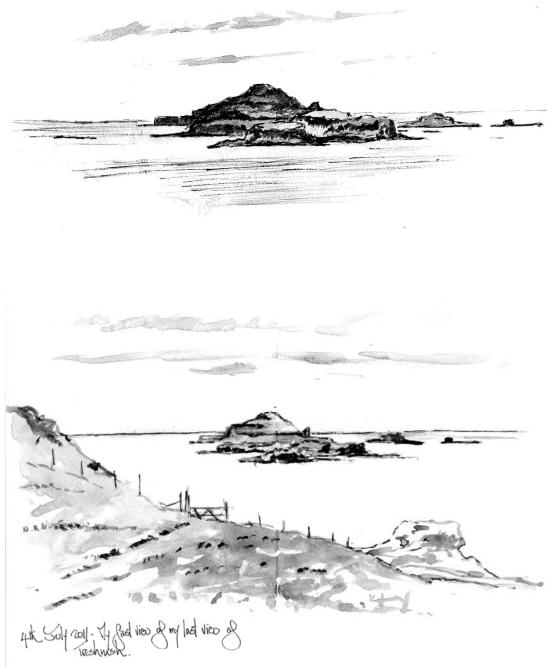
Treshnish Isles Auk Ringing Group

Report for 2011



George Henderson

Compiled by Robin M. Ward

Expedition dates: 25^{th} June – 2^{nd} July & 3^{rd} – 6^{th} July 2011

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 33^{rd} expedition to the Treshnish Isles during 25^{th} June – 2^{nd} July 2011.

As in previous years, the expedition's base was set up around the ruined village site at the northern end of Lunga. The majority of the week's fieldwork was centred upon Lunga & Sgeir a' Chaisteil where the regular annual full seabird census and systematic ringing of specific seabird colonies was carried out. The Group's activities were determined as always by the prevailing weather conditions. Other than for a day's fieldwork lost to rain on 26th June, the week was dominated by very favourable weather that allowed the mist netting of Storm Petrels on Lunga during several nights. With a forecast of calm sea conditions during the week it was expected that good use would be made of the inflatable boat kindly loaned by the Hebridean Trust. Unfortunately the opportunity to visit the other islands was soon thwarted when problems arose with the boat's engine early in the week. With logistical help from Iain Morrison and his family, expedition members were however able to census the seabird colonies of Bac Mór and Bac Beag from a boat providing the first count since 1999. The negative side to the calm weather was that the light southerly winds resulted in very few auks close enough to our fleyg sites. This year was the sixth 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.

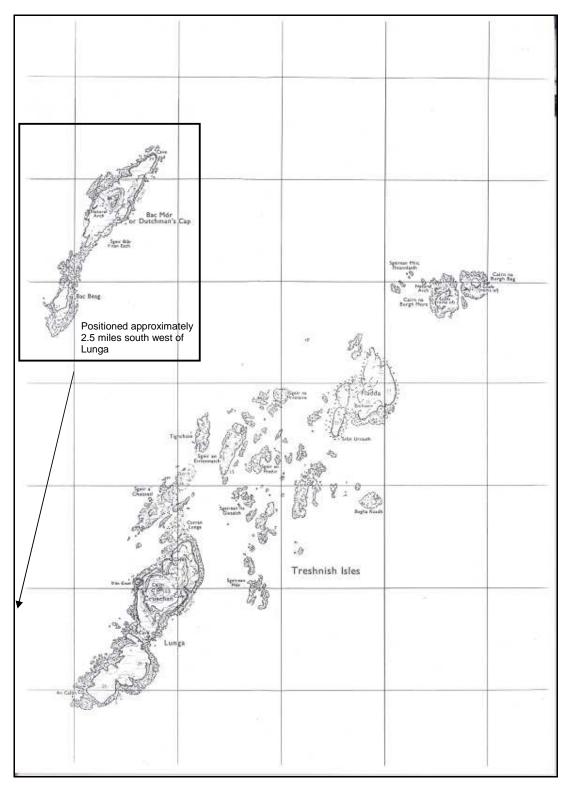
In addition, this year, Tim Dixon, along with Jamie Dixon and Helen Stace, returned to Lunga from 3rd to 6th July to collect further data, particularly breeding bird data for the final year of the BTO Breeding Bird Atlas.

All TIARG census and ringing data are fed into 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 because of the breeding colonies of seabirds they support. Financial support for the monitoring work TIARG undertook in 2011 was organised by the Seamark Trust, on behalf of the Hebridean Trust (www.hebrideantrust.org), owners of the islands.



Expedition participants 2011 (top left clockwise): Jurjen Annen, Shaun Micklewright, Claire Dovey, Robin Ward, Andrew Carter, John Hodson, Tim Dixon & George Henderson (*Andrew Carter*)

MAP OF THE TRESHNISH ISLES



WEATHER

Intermittent showers were experienced at the beginning of the week with the second day seeing the majority of the rain which halted census activities until late afternoon/evening. For the rest of the week conditions for survey and cliff counts were usually excellent. Towards the end of the week the temperature increased as did the wind however wind conditions were far from those experienced in 2010. Wind conditions on the whole did not generally interfere with nocturnal netting for Storm Petrels but the direction which stayed predominantly south west/south east affected fleyging conditions at Harp Rock, as all netting stations were in the lee of the island, limiting the flight activity of the auks. Visibility for the majority of the week was good and sea conditions calm.

All readings were taken from the plateau just below the Village site at the NE extremity of Lunga, unless otherwise noted.

| | | | | | | | | 1 | 1 |
|-----------------------|-------|-----------------------------|-------------------------|-------------|---------------------|------------|--------------|---------------|---|
| Date | Time | Wind (Beaufort scale) | Max wind speed (mph) | Cloud cover | Visibility | Temp (° C) | Humidity (%) | Pressure (mb) | Notes |
| 25 th June | 19.00 | 2SW | 9.6 | 8/8 | Tiree | 13.7 | 95.8 | 1010.5 | Light breeze, cloudy and cool |
| | 23.00 | 1 SW | 3.4 | 8/8 | Tiree | 13.4 | 83.1 | 1012.5 | |
| 26 th June | 11.00 | 2 S | 6.6 | 8/8 | Tiree | 15.3 | 93.2 | 1009.8 | Light breeze, overcast. Rain |
| | 16.45 | 1 SW | 3.7 | 8/8 | Tiree | 15.4 | 100.0 | 1009.2 | from early hours, stopping intermittently. Rain heavier |
| | 23.15 | 1 SW | 4.8 | 7/8 | Tiree | 14.5 | 82.1 | 1011.9 | towards late afternoon then stopped from 17.00 onwards |
| 27 th June | 10.00 | 1 SE | 4.8 | 7/8 | Treshnish Point | 15.7 | 81.4 | 1011.9 | Warm, hazy with a light breeze for most of the day. Sea |
| | 19.10 | 2 SW | 7.4 | 7/8 | Coll/Tiree/ Mull | 13.4 | 84.2 | 1010.7 | conditions seemed rough |
| | 22.45 | 1 SW | 4.1 | 3.8 | Coll/Tiree | 12.7 | 87.3 | 1012.7 | |
| 28 th June | 12.45 | 1 SE | 2.4 | 4/8 | Mull | 17.4 | 86.8 | 1014.8 | Sunny and warm mostly but with |
| | 19.30 | 1 S | 2.4 | 3/8 | Rum | 18.7 | 74.6 | 1014.8 | intermittent showers. Visibility good. The evening became |
| | 23.00 | 2 SW | 7.6 | 3/8 | Egg/Coll/ Tiree | 12.9 | 86.5 | 1015.0 | cooler and wind picked up |
| 29 th June | 09.30 | 2 SW | 7.7 | 7/8 | Tiree | 14.5 | 79.1 | 1016.2 | Cooler start to the day, |
| | 18.30 | 2 SE | 8.7 | 7/8 | Rum/Coll/ Tiree | 17.1 | 78.3 | 1018.1 | brightening up to be warmer but windy, getting stronger towards the evening. Visibility good. |
| | 23.45 | 3 S | 10.2 | 8/8 | Coll | 11.4 | 85.9 | 1019.1 | |
| 30 th June | 11.45 | 3 SW | 12.1 | 6/8 | Coll/Egg | 13.7 | 85.9 | 1021.5 | Rain in early morning giving way |
| | 18.45 | 3 SW | 12.3 | 3/8 | Coll/Egg/ Tiree | 14.5 | 80.1 | 1022.6 | to sun but staying cool |
| | 23.00 | 4 SW | 13.4 | 6/8 | Coll/Tiree | 12.4 | 83.6 | 1024.1 | |
| 1 st July | 09.40 | 1 W | 3.8 | 7/8 | Rum/Egg/ Skye | 15.8 | 67.3 | 1024.5 | Warm all day, getting slightly cooler in the evening. Visibility |
| | 19.30 | 1 SE | 2.1 | 7/8 | Rum | 17.5 | 72.0 | 1022.4 | very good |
| | 23.00 | 1 SE | 2.0 | 3/8 | Rum/Skye | 12.9 | 84.6 | 1021.2 | |
| 2 nd July | 11.30 | 2 SE | 5.2 | 4/8 | Skye | 20.8 | 60 | 1017.1 | Very warm, sea conditions good |

