



South and West Wales
De a Gorllewin Cymru

Skokholm Island

Annual Report 2010

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General Introduction and Summary

Since September 2007 Skokholm Island has been closed to overnight visitors to allow building restoration and infrastructure improvements. Work started in earnest on the project this year with the aim of opening to limited visitors in 2011. A full report on the work carried out can be found below.

As a result of the closure there has been no long-term presence on Skokholm in the last three years. Despite the activity on the island in 2010 it was still unmanned for long periods, so while the core monitoring was carried out it was not always in ideal circumstances and many additional records of productivity and migrants remain incomplete.

The management of the islands' core conservation objectives has been handled from staff based on Skomer Island NNR. Skomer Warden (Jo Milborrow) and Assistant Warden (Dave Milborrow), previously the Skokholm Warden and Visitor Services Officer, departed at the end of 2009 after six years service over the two islands.

Taking on the role of Skomer Warden is Chris Taylor, who was Assistant Warden on Skokholm in 2007 and on Skomer in 2008. Jerry Gillham was employed (26th February to ~~XXXXX~~) for a second year as Assistant Warden for Skomer and Skokholm, with specific responsibilities to oversee the monitoring, work and visitor trips to Skokholm. A Long-Term Volunteer (Andrew Lawton) was recruited to assist with these tasks throughout May and June and proved essential to the smooth running of the island. As in previous years, all office work and administration was carried out on Skomer, where the Skokholm laptop and some paperwork is now situated.

The last visit to Skokholm was made on October 15th, although the majority of the work in closing the place down for the winter had been made previously.

Breeding Bird Overview

Manx Shearwaters (in study plot areas) continued their worrying decline, although there is evidence that this is a localised phenomenon.

New Storm Petrel study plots were established that should allow accurate recording in the future. A full island-count was not carried out but estimates based on previous work indicate that numbers are not as high as previously thought.

Lesser Black-backed Gull numbers marginally increased on 2009 but the population is still low in a historical context. Herring Gull numbers remain stable while Great Black-backed Gulls are at a record high. Productivity for Herrings and Greaters was good.

Guillemots and Razorbills both continued their increasing trend, with each having well over 1,000 individuals now. Puffins could not be counted but casual observation suggests the population is healthy.

Two pairs of Chough were present but only one nested, raising two chicks, while two out of three pairs of Ravens successfully raised chicks.

Peregrine and Buzzard pairs were present but appeared not to nest.

Renovation Work

The major work of 2010 was on the middle block of buildings. The roof has been totally replaced and the walls properly filled with lime mortar. This is the only bit of work that has required hired professionals, with two builders out for a week and ten for two days, all the rest has been carried out by volunteer work parties. The interior of the middle block has had the dividing walls built up to the new ceiling and some of the walls (particularly in the library) and floors have undergone significant repairs. The proposal is to have this building open to overnight guests in 2011.

Further wall repairs were made in the toilets and a start was made on the exterior cottage wall.

New doors were built and fitted to many of the rooms and the garage.

The red hut was sorted through with much rubbish being removed before it was repainted and partially repaired.

Removing rubbish and recycling has been as big a job as anything. This includes over 70 25-gallon plastic containers from the red hut (mainly dairy hypochlorite), 24 12v batteries (some of which hadn't worked for 15 years), broken cookers, boilers, pots and pans as well as miles of mesh fencing.

All deliveries were brought over in the Lady Helen and unloaded by hand (an estimated 20 tons in total) by a range of volunteers from Skomer, Dale Sailing and the local community.

Much of this work was organised through the Friends of Skokholm and Skomer and arranged and coordinated by Steve Sutcliffe.

1 Recording

The Five Year Plan of the management plan which ended in 2005 needs a substantial review. Therefore given the current management situation of the island a minimum amount of survey work to monitor the seabird populations for Skokholm were developed and agreed. This included the Spring Puffin count, all Gull counts, Shearwater plots, cliff-nesting birds plots, whole island cliff-nesting bird counts, Gull breeding success and Fulmar productivity.

The puffin count was not possible due to unfavourable weather conditions, while productivity monitoring of Lesser Black-backed Gulls and Fulmars was inadequate given the time on the island.

Other surveys can be missed for a year or two without too drastic an impact on our records. Ongoing surveys such as weekly butterfly transect, rabbit counts, common bird census, seal counts, cetacean surveys and fixed point photography have been suspended until the island is re-occupied.

No vegetation surveys were carried out this year.

The management plan identifies targets and limits of acceptable change for the 'features' of the reserve, this section indicates whether the features are currently in a favorable condition, and the condition of the operational limits for various factors that are likely to affect the feature. Reading this section along with a copy of the management plan will make it easier to understand, the feature number has been added to enable this.

Note that not all features and attributes are checked annually.

Each suite of features is detailed in a table with the 2010 data and the state of the operational limits, followed by a summary table of available data from the last five years.

Following these two tables are some notes regarding their content and other observations of interest.

1.1 Flora: Habitats and communities

Feature/mixture component habitat, and attributes	Checked in 2010?	Within Limits of Acceptable Change?	Operational limits (factors affecting feature)	Notes on operational limits
<p>Coastal grassland (feature 1)</p> <ul style="list-style-type: none"> ❖ Extent of coastal grassland ❖ Extent of Thrift ❖ % Thrift in transect ❖ Extent <i>Silene</i> dominated turf ❖ Extent of other maritime grassland communities ❖ % Thrift tussocks alive in transect quadrats ❖ % vegetative cover (November) ❖ Soil erosion (cm) 	<p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p>-</p> <p>-</p> <p>Thought to be</p> <p>Thought to be</p> <p>-</p> <p>Thought to be</p> <p>Thought to be</p>	<ol style="list-style-type: none"> 1. Bracken distribution 2. Rabbit density 3. Bare earth footpaths 4. Golden rod extent 	<ol style="list-style-type: none"> 1. Bracken mapping needed as soon as possible. 2. Unknown, thought to be low density this year. 3. No corresponding project in management plan – mapping to be implemented. 4. Golden rod mapping needed as soon as possible – planned for August but unable to be carried out.
<p>Maritime Cliff and associated crevice habitat and communities. (feature 2)</p> <ul style="list-style-type: none"> ❖ Extent ❖ Diversity 	<p>-</p> <p>-</p>	<p>Limits yet to be established</p>	<ol style="list-style-type: none"> 1. No unauthorized access off footpaths 	<ol style="list-style-type: none"> 1. No cases of persons off paths on cliffs

Flora: Habitats and communities cont....

<p>Mixture component habitat: Intertidal zone (feature 6)</p> <p>❖ Quality</p>	-	-	1. No person to leave paths, nor to access shore from boats	1. No reported incidents of persons leaving path onto shore or accessing shore from boats
<p>Other habitat (not included in SSSI notification) : Heathland (feature 20)</p> <p>❖ Extent of <i>Calluna vulgaris</i></p> <p>❖ Diversity</p> <p>❖ Proportion of bare earth: building <i>Calluna</i> : mature <i>Calluna</i> : degenerate <i>Calluna</i></p> <p>❖ % cover <i>Calluna</i> in transect 1</p>	- - - -	- None set - Thought to be	1. No more than 5% of heather will be covered by bracken. Bramble or shrubs. 2. LBBG will not be tolerated within the heath 3. No Rabbits will be tolerated within the heath	1. Some bracken encroachment but not measured. 2. Several pairs of LBBGs did nest within the heath. 3. Rabbits present in exclosure despite fence repairs. More complete repairs to be carried out 2011.

