numbers. A minor contribution at most to the reduction is the counts of 2011-2013 not including nests (c.50 in 2009-2010) in that part of sector 11 to which access was obstructed by a rockfall in winter 2004. Brood sizes at Harp Rock were smaller and the young not so well developed as expected from previous years.

Up to 120 birds roosted on intertidal rocks off Sgeir a' Chaisteil at times. Offshore from Sgeir a' Chaisteil west coast and later the same day, area 8, flocks of over 250 birds were noted foraging on 24th June. For the second year in succession, a first-summer bird was present amongst breeding birds which is unusual for a species where this age group is rarely seen visiting colonies.

Common Gull *Larus canus*

Irregular breeding species in small numbers.

One pair with a nest and egg were noted on Sgeirean na Giusaich. Single pairs holding apparently occupied territories were also found on Sgeir an Eirionnaich and the south east coast of Fladda. Up to three adult birds were seen daily foraging on Lunga's west coast.

Lesser Black-backed Gull *Larus fuscus*

Regular breeding species in small numbers.

Two pairs were noted within the south end gullery on Lunga, in area 8. Ten birds were counted during a flush count of the gullery in the north-east of Fladda.

Herring Gull *Larus argentatus*

A common but declining breeding species. The Treshnish Isles supported 0.2% of the Great Britain population as estimated by *Seabird 2000* (1998 – 2002).

Breeding was confirmed on Lunga (estimated 10 pairs), Sgeir a Chaisteil (estimated 1 pairs) and Fladda (estimated 11 pairs; 18 adults counted when flushed and 2 apparently occupied territories). Breeding was also suggested by the presence of paired adults on territory on Sgeir an Fheòir (2 pairs) and Sgeir an Eirionnaich (estimated 10 pairs; 20 adults counted when flushed). A minimum of two paired adults on territory were viewable on Bac Mór using a telescope from Lunga. No birds were occupying territories on Sgeirean na Giusaich or Sgeir na H-lolaire. The average annual rate of change on Lunga between 1994 and 2012, is calculated at -11.6% per annum, this downward trend continuing to be very highly significant ($P < 0.001$).

Great Black-backed Gull *Larus marinus*

A regular breeding species. The Treshnish Isles supported 2.0% of the Great Britain population as estimated by *Seabird 2000* (1998 – 2002).

From colony visits, breeding was confirmed on Lunga (14 pairs), Sgeir a' Chaisteil (2 pairs), Sgeir an Eirionnaich (estimated 20 pairs; 40 adults counted when flushed), Fladda (estimated 29 pairs; 52 adults plus three apparently occupied territories [AOT]), Sgeir an Fheòir (3 pairs) and Sgeir na H-lolaire (1 pair). A minimum of seven AOTs were viewable on Bac Mór using a telescope from Lunga. No birds were occupying territories on Sgeirean na Giusaich. Following a period of fluctuation in the breeding population of Lunga (1994-2004; 34-67 pairs), a decline occurred during the first decade of this century that has since stabilized at a lower level (14-28 pairs).

Common Tern *Sterna hirundo*

Irregular breeding species. The Treshnish Isles supported 0.6% of the Great Britain population as estimated by *Seabird 2000* (1998 – 2002).

There were no records of this species.

Arctic Tern *Sterna paradisaea*

Regular breeding species.

A ternery was present on the islet at the north end of Sgeir an Eirionnaich. A total of 98 nests containing 233 eggs were counted. Elsewhere one pair was found breeding on Sgeir an Fheòir (north island) whilst a bird alarmed at Group members when visiting Sgeirean na Guisaich (north island).

Guillemot *Uria aalge*

Common breeding species. The Treshnish Isles supported 0.7% of the Great Britain population as estimated by *Seabird 2000* (1998 – 2002).

Breeding was confirmed only on Lunga and Sgeir a' Chaisteil, with the main concentration as usual within the vicinity of Harp Rock where 6,044 adults were estimated. The total for Lunga and Sgeir a' Chaisteil combined was 6,324. The mean count for the past five years is 6,799 (range 5,265-7,712).

Razorbill *Alca torda*

Common breeding species. The Treshnish Isles supported 0.8% of the Great Britain population as estimated by *Seabird 2000* (1998 – 2002).

Breeding was confirmed on Lunga and Sgeir a' Chaisteil. The main concentration was typically located within the vicinity of Harp Rock with 147 adults counted. A total of 408 birds, was counted on Lunga and Sgeir a' Chaisteil, in addition to the birds associated with 12 chicks located amongst accessible boulder colonies. The population has yet to recover from an (as yet) unexplained marked reduction in numbers in 2009 following a period of 'comparative' stability.

Black Guillemot *Cephus grylle*

Regular breeding species in small numbers. The Treshnish Isles supported 0.4% of the Great Britain population as estimated by *Seabird 2000* (1998 – 2002).

Adults were seen around the Sgeir an Eirionnaich - Sgeir an Fheòir sea area (8 birds), Fladda (51) and Lunga (6).

Puffin *Fratercula arctica*

Common breeding species. The Treshnish Isles supported 0.3% of the Great Britain population as estimated by *Seabird 2000* (1998 – 2002).

Breeding adults occupied burrows on Lunga and Sgeir a' Chaisteil. The estimated breeding population on Lunga and Sgeir a' Chaisteil was 2,423 apparently occupied burrows (AOBs). For counts of birds, one bird is taken to represent one AOB (Mitchell *et al.* 2004). Though this year's count was a reduction from that of last year (3,037 AOBs), it also suggests the population has made a marked recovery from the comparatively low estimates of the previous two years to a level approaching the counts in 2004-2009.

For the second year in succession, a "white-winged" Puffin was seen visiting the breeding colony amongst boulders in Shag Alley. This partial albino individual exhibited normal summer plumage other than extensive white feathering on the wing.

Rock Dove *Columba livia*

Regular breeding species in very small numbers.

Birds were seen daily on Lunga, principally along the east coast, the largest group of over 10 birds flying out of the cave in area 3. Most days produced one or two sightings of flocks of 3-5 birds with the odd lone bird as well.

Hooded Crow *Corvus cornix*

A regular breeding bird in small numbers.

At least one pair of adults and two juveniles were seen daily on Lunga, mostly at the north end. Elsewhere a single bird was seen during a brief visit to Fladda.

Raven *Corvus corax*

At least one pair breeds in most years.

One pair of adults with three juveniles were seen regularly frequenting the north end of Lunga. At least two were moulting adults, with the remainder thought to be juveniles due to the absence of wing moult or abraded flight feathers. Generally one of the adults would be seen in the company of the presumed juveniles.

Elsewhere, two birds were seen on Sgeir a' Chaisteil on 25th June.

Skylark *Alauda arvensis*

A regular breeding species in small numbers.

At least five singing males were on Lunga, all in the same general localities as in other recent years. Single territories were on the slopes of Cruachan and immediately above the Village with three at and beyond Tarbet.

Elsewhere during brief visits to adjacent islands, two birds were seen at Sgeir an Eirionnaich and a bird singing on Fladda.