Claire Dovey

SYSTEMATIC LIST OF BIRDS FOR 2011

The following systematic list describes those bird species seen during the Treshnish Isles Auk Ringing Group's presence on the Treshnish Isles, 25^{th} June – 2^{nd} July 2011. 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 2011 is provided in at page 18. 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. Two or more broods were noted in the same area when TIARG were being taken to Lunga on 25th June.

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

Shelduck Tadorna tadorna

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

A pair of adults was seen regularly, typically in flight, around the northern half of Lunga. One of these birds or another individual was also seen on Sgeir a' Chaisteil on 25th June and flying over the Village and on Fladda on 1st July.

Eider Somateria mollissima

Breeds regularly in small numbers.

Only two broods were seen from Lunga, two ducks with three ducklings near Corran Lunga and a duck with one well-grown duckling off Chaisteil.

The waters between Fladda and Lunga supported small numbers of late-summer moulting birds, typically male-biased with a maximum of 35 on 25th June. Unusually, on 4th July a drake off Corran Lunga was still in full-summer plumage.

Red-throated Diver Gavia stellata

Rare visitor

Single birds were seen flying off Lunga on the 28th & 29th June.

Fulmar Fulmarus glacialis

A common 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 and Sgeir a' Chaisteil. The breeding population for Lunga and Sgeir a' Chaisteil was estimated at 369 pairs based upon apparently occupied sites (AOS). There is no evidence of a recovery from 2009 when the population was at its lowest since annual monitoring began in 1994. Over the longer term, 1994-2011, the average rate of change in the numbers of breeding birds on Lunga is calculated at -4.1% per annum, this trend being very highly significant (P<0.001). Fulmar is amongst several offshore surface feeders whose breeding population in the UK has declined since the mid 1990s (JNCC 2009).

A single bird showing characteristics of the dark morph (blue phase) was seen on a nesting ledge on Bac Mór. This or another individual was seen by TIARG on Bac Mór in 1999 but not during our last visit in 2000.

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 500 birds were noted passing in the evenings, offshore along the west coast of Lunga. Off the east coast, 175 birds were seen "rafting" on the evening of the 1st July.

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* (1998 – 2002).

Many birds were heard churring from burrows on Lunga and Sgeir a' Chaisteil.

Several nights of light south westerly winds gave the opportunkity 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 89 and 156 birds using three 12m (for 2½ hours) and one 12m net (for 2¼ hours) respectively. At the Village, 41 birds were caught using three 18m nets over a 2½ hour period. Numbers caught at the Village and Boulder Beach colonies were, as in other recent years, less than during the 1990s. The presence of many birds with partial brood patches was again recorded amongst these smaller catches suggesting either a reduction in the numbers and success of breeding birds or a change in the time of breeding since the 1990s.

Gannet Morus bassanus

Regularly seen offshore

Small numbers of mainly adult birds were seen daily, feeding or passing offshore of Lunga.

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 Sgeir an Eirionnaich, Lunga and Sgeir a' Chaisteil. The breeding populations on Lunga and Sgeir a' Chaisteil were 109 and 9 pairs respectively, based on nest counts. Following a marked decline in the numbers of active nests in 2005 and 2006, no recovery has occurred, with numbers fluctuating since between 73 and 169 active nests.

Large numbers of adults were in the vicinity of the colonies but had once again chosen not to breed, as evidenced by atypical concentrations of between 500-1000 moving offshore from the islands in the mornings to forage. Presumably many of these were in too poor condition to breed successfully. 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.

2011 was the sixth 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 (<u>http://www.bto.org/ringing/ringinfo/ras/index.htm</u>). In 2011, of the birds marked from 2006 to 2010 on Lunga, 3, 18, 19, 10 and 4 were re-sighted by TIARG respectively involving 54 out of a possible 185 individuals. A further 6 breeding adults were colour-ringed on Lunga in 2011.

Grey Heron Ardea cinerea

Rare visitor.

The remains of a recently predated bird were found on Corran Lunga on 3rd July.

Buzzard Buteo buteo

Until recently, one pair bred in most years

Regular sightings suggested the presence of one, or possibly two, adults and a juvenile on Lunga. Although no nest was found, successful breeding may have occurred as the area of cliff traditionally used for nesting is difficult to view.

Peregrine Falco peregrinus

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

An adult male was seen on several dates around Lunga, with an immature male also seen on 26th June and 4th July. A female was seen only once - near Harp Rock on 28th June.

Corncrake Crex crex

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

Two broods of different ages were seen in and around the Village. This is the first record of confirmed breeding by TIARG. The brood sizes were difficult to determine given their elusive behaviour - rapidly moving under the cover of bracken - though each numbered at least five. On 1st July, one of the females was found trapped under a fleyg net only minutes after she had taken her brood past our tents. Unbelievably, later that morning, also at the Village, an adult male was found in one of our regular nets set up

to catch passerines. The only Corncrake caught by TIARG previous to this occasion was in 2005, again at the Village.

Close to the Village, a pair of adult Wheatear was seen to raise the alarm when a young Corncrake chick approached the entrance of their ground cavity nest. Both adults fluttered and alarmed above the chick, mobbing it as it passed the nest, containing two Wheatear chicks.

Four calling males were noted on Lunga during the week. Two were in residence typically to the north and east of the Village. Another was heard regularly from the vegetation along the base of the cliff beside the access track and Boulder Beach. The fourth was heard in the vicinity of the second gully south of Corran Lunga on 25th and 29th June.