Summary table – Flora: Habitats and Communities

Feature	2006	2007	2008	2009	2010	Within limits?
Coastal grassland		No data	No vegetation monitoring carried out.	No vegetation monitoring carried out.	No vegetation monitoring carried out.	Unknown
❖ Extent of coastal grassland						Unknown
❖ Extent of Thrift						Thought to be.
❖ % Thrift in transect	79.1%					Thought to be (above upper limit in 2002).
❖ Extent <i>Silene</i> dominated turf						Unknown
❖ Extent of other maritime grassland communities						Thought to be.
❖ % Thrift tussocks alive in transect quadrats	93.4%					Thought to be.
❖ % vegetative cover (November)	78.2% (Oct)					
❖ Soil erosion (cm)						
Maritime cliff vegetation						
❖ Extent						
❖ Diversity						
Intertidal Zone						
❖ Quality						
Heathland						Unknown
❖ Extent of <i>Calluna vulgaris</i>						
❖ Diversity						
❖ Proportion of bare earth: building <i>Calluna</i> : mature <i>Calluna</i> : degenerate <i>Calluna</i>						Limits yet to be set
❖ % cover <i>Calluna</i> in transect	62%					

1.1 Flora – Habitats and Communities – Notes on tables

No vegetation surveys were carried out in 2010.

It will be important to restart vegetation surveys as soon as possible once Skokholm is inhabited for the full season. Much remapping and reacquainting with earlier work will be required but it will be important to know what is happening with the vegetation so management tasks can be prioritized.

1.2 Flora: Species

Features and attributes	Checked in 2010	Within Limits of Acceptable Change?	Operational limits (factors affecting feature)	Notes on operational limits
Golden hair lichen (feature 7) ❖ Presence ❖ Extent	Yes No	Thought to be.	1. No unauthorized public access off paths	1. No instances of deviation from paths.
Assemblage of saxicolous lichens (feature 16) ❖ Quality (no. of sp) ❖ Diversity (prescience of communities)	- -	- -	1. Maintain the seabird assemblage (feature 18) 2. No unauthorized access off paths 3. No management practices that will affect lichens	1. Within limits 2. No instances of unauthorized access 3. No activities carried out that knowingly affect lichens.
Assemblage of terricolous lichens (feature 17) ❖ Quality (no. of sp) ❖ Diversity (prescience of communities)	- -	- -	1. Maintain the seabird assemblage (feature 18) 2. Maintain limits of Sea Campion. 3. No unauthorized access off paths 4. No management practices that will affect lichens	1. Within limits 2. Thought to be (mapped in 2002, within limits). 3. No instances of unauthorized access 4. No activities carried out that knowingly affect lichens.

			5. Rabbit density at c. 20/ha	5. Rabbit density unknown.
Other species : Three-lobed Crowfoot (feature 22) ❖ Quantity, no. of plants in November	No	Yes (last checked in 2007)	1. Ensure seasonality of pools continues where Crowfoot occurs. 2. Ensure no gulls nest in vicinity of pools. 3. Ensure that Brookweed does not out compete Crowfoot.	1. Yes (last checked in 2007) 2. No gulls nesting nearby in 2007, colonies spreading in subsequent years. 3. Monitored 2006, few Brookweed plants present.

Summary table – Flora: Species

Feature	2006	2007	2008	2009	2010	Within Limits?
Golden hair lichen (feature 7)	Yes	Yes	Yes	Yes	Yes	Yes
❖ Presence	Yes	Yes	-	-	-	Though to be
❖ Extent						
Assemblage of saxicolous lichens (feature 16)						No limits set
❖ Quality (no. of sp)						
❖ Diversity (prescience of communities)						
Assemblage of terricolous lichens (feature 17)						No limits set
❖ Quality (no. of sp)						
❖ Diversity (prescience of communities)						
Other species: Three-lobed Crowfoot (feature 22)						Unknown (yes when last checked in 2007)
❖ Quantity, no. of plants in November	<50 plants	>50 plants	-	-	-	

1.2 Flora – Species – Notes on tables

No species surveys were carried out in 2010.

1.3 Mammals

Features and attributes	Checked in 2010	Within Limits of Acceptable Change?	Operational limits (factors affecting feature)	Notes on operational limits
House mouse (feature 24) ❖ Population size	No	None set	1. No mammalian ground predator will be tolerated 2. No other small mammal will be tolerated	1. None recorded 2. None recorded
Rabbit (feature 25) ❖ Population size, whole island ❖ Population size, study plots	- No	No – estimated 1600 individuals (2007) Yes – 16/ha (2007)	1. No mammalian ground predator will be tolerated 2. Bracken extent will not exceed that of 1989	1. None recorded 2. Bracken exceeded 1989 cover in 2001, not measured since then.
Grey seal (feature 26) ❖ Number of pups born annually	0 (Only visited intermittently Sept – Nov, not checked properly)	Probably below LAC of 4 pups.	1. No unauthorized access off paths	1. Few instances of unauthorized access onto shore, none observed during pupping season.

Summary table - Mammals

Feature	2006	2007	2008	2009	2010	Within Limits?
House mouse (feature 24) ❖ Population size	Yes	-	-	-	-	Yes - (when last counted 2006)
Rabbit (feature 25) ❖ Population size, whole island ❖ Population size, study plots	Estim. 3000	Estim. 1600	- <i>(casual observation suggests low numbers throughout season)</i>	-	- <i>(casual observation suggests low numbers throughout season)</i>	No – below LAC of 2500 (2007) still thought to be so.
	30/ha	16/ha -			-	Unknown
Grey seal (feature 26) ❖ Number of pups born annually	0 pups	1 pup	0 (incomplete observations)	0 (incomplete observations)	0 (incomplete observations)	No – Below lower limit of 4.

1.3 – Mammals – Notes on table

House mouse

There were no obvious signs of mouse activity/damage in the beginning of the season. However with increased occupancy, particularly throughout August, several were observed returning to the wheelhouse, kitchen and warden's accommodation.

Rabbit

No rabbit study plots were carried out this year but from general observations it would seem that the rabbit populations were at a very low level, especially in the spring. With individuals seeming healthy enough the population increased naturally through the year. There were no signs of Myxomatosis. It may be that the rabbit population suffered more than usual in the particularly cold winter.

Grey Seal

When the island was occupied counts of seals hauled out in South Haven and Crab Bay at low tide were carried out.

Visits were not made frequently or thoroughly enough in the autumn to search for pups, and none were seen or reported. One exception was a dead pup floating in the sea around Crab Bay on August 22nd. This is an unlikely place for a birth due to the lack of beach or similar at high tide. No mother was present and as the pup's origins were unclear it has not been counted as a Skokholm birth.

Cetaceans

Casual sightings of cetaceans were recorded, with regular sightings of Harbour Porpoise. The weekly cetacean survey could not be carried out this year.

1.4 Birds: Individual Species

Features and attributes	Checked in 2010	Within Limits of Acceptable Change?	Operational limits (factors affecting feature)	Notes on operational limits
<p>Manx Shearwater. (feature 8)</p> <ul style="list-style-type: none"> ❖ Population size in study plots ❖ Whole-island population 	<p>Yes – 587 AOB.</p> <p>No</p>	<p>Yes</p> <p>Unknown, yes in 2001</p>	<p>1. Mammalian ground predators will not be tolerated.</p> <p>2. Coastal Bracken distribution will not exceed that of 1989.</p> <p>3. Soil erosion should not exceed 0.5cm/yr.</p> <p>4. No unauthorized access off paths.</p> <p>5. No photography of Manx Shearwaters away from permitted areas.</p>	<p>1. None recorded.</p> <p>2. Limit exceeded in 2001. Not measured since.</p> <p>3. Not measured.</p> <p>4. No instances of deviation from paths.</p> <p>5. None reported.</p>
<p>Storm Petrel. (feature 9)</p> <ul style="list-style-type: none"> ❖ Population size in study walls. ❖ Population size, whole island. 	<p>No</p> <p>No</p>		<p>1. Mammalian ground predators will not be tolerated.</p> <p>2. Little Owls not tolerated.</p> <p>3. No encroachment of Bracken in contact with walls.</p> <p>4. No unauthorized access off paths.</p> <p>5. Walls will be</p>	<p>1. None recorded.</p> <p>2. None recorded.</p> <p>3. Some encroachment</p> <p>4. Few instances of unauthorized access.</p> <p>5. No fixed point</p>