Sedge Warbler *Acrocephalus schoenobaenus*

A scarce but almost annual visitor.

A single bird was found alarming in the reedbed at the south end of Lunga on 25th June.

Wren *Troglodytes troglodytes*

A regular breeding species, quite common where habitat is suitable.

As in previous years, the vast majority of records were confined to the northern half of Lunga, predominantly amongst the boulder scree and bracken-covered slopes from Cruachan down to the sea and on Corran Lunga. There was no sign of a recovery in the species abundance on Lunga from the low numbers noted in the past three years. Casual observations indicated a minimum of three territories south of Tarbet; one at Tarbet; one at the Village; one beside the Boulder Beach; five along the west coast footpath between the Village and Harp Rock, and one along the east coast footpath between the Village and Tarbet. Breeding was confirmed with fledged broods at Harp Rock, the gully south of Harp Rock and at Tarbet.

During a visit to Fladda on 26th June, a family party was seen with three singing males heard elsewhere on the island. One single bird was recorded during a brief visit to Sgeir a' Chaisteil.

Starling *Sturnus vulgaris*

A regular breeding species in small numbers.

Small flocks of up to 52 birds were noted daily on Lunga, comprising both adults and juveniles. Three nests containing young were found in rocky crevices at the south end of Lunga.

During a brief visit to Fladda, two birds were seen at South Haven.

Wheatear *Oenanthe oenanthe*

A regular breeding species in small numbers.

Several families of adults with dependent (and presumed locally bred) young were seen on Lunga, including Corran Lunga (one pair), Area 8 (one), Area 4 (one) and at Tarbet (one). Breeding was confirmed with a nest located on Lunga near the Dirty Inlet on the opposite from Corran Lunga.

One alarming adult male was noted during a visit to Sgeir a' Chaisteil on 25th June.

Dunnock *Prunella modularis*

Irregular breeding species.

At least one adult and two juveniles, one of which was mist netted and ringed, were seen on occasions in the vicinity of the Village. A nest with 5 eggs was also found within the Village. A bird originally ringed at the Village, Lunga, as an adult in 2011 was retrapped there on 25th June.

Pied Wagtail *Motacilla alba yarrelli*

An irregular breeding species.

One pair of adults were regularly seen in the vicinity of the Village, Lunga. The only juveniles observed on Lunga, were singles at Harp Rock and Corran Lunga, the latter accompanied by an adult. Single adult birds were regularly encountered at Shag Alley, Shearwater Gully and Harp Rock. Several brief visits south of Tarbet, only located one adult, at the south tip of Lunga.

One bird showing the characteristics of the subspecies White Wagtail *M.a.alba* was seen with a juvenile Pied Wagtail on Lunga.

Meadow Pipit *Anthus pratensis*

A regular breeding species in small numbers.

Widespread breeding species on Lunga with no estimate of territories made, though probably less numerous than Rock Pipit *Anthus petrosus*. A minimum of 18 birds in total were recorded during a walk over the slopes of Cruachan. One adult was recorded during a brief visit to Sgeir a' Chaisteil. Atypical record was of a male in song flight on Sgeir an Fheòir.

Rock Pipit *Anthus petrosus*

A regular breeding species in small numbers.

Breeding birds were common along the coast of Lunga and on Sgeir a' Chaisteil. Food carrying, alarms and recently fledged young confirmed breeding by a minimum of five pairs on Lunga and one pair on Sgeir a' Chaisteil. For both localities, the breeding population is substantially larger than suggested by the minimum numbers confirmed from casual observations.

Brief visits to adjacent islands located a family group on Sgeir an Fheòir, seven birds including one carrying food on Sgeir an Eirionnaich, and birds on Fladda.

Linnet *Carduelis cannabina*

Rare visitor

A single bird was heard and seen flying over Shag Alley, Lunga on 26th June.

Twite *Carduelis flavirostris*

Regular breeding species in small numbers

Small parties of up to five birds were noted almost daily around the northern half of Lunga. Some flocks seen were identifiable as family parties. A total of three birds were recorded south of Tarbet during the census of breeding seabirds.

Elsewhere 5+ birds were noted on Fladda during a brief visit on 26th June.



Wheatear, juvenile (Andrew Carter)

SYSTEMATIC LIST OF MAMMALS FOR 2013

Otter *Lutra lutra*

Evidence of presence regularly noted.

Fresh tracks of two separate animals were found in the two sea caves on the coast north of Harp Rock, Lunga.

American Mink *Neovison vison*

No known occurrences.

No evidence of this species was noted on either Lunga or Sgeir a' Chaisteil..

House Mouse *Mus musculus*

Resident, apparently in small numbers.

Single animals were seen on several occasions at the expedition base in the Village, at the north end of Lunga.

Ten pairs of chocolate wax monitoring blocks were laid for two successive days overnight within the seabird colony along the footpath above the 2nd gully in Area 12 and later in Area 10 to attract and record the distinctive bite marks of different rodent groups e.g. mice and rats. The chocolate wax blocks were each morning after setting inspected for rodent teeth marks. No teeth marks were found on the "chew sticks" at either site. This monitoring exercise was repeated for one overnight period at the western end of the Boulder Beach, Lunga, in the vicinity of breeding Storm Petrels. The majority were found to have been chewed by mice the following day.

Brown Rat *Rattus norvegicus*

No known occurrences.

No evidence of this species was noted on either Lunga or Sgeir a' Chaisteil.

Rabbit *Oryctolagus cuniculus*

Resident, numbers much reduced in recent years.

No systematic monitoring took place. Casual observations on Lunga suggest that it is abundant. All sightings of black individuals were from Lunga, involving several individuals at widespread localities.

No evidence was noted of animals on Sgeir a' Chaisteil.

Grey Seal *Halichoerus grypus*

A regular breeding species, contributing just under 3% of the annual UK pup production. Numbers are regularly monitored by the Sea Mammal Research Unit (NERC, St Andrews). The conservation importance of these islands as a breeding colony is recognised by their designation by the UK Government as a Special Area of Conservation.

A maximum of 57 animals were visible from Lunga hauled out on intertidal reefs to the north and east at low tide.

Pipistrelle Bat *Pipistrellus pipistrellus* (45 kHz)

Previously regarded a rare visitor. True status uncertain.

Up to three animals on any one occasion were seen flying around the north end of Lunga at dusk on three dates. The species identity was confirmed from use of a bat detector (a device used to detect the presence of bats by converting their echolocation ultrasound signals, as they are emitted by the bats, to audible frequencies).

These are the fourth confirmed observations of bats on the Treshnish Isles by TIARG, the previous sightings in 2006, 2011 and 2012.

SYSTEMATIC LIST OF LEPIDOPTERA FOR 2013

Green-veined White *Pieris napi*

Accidental

Singles were recorded on Lunga on 22nd, 24th and 25th June. Elsewhere one individual was noted on Sgeir an Eirionnaich during a brief visit on 26th June.