Corncrake, adult male (John Hodson)



Corncrake, adult female showing less blue grey on head than male (John Hodson)

Oystercatcher Haematopus ostralegus

Breeds regularly in small numbers.

On Lunga's beaches and rocky outcrops, four pairs were behaving as though near to nests or dependent young (2 pairs at Corran Lunga, 1 in area 2 and 1 in area 6a), the only broods seen were at Corran Lunga. An abandoned nest with two eggs was found below the Gullery in Area 8. Other pairs or singles were on territory at times, briefly alarming at human intruders and performing displays on the appearance of other Oystercatchers. Away from Lunga, breeding was confirmed on Sgeir a Chaisteil where 2 pairs including one with a nest with eggs were seen during a brief visit on 30th June. Additional adults may have attempted to breed and were seen during scans from Lunga of the islets between Lunga and Fladda; specifically Sgeir an Eirionnaich (2 birds) and Sgeir an Fheòir (1 bird). 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 17 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 second pair was seen on 27th June but not subsequently. Although the adults were heard to alarm to human intruders, no nest, eggs or young were found.

Grey Plover Pluvialis squatarola

Rare visitor

A single bird was heard from the west coast of Lunga on 29th June. The first TIARG record.

Snipe Gallinago gallinago

Breeds regularly in small numbers.

Only one bird was ever drumming/chipping over the Village whilst up to two additional birds were seen in flight. This suggests a maximum of two breeding pairs in the general area. Up to four birds were flushed on the slopes of Cruachan, where north of Shag Alley a single was heard drumming once. At the south end of Lunga, singles were flushed in areas 7 and 6 where drumming was also noted. Two birds were flushed from deep in the blow-hole in Area 7 on 4th July, one of which was thought to have come off a nest. These data suggest a minimum population of 5+ pairs.

Whimbrel Numenius phaeopus

An irregular passage migrant.

Single bird were seen or heard flying high southwards on four dates between 29th June and 3rd July,

Curlew Numenius arquatus

An irregular visitor.

One was on Corran Lunga on 6th July.

Common Sandpiper Actitis hypoleucos

One or two pairs usually breed.

At least four birds were on Corran Lunga on 27th July. Subsequently two adults were seen regularly, either on the Boulder Beach, or occasionally on Corran Lunga. Although breeding was not confirmed, birds were heard alarming to human intruders at times on the Boulder Beach.

Redshank Tringa totanus

Irregular visitor.

A single bird was heard from the west coast of Lunga on 25th June.

Arctic Skua Stercorarius parasiticus

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

Up to 4 birds at any one time, of both dark and light phases, were seen most days, generally offshore from Harp Rock and Sgeir a' Chaisteil.

Great Skua Stercorarius skua

A regular but small 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 on the high ground south of Tarbet (area 6), where breeding has previously been proven. Up to three adult birds were seen regularly flying over

Lunga.

On the west side and southern end of Fladda, birds could be seen from Lunga on two apparently occupied territories at locations where breeding has also previously occurred. No other birds could be seen on Fladda from Lunga. One adult was seen to come off Bac Mór when TIARG sailed around the island on 29th June.

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 308. This does not include nests (c.50 in 2009-2010) in that part of sector 11 to which access was obstructed by a rockfall in winter 2004. This year engine failure prevented the intended boat count from taking place. Even taking this into account, 2011 was the lowest nest count since annual monitoring of Lunga began in 1994.

The average rate of change in the numbers of breeding birds on Lunga for the period 2008 – 2011, is calculated at -29.7% per annum. This downward trend is very highly significant (P<0.001).

Common Gull Larus canus

Irregular breeding species.

From Lunga, up to eight adults were seen holding breeding territories on Sgeir an Eirionnaich but with no visible young. No birds could be seen from Lunga on the low-lying basalt rock outcrop on Fladda's south-east coast, where a colony had been established since 1998.

Lesser Black-backed Gull Larus fuscus

Regular breeding species in small numbers.

Four pairs were noted within the south end gullery on Lunga, in area 8. Elsewhere, a brief visit to Sgeir a Chaisteil on 29th June found one pair occupying a breeding territory.

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 18 pairs) and Sgeir a Chaisteil (estimated 7 pairs). Breeding was also suggested by the presence of paired adults on territory on Bac Mór (estimated 11 pairs; 22 adults), Bac Beag (2 pairs; 3 adults) and Cairn na Burgh More (estimated 6 pairs; 12 adults). No birds were holding territory on Sgeir an Eirionnaich, Sgeir na H-lolaire, Sgeirean na Guisaich or Sgeir an Fheòir. The average rate of change on Lunga between 1994 and 2011, is calculated at -11.5% per annum, this downward trend continuing to be very highly significant (P<0.001).

Up to 40+ adults were seen daily roosting on the Boulder Beach, Lunga.

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 observations, breeding was confirmed on Lunga (23 pairs), Sgeir an Eirionnaich (estimated 7 pairs) and Sgeir na H-lolaire (1 pair). Breeding was also suspected from the presence of paired adults on territory on Bac Mór (estimated 22 pairs; 15 adults) and Bac Beag (estimated 3 pairs; 6 adults). Following a period of fluctuation in the breeding population of Lunga (1994-2004; 34-67 pairs), a decline occurred during the first decade of the century that has since stabilized at a lower level (16-24 pairs). The average rate of change on Lunga between 1994 and 2011, is -6.5% per annum. This downward trend is very highly significant (P<0.001).

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).

A mixed Arctic/Common ternery was present on the islet at the north end of Sgeir an Eirionnaich. Flush counts resulting from passing avian predators varied daily from 100 to 300 birds as seen from Lunga. The ternery was considered to be dominated by Arctic Terns with no more than 5% of birds seen being Common Terns. Several Common Terns were seen regularly fishing offshore at the north end of Lunga and then leaving for the ternery.

One immature bird, in a plumage conventionally known as "portlandica", was seen off Sgeir a' Chaisteil. Most birds in their first summer, which this individual was most likely to be, remain in or close to

their wintering areas off the coast of West Africa.

Arctic Tern Sterna paradisaea

Irregular breeding species.

A mixed Arctic/Common ternery was present adjacent to Sgeir an Eirionnaich (see above). When flushed by passing avian predators, over 95% of birds in attendance at the colony were this species.

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 6,835 adults were estimated. This estimate includes 135 birds counted on the west side of Harp Rock and only visible from the sea. The total for Lunga and Sgeir a' Chaisteil combined was 7,087, largely reversing the previous year's marked decline. The mean count for the past five years is 7,371 (range 6,943-7,712).

Bizarrely, two birds were seen entering burrows just below the cliff top in area 12a. See also Razorbill below.

Following a recent series of poor or late breeding seasons, in 2011 (as in 2010) most breeding was further advanced than of late with many adults either brooding or tending chicks close to fledging. Furthermore, in contrast to recent years, there appeared to be a good supply of fish being bought in, amongst which no Pipefish (*Syngnathidae*) were noted.

The average annual rate of change for the population of Lunga is calculated at 0.0% p.a. for the period 1994-2011; the trend is not significant.

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 280 adults estimated.

A total of 509 birds was counted on Lunga and Sgeir a' Chaisteil. Although the numbers of individuals counted in 2011 increased by 60% compared with 2010, a further 100% increase would be required to reach the levels recorded during the earlier period of stability at around 950-1250 birds (1999-2008; no significant trend).

As with Guillemot, two birds were seen entering burrows just below the cliff top in the same section of area 12a.