Features and attributes	Checked in 2010	Within Limits of Acceptable Change?	Operational limits (factors affecting feature)	Notes on operational limits
			maintained	photographs were carried out in 2010.
Peregrine (feature 10)				
❖ Population size (no. of territory holding pairs)	1 pair	Yes	1. No unauthorized access off paths	1. No instances of unauthorized access.
❖ Breeding success	0 fledged	Yes		
Lesser Black-backed Gull. (feature 11)				
❖ Population size	2468 AONs	Yes	1. No unauthorized access of paths	1. No instances of unauthorized access.
❖ Breeding success.	No	Unknown	2. Distribution within specified areas. 3.No mammalian ground predators tolerated. 4. Bracken will not be reduced to less than half 1989 cover.	2. Colonies expanding from specified areas. 3. None recorded. 4. Limit exceeded.
Guillemot (feature 12)				
❖ Population size	1795 ind.	Yes	1. No unauthorized access off paths	1. No instances of unauthorized access
❖ Number in study plots	557 ind.	Yes	2. No mammalian ground predator	2. None recorded
❖ Breeding success in study plots	-	Unknown		

Features and attributes	Checked in 2010	Within Limits of Acceptable Change?	Operational limits (factors affecting feature)	Notes on operational limits
Razorbill (feature 13) ❖ Population size ❖ Number in study plots ❖ Breeding success in study plots	1140 ind. 257 ind. -	Yes, for 1 st time since 2003. Yes Unknown	1. No unauthorized access off paths 2. No mammalian ground predator	1. No instances of unauthorized access 2. None recorded
Puffin (feature 14) ❖ Population size ❖ Breeding success	No No	Thought to be. Unknown	1. No unauthorized access off paths 2. No mammalian ground predator 3. Bracken will not be tolerated on Puffin slopes	1. No instances of unauthorized access 2. None recorded 3. No areas of Bracken controlled
Chough (feature 15) ❖ Population size ❖ Breeding success	2 Pairs 2 fledged = 1 per pair	Yes Yes	1. No unauthorized access off paths 2. Rabbit density in June = higher than 8/ha 3. There should be 65%	1. No instances of unauthorized access 2. Rabbit density unknown (last count June 2007 = 38/ha) 3. Unknown (last count

Features and attributes	Checked in 2010	Within Limits of Acceptable Change?	Operational limits (factors affecting feature)	Notes on operational limits
			vegetative cover to bare ground in Nov	78.2 % cover in Oct. 2006)

Summary table – Birds: Individual species

Feature	2006	2007	2008	2009	2010	Within Limits?
Manx Shearwater. (feature 8)						
❖ Population size in study plots	1023	1123	729	617	587	Yes
❖ Whole-island population	-	-	-	-	-	-
Storm Petrel. (feature 9)						
❖ Population size in study walls.	23 AOB	-	-	-	New study sites established.	No – Below lower limit of 80 AOB
❖ Population size, whole island.	-	-	-	-	-	No – Below lower limit of 2500 AOB
Peregrine (feature 10)						
❖ Population size (no. of territory holding pairs)	1 pair	1 pair	1 pair	1 pair	1 pair	Yes
❖ Breeding success	2 fledged	1 fledged	2 fledged	1 fledged	None fledged	Yes
Lesser Black-backed Gull. (feature 11)						
❖ Population size	2786 AON	2890 AON	2763 AON	2396 AON	2468 AON	Yes
❖ Breeding success.	0.21	0.14	0.059	-	-	No – Below lower limit of 0.4
Guillemot (feature 12)						
❖ Population size	1348 ind.	1455 ind.	1538 ind..	1697 ind.	1795 ind.	Yes

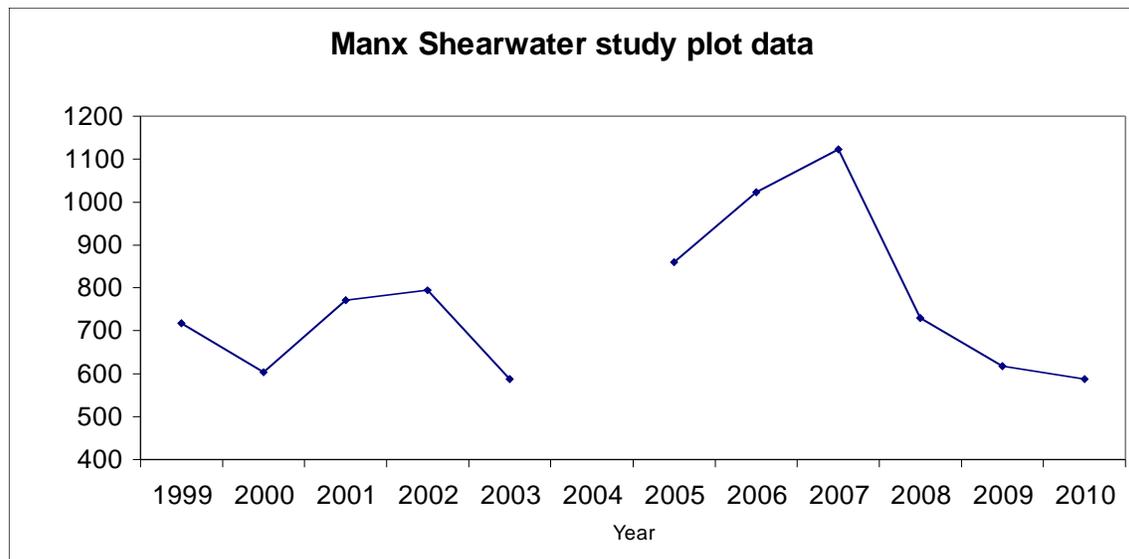
Feature	2006	2007	2008	2009	2010	Within Limits?
❖ Number in study plots	447 ind.	320 ind.	333 ind.	556 ind.	557 ind.	Yes
❖ Breeding success in study plots	-	0.6 young/active site	-	-	-	Unknown
Razorbill (feature 13)						
❖ Population size	937 ind.	812 ind.	946 ind.	950 ind.	1140 ind.	Yes
❖ Number in study plots	201 ind.	159 ind.	180 ind.	236 ind.	257 ind.	Yes
❖ Breeding success in study plots	-	0.2 young/active site	-	-	-	Unknown
Puffin (feature 14)						
❖ Population size	4802 ind.	4900 ind.	(3198 unreliable count)	(3055 unreliable count)	-	Yes
❖ Breeding success	-	-	-	-	-	Unknown
Chough (feature 15)						
❖ Population size	1 pair	2 pairs	2 pairs	2 pairs	2 pairs	Yes
❖ Breeding success	1 young	5 young	4 young (best guess)	3 young (best guess)	2 young	Yes

Birds – Individual Species – Notes on table

Manx Shearwater

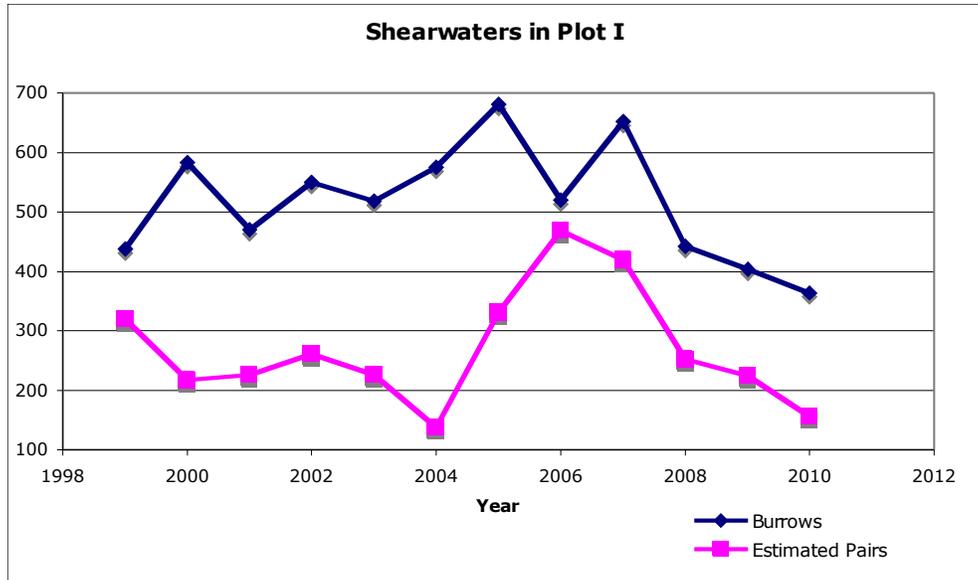
Study plots B to K (excluding the discontinued sites E and G) were monitored in the first week of June. The weather in this period was sunny and dry with light westerly winds.