Common Blue *Polyommatus icarus*

Regular breeder

The only records of the species on Lunga were of four seen at Shag Alley on 26th June and one in Area 4 on 25th June. During a visit to Sgeir a' Chaisteil on 25th June, a recently emerged female was noted. The species was noticeably less numerous than of recent years, presumably on account of the season being comparatively late, as shown by the growth of flowering plants.

Small White *Pieris rapae*

Accidental

Three were seen at Shag Alley on 24th June.

Small Heath *Coenonympha pamphilus*

Accidental

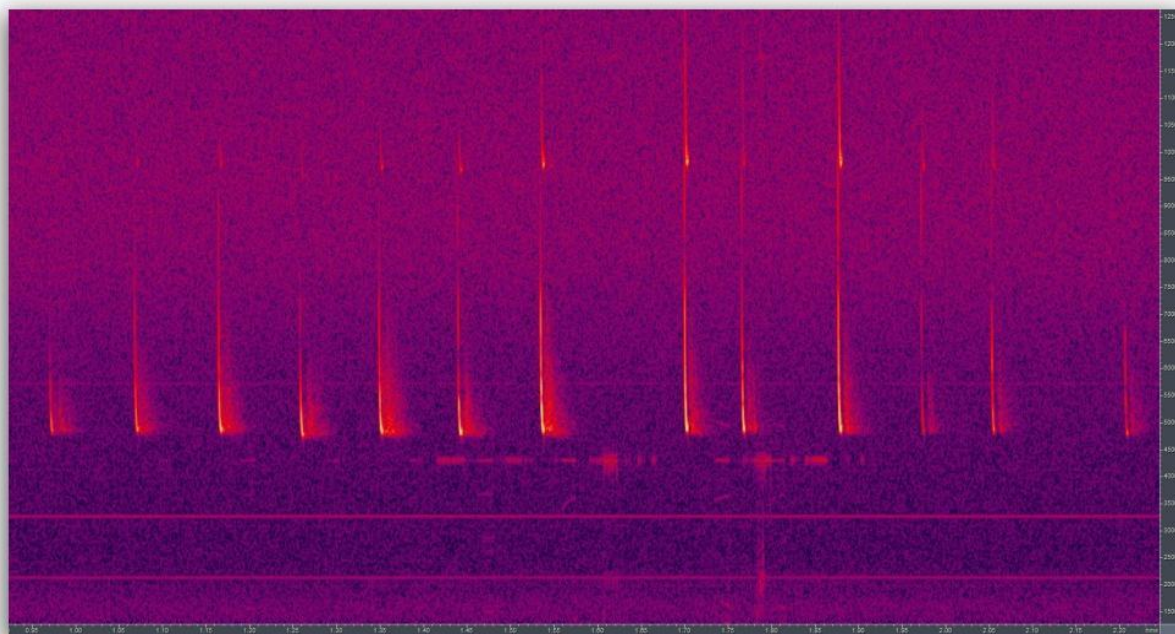
Singles were recorded between the Village and Shearwater Gully (on 24th June), at Shearwater Gully (28th June) and on the west coast at the gully south of Harp Rock (24th June). A further two adults were seen on 26th June at Shag Alley.

OTHER NOTABLE WILDLIFE RECORDS

Oyster Plant *Mertensia maritima*

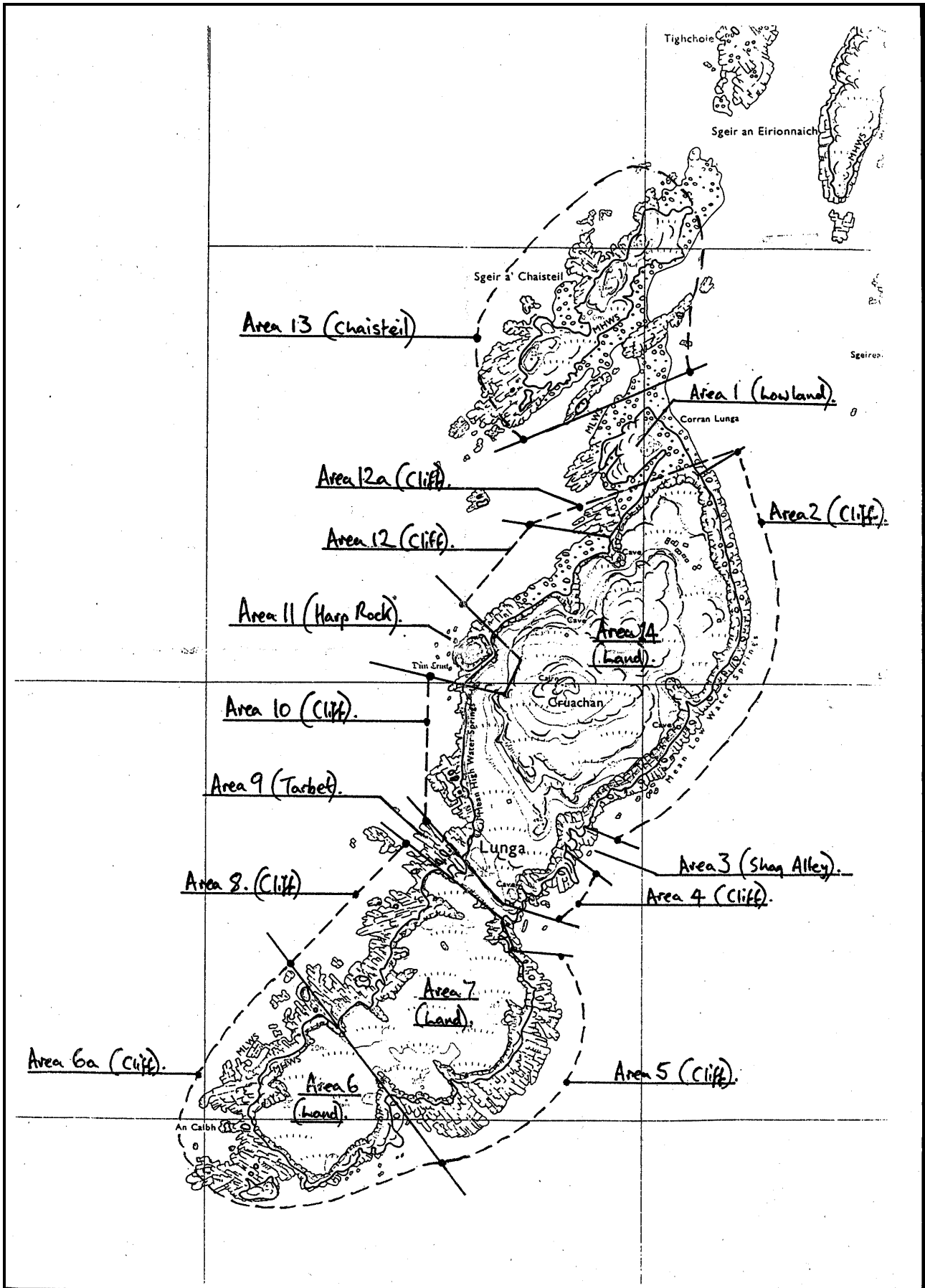
Localised species on Lunga.