Black Guillemot Cepphus 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), Cairn na Burghs (11) Bac Mor (8) and Lunga's south end (22). Single birds were seen carrying food at sea at Lunga's south end.

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 1,611 apparently occupied burrows (AOBs), a 6% decrease since 2010. For counts of birds, one bird is taken to represent one AOB (Lloyd *et al.* 1991, Mitchell *et al.* 2004). These data, along with those from 2010, indicate that the population on Lunga (1,372 AOBs in 2011) has declined markedly, from the comparatively high estimates of the previous six years, to well below the long-term average (2,065 AOBs; 1994-2009). However the mean annual rate of change for Lunga's population is calculated at +1.5% p.a. for the period 1994 – 2011 and this trend is not significant (P=0.26).

Rock Dove Columba livia

Regular breeding species in very small numbers.

Birds were seen almost daily on Lunga, principally along the east coast, the largest group of five birds being at Shearwater Gully. A predated egg was found in the cave of the 2nd gully south of Corran Lunga. Two hatched, rather than predated, eggs were found in the blow-hole at the south end of Lunga. Elsewhere single pairs were seen on Cairn na Burgh Beg and Cairn na Burgh More when TIARG passed these islands

en route to Lunga on 25th June.

Woodpigeon Columba palumbus

Rare visitor.

One seen near the Village, Lunga on 1st July was the first TIARG record.

Swift Apus apus

Irregular visitor.

Three and two birds were seen flying over Lunga on 2nd and 5thJuly respectively

Hooded Crow Corvus cornix

A regular breeding bird in small numbers.

Up to two birds were seen daily on Lunga, mostly at the north end. The species was less numerous than in previous years. One was found dead in a sea cave on Lunga.

Elsewhere single birds were seen from Lunga on Fladda and Sgeir a' Chaisteil and from the boat on Bac Mór.

Raven Corvus corax

At least one pair breeds in most years.

At least eight individuals were seen regularly frequenting the north end of Lunga. At least two were moulting adults, with a minimum of three of the remainder thought to be juveniles due to the absence of wing moult or abraded flight feathers.

Elsewhere, up to four birds were seen occasionally on Sgeir a' Chaisteil. No birds were seen during the passage of the other islands by boat.

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, immediately above the Village and in sector 6 with two in sector 7.

Swallow Hirundo hirundo

Irregular visitor.

An adult male circled the Village on 3rd July.

Willow Warbler Phylloscopus trochilus

Rare visitor.

A single adult female was mist netted at the Village, Lunga on 1st July. This is the third record by TIARG, the previous records being singles in 1999 and 2006.

Whitethroat Sylvia communis

Rare visitor.

A singing male was mist netted at the Village, Lunga on 1st July and was seen again on 3rd, 5th and 6^{th.} This is the third record by TIARG on the Treshnish Isles, the previous birds being on Fladda in 2002 and Lunga in 2007.



Whitethroat, adult male (Andrew Carter)

Sedge Warbler Acrocephalus schoenobaenus

A scarce but almost annual visitor.

Two singing males were seen regularly on territory until 6th July; singing against each other from the extensive area of bracken immediately south of the Village, Lunga. One of these birds was caught in a mist net at the Village and ringed. A third bird was found singing in the reedbed at the south end of Lunga on 1st July.

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. The species was, as in 2010, much less numerous than in most recent years. Casual observations indicated a minimum of two territories on Corran Lunga; two south of Tarbet; two at Tarbet; two around the Village; one beside the Boulder Beach; three along the west coast footpath between the Village and Harp Rock, and four along the east coast footpath between the Village and Tarbet. At least two broods were noted at the north end of Lunga whilst a juvenile was seen at the Blowhole in Sector 7.

During a brief visit to Sgeir a' Chaisteil on 30th June, one male was heard singing.

Starling Sturnus vulgaris

A regular breeding species in small numbers.

Small flocks of up to 15 birds were noted daily on Lunga, comprising both adults and juveniles. Breeding was confirmed on both Lunga and Sgeir a' Chaisteil, where, on both islands, single nests with young were found.

Blackbird Turdus merula

Rare visitor.

A male was seen at the Village, Lunga on 25th June and 1st July.

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 around the Village, at Harp Rock, Corran Lunga and Shearwater Gully. Breeding was confirmed when parent birds were watched mobbing a Corncrake chick that had approached the entrance to a nest in a burrow. The two Wheatear chicks in the nest differed markedly in size.

One juvenile was noted during a brief visit to Sgeir a' Chaisteil on 30th June. .

Dunnock Prunella modularis

Scarce visitor.

A single singing male was present throughout the week on territory south of the Village where single birds were also seen carrying food. Breeding was later confirmed when a bird in the territory was seen to take food to a nest on 1st July but the position of the nest made it unwise to inspect it more closely.

Pied Wagtail Motacilla alba yarrelli

An irregular breeding species.

A pair was feeding young, throughout the week, in a nest in a crevice above the Village, Lunga. Elsewhere on Lunga, a single bird was noted at Harp Rock.

Meadow Pipit Anthus pratensis

A regular breeding species in small numbers.

Breeding birds were widespread on Lunga but, as in 2010, it was much less numerous than in most recent years. During a brief visit to Sgeir a' Chaisteil a minimum of two breeding territories was estimated with three individuals seen.

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 several pairs on Lunga and two pairs on Sgeir a' Chaisteil. A nest with young was found at the 2nd gully south of Corran Lunga and another was found in the blow-hole at the south end of Lunga. Elsewhere a single bird was seen from the boat on Bac Mór on 29th June.

Linnet Carduelis cannabina

Rare visitor.

A singing male was heard in Shearwater Gully, Lunga on 29th June. This sighting follows on from those in 2008 and 2009 which were the first records by TIARG.

Twite Carduelis flavirostris

Regular breeding species in small numbers

Small parties of up to nine birds were noted almost daily around the Village, Lunga, where three juveniles were mist netted. Elsewhere birds were seen occasionally around the 2nd gully south of Corran Lunga (up to three); at Shag Alley (singles); on the slopes of Cruachan (seven); the south end (up to seven) and Tarbet (up to three; two adults and a juvenile). None were seen during the visit to Sgeir a' Chaisteil.

Lesser Redpoll Carduelis cabbaret

Rare visitor.

Single Redpolls heard in flight over Lunga on 27th June and 1st July were presumed to be this species. These are the first records of this species by TIARG.



Twite (Andrew Carter)

SYSTEMATIC LIST OF MAMMALS FOR 2011

Otter Lutra lutra

Evidence of presence regularly noted.

Tracks of adults were found in both caves on the west coast of north Lunga. Very recent tracks of an adult and cub were found in the blow-hole at the south end of 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. These animals were seen frequenting the remains of the three westernmost cottages.

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 34 animals were visible from Lunga hauled out on intertidal reefs to the north and north-east at low tide. Ten animals were also seen from the boat hauled out on intertidal reefs at Bac Beag on 29th June.

Common Seal Phoca vitulina

Rare visitor.

A single pup was seen on the intertidal reefs north-east of Lunga on 1st July.

Harbour Porpoise Phocoena phocoena

Rare visitor.

Two were south of Lunga on 3rd July.

Minke Whale Balaenoptera acutorostrata

Irregular visitor.

Single animals were seen on four evenings, between 27th June and 1st July, to the west of Harp Rock and earlier in the day on 28th June, to the east of Lunga. A second individual was possibly present with the animal watched feeding off Harp Rock on 30th June.