The alarming decline in shearwater numbers continues, with this years' count of 587 estimated pairs equal to the lowest figure (2003) since recording began in 1999.

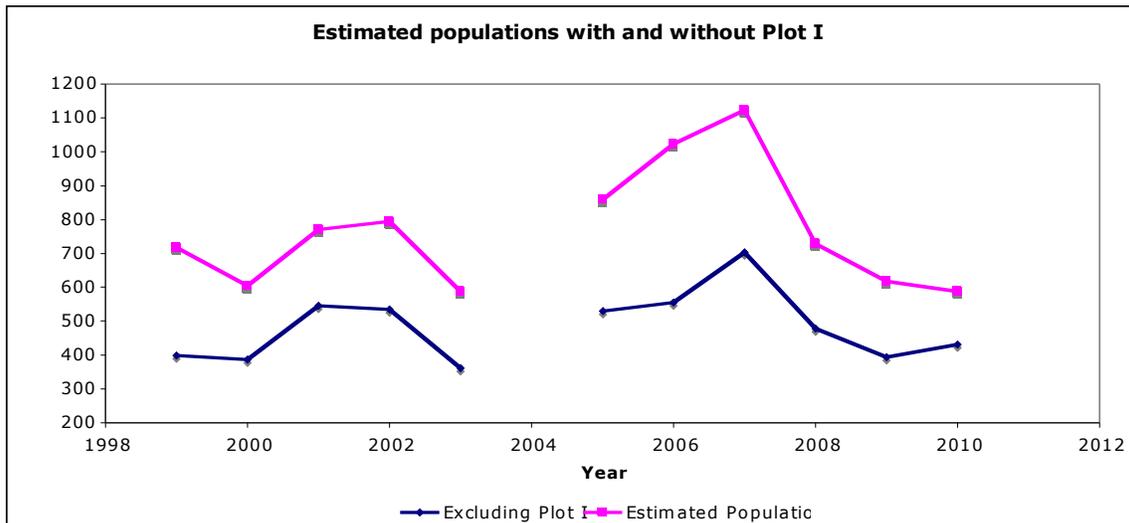


This graph does not quite tell the whole story as study plots have changed over the ten-year period. Plot E, last counted in 2006 held an average of 84 estimated pairs, while Plot K, first studied in the same year has held an average of 112 estimated pairs. Counting at Plot G was halted after 2005, although this it was very rare that any shearwaters were found there.

In the previous two years comments have been made about fragile nature of the ground around Plot I. Near the lighthouse at the south-west corner of the island, this is the densest area of burrows over Skokholm, Skomer and Middleholm (Smith, Thompson & Perrins, 2001) and potentially the densest colony of Manx Shearwaters in the world. The number of burrows and estimated pairs in this plot continued to decline, mirroring the overall island decline and adding support to the idea that it may have reached saturation and the soil cap is collapsing.

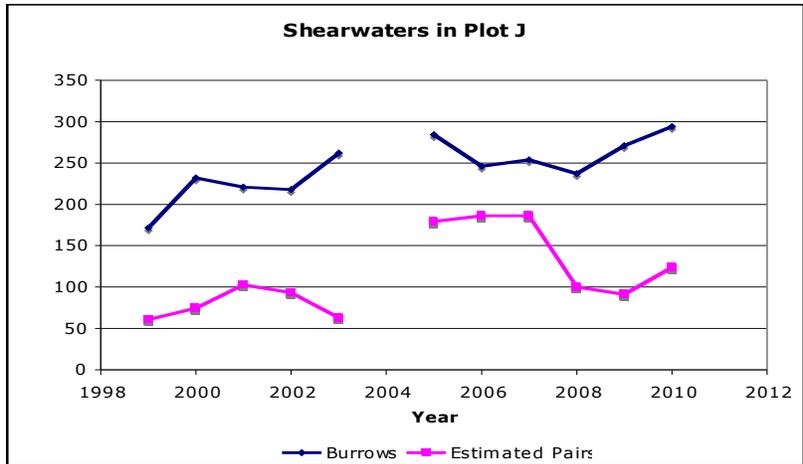


Any change in the number of birds in this area has a large effect on the overall estimated population and trend. If Plot I is taken out of the figures the variation in counts is massively reduced and the count for 2010 is actually higher than 2009.



This all serves to emphasise the importance of the area around the lighthouse as a Manx shearwater colony.

A potentially useful addition in the future would be to mark on areas of bare earth within study plots. There was noticeably less in Plot I this year as Sea Campion coverage was almost complete, whereas in Plot J, nearby to the east, there was significantly more bare ground. The number of burrows in this plot has been increasing over the last three years, in direct contrast that in Plot I, and it may be possible that the colony is shifting as burrows start collapsing.



The last full island census was carried out in 1998 and it has been agreed it would be very useful to carry out another as soon as resources allow. A review of current study plot areas may be useful if the population is moving around the island as the soil cap collapses. Plot F is starting to become colonised by Lesser Black-backed Gulls and may need to be abandoned if disturbance proves too much.

It should also be noted here that this years' count of 80 pairs of Great Black-backed Gulls is a record high. Many of these are nesting within the densest shearwater colonies around the lighthouse and although their true impact is largely unknown they must be contributing to the fall in shearwater numbers.

Storm Petrel

The annual study plot sites have not been studied since 2006. A 2007 investigation into more reliable monitoring methods using an endoscope and playback studies found that the artificial nest boxes were unoccupied and not enough suitable sites were found to draw any conclusions (Milborrow, 2007). Since that study time constraints and limited island occupancy have meant no further work has been done on Storm Petrels.

This year though a large scale study of Skokholm was carried out in early-June by Steve Sutcliffe and Denbigh Vaughn to establish new study plots along the walls, in North Haven and along transects in the quarry.

Peregrine Falcon

One pair was seen all around the island but most often around The Bluffs south of Wallsend Bay, where they nested in 2009. However, no evidence of nest building or any young was observed.

Update on 2009: as poor weather meant no visits to Skokholm were made during July or August it was unclear what happened regarding the nesting Peregrine pair. Local

interested parties though have reported seeing two adults with a young bird in this area at that time.

Chough

Two pairs of Chough nested on Skokholm in 2010. One pair nesting in Steep Bay raised two chicks. The second pair were frequently seen and heard around the lighthouse but no nest was discovered or young seen and it is unclear as to whether they attempted to nest at all.

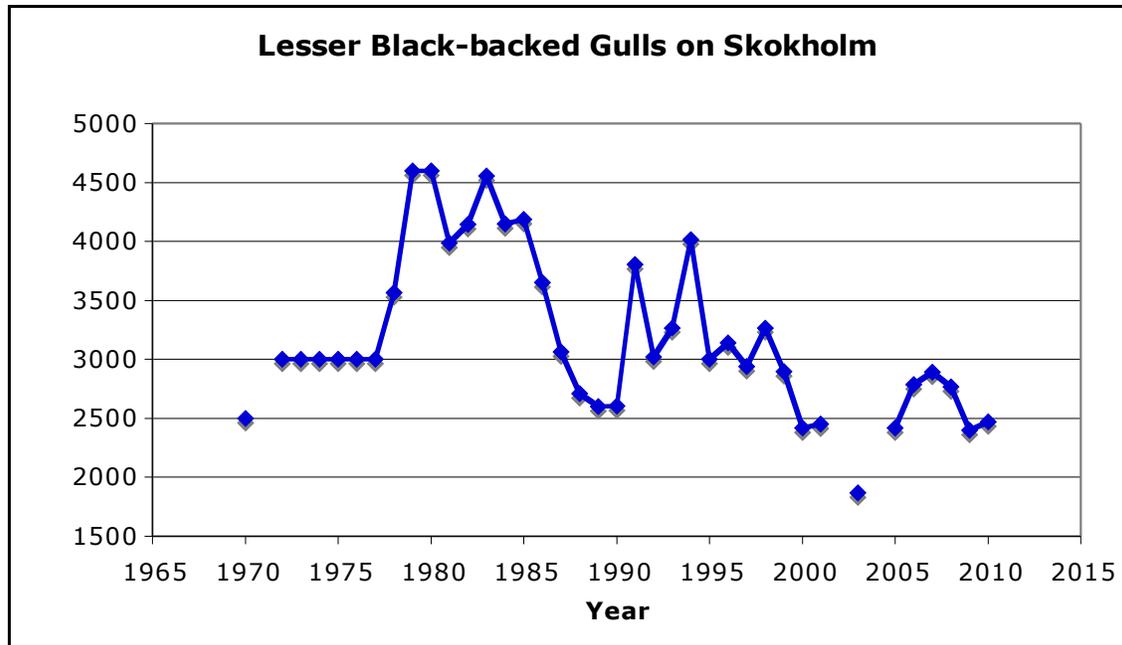
This is the fourth year in succession that there have been two pairs of chough on Skokholm (from 1992 there was just one pair) although it is the second year that only one have bred.