At Tarbet (west) the species continues to be well established with no marked difference in abundance and coverage to that of recent years. The former site on Chaisteil was inspected but no plants were found.



Pipistrelle Bat 45 kHz sonogram (Andrew Carter)

MAP OF CENSUS ZONES – LUNGA AND SGEIR A' CHAISTEIL



2013 BREEDING SEABIRD CENSUS DATA FOR LUNGA, SGEIR A' CHAISTEIL AND ISLETS

Sector	Count unit	Lunga	Sgeir a' Chaisteil	Fladda (incomplete count)	Sgeirean na Giusaich	Sgeir an Fheoir	Sgeir an Eirionnaich	Sgeir na h-Iolaire
Fulmar	AOS	302	54	14				
Manx Shearwater	No census	+						
Storm Petrel	No census	+						
Shag	AON	159	21	893 IND (44+ AON)			3	
Great Skua	AOT	3		2				
Lesser B-b Gull	AOT	2		5*				
Herring Gull	AOT	10	1	9* + 2		2	10**	
Great B-b Gull	AOT	14	2	26* + 3		3	20**	1
Common Gull	AOT			1	1 AON		1	
Kittiwake	AON	233						
Arctic Tern	AON					1	98	
Razorbill	IND	405	3					
Razorbill	AON	12						
Guillemot	IND	6212	112					
Black Guillemot	IND	6		51			8	
Puffin	SEA	828	320					
Puffin	IND	861		65				
Puffin	AOB	1,351	211					

Key to count unit codes: AON/AOT/AOB = apparently occupied nest/territory/burrow IND = Individuals on land
SEA = individuals on sea within 200m of colony PRS = Pairs nc = no count + = breeders present

*Estimated from flush counts of 10, 18 and 52 Lesser black-backed Gulls, Herring Gulls and Great Black-backed Gulls respectively

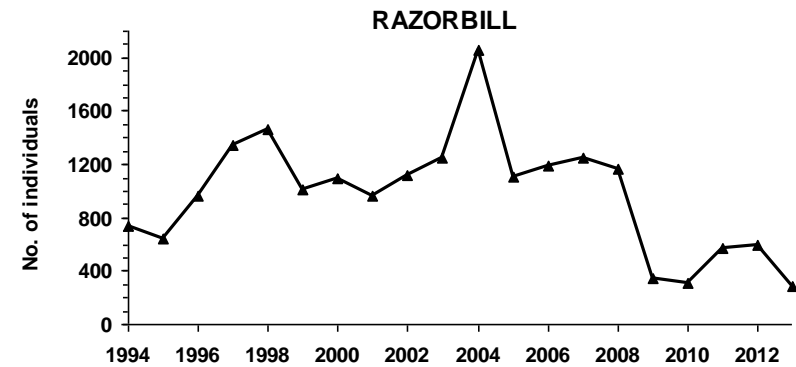
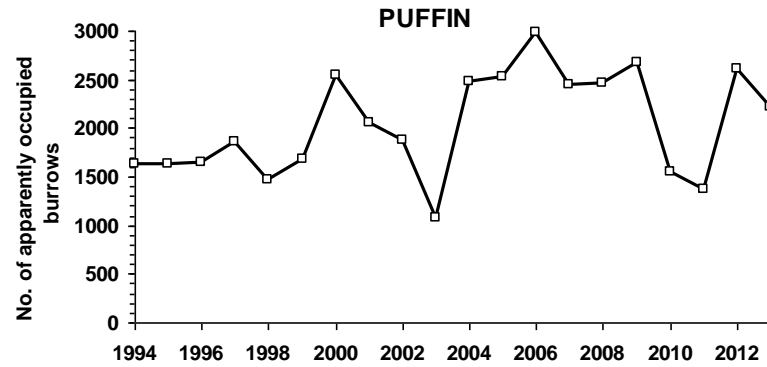
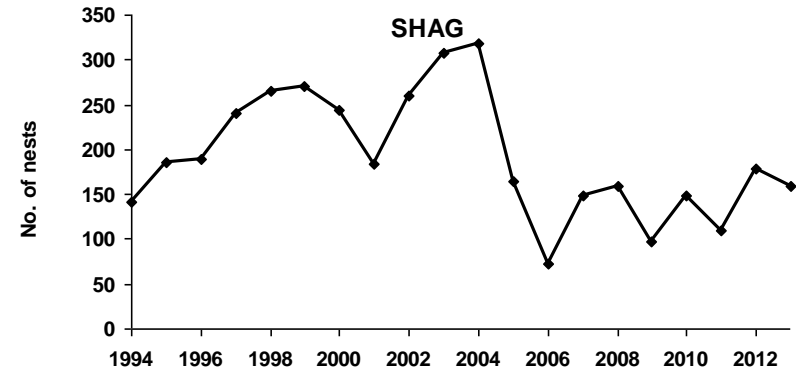
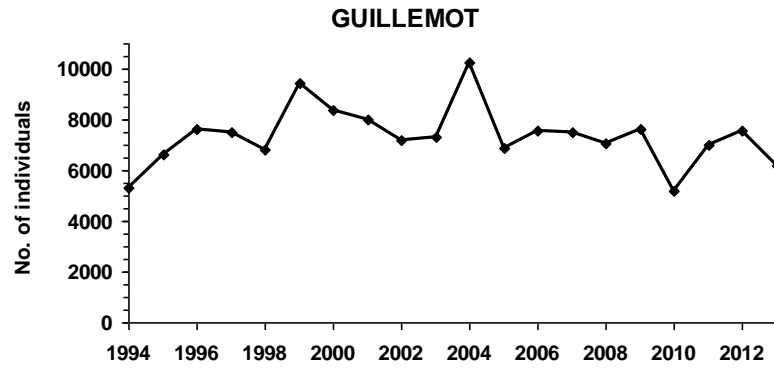
** Estimated from flush counts of 20 and 40 Herring Gulls and Great Black-backed Gulls respectively