Killer Whale Orcinus orca

Rare visitor.

Off the west coast of Ljunga a pod of three adults was seen and photographed by one fortunate Group member as they moved south through a calm sea on the evening of the 1st July. This is the first record of this species by TIARG.

Bat spp. Pipistrellus sp.

Rare visitor.

Two small bats were seen flying around the Village at the north end of Lunga, at dusk on 26th June. From the size and flight of the animals, viewed well enough by several TIARG members to eliminate misidentification of early returning Storm Petrels, the species was considered one of the Pipistrelles (*Pipistrellus*) *pipistrellus* and *P. pygmaeus*). A further individual was seen on 30th June at dusk above Shearwater Gully, Lunga, on 30th June.

These are the second confirmed observations of bats on the Treshnish Isles by TIARG, the previous sightings in 2006.

SYSTEMATIC LIST OF LEPIDOPTERA FOR 2011

Brown House Moth *Hofmannophila pseudospretella* One was at the Village on 3rd July.

Common Blue Polyommatus icarus

Regular breeder.

Up to eight were seen daily on Lunga, the vast majority at the north end. During a brief visit to Sgeir a' Chaisteil on 30th June, twelve individuals were counted.

Meadow Brown Maniola jurtina

Accidental.

Singles were seen at Shearwater Gully on 28th June and at the south end of Lunga on 1st July, with five around the Village on 4th.

Yellow Shell Camptogramma bilineata

Singles were at the Village on 3rd and 4th July.

The Magpie Abraxas grossulariata

One was at the Village on 3rd July.

Moth spp.

During several nights moth trapping was undertaken with a bulb from a "Heath Trap" stood on a white sheet in the Village on Lunga. One or more individuals of the following species were caught: Bright-line Brown-eye Lacanobia oleracea Magpie Abraxas grossulariata Map-winged Swift Hepialus fusconebulosa Knot Grass Acronicta rumicis Small Blood Vein Socpula imitaria Clouded-bordered Brindle Apamea crenata Angle Shades Phlogophora meticulosa Dark Arches Apamea monoglypha

The occurrence of Small Blood Vein is noteworthy record given it is fairly common in the southern half of Britain, but local further north (<u>http://ukmoths.org.uk/show.php?bf=1690&map=true</u>).

On several occasions during the week, Map-winged Swifts were seen in leks displaying on footpaths between the Village and Harp Rock.

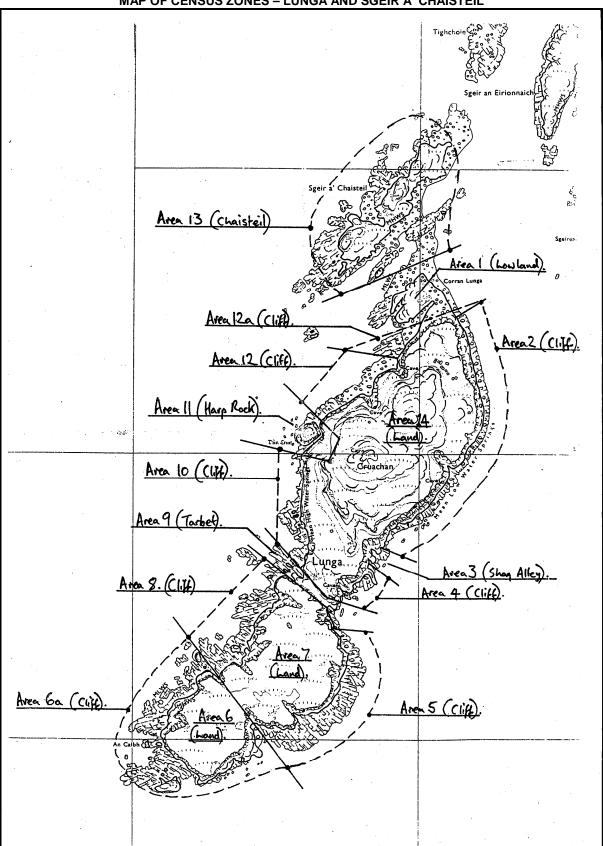
OTHER NOTABLE WILDLIFE RECORDS

Oyster Plant Mertensia maritima

Localised species known only from "colonies" at Tarbet on Lunga and two localities on Sgeir a' Chaisteil. An absence of plants from what was a well established "colony" at the north end of Sgeir a' Chaisteil

was again noted for the seventh consecutive year. This colony can now be considered lost. At Tarbet over 200 plants were found, most of whkich were comparatively large and many were spreading extensively.

A single plant first located in 2010 at Corran Lunga, was found a year later to have increased markedly in size.



MAP OF CENSUS ZONES - LUNGA AND SGEIR A' CHAISTEIL

| Sector | Count unit | Lunga | Sgeir a' Chaisteil | Bac Mor | Bac Beag | Sgeirean na Giusaich* | Sgeir an Fheoir* | Sgeir an Eirionnaich* | Sgeir na h-lolaire* |
|-----------------|---------------|-------|-----------------------|---------|----------|--------------------------|---------------------|--------------------------|------------------------|
| Fulmar | AON | 301 | 68 | 146 | 42 | | | | |
| Manx Shearwater | No census | + | | | | | | | |
| Storm Petrel | No census | + | + | | | | | | |
| Shag | AON | 109 | 9 | 17 | 18 | | | 4 | |
| Great Skua | AOT | 1 | | 1 | | | | | |
| Kittiwake | AON | 308 | | | | | | | |
| Common Gull | AOT | | | | | | | 2 | |
| Lesser B-b Gull | AOT | 6 | 1 | 9 | | | | | |
| Herring Gull | AOT | 18 | 7 | 11 | 2 | | | | |
| Great B-b Gull | AOT | 23 | | 8 | 3 | | 4 | 7 | 1 |
| Common Tern | IND | | | | | | | + | |
| Arctic Tern | IND | | | | | | | 300 | |
| Razorbill | IND | 509 | | | | | | | |
| Razorbill | AON | 40 | 6 | | | | | | |
| Guillemot | IND | 6980 | 107 | | | | | | |
| Black Guillemot | IND | 22 | | | 10 | | | 8 | |
| Puffin | SEA | 890 | | 10 | | | | | |
| Puffin | IND | 209 | | 4 | | | | | |
| Puffin | AOB | 1163 | 239 | | | | | | |