Lesser black-backed Gull

Walk-through and vantage-point counts of all colonies were carried out 11th to 13th May. Although this is the same time of year as other counts it was obvious that the gulls were not at as advanced a stage as usual, perhaps due to the intense cold in the early spring. This produced some abnormal results; the vantage-point counts were higher than the supposedly more accurate walk-through figures. It was clear that this was because many pairs had only got as far as making the very first stage of their nests – ones that could be easily overlooked when walking transects. Low vegetation meant vantage-point observations could be made with some assurance.

In an ideal situation the counting would have been delayed by a week or two, but with limited time on the island it was decided that using the figures from the vantage point counts and correcting the walk-through ones accordingly would most accurately reflect Lesser Black-backed Gull numbers. The adjustment of the figures felt justified upon returning to Skokholm at the start of June and finding many new Lesser Black-backed Gull nests that were not previously there. Complete figures are available in separate '2010 Gull counts' document, also by J. Gillham.

This gave a figure of 2468 AONs.



This is a marginal (3%) increase on last year but the population remains under the 2500 AONs laid down as a minimum in the SSSI notification, although it is not (yet) in three out of five consecutive years.

Despite the recent decline in numbers, many of the Lesser Black-backed Gull colonies have increased their spread across the island, becoming less densely packed. In some places this is surely a result of fewer human inhabitants (where colonies now cross paths or are closer to buildings) and it will be interesting to see how this changes in the future.

Productivity studies were not carried out due to time constraints.

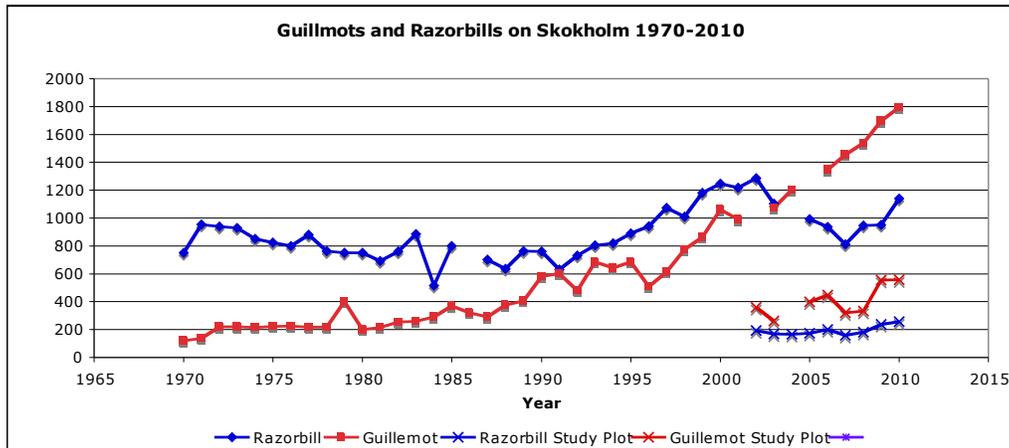
Guillemot

Numbers in the study-plots were almost exactly the same as in 2009, then the highest since counts began in 2002. Whole-island counts (three were carried out this year) showed that the annual increase in guillemot numbers since the late 1990s has continued with another record year.

Productivity studies were attempted but without a continuous presence on the island they were not consistent or reliable enough to be viable.

Razorbill

Three whole-island counts were carried out and they showed that the slight increase of the last three years has continued and become more rapid. Numbers appear to be climbing back up to the 2000 – 2002 peak. This was reflected within the study plots with the highest count since they began in 2002.



Productivity studies could not be carried out due to a lack of a continuous presence on the island.

Puffin

There were no puffin counts carried out this season as there were no appropriate evenings when the island was occupied. Casual observations suggest a healthy population.

1.4.1 Birds: Assemblages

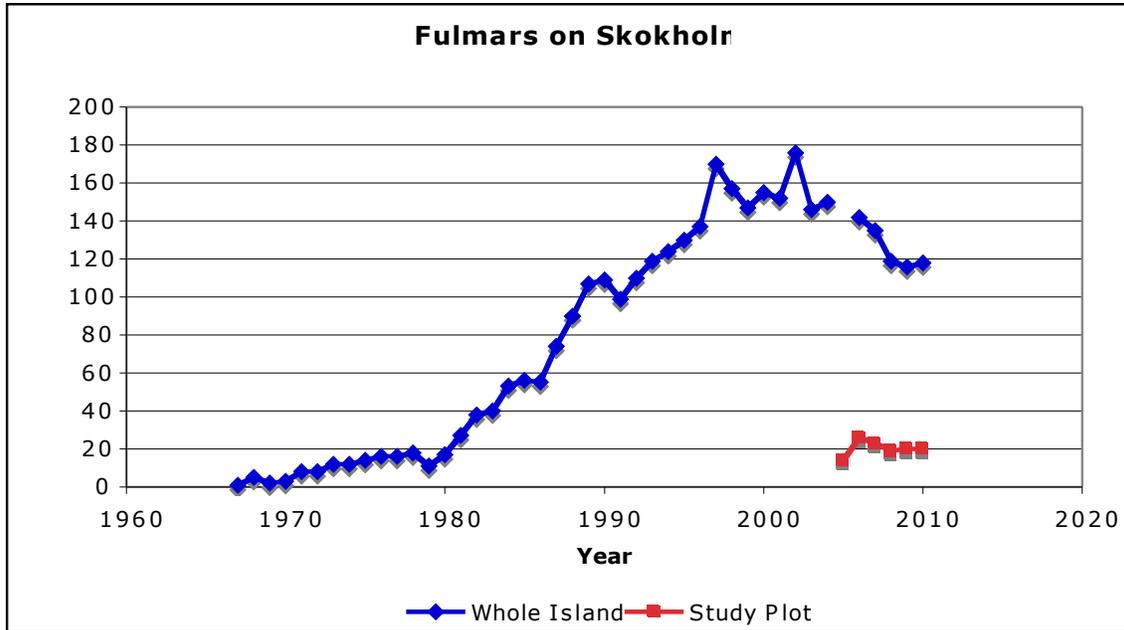
Features and attributes	Checked in 2010	Within limits of acceptable change	Operational limits (Factors affecting feature)	Notes on operational limits
<p>Seabird assemblage, species other than those as features in their own right:</p> <p>Fulmar:</p> <ul style="list-style-type: none"> ❖ Population size ❖ Breeding success <p>Herring Gull</p> <ul style="list-style-type: none"> ❖ Population size ❖ Breeding success <p>Great Black-backed Gull</p> <ul style="list-style-type: none"> ❖ Population size ❖ Breeding success <p>Note: This feature includes those seabird species previously identified as features. For this feature to be in a favorable condition, all the components must be within limits.</p> <p>Seabirds assemblage, feature as a whole</p>	<p>118 AOS 0.36 (estimate)</p> <p>312 AON 0.82</p> <p>80 AON 0.71</p> <p>Yes</p>	<p>Yes Thought to be (LAC 0.3/AON in 3 of 5 yrs)</p> <p>Yes -</p> <p>Yes Yes</p> <p>No (due to Storm Petrel numbers and LBBG productivity)</p>	<p>1. No LBBG will nest outside permitted areas</p> <p>2. Bracken will not encroach on 1989 limits</p> <p>3. Soil erosion not exceeds 0.5 cm/yr</p> <p>4. Mammalian ground predators will not be tolerated.</p> <p>5. Little owls will not be tolerated.</p> <p>6. No unauthorized access off paths</p>	<p>1. Some nesting outside of permitted areas</p> <p>2. Bracken exceeds 1989 limits (measured in 2001)</p> <p>3. Not measured</p> <p>4. None recorded</p> <p>5. None recorded</p> <p>6. No instances of unauthorized access.</p>
<p>Other species – Assemblage of important ground-nesting birds</p> <p>Oystercatcher</p> <ul style="list-style-type: none"> ❖ Population size ❖ Breeding success 	<p>31 AOT</p> <p>No</p>	<p>Yes</p> <p>Unknown</p>	<p>1. Bracken will not encroach on 1989 limits</p> <p>2. Rabbit density in June above 20/ha</p>	<p>1. Bracken exceeds 1989 limits (measured in 2001)</p> <p>2. Rabbit density in June not measured</p>