Totals for each Census Zone of Lunga and Sgeir a' Chaisteil

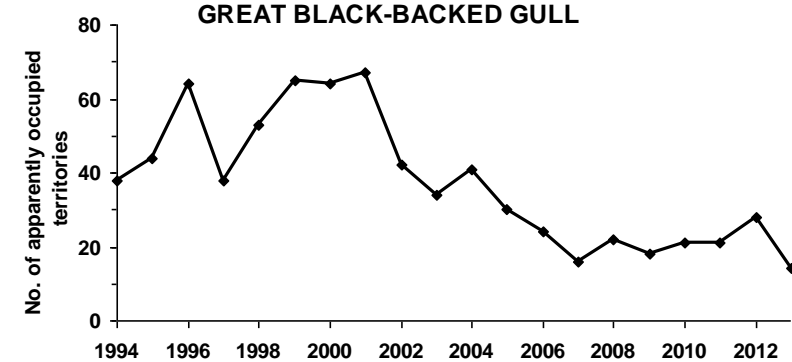
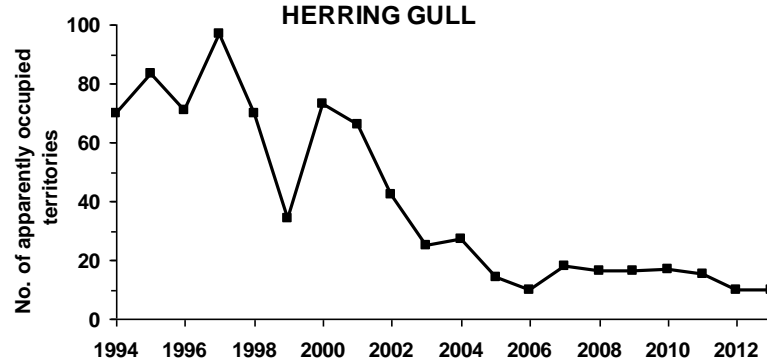
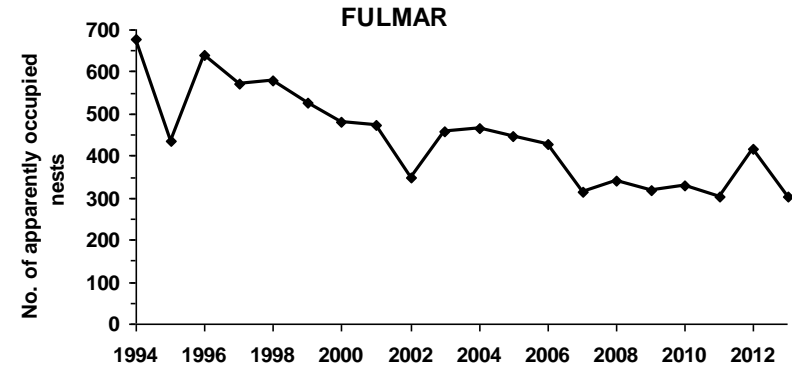
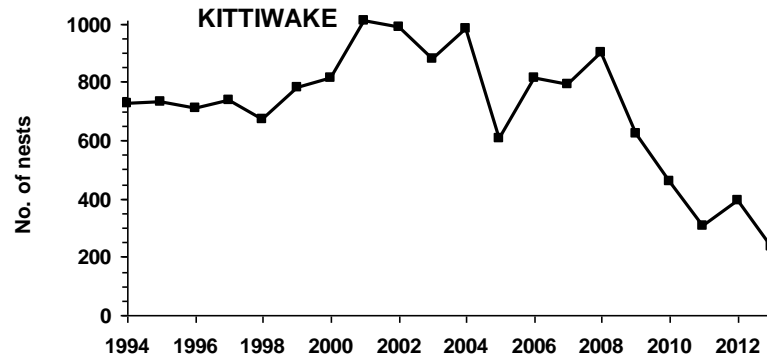
Sector	Count Unit	Count Sectors on Lunga (1 – 12a) and Sgeir a' Chaisteil (13)															Lunga & Chaisteil Totals
		1	2	3	4	5	6	6a	7	8	9	10	11	12	12a	13	
Fulmar	AOS		33		4	39		32		38		19	17	107	13	54	356
Shag	AON		11	41		28				12		19	11	36	1	21	180
Great Skua	AON						2		1								3
Lesser B-b Gull	AOT									2							2
Herring Gull	AOT		2							6				2		1	11
Great B-b Gull	AOT	2		1			5		3			3				2	16
Kittiwake	AON												223	10			233
Razorbill	IND		78	27		8		10		29		44	147	53	9	3	408
Razorbill	AON		2			10											12
Guillemot	IND			26		14						26	6044	90	12	112	6324
Black Guillemot	IND							2		4							6
Puffin	SEA			200		12				16				600		320	1148
Puffin	IND		53	112	78	3								530	85		861
Puffin	AOB		35	117								61	74		1064	211	1562

Key to count unit codes: AON/AOT/AOB = apparently occupied nest/territory/burrow IND = Individuals on land
SEA = individuals on sea within 200m of colony PRS = Pairs nc = no count + = breeders present

POPULATION CHANGES FOR A SELECTION OF BREEDING SPECIES ON LUNGA, 1994 – 2013



POPULATION CHANGES FOR A SELECTION OF BREEDING SPECIES ON LUNGA, 1994 – 2013 (con't)



TRESHNISH RINGING TOTALS FOR 2013

Site	Species	Adults	Pulli	Retraps/Controls	Total
Lunga	Fulmar	1			1
	Manx Shearwater	3		1	4
	Storm Petrel	191		67	258
	Shag	27	88	81	196
	Herring Gull		3		3
	Lesser Black-backed Gull		1		1
	Guillemot	8			8
	Razorbill	2			2
	Puffin	71		11	82
	Dunnock	1		1	2
	Wheatear	4			4
	Meadow Pipit	3			3
	Rock Pipit	1			1
Sgeir an Eirionnaich	Oystercatcher		1		1
	Great Black-backed Gull		1		1
Treshnish Isles	Grand total for 2013	312	94	162	568

Note: All rings used in 2013 were registered under *Treshnish Auk Ringing Group*.



Razorbill (Andrew Carter)

TRESHNISH RINGING TOTALS 1971 – 2013

SPECIES	1971	1974	1976	1977	1978	1980	1982	1984	1986	1989	1991	1993	1994	1995	1996	1997
Eider																
Fulmar	17	6	4		8	21	14	18	7	21	15		4	27	38	7
Manx Shearwater		2	13		4	4	1	8					9	1		2
Storm Petrel		254	22		1	283		203	800	411	975	75	440	536	331	1104
Shag	150	7	10	10	24	80	50	160		40	10		10	59	96	99
Buzzard						1	2									
Corncrake																
Oystercatcher		1				1	4	2								
Ringed Plover																
Common Sandpiper																
Great Skua																
Kittiwake						1	1	1	2	2	4		6	10	1	50
Common Gull																
Lesser Black-b Gull																
Herring Gull	6	1			14	46	35	56	4	4	3		5	24	19	52
Great Black-b. Gull	3	6	3	7	6	22	14	35		22	15		6	25	16	48
Guillemot	32	20	14		66	502	137	364	180	250	306		109	498	349	472
Razorbill	65	72	90		115	266	218	236	151	103	64		81	101	105	98
Black Guillemot																1
Puffin	70	198	271		203	200	208	182	174	160	114		358	236	301	267
Hooded Crow																
Willow Warbler														1		
Wren														3		
Starling																
Stonechat																
Wheatear			12					1	3						5	24
Pied Wagtail													1	3	2	
Meadow Pipit														4		1
Rock Pipit									5	1				2	4	2
Twite																2
TOTAL	343	567	439	17	441	1427	684	1266	1326	1014	1506	75	1029	1530	1267	2229

NOTES: (1) Data for 1971 - 1995 extracted from Walker & Cooper (1996). This may not include all rings used.
(2) Ringing data for a three day visit in 1972 are not available.