2011 BREEDING SEABIRD CENSUS DATA FOR LUNGA AND SGEIR A' CHAISTEIL

*Counted with telescope from Lunga

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

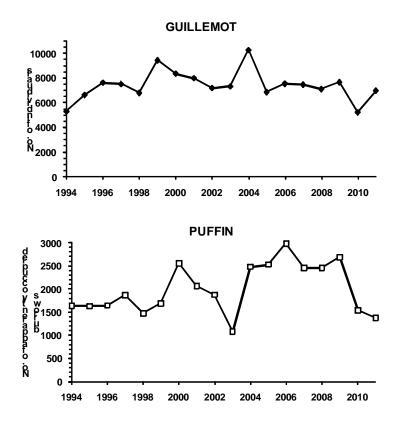
| Sector | Count | | | | (| Count S | ectors o | n Lunga | (1 – 12 | a) and S | igeir a' C | Chaisteil | (13) | | | | Lunga & Chaisteil |
|-----------------|-------|---|-----|----|----|---------|----------|---------|---------|----------|------------|-----------|------|-----|-----|-----|-------------------|
| | Unit | 1 | 2 | 3 | 4* | 5 | 6 | 6a | 7 | 8 | 9 | 10 | 11 | 12 | 12a | 13 | Totals |
| Fulmar | AON | | 17 | 7 | 7 | 42 | | 34 | | 39 | 5 | 9 | 19 | 107 | 15 | 68 | 369 |
| Shag | AON | | 31 | 28 | | 11 | | | | 5 | | 16 | 2 | 13 | 3 | 9 | 118 |
| Great Skua | AON | | | | | | 1 | | | | | | | | | | 1 |
| Kittiwake | AON | | | | | | | | | | | | 302 | 6 | | | 308 |
| Lesser B-b Gull | AOT | | | | | | | | | 6 | | | | | | 1 | 7 |
| Herring Gull | AOT | | 1 | | | | | | | 14 | | | | 3 | | 7 | 25 |
| Great B-b Gull | AOT | 2 | | | | | 11 | | 9 | | | 1 | | | | | 23 |
| Razorbill | IND | | 21 | 19 | 21 | 15 | | 8 | | 4 | 2 | 36 | 280 | 66 | 37 | | 509 |
| Razorbill | SEA | | 74 | | | 26 | | | | | | | | 50 | | | 100 |
| Razorbill | AON | | | | | 21 | | 4 | | 8 | | 7 | | | | 6 | 46 |
| Guillemot | IND | | | | | 28 | | | | | | 25 | 6835 | 70 | 22 | 107 | 7087 |
| Black Guillemot | IND | | | | | | | 22 | | | | | | | | | 22 |
| Puffin | SEA | | 557 | | | 31 | | 2 | | | | | | 300 | | | 890 |
| Puffin | IND | | 37 | 21 | 21 | 5 | | | | | | | | 125 | | | 209 |
| Puffin | AOB | | | | | | | | | | | 30 | 528 | | 605 | 239 | 1402 |

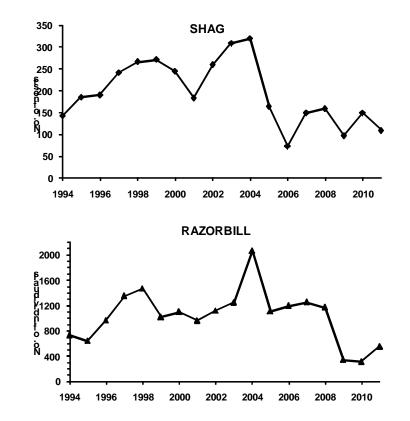
*Numbers represent a minimum as birds were counted from a passing boat.

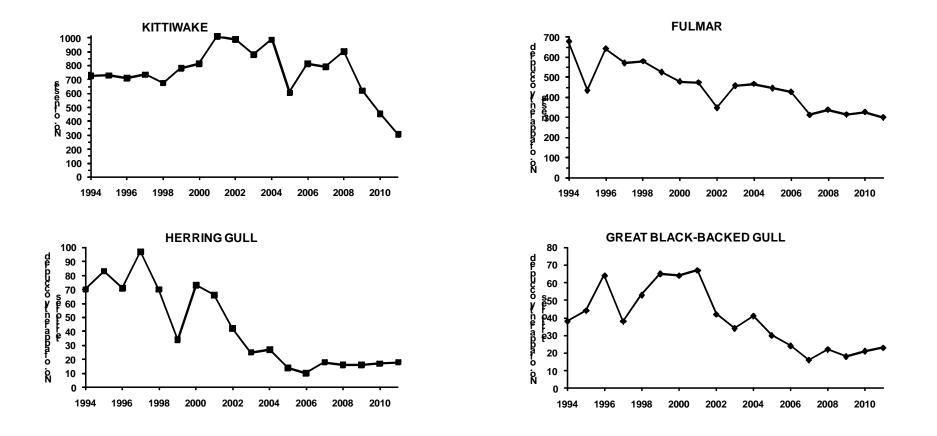
Key to count unit codes:AON/AOT/AOB = apparently occupied nest/territory/burrowIND = Individuals on landwithin 200m of colonyPRS = Pairsnc = no count+ = breeders present

SEA = individuals on sea

POPULATION CHANGES FOR A SELECTION OF BREEDING SPECIES ON LUNGA, 1994 - 2011







| Site | Species | Adults | Pulli | Retraps/Controls | Total |
|-----------------|--------------------------|--------|-------|-------------------------|-------|
| Lunga | Manx Shearwater | 3 | | 1 | 4 |
| - | Storm Petrel | 202 | | 84 | 286 |
| | Shag | 6 | 55 | 56 | 117 |
| | Corncrake | 2 | | | 2 |
| | Oystercatcher | | 2 | | 2 |
| | Great Skua | | 2 | | 2 |
| | Kittiwake | 8 | | | 8 |
| | Lesser Black-backed Gull | | 2 | | 2 |
| | Herring Gull | | 4 | | 4 |
| | Great Black-backed Gull | | 10 | | 10 |
| | Guillemot | 169 | | 56 | 225 |
| | Razorbill | 8 | | 5 | 13 |
| | Puffin | 68 | | 14 | 82 |
| | Willow Warbler | 1 | | | 1 |
| | Whitethroat | 1 | | | 1 |
| | Sedge Warbler | 2 | | | 2 |
| | Wren | 2 | | 1 | 3 |
| | Wheatear | 3 | 2 | | 5 |
| | Dunnock | 1 | | | 1 |
| | Pied Wagtail | 3 | | | 3 |
| | Meadow Pipit | 2 | | | 2 |
| | Rock Pipit | 4 | | | 4 |
| | Twite | 3 | | | 3 |
| Other islands | Shag | | 6 | | 6 |
| | Herring Gull | | 4 | | 4 |
| Treshnish Isles | Grand total for 2011 | 488 | 87 | 217 | 792 |

TRESHNISH RINGING TOTALS FOR 2011

Note: All rings used in 2011 were registered under Treshnish Auk Ringing Group.

| 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 |

TRESHNISH RINGING TOTALS 1971 – 2011

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.