Feature	2006	2007	2008	2009	2010	Within Limits?
Great Black-backed Gull						
❖ Population size	61 AON	51 AON	61 AON	69 AON	80 AON	Yes
❖ Breeding success	1.07	-	0.97	-	0.71	Yes
Other species – Assemblage of important ground-nesting birds						
Oystercatcher						
❖ Population size	38 AOT	37 AOT	25 AOT	31 AOT	31 AOT	Yes
❖ Breeding success	-	0.14	-	-	-	No
Lapwing						
❖ Population size	0	0	0	0	0	No
❖ Breeding success	0	0	0	0	0	No
Skylark						
❖ Population size	5 AOT	11 AOT	-	-	4 AOT (estimate)	No - lower limit 8 AOT
Wheatear						
❖ Population size	-	15 AOT	-	-	8 AOT (estimate)	Yes

1.4 Birds – Assemblages - Notes

Fulmars

Study plot counts and three whole-island counts were carried out during the first ten days of June, giving figures of 20 and 118 apparently occupied sites, respectively. These are very similar to the counts of the previous three years. It may be that the population is stabilizing after the rapid increase between 1980 and 2000 when it went from under 20 pairs to over 150. This has dropped in the last ten years but numbers are still healthy.

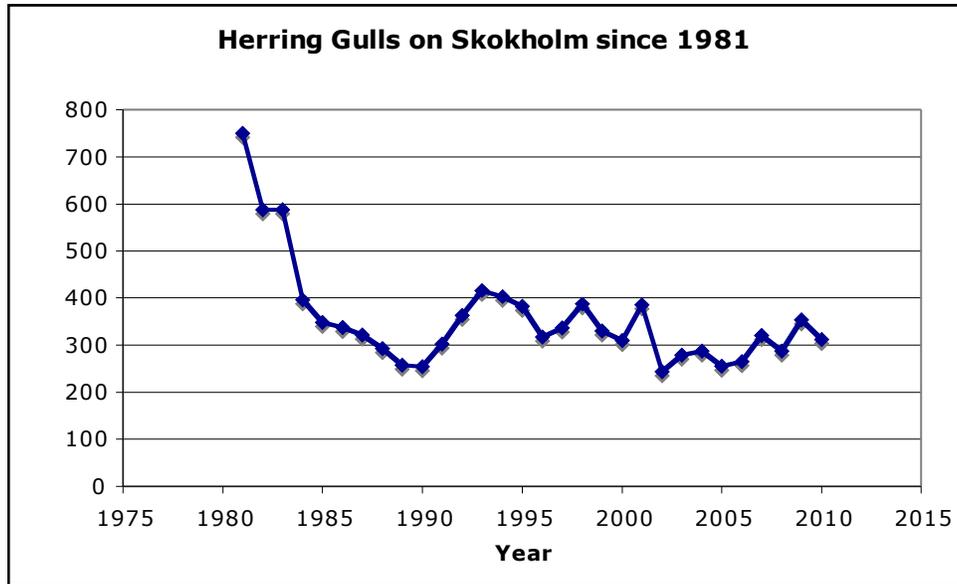


With no sustained presence on Skokholm it was difficult to carry out a reliable productivity study. However, a count of chicks on August 8th gave a total of 43 around the whole island, which equates to 0.36 per AOS. By this time many were ready for fledging and some may have left the nest sites so this is likely to be a low estimate. In the years 1981 to 2004, when studies were routinely carried out, the average productivity was 0.42 young / AOS, so this year was not so successful. Reassuringly though it is above the lower limit of 0.3 young / AOS set out in the management plan.

FIRST FLEDGING DATES ON SKOMER

Herring Gulls

Counts were carried out on the cliffs and within other gull colonies in mid-May. This gave us a figure of 312 AONs. As with Lesser Black-backed Gulls, many Herring Gulls were still in the early stages of nest-building. Because of the nature of counting methods – vantage point rather than causing any disturbance – it was easier to get an accurate figure.

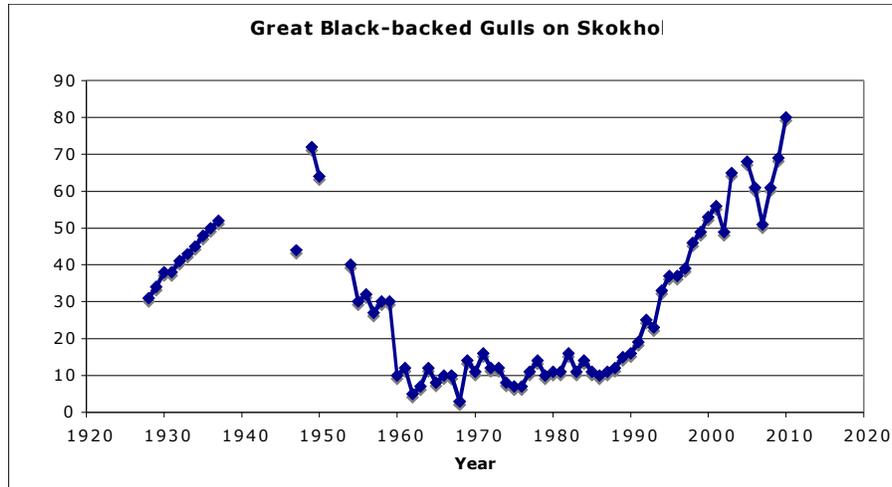


Like the Lesser Black-backed Gulls and other gull populations across the UK, the Herring Gull population experienced a big increase between the late 1950s and early 1980s, reaching a peak of 1400 AONs in 1975. Since then though populations have declined. The good news is that the Skokholm population appears stable, having fluctuated around 300 pairs since 1985.

Of more concern nationwide has been their decreasing productivity. In this respect it was a good year for Skokholm's Herring Gulls with the study plot of 126 nests on The Neck giving rise to 103 chicks, or 0.82 young / AON, the fifth best year since 1989 (and two of those were exceptional years, raising over 1.3 young / AON). The average productivity in this time has been 0.67 young / AON.

Great Black-backed Gulls

Whole island counts were carried out in mid-May, with breeding success looked at around the start of July. This year was a record count of Great Black-backed Gulls, with 80 apparently occupied nests. This has continued the trend of this species increasing from less than ten pairs in the mid-1970s. This increase has shot up since 2007, with roughly ten extra pairs each year. It will be interesting to see if this is directly related to a lack of human presence on Skokholm and what happens in the next few years.



Productivity was 0.71 fledged young / nest. Surprisingly, considering how poor some of the recent seasons have been for Herring and Lesser Black-backed Gulls, this is the lowest Great Black-backed Gull productivity in the 17 years since 1987 that studies have been carried out (the average in this time has been 1.07 young / nest). This is in a year when Herring Gull productivity was quite high, so food availability would appear not to be a problem, although the high number of Great Black-backed Gulls would have led to increased competition.