TRESHNISH RINGING TOTALS 1971 – 2013 (continued)

SPECIES	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Eider							1										1
Fulmar	24	23	12	25	22	25	47	14	15	8						1	423
Manx Shearwater	1	4	4			2		1	1	2		4	9	3	18	3	96
Storm Petrel	741	732	814	1030	15	360	83	491	962	21	118	403	293	202	212	191	12103
Shag	150	100	59	37	97	99	200	77	35	141	124	53	116	67	120	115	2395
Buzzard																	3
Corncrake								1						2			3
Oystercatcher		2		1						4				2	2	1	20
Ringed Plover								1		1							2
Common Sandpiper	1								1	1	1						4
Great Skua	1				1	1		1			2	4		2			12
Kittiwake	41	23	13	11	3	2	21	15	14	16	3	4	3	8			255
Common Gull	4		5	11	11	6		16	8								61
Lesser Black-b Gull											1		2	2			5
Herring Gull	73	39	15	11	11	8	11	8	1	11	7	20	11	8	7	3	513
Great Black-b. Gull	19	16	2	27	5	21	18	12	3	4	13	12	15	10	4	1	410
Guillemot	503	507	892	312	425	261	800	141	172	123	1	51	53	169	46	8	7763
Razorbill	112	102	133	31	110	56	147	37	33	34	5	6	7	8	2	2	2590
Black Guillemot				1													2
Puffin	398	274	389	214	351	244	226	151	272	195	327	32	38	68	301	71	6493
Hooded Crow										1							1
Willow Warbler														1			2
Whitethroat														1			1
Sedge Warbler														2			2
Wren				1			2	4	2		2	1	1	2	6		20
Starling										3							3
Stonechat									2		1						3
Wheatear	37	22	50	24	2	2	2	7	1	2	4	2	4	5	10	4	223
Dunnock														1		1	2
Pied Wagtail										4				3	1		14
Meadow Pipit			12	1	4	1	3	5	1		4		1	2	15	3	57
Rock Pipit	4	2	1	2	2	2	2		3	21	10	1	2	4	3	1	74
Twite					1					1	1	1		3	1		10
TOTAL	2109	1846	2401	1739	1060	1090	1563	982	1526	593	624	594	555	575	748	405	33566

RECENT RINGING RECOVERIES

STORM PETREL

TIARG have in the past year received details of 16 recoveries of birds ringed within Britain and Ireland in the months July - September and controlled by TIARG on Lunga in June - July 2012. These recoveries are summarised in the table below; all birds were ringed as adults (Euring code 4).

Ringing Site	No. of controls at:	Time interval (days)		Distance Km	Direction (degrees)
	Lunga	min	Max		
Bardsey Island, Gwynedd	1		308	428	346
Porth Ysgaden, near Tudweiliog, Gwynedd	1		684	414	345
Inishglora, Mayo	1		1781	344	43
Annagh Head, Bellmullet, Mayo	1		328	342	43
Calf of Man, Isle of Man	1		3637	290	340
Sheepand Harbour, Ardglass, Co.Down	1		346	251	348
Tullagh Point, Donegal	1		697	148	27
Inishtrahull, Donegal	1		350	128	24
Sanda Island, Kintyre, Strathclyde	2	2160	5443	146	340
Kinloch, Isle of Rum, Highland	1		238	59	190
Eilean An Taighe, Western Isles	1		354	156	182
Brora Golf Course, Highland	1		691	231	223
Faraid Head, Highland Region	1		2133	255	203
Fife Ness, Fife	1		704	238	276
Isle of May, Fife	1		2504	241	278

STORM PETREL RECOVERIES

Details are given below of a bird originally ringed on the Treshnish Isles and recovered in the Faroe Islands.

Abbreviations used:

Age 1 - Pullus
 4 - Hatched before this calendar year, exact year unknown
 6 - Hatched before previous calendar year, exact year unknown
 8 - Hatched more than two calendar years before year of ringing

Manner of recovery

R - Caught and released by a ringer
 X - Found dead
 XF - Found freshly dead or dying
 SR - Sick or injured, released with ring
 S - Sick or injured, fate unknown
 O - Ring read on bird in field by non-ringer

Storm Petrel

2624653	6	24/6/2003	Lunga			
	R	30/7/2010	Nolsoy Fjord, Nolsoy, Torshavn, Streymoy, Faroe Islands	614 km	359 degs	398 days

This is the first recorded movement of a ringed bird between Treshnish Isles and the Faroe Islands.

Storm Petrel recoveries relating to the Treshnish Isles as either birds ringed or controlled there, now number 585 (relating to 555 birds) of which many have been of birds from the Isle of Man & Sanda (65 & 149 respectively). The above retraps of birds ringed on the Treshnish Isles, were attracted in by tape lure on recapture and are therefore likely to have been wandering immatures (up to 4 years old) or failed breeders. Only 70 birds ringed on the Treshnish Isles have been recaptured elsewhere, 12.6% of all recoveries. This figure is remarkably close to the overall probability of 15% that Ratcliffe *et al.* (1998) found for non-breeder colony attendance in late June/early July.

RECOVERIES OF OTHER SPECIES

All other recoveries relating to the Treshnish Isles received since the previous TIARG report are listed below.

Shag

1421703	1	24/6/2007	Lunga			
	O	24/4/2013	Lunga	0 km	0 degs	2131 days

Shag

1445602	8	28/6/2009	Lunga			
	O	09/5/2013	Lunga Island, Gairloch, Highland	142 km	16 degs	1411 days

Guillemot

R19875	4	27/6/2000	Lunga			
	R	09/4/2004	Port Ban, Isle of Colonsay, Argyll and Bute	47 km	165 degs	1443 days

Guillemot

R24992	6	24/6/2003	Lunga			
	R	09/6/2004	Port Ban, Isle of Colonsay, Argyll and Bute	47 km	165 degs	351 days

Guillemot

R24993	6	24/6/2003	Lunga			
	X	05/7/2013	Kilbrennan, Isle of Mull, Argyll and Bute	17 km	84 degs	3664 days

Guillemot

R51693	6	22/6/2004	Lunga			
	X	07/7/2013	Loch na h-Uidhe, Taransay, Western Isles	347 km	160 degs	3272 days

Razorbill

M55331	4	23/6/1991	Lunga			
	X	30/5/2013	Fionphort, Isle of Mull, Argyll and Bute	17 km	170 degs	8012 days

Puffin

ET52662	8	02/7/1997	Lunga			
	X	24/11/2009	Treshnish Isles	0 km	0 degs	4528 days

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ACKNOWLEDGEMENTS

Firstly we would like to express our appreciation to the owners of the Treshnish Isles, THE HEBRIDEAN TRUST (www.hebrideantrust.org) for permission and funding to allow our continuing studies to be made on these fascinating islands.

We thank Iain Morrison and his family, for providing our transportation between Mull and Lunga (<http://www.turusmara.com/>), and are grateful for his continuing advice, co-operation and help.