| SPECIES | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | Total |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| Eider | | | | | | | 1 | | | | | | | | 1 |
| Fulmar | 24 | 23 | 12 | 25 | 22 | 25 | 47 | 14 | 15 | 8 | | | | | 422 |
| Manx Shearwater | 1 | 4 | 4 | | | 2 | | 1 | 1 | 2 | | 4 | 9 | 3 | 75 |
| Storm Petrel | 741 | 732 | 814 | 1030 | 15 | 360 | 83 | 491 | 962 | 21 | 118 | 403 | 293 | 202 | 11700 |
| Shag | 150 | 100 | 59 | 37 | 97 | 99 | 200 | 77 | 35 | 141 | 124 | 53 | 116 | 67 | 2160 |
| Buzzard | | | | | | | | | | | | | | | 3 |
| Corncrake | | | | | | | | 1 | | | | | | 2 | 3 |
| Oystercatcher | | 2 | | 1 | | | | | | 4 | | | | 2 | 17 |
| 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 | 503 |
| Great Black-b. Gull | 19 | 16 | 2 | 27 | 5 | 21 | 18 | 12 | 3 | 4 | 13 | 12 | 15 | 10 | 405 |
| Guillemot | 503 | 507 | 892 | 312 | 425 | 261 | 800 | 141 | 172 | 123 | 1 | 51 | 53 | 169 | 7709 |
| Razorbill | 112 | 102 | 133 | 31 | 110 | 56 | 147 | 37 | 33 | 34 | 5 | 6 | 7 | 8 | 2586 |
| Black Guillemot | | | | 1 | | | | | | | | | | | 2 |
| Puffin | 398 | 274 | 389 | 214 | 351 | 244 | 226 | 151 | 272 | 195 | 327 | 32 | 38 | 68 | 6121 |
| Hooded Crow | | | | | | | | | | 1 | | | | | 1 |
| Willow Warbler | | | | | | | | | | | | | | 1 | 2 |
| Whitethroat | | | | | | | | | | | | | | 1 | 1 |
| Sedge Warbler | | | | | | | | | | | | | | 2 | 2 |
| Wren | | | | 1 | | | 2 | 4 | 2 | | 2 | 1 | 1 | 2 | 18 |
| Starling | | | | | | | | | | 3 | | | | | 3 |
| Stonechat | | | | | | | | | 2 | | 1 | | | | 3 |
| Wheatear | 37 | 22 | 50 | 24 | 2 | 2 | 2 | 7 | 1 | 2 | 4 | 2 | 4 | 5 | 209 |
| Dunnock | | | | | | | | | | | | | | 1 | 1 |
| Pied Wagtail | | | | | | | | | | 4 | | | | 3 | 13 |
| Meadow Pipit | | | 12 | 1 | 4 | 1 | 3 | 5 | 1 | | 4 | | 1 | 2 | 39 |
| Rock Pipit | 4 | 2 | 1 | 2 | 2 | 2 | 2 | | 3 | 21 | 10 | 1 | 2 | 4 | 70 |
| Twite | | | | | 1 | | | | | 1 | 1 | 1 | | 3 | 9 |
| TOTAL | 2109 | 1846 | 2401 | 1739 | 1060 | 1090 | 1563 | 982 | 1526 | 593 | 624 | 594 | 555 | 575 | 32417 |

TRESHNISH RINGING TOTALS 1971 – 2011 (continued)

RECENT RINGING RECOVERIES

STORM PETREL

TIARG have in the past year received details of 17 recoveries of birds ringed within Britain and Ireland in the months July - September and controlled by TIARG on Lunga in June - July 2010. These recoveries are summarised in the table below; all birds were ringed as adults (Euring code 4).

| Ringing Site | No. of controls at: | Time inter | rval (days) | Distance | Direction | |
|---|---------------------|------------|-------------|----------|-----------|--|
| | Lunga | min | Max | Km | (degrees) | |
| Annagh Head, Bellmullet, Co.Mayo, Eire | 1 | | 1411 | 342 | 43 | |
| Inishglora, Co.Mayo, Eire | 1 | | 1054 | 344 | 43 | |
| Sheepland Harbour, Ardglass, Co.Down | 2 | 1039 | 1112 | 251 | 348 | |
| Bardsey Island, Aberdaron, Gwynedd | 1 | | 1805 | 428 | 346 | |
| Lowca, Cumbria | 1 | | 1439 | 279 | 320 | |
| Ailsa Craig, Strathclyde | 1 | | 1414 | 160 | 330 | |
| Sanda Island, Kintyre, Strathclyde | 1 | | 3988 | 146 | 340 | |
| Isle of Muck, Highland Region | 1 | | | 41 | 198 | |
| Eilean An Taighe, Western Isles | 2 | 354 | 362 | 156 | 182 | |
| Priest Island, Highland Region | 1 | | 2572 | 173 | 199 | |
| Eilean Nan Ron, Highland Region | 1 | | 336 | 262 | 209 | |
| Fife Ness, Fife | 2 | 694 | 1066 | 238 | 276 | |
| Isle of May, Fife | 2 | 1059 | 1775 | 241 | 278 | |

STORM PETREL RECOVERIES

Details are given below of two birds originally ringed on the Treshnish Isles, one recovered on Lunga and the second elsewhere.

Abbreviations used:

| Age |
|-----|
| -9- |

- 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 2624521 | 6 R | 01/7/2009 14/8/2009 | Lunga Copeland Bir 208 km | d Observator 165 degs | ry, Down 44 days |
|-------------------------|--------|--------------------------------------|--|--------------------------|---------------------|
| Storm Petrel 2542865 | 6 X | 25/6/2001 29/6/2010 Ring found | Lunga Lunga 0 km within Herring | 0 degs Gull pellet | 3291 days |

Storm Petrel recoveries relating to the Treshnish Isles as either birds ringed or controlled there, now number 552 (relating to 522 birds) of which many have been of birds from the Isle of Man & Sanda (64 & 147 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 a wandering immature (up to 4 years old) or failed breeders. Only 69 birds ringed on the Treshnish Isles have been recaptured elsewhere, 13.2% 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 1453621 | 1 X | 29/6/2010 10/7/2010 Bird found o | Lunga Lunga 0 km dead, not fresh | 0 degs | 11 days |
|----------------------------|---------|--|--|---------------------------|---------------------------------|
| Razorbill M55327 | 4 XF | 23/6/1991 12/10/2010 Bird shot | Lunga Sorvag Fjord 267 km | , Sorvagi, Va 173 degs | aga, Faroe Islands 4090 days |
| Razorbill M72523 | 6 XF | 30/6/1995 15/9/2010 Bird found f | Lunga Port Logan, [217 km reshly dead on | 155 degs | l Galloway 5556 days |
| Razorbill M88247 | 6 X | 22/6/2004 29/6/2010 Bird found, | Lunga Lunga 0 km eaten | 0 degs | 2198 days |
| Razorbill K10742 | 6 O | 29/6/2006 12/6/2011 Sight record | Lunga Lunga 0 km d by non-ringer | 0 degs | 1809 days |
| Guillemot R31605 | 6 R | 24/6/2003 28/6/2009 | Lunga Port Ban, St 47 km | rathclyde 165 degs | 2547 days |

| Guillemot X63453 | 6 R | 27/6/1996 01/7/2011 | Lunga Garbh Eilean, W 158 km 2 d | Vestern Isl degs | es 5482 days |
|----------------------------|---------|---|--|-----------------------|-----------------------------------|
| Guillemot X63483 | 6 X | 28/6/1996 27/10/2010 Dead, leg ar | Lunga Camas Mor, Isle 38 km 20 d ring only found |) degs | 5234 days |
| Guillemot R31605 | 6 R | 24/6/2003 28/6/2009 | Lunga Port Ban, Strath 47 km 16 | nclyde 35 degs | 2547 days |
| Guillemot R51588 | 6 X | 22/6/2004 20/4/2011 Ring only for | | degs | 2493 days |
| Guillemot X67521 | 6 S | 28/6/1996 29/12/2010 Oil victim tak | Lunga Gyllynvase Bea 712 km 17 en into care, fate | '3 degs | uth, Cornwall 5297 days |
| Guillemot X83095 | 1 R | 04/7/1999 27/6/2010 | Isle of Canna, H Lunga 64 km 17 | lighland 74 degs | 4011 days |
| Puffin EW18177 | 8 XF | 21/6/2008 24/6/2010 Freshly dead | Lunga Lunga 0 km 0 d I, taken by anima | degs al | 733 days |
| Puffin EG88971 | 6 X | 24/6/2004 20/4/2011 Bird found d | Lunga 0 km 0 d | degs | 2491 days |
| Puffin ET52988 | 8 XF | 01/7/1999 12/3/2011 Freshly dead | 1438 km 18 | adeo, Astu 32 degs | ırias (Oviedo), Spain 4637days |
| Puffin ET80101 | 8 XF | 29/10/2006 | Lunga Lunga 0 km 0 d d ring only found | degs I | 3040 days |