Oystercatchers

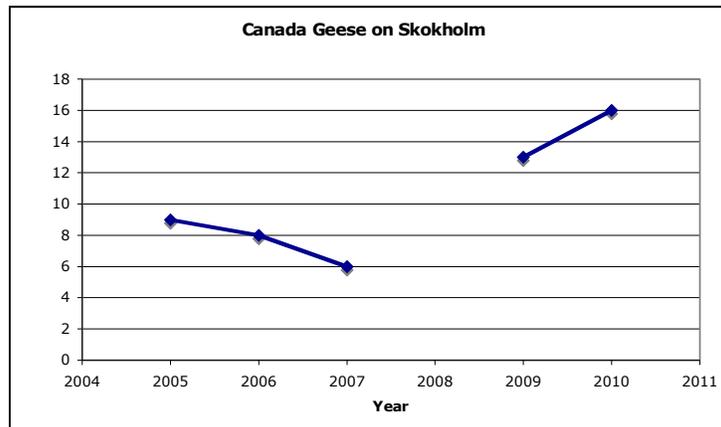
There was a total of 31 apparently occupied territories on Skokholm this year, equal to last year and within the recently fluctuating range of the species. Since 2002 there has been an average 34 AOTs, with a maximum of 48 and minimum of 25.

Skylark and Wheatear

Notes were made on singing individuals, regularly seen pairs and the first appearance of juveniles, but these were only from short visits and not frequent enough to be truly reliable. However they have been included here as a guide and best guess at what is happening with the breeding birds.

1.4.2 Other Birds

Canada Geese have been present on the island throughout the breeding season. 16 active nests were discovered during the course of gull-counts, but this may have missed some early nesters as families of adults and goslings (a total of 22 goslings) were seen from May 8th. The number has increased significantly in the last three years and it is again perhaps as a result of human absence. It is a trend that should be observed.



It appears that many non-breeding Canada Geese visit Skokholm as daily counts would frequently be over 50, with a concerted effort to cover the whole island on May 13th gave a total of 82 adults.

Three pairs of Ravens were regularly seen around Skokholm although it appears only two pairs bred, in North Haven (raising two chicks) and the South Coast (raising three). After breeding very successfully in Twinlets Bay last year, one pair started nest building there very late (near the end of April) but abandoned this attempt.

A pair of Buzzards was seen over the island, particularly around the south coast, throughout the year, but no nesting or breeding activity was recorded.

The Common Bird Census was not carried out this year resulting in a lower understanding of breeding birds on the island. The following figures are best guesses, based on casual observations or single counts:

<u>Species</u>	<u>Pairs</u>	<u>Notes</u>
Shelduck	1	An initial six ducklings on north pond.
Moorhen	2 (at least)	Well pond and north pond. First young seen 6 th June.
Swallow	4	Two around buildings, one at red hut, one at lighthouse. Appeared to have a very successful year.
Meadow Pipit	Unknown	
Rock Pipit	Unknown	Very numerous, seemed to have a very successful year.
Pied Wagtail	1	Around courtyard. First brood of three chicks on 1 st July.
Wren	Unknown	
Blackbird	2	Behind wheelhouse and near the well.
Sedge Warbler	4	Three around the well, one at east bog.
Jackdaw	Unknown	14 pairs last census (in 1996). Observations suggest

		this figure has risen.
Carrion Crow	5	
Reed Bunting	1	A pair by the well throughout May appeared unsuccessful as subsequent sightings were scarce.

A bird log was kept of all sightings on day trips and work parties. The log is kept electronically on Skomer external hard drive and Skokholm laptop and a paper copy will be printed, to be kept in the library.

1.5 Herptiles

Slow worms were present underneath corrugated sheets throughout the season.

1.6 Invertebrates

The weekly butterfly transect was not carried out. The following species were noted as present at least once in 2010: Orange Tip, Small White, Large White, Small Copper, Red Admiral, Painted Lady, Small Tortoiseshell, Peacock, Gatekeeper, Meadow Brown.

No moth trapping was carried out this season.

2.0 Human Impact

2.1 Visitor numbers

There was no overnight accommodation for visitors in 2010, although a number of work parties, usually six to eight people, spent the following periods on the island: May 7th to 15th, June 26th to July 9th and August 7th to September 2nd.

Four day-trips were organized, two of which ran successfully (May 10th and August 2nd). On 7th June the sea was too rough to land but those who had paid were offered a guided tour around Skokholm by boat. Conditions on July 5th were too rough for any boats. All the day trips were fully booked and 60 people managed to visit.

A Founder's Day trip on June 14th was able to go ahead and land another 30 people onto Skokholm.

Each day trip consisted of an introductory talk then splitting the party into two groups for a guided walks led by one of Jerry Gillham, Skomer Warden Chris Taylor, Long-Term Volunteer Andy Lawton or regular volunteer Phil Blatcher. Tea and coffee were made available, coming from our own supplies, and donations were welcomed.

2.2 Disturbance to Wildlife

Island visitors

No cases of disturbance were reported or noted by staff or volunteers. The importance of sticking to marked paths and the fragile nature of the island was clearly explained in introductory talks. As several paths have become overgrown and hard to follow, particularly around The Neck, visitors were asked to be aware of some specific signs to look out for that may indicate they were causing a disturbance (collapsing ground, stressed birds etc.)

Although there was no Peregrine, Chough or Buzzard nesting on the South Coast this year, the path remained closed to day visitors, mainly due to safety concerns as it is very hard to follow.

The last few years have seen Code of Conduct and Incident Reporting Forms printed on the reverse of maps given out to all visitors upon arrival. These may have been useful in the past, particularly with longer-term visitors, but none of the incident forms have been returned in the last three years. So the Code of Conduct was amended and the incident form changed to an update about the Skokholm Restoration Project, informing people what was happening and how they could stay in touch.

Boats

During the time Skokholm was inhabited there was no serious disturbance noted from boats.

Sea Safari, dive boats and kayakers all come in close, especially to South Haven, but all those observed have appeared aware of the marine code and done their best not to disturb seals or puffins. As these are what is drawing these visitors out here they are treating them with respect, keeping a reasonable distance away, moving quietly and slowly. Moving with less care is the occasional lobster-potting boat coming in close, however this was not noted during the main breeding season. Kayakers have been seen hauled out on North Haven beach but not attempting to get any further onto the island or causing any problems.

Low flying aircraft

There were no sightings of aircraft while wardens were on the island. The lighthouse was visited several times by Trinity House employees, each time the helicopter arrived over the sea.

2.3 Pollution

No incidents of pollution were encountered or reported to the island staff.

3.0 Reserve Administration

3.1 Finance

Island Budget

Budgeting was handled by the mainland staff.

Fees

The cost of a day trip out to the island was £35 per person (with the exception of Founders who are not charged).

Volunteers were not charged for staying on the island.

Tuck shop

The tuck shop was not run in 2010.

Tea and coffee was made available to day visitors from supplies already on the island. No charge was made but donations were asked for. The totals from this, and from donations for old leaflets and fact sheets, was £37 and £XXXXX. This was spent on the removal of plastic dairy hypochlorite containers for recycling (£15 for 72 containers), tools and paint.

Island Shop

The shop was not run in 2010.

Donations

Donations of any items have been handled by the Friends of Skokholm and Skomer.

3.2 Staff

Jerry Gillham was employed as Skokholm/Skomer Assistant Warden from 26th February – 3rd December (working on the mainland for a few days in preparation of the new season).

Chris Taylor was employed as Skomer Island Warden with responsibility to oversee work carried out on Skokholm.

3.3 Volunteers

A Long-Term Volunteer, Andrew Lawton, was recruited throughout May and June. This was essential to ensure there was always at least two people on Skokholm and to ensure the completion of the core monitoring projects. As well as vital assistance with the Gull, Shearwater and cliff-nesting bird counts, Andy took on the Great Black-backed Gull

monitoring and contributed to other projects. He helped with day trips, leading one guided walk, and assisted the wardens as required on Skomer. The experience gained in monitoring techniques and visitor management will hopefully help Andy in future employment.

During July and August a second long-term volunteer, Nia Stephens, was based on Skomer but was a great help when unloading deliveries for the building project.