Any comments on this report, and suggestions for improvements for relaying information required by conservation agencies, are much welcomed.



Puffin (Andrew Carter)

THE EXPEDITIONS 1971 – 2013

A list of participants through the years, with brief notes on the work performed

- 1971** Barry Lawson, Peter Deans, John Eatough, Shiela Anderson, Dick Hansford.
Full census and ringing.
This was the first trip and the Treshnish Isles were included in a “mopping up” of islands not fully covered during the 1969/70 “Operation Seafarer” National Seabird Census.

- 1972** Barry Lawson, Geoff Ward, Bevan Craddock.
Part census and ringing
Forced to leave after three days due to bad weather.

- 1973** Barry Lawson, Peter Deans, John Hodson, Geoff Cope.
Trip abandoned – unable to land due to rough seas

- 1974** Barry Lawson, Peter Deans, Geoff Ward, John Hodson, Geoff Cope, Tom Pool.
Census of Lunga and ringing
An RAF Helicopter landed a photographer onto Harp Rock, causing many bird casualties.

- 1976** Barry Lawson, Peter Deans, Geoff Ward, John Hodson, Geoff Cope, Tony Kilgallen.
Full census Lunga – Fladda and ringing.
Very hot summer.

- 1977** Barry Lawson, John Hodson.
Ringing only.
Called in on “Corryvreckan” boat cruise.

- 1978** Barry Lawson, Peter Deans, John Hodson, Simon Walker.
Full census Lunga and Sgeir a’ Chaisteil and ringing.

- 1980** Barry Lawson, Peter Deans, John Hodson, Simon Walker, David Lawson.
Ringing only

- 1981** Geoff Ward, Geoff Cope.
Part census and photography

- 1982** Barry Lawson, Peter Deans, John Hodson, Simon Walker, Andrew Lawson.
Ringing only.

- 1984** Barry Lawson, Peter Deans, John Hodson, Simon Walker.
Ringing only.

- 1986** Barry Lawson, Peter Deans, Geoff Ward, John Hodson, Simon Walker, Andrew Lawson.
Full census with ringing

- 1989** Barry Lawson, Peter Deans, John Hodson, Simon Walker.
Ringing only.

- 1991** Barry Lawson, Peter Deans, Simon Walker, David & Andrew Lawson, Jan Densham.
Ringing only.

- 1993** Roger Broad *et al.* (Scottish Natural Heritage charter)
Full census of The Dutchman’s, Lunga, Sgeir a’ Chaisteil and Fladda.
Chris Redfern *et al.*
Storm Petrel ringing.

THE EXPEDITIONS 1971 – 2013 (continued)

- 1994** Simon Walker, Mike Smith, Dennis Cooper, Jan Densham, Danny Lenain.
Full census Lunga and Sgeir a' Chaisteil and ringing.
Chris Redfern *et al.*
Storm Petrel ringing.
- 1995** Simon Walker, Mike Smith, Dennis Cooper, Jan Densham, Fergus Henderson.
Full census of Lunga and Sgeir a' Chaisteil and ringing.
- 1996** Simon Walker, Mike Smith, Dennis Cooper, Danny Lenain, Robin Ward
Full census of Lunga and Sgeir a' Chaisteil and ringing.
- 1997** Simon Walker, Dennis Cooper, Robin Ward, Damian Offer, Steve Willis, Chris Spray
Full census of Lunga – Fladda and ringing.
- 1998** Simon Walker, John Hodson, Dennis Cooper, Robin Ward, Damian Offer, Steve Willis,
Steve Worwood
Full census of Lunga – Fladda and ringing.
- 1999**
Week 1 Simon Walker, Dennis Cooper, Steve Willis, John Osbourne.
Week 2 Simon Walker, John Hodson, Dennis Cooper, Robin Ward, Damian Offer, Jan
Densham
Full census of the Treshnish Isles for *Seabird 2000* and ringing
- 2000**
Week 1 John Hodson, Dennis Cooper, Damian Offer
Full census of Manx Shearwater on Lunga for *Seabird 2000*. Limited passerine ringing. (May).
Week 2 Simon Walker, John Hodson, Dennis Cooper, Robin Ward, Steve Willis, Andrew Carter,
Steve Woodward
Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Tern census for
Seabird 2000. Ringing.
- 2001** Simon Walker, John Hodson, Dennis Cooper, Robin Ward, Damian Offer, Andrew Carter
Completion of census for *Seabird 2000*. Full census of Lunga, Sgeir a' Chaisteil and the islands
between Lunga – Fladda. Ringing.
- 2002** Simon Walker, Robin Ward, Andrew Carter, Phil Bone, Sara Brown, Jackie Hay.
Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Ringing.
- 2003** Simon Walker, John Hodson, Dennis Cooper, Robin Ward, Andrew Carter, Jackie Hay, Matt
Smith.
Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Ringing.
- 2004** Simon Walker, Robin Ward, Andrew Carter, John Calladine, Tim Dixon, Shaun Micklewright,
Tina Wiffen.
Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Ringing.
- 2005** Simon Walker, Robin Ward, Andrew Carter, Shaun Micklewright, Gareth Harris, George
Henderson, Tracé Williams.
Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Ringing.
- 2006** Simon Walker, Dennis Cooper, Robin Ward, Andrew Carter, Shaun Micklewright, John
Calladine, Tim Dixon, George Henderson.
Full census of Lunga, Sgeir a' Chaisteil, Cairn na Burgh More, Cairn na Burgh Beg and the islands
between Lunga – Fladda. Ringing.

THE EXPEDITIONS 1971 – 2013 (continued)

- 2007** Simon Walker, Robin Ward, Andrew Carter, Shaun Micklewright, George Henderson, Tim Dixon, Tracé Williams.
Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Ringing.
- 2008** Simon Walker, John Hodson, Robin Ward, Andrew Carter, Shaun Micklewright, George Henderson, Tim Dixon, John Calladine.
Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Ringing.
- 2009** John Hodson, Robin Ward, Dennis Cooper, Andrew Carter, Shaun Micklewright, Tim Dixon, Jurjen Annen, Claire Dovey.
Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Ringing.
- 2010** John Hodson, Robin Ward, Andrew Carter, Shaun Micklewright, Tim Dixon, Tracé Williams, Jurjen Annen, Claire Dovey.
Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Ringing.
- 2011** John Hodson, Robin Ward, Andrew Carter, Shaun Micklewright, Tim Dixon, George Henderson, Jurjen Annen, Claire Dovey.
Full census of Lunga and Sgeir a' Chaisteil. Ringing.
- 2012** John Hodson, Robin Ward, Dennis Cooper, Tim Dixon, Steve Willis, Jurjen Annen, Claire Dovey, Richard Barnes, Simon Roberts.
Full census of Lunga and Sgeir a' Chaisteil. Ringing.
- 2013** John Hodson, Robin Ward, Dennis Cooper, Andrew Carter, Tim Dixon, Shaun Micklewright, Jurjen Annen, George Henderson.
Full census of Lunga and Sgeir a' Chaisteil. Ringing.