| Puffin EG23714 | 2 | 28/6/2000 | Lungo | | |
|--------------------------|---------|---|------------------------------|------------------------|-----------|
| EG23/14 | Z XF | 15/5/2008 | Lunga Lunga | | |
| | | 10/0/2000 | 0 km | 0 degs | 4723 days |
| | | Fresh deadly, predated by Skua or Peregrine | | | |
| Puffin | | | | | |
| EG61351 | 6 | 27/6/2002 | Lunga | | |
| | Х | 04/6/2011 | Lunga | | |
| | | | 0 km | 0 degs | 3264 days |
| | | Dead, not fresh, eaten. | | | |
| Puffin | | | | | |
| EL52532 | 6 | 23/6/2004 | Lunga | | |
| LLOZOOZ | x | 07/7/2011 | Sule Skerry, | Orknev | |
| | | | 0 km | 0 degs | 2540 days |
| | | Dead, leg a | ead, leg and ring only found | | |
| | | | | | |
| Puffin | • | ~~ ~~ ~~ ~~ ~~ | | | |
| EL52908 | 6 XF | 28/6/2006 14/6/2011 | Lunga | | ito |
| | ΛF | 14/0/2011 | Laggan Bay, 92 km | луун ало ы 174 degs | 1812 days |
| | | Freshlv dea | ad on shoreline | | |
| | | ·····, | | | |



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We thank lain 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.



TIARG expedition unloading MV Hoy Lass of Turus Mara (R.M. Ward)

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

THE EXPEDITIONS 1971 – 2011

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 – 2011 (continued)

| 1994 | Simon Walker, Mike Smith, Dennis Cooper, Jan Densham, Danny Lenain. Full census Lunga and Sgeir a' Chaisteil and ringing. Chris Redfern <i>et al.</i> 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 Week 2 | Simon Walker, John Hodson, Dennis Cooper, Robin Ward, Damian Offer, Jan Densham |
| 2000 Week 1 Week 2 | Full census of Manx Shearwater on Lunga for Seabird 2000. Limited passerine ringing. (May). |
| | Full census of Lunga, Sgeir a' Chaisteil and the islands between Lunga – Fladda. Tern census for <i>Seabird 2000.</i> 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 – 2011 (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.
- 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.
- 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. Boat count of The Dutchman's. Ringing.



Tai chi on the cliffs overlooking Mull (R.M. Ward)

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 1087111 - 120 1105561 - 570 1123541 - 550 1123671 - 690 1123961 - 970 1159651 - 700 1163701 - 740 1168001 - 100 1170601 - 700 1187901 - 950 1237401 - 450 1322951 - 960 1328481 - 490 1350801 - 900 1357901 - 8000 1366901 - 7000 1373751 - 3900 1378401 - 8500 1399601 - 700 1408301 - 500 1414301 - 500 1417001 - 7100 1445601 - 800** | $\begin{array}{r} 2309901 - 10000\\ 2311301 - 400\\ 2311501 - 2000\\ 2348001 - 500\\ 2369301 - 400\\ 2405001 - 6000\\ 2430701 - 900\\ 2436501 - 7000\\ 2436501 - 7000\\ 2444501 - 5000\\ 2446202 - 233\\ 2455501 - 6000\\ 2480001 - 500\\ 2513501 - 4000\\ 2538001 - 800\\ 2542001 - 3000\\ 2554001 - 500\\ 2560001 - 1000\\ \end{array}$ | $\begin{array}{l} {\sf EF75001-500} \\ {\sf EG23501-700} \\ {\sf EG23721-780} \\ {\sf EG23801-999} \\ {\sf EG61000-500} \\ {\sf EG88501-9000} \\ {\sf EH33377-380} \\ {\sf EH54501-55000} \\ {\sf EH89256} \\ {\sf EH89260} \\ {\sf EH89260} \\ {\sf EH98001-300} \\ {\sf EK29501-900} \\ {\sf EK72657-660} \\ {\sf EK91471-490} \\ {\sf EL19801-276} \\ {\sf EL52501-3000} \\ {\sf EN22001-500} \\ {\sf EP85608-612} \\ {\sf EP85687-700} \\ {\sf ER35007-800} \\ {\sf ER48401-404} \\ {\sf ES64018-189} \\ {\sf ET19501-700} \\ {\sf ET52501-3000} \\ {\sf ET30001-500} \\ {\sf ET80001-500} \\ \\ {\sf EW18001-500} \\ {\sf EW18001-500} \\ \end{array}$ | $\begin{array}{l} FB22601 - 700^{**} \\ FB23401 - 500^{**} \\ FC52551 - 558 \\ FC52571 \\ FC74501 \\ FH36101 - 200 \\ FR13606 - 636 \\ FR14401 - 500 \\ FR56351 - 400 \\ FS51016 - 500 \\ FS51016 - 500 \\ FS87001 - 100 \\ FV10611 - 620 \\ FV10646 - 650 \\ FV54446 - 460 \\ FV62410 \\ FV62410 \\ FV62416 - 226 \\ FV96681 - 684 \\ SS96101 - 300 \\ \end{array}$ | GH21301 - 350 GN85301 - 400** GJ35401 - 500 GJ76001 - 800** GJ99081 - 082 GK34351 - 354 GK50214 - 220 GK50551 - 570 GK62985 - 990 GK90821 - 840 GK91471 - 490 GM78756 GP13416 - 450 GP47917 GP62201 - 207 GP74501 - 75000 | HT03619 HT09001 $-$ 004 HT17871 $-$ 890 HT17931 $-$ 940 HT34021 $-$ 030 HT68201 $-$ 210 HT68221 $-$ 226 HT80301 $-$ 400 HW05351 $-$ 360 HW06951 $-$ 7000 HW08994 $-$ 09000 HW37361 HW68101 $-$ 110 HW68161 $-$ 170 HW74971 $-$ 990 HW87211 $-$ 225 HW94907 $-$ 913 MA12551 $-$ 600** MA15801 $-$ 900** | $\begin{array}{l} K10701 - 1000 \\ K13001 - 300^{\#} \\ M46501 - 800 \\ M55001 - 500 \\ M72451 - 800 \\ M85501 - 800 \\ M88001 - 300 \\ M92501 - 700^{**} \end{array}$ | R07001 - 100 R19401 - 20200 R24001 - 26350 R31601 - 900 R51501 - 2000 R65501 - 6000 ^{$"$} R72501 - 4000 ^{$"$} T14001 - 5000 ^{$**$} R73001 - 40000 X39501 - 40000 X56501 - 57000 X63001 - 500 X67501 - 68000 X79501 - 80000 X99001 - 500 | 1F4094 - 097 C331894 - 900 E196501 - 520 JB44316 K039209 - 230 K419290 - 295 NA84296 - 299 KX83101 - 106 KX83116 - 118 RF10011-020 [#] LA59201-300** DD90261-270 [#] CBV601-700 ⁻ V711401-500** TJ18901-9000 [#] BT09481-490 ⁻ NV42851-860** SR49601-700** A297482-500 B229951-992 BV70669 |
| | | * EW50001 – 500** * EX12501 – 3000 [#] | | | | | | |

*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