The regular gull counting volunteers; Phil Blatcher, John Jones, Sam o'Shea, Irene Payne and Wendy Coles, along with Jerry, Andy and Steve Sutcliffe got the monitoring done extremely efficiently and were able to do considerable work readying Skokholm for day-visitors and later restoration work.

The majority of the work was carried out by volunteers between 19th June to 3rd July and 7th August to 3rd September. The enthusiasm and commitment demonstrated by all can only be applauded. Many of the following spent two weeks working all day every day; Barry Bealey, Sam Charles-Edwards, Carol Collins, Greg Glendell, Paddy Jenks, Andy Kurzeffeld, Janet Mills, Mike Penny, Richard Pond, Martin & Ben Pratt, Sam & Nils Robins, Charlie Sargant, Renate Thome, Mike Webster, Tom Williams, Hamish Young and especially Vicky Brazier, Tansy Knight and Wendy Coles, who not only contributed to all this but also found time to cook for everyone.

In addition there were many volunteers from Skomer, Dale Sailing and the Marloes / Dale local community who aided with the delivery of materials for the building project. In particular John Walmsley and Steve Sutcliffe, who organized the purchasing of materials, their delivery, the work-parties and the restoration plans.

3.4 Training

No official training was given this year, Jerry Gillham already holding the First Aid at Work and Powerboat Level II certificates, both of which have been vital.

In house training was given to all volunteers associated with day trips, monitoring and restoration work.

3.5 Health and Safety

General

Risk Assessments written specifically for the running of day trips in 2008 are still relevant. These allow for extra considerations associated with drinking water, the landing, etc. The landing was scrubbed with Dairy HypoChlorite to keep it free from algae and seaweed growth, ensuring it was safe to walk on for all visitors and for deliveries of building material.

Fire extinguishers and fire blankets were visually checked by the Assistant Warden, as were ropes, helmets and harnesses required for some of the seabird study-plot monitoring.

First aid kits were checked and contents replaced when needed.

All drinking and cooking water came directly from the well and was thoroughly boiled before use.

Day trips

All visitors were given an introductory talk, which highlighted the dangers of the fragile ground and cliffs. Any specific areas of fragile ground were pointed out during the compulsory guided walk. The south coast footpath was closed to visitors as it has eroded somewhat and become particularly difficult to follow. Other footpaths had become somewhat overgrown so a large effort was made to remark them with white stones and temporary canes.

Work parties

Risk assessments were drawn up by those organizing the restoration work. Personal protective equipment and clothing was supplied and training was given as required. Some specific jobs, including removing asbestos roofing and rebuilding the roof, were carried out by professionals.

Accident forms have been completed for the two minor cuts that occurred during the rebuilding and decorating work.

3.6 Islands Advisory Committee

A meeting at Cilgerran on 26th February was attended by both Chris Taylor and Jerry Gillham. Both were able to attend meetings on Skomer on **XXXX** and Skokholm on 22nd August.

3.7 Management planning

There has been no development of the management plan since 2007 and it is in need of a re-write.

3.8 Trust New Member Recruiting

Trust membership leaflets were available in the Wheelhouse on day-trips. The map that is given to visitors contained revised information about the restoration project and details of the Trust.

3.9 Friends of Skokholm and Skomer

The Assistant Warden attended the annual reunion of the Friends and gave a talk, updating people on Skokholm.

Friends of the islands leaflets left on the island have suffered in the damp conditions and had to be removed. Recent newsletters were displayed in the Wheelhouse on day-trips and information about the Friends was on the reverse of the visitor map.

4.0 RESERVE MANAGEMENT

4.1 Media and publicity

BBC Wales Today did a report on the restoration work being carried out on Skokholm, focusing on how the island will soon be open to an increased number of visitors. This was recorded on 1st September and broadcast in time for the evening news the following day.

Volunteer Mike Webster had a small stall at the Rutland Bird Fair from which he was able to promote Skokholm.

4.2 Liaison and relations

A good relationship was maintained with all relevant organizations and individuals and effort was put into improving communication between the island and mainland staff and other organizations.

4.3 Habitat and species management

Bracken

Bracken was cut back from the paths only, using shears. Bracken control should be one of the priorities when time allows.

Heather

Despite some repairs the enclosure is still not fully rabbit-proof. Further work is needed on this as well as removing bracken and nesting gulls from there.

4.4 Infrastructure

Buildings – visitor accommodation and storerooms

Buildings cleaned before and during volunteer work party and day trips.

Buildings – hides

Minor repairs were needed to the North Pond, Neck and South Haven hides, mainly on the doors and flaps. Some re-painting and wood-staining was needed.

Water and sewage

Rainwater tanks were not used for anything more than casual hand-washing.

Water from the well was used for all cooking and washing.

Chemical toilets were emptied into the pit.

Rubbish disposal

That which could be composted or safely burnt was done so.

Work parties took all their recyclables off with them as well as a significant amount of other glass and cans that have built up.

Part of the restoration work involved collecting up and sorting all the island's rubbish.

Over 70 HypoChlorite containers were removed after one work party and several large bags of metal (mainly mesh-fencing) were taken off on the Lady Helen to go to a skip in Neyland. There is a lot of scrap metal still to be picked up and in the future any purchase of furniture or fencing work should take into consideration disposal of the feature.

Twenty four 12v batteries, at least one not working since October 1995, were taken away on Lady Helen to be recycled / reclaimed by a Swansea company.

Paths

All path markers were checked and re-painted and at the beginning of the season. Paths became increasingly hard to find as the season progressed (see Health and Safety note above) so many more markers were added.

Bracken was cut from edges of paths on an irregular basis. Some areas around buildings also cleared.

Landing places

Landing cleaned of algae on a fortnightly to three-week basis during the visitor season.

4.5 Machinery and equipment

Island computer

Island computer was based on Skomer, enabling full broadband internet access. During the renovations project all work is kept on the Skomer external hard drive and backed up to DVDs kept in the Island's safe. Upon Wardens return to the mainland all files will be up-loaded to the Trusts' server.

Dumper truck

Dumper truck worked throughout season with no problems, although the occasional sticking accelerator and gear stick should be investigated.

All grease nipples and suitable exposed metalwork was greased and any flaking paint was removed, a new coat of red oxide and yellow Hammerite being applied.

The garage in which the dumper was stored through the season and over the winter has had the doors replaced which will hopefully protect it from the worst of the weather.

At the end of season and isolator keys and keys will be stored at WWC with the rest of the island keys.

This is such an important bit of kit for island life it will be worth getting a professional to look over it at the start of the 2011 season.

Power barrow

Power barrow was run dry and stored in the Red Hut at the end of the 2007 season and was not used this season.

Gas system and appliances

Gas system checked by the Assistant Warden at start of season and some works carried out, in particular several regulators needed changing. During these works it became clear the gas system is needlessly complicated and any improvements would be welcome. All gas appliances, isolator switches and gas bottles turned off at the end of the season

Electricity generators and system

All electricity system working well for whole of season. Upon Wardens return batteries had good charge from the solar panel.

There was no need to run the generators in the 2010 season.

Electricity isolator key switched to off position when the island was unoccupied - so no current passing through system when member of staff were not present.

Solar panel mounted on wall to provide some charge to batteries over winter to keep them in good condition.

Hydraulic ram pump

After some brief work the RAM pump worked well.

Radio

A handheld unit from Skomer was used throughout the season. This proved a useful device when talking to boatmen.

VHF unmounted and boxed up for over winter storage in 2008 and hasn't been tested since.

4.6 Food deliveries

No food delivery were made during the 2008 season

5.0 Acknowledgements

As well as those mentioned in the volunteers section above, thanks must go in particular go to Wendy Barnes-Jones for her expert organizational skills with regards the day trips.

Thanks to the boatmen, particularly Peter Proudlove, for their help with some tricky landings.

6.0 References

J. Milborrow (2007) – Storm Petrel Pilot Study on Skokholm Island. Report for the Countryside Council for Wales, contract no. FC73-01-583

S. Smith, G. Thompson & C.M. Perrins (2001) - An estimate of the Manx shearwater population on Skomer, Skokholm and Middleholm islands. Report for the Countryside Council for Wales, contract science report no. 342