Shag (Andrew Carter)

RING SERIES USED ON THE TRESHNISH ISLES SINCE 1927*

SHAG RINGS	A2 RINGS	E RINGS	F RINGS	G RINGS	H RINGS	RAZORBILL RINGS	GUILLEMOT RINGS	MISC. RINGS
1080101 – 110	2010581 – 583	EF75001 – 500	FB22601 – 700**	GH21301 – 350	HT03619	K10701 – 1000**	R07001 – 100	1F4094 - 097
1087111 – 120	2101991 – 2000	EG23501 – 700	FB23401 – 500**	GN85301 – 400**	HT09001 – 004	K13001 – 300 [#]	R19401 – 20200	C331894 - 900
1105561 – 570	2121401 – 500	EG23721 – 780	FC52551 – 558	GJ35401 – 500	HT17871 – 890	M46501 – 800	R24001 – 26350	E196501 - 520
1123541 – 550	2167051 – 068	EG23801 – 999	FC52571	GJ76001 – 800**	HT17931 – 940	M55001 – 500	R31601 – 900	JB44316
1123671 – 690	2170201 – 203	EG61000 – 500	FC74501	GJ99081 – 082	HT34021 – 030	M72451 – 800	R51501 – 2000	K039209 - 230
1123961 – 970	2238501 – 600	EG88501 – 9000	FH36101 – 200	GK34351 – 354	HT68201 – 210	M85501 – 800	R65501 – 6000**	K419290 - 295
1159651 – 700	2261001 – 2350	EH33377 – 380	FR13606 – 636	GK50214 – 220	HT68221 – 226	M88001 – 300	R72501 – 4000**	NA84296 - 299
1163701 – 740	2284001 – 5000 [#]	EH54501 – 55000	FR14401 – 500	GK50551 – 570	HT80301 – 400	M92501 – 700**	T14001 – 5000**	KX83101 - 106
1168001 – 100	2309901 – 10000	EH89256	FR56351 – 400	GK62985 – 990	HW05351 – 360		R73001 – 4000**	KX83116 - 118
1170601 – 700	2311301 – 400	EH89260	FS21478	GK90821 – 840	HW06951 – 7000		T82001 – 300	RF10011-020 [#]
1187901 – 950	2311501 – 2000	EH98001 – 300	FS51016 – 500	GK91471 – 490	HW08994 – 09000		X39501 – 40000	LA59201-300**
1237401 – 450	2348001 – 500	EK29501 – 900	FS87001 – 100	GM78756	HW37361		X56501 – 57000	DD90261-270 [#]
1322951 – 960	2369301 – 400	EK72657 – 660	FV10611 – 620	GP13416 – 450	HW68101 – 110		X63001 – 500	CBV601-700**
1328481 – 490	2405001 – 6000	EK91471 – 490	FV10646 – 650	GP47917	HW68161 – 170		X67501 – 68000	V711401-500**
1350801 – 900	2430701 – 900	EL19801 – 276	FV54446 – 460	GP62201 – 207	HW74971 – 990		X79501 – 80000	TJ18901-9000 [#]
1357901 – 8000	2436501 – 7000	EL52501 – 3000	FV62410	GP74501 – 75000	HW87211 – 225		X99001 – 500	BT09481-490**
1366901 – 7000	2444501 – 5000	EN22001 – 500	FV62416 – 226		HW94907 – 913			NV42851-860**
1373751 – 3900	2446202 – 233	EP85608 – 612	FV96681 – 684		MA12551 – 600**			SR49601-700**
1378401 – 8500	2455501 – 6000	EP85687 – 700	SS96101 – 300		MA15801 – 900**			A297482-500
1399601 – 700	2480001 – 500	ER03701 – 800						B229951-992
1408301 – 500	2513501 – 4000	ER48401 – 404						BV70669
1414301 – 500	2538001 – 800	ES64018 – 189						
1421701 – 800	2542001 – 3000	ET19501 – 700						
1417001 – 7100	2554001 – 500	ET52501 – 3000						
1445601 – 800**	2560001 – 1000	ET80001 – 500						
	2579001–80000	EW18001 – 500						
	2605001 – 5500**	EW50001 – 500**						
	2624001 – 5000**	EX12501 – 3000 [#]						
	2650101 – 61000							

*All rings series known (to TIARG) to have been used on the Treshnish Isles are documented irrespective of ring ownership.

** Ring series still in use

[#] Ring series purchased but yet to be used

The Effect of Human Disturbance on Breeding Seabird Populations on the Treshnish Isles

(2012, Degree of Master of Conservation Ecology, Oxford Brookes University
School of Life Sciences)

Claire Dovey

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Abstract

Tourism to nature reserves has increased over the last decade, adding to the pressures wildlife is under to survive and breed successfully. Seabird colonies that utilise specific coastal habitats around the UK can be particularly sensitive to disturbance. National population trends for many seabird species have seen declines; this is thought to be because of a decrease in food supply, particularly sand eels, improved fishing practices and climate change. It is also important to consider that public access to these reserves may also be causing irreversible damage through human disturbance.

The Treshnish Isles off the west coast of Scotland are home to a number of breeding seabirds, including many Auk and Gull species. The island within the Treshnish Isles that is visited by tourists is Lunga and since 2001 there has been an increase in people coming to the island from approximately 8000 to 12000 per annum. The breeding seabird populations on Lunga have seen declines over the last decade and it is important to investigate whether this increase in people has had a detrimental effect on the breeding seabirds.

This study investigates the effect tourists coming to the isle of Lunga have on Atlantic Puffin *Fratercula arctica*, European Shag *Phalacrocorax aristotelis* and Gull species (Herring *Larus argentatus*, Lesser Black-backed *Larus fuscus* and Great Black-backed *Larus marinus*). Tourists follow a main path around the island therefore it was possible to determine disturbed and undisturbed zones and compare localised populations of these birds between 2002 and 2011. All species investigated here saw declines in breeding population over the whole island apart from the Puffin for the majority of the decade.

The undisturbed zones that were significant held the majority of the breeding Gull population and therefore interactions between Gulls and tourists could not be made. Any decline in Gull population is most likely due to the same pressures affecting other colonies nationally. It can be noted that historical records show that Gulls use to nest on the boulder beach which is used to land the tourists, no Gulls now nest in this area. The Shag breeding population has mirrored declines seen nationally but nests appear to be used each year in disturbed and undisturbed zones therefore little significance could be drawn from the increase in tourists coming to the island. The Puffin breeding population has seen increases above the 2002 baseline numbers apart from in 2010 and 2011. The Puffins observed for this study did not seem to be greatly affected by the visitors the important observation is how close tourists stand to the burrows which over time could collapse.

More investigation needs to be on the breeding success for all species observed here. The breeding adults do not appear to be greatly affected but the breeding success was not recorded. For instance the weights of fledging chicks and for Shags and Gulls the number of chicks raised would be more of an indicator of how disturbance is affecting the population.