

St Abb's Head National Nature Reserve

Seabird Report for 2014

Introduction

This report presents data from whole colony counts of fulmar, shag, herring gull, kittiwake, puffin, guillemot and razorbill; counts of guillemot and razorbill at monitoring plots and breeding success of shag, kittiwake, guillemot and razorbill.

Full details of methods, location of plots, count positions, section boundaries, maps and photographs are given in previous reports (see especially S. R. D. da Prato Seabird Census 1985 and Seabird Monitoring 1985) or held in the Reserve's files at the Rangers' Office.

Results are presented in a series of tables and comparison is made with previous years.

Summary of seabird counts in 2013

Whole Colony Counts

Species	Count Unit	2014 Total	Change on 2013	Comments
Fulmar	Apparently occupied site (AOS)	114	+20%	Although up on last year, this is still the third lowest count on record. It represents 75% of the 10 year mean of 152 AOS, and just 45% of the 30 year mean of 253 AOS.
Shag	Apparently occupied nest (AON)	107	+11%	Although up on last year, this is still the second lowest count on record. It represents 77% of the 10 year mean of 139 AON, and 45% of the 30 year mean of 240 AON.
Herring Gull	Apparently occupied nest (AON)	184	-23%	Down on last year, and the third lowest count on record. It represents 81% of the 10 year mean of 228 AON, and 53% of the 30 year mean of 344 AON.
Kittiwake	Apparently occupied nest (AON)	3625	+6%	Although up on last year, this is still the second lowest count on record. It represents 72% of the 10 year mean of 5,068, and just 35% of the 30 year mean of 10,156 AON.

Productivity

Species	Mean productivity in 2014 (chicks fledged/active nest)	Change on 2013	Comments
Shag	1.99	+201%	Double last year's productivity and the highest figure on record. It represents 154% of the 10 year mean of 1.29 and 160% of the 25 year mean of 1.24 chicks fledged per active nest.
Kittiwake	1.05	+1313%	A huge increase on last year (which was virtually nil) and the third highest figure on record. It represents 202% of the 10 year mean of 0.52 and 169% of the 28 year mean of 0.62 chicks fledged per active nest.
Guillemot	0.46	N/A	Never monitored at St Abb's Head before.
Razorbill	0.43	N/A	This is a 34% increase on the 2008 figure of 0.32 chicks fledged per AOS.

Counts at Monitoring Plots

Species	Count Unit	Sum of plot means in 2014	Change on 2013	Comments
Guillemot	Individuals	1541	+10%	Up on last year and represents 105% of the 31 year mean of 1463 and 101% of the 10 year mean of 1532.
Razorbill	Individuals	130	+10%	Up on last year and represents 92% of the 31 year mean of 141 and 102% of the 10 year mean of 128.

Species Accounts

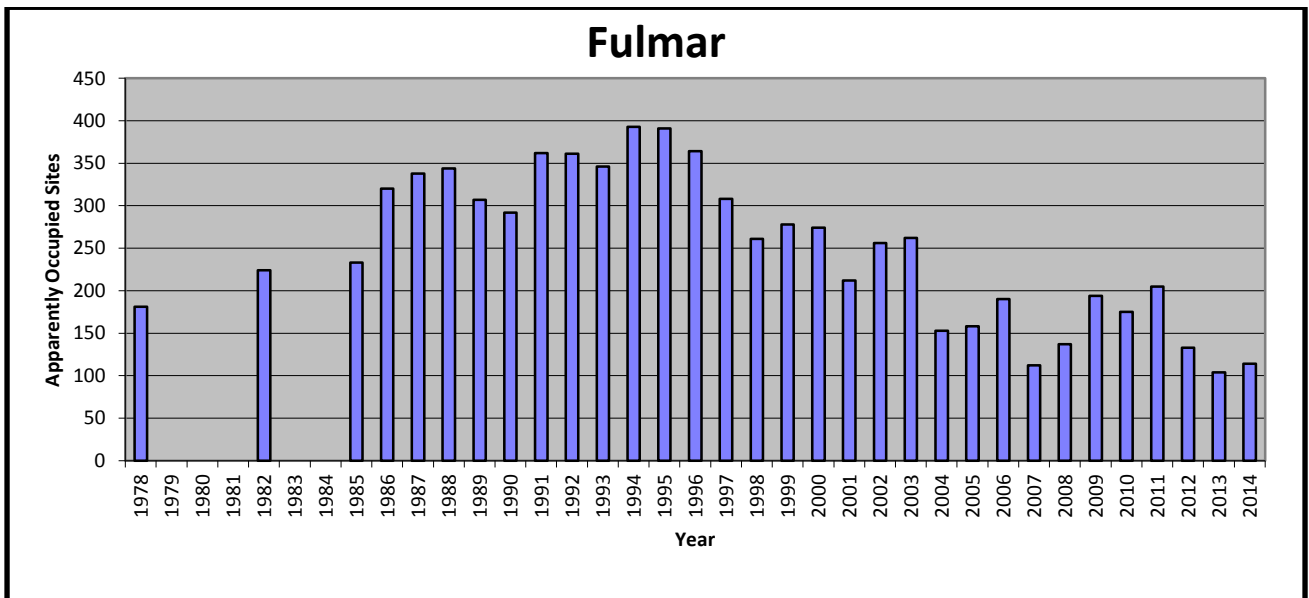
Fulmar

Whole colony count

A count of apparently occupied sites (AOS ie a site with a bird sitting tightly on a reasonably horizontal area judged large enough to hold an egg) was carried out from land on 11th, 12th and 14th June. It was not possible to carry out a count of blind spots from the sea, so an estimate was calculated using last year's figures.

Results

114 AOS were counted, an increase of 20% on the 2013 count of 104 AOS. The third lowest count on record this represents 75% of the 10 year mean of 152 AOS, and just 45% of the 30 year mean of 253 AOS.



Breeding Success

Whilst we do not have the resources to carry out a full study of fulmar breeding success, a full cliff survey was carried out on the 24th and 25th August in an attempt to assess (from land) the number of young fulmars fledged from St Abb's Head NNR as a whole (as in 2012). The location of each chick was marked on a map and nest sites were photographed where possible.

Results

A total of 4 fulmar chicks reached fledging stage on the whole reserve, compared to 5 recorded in 2012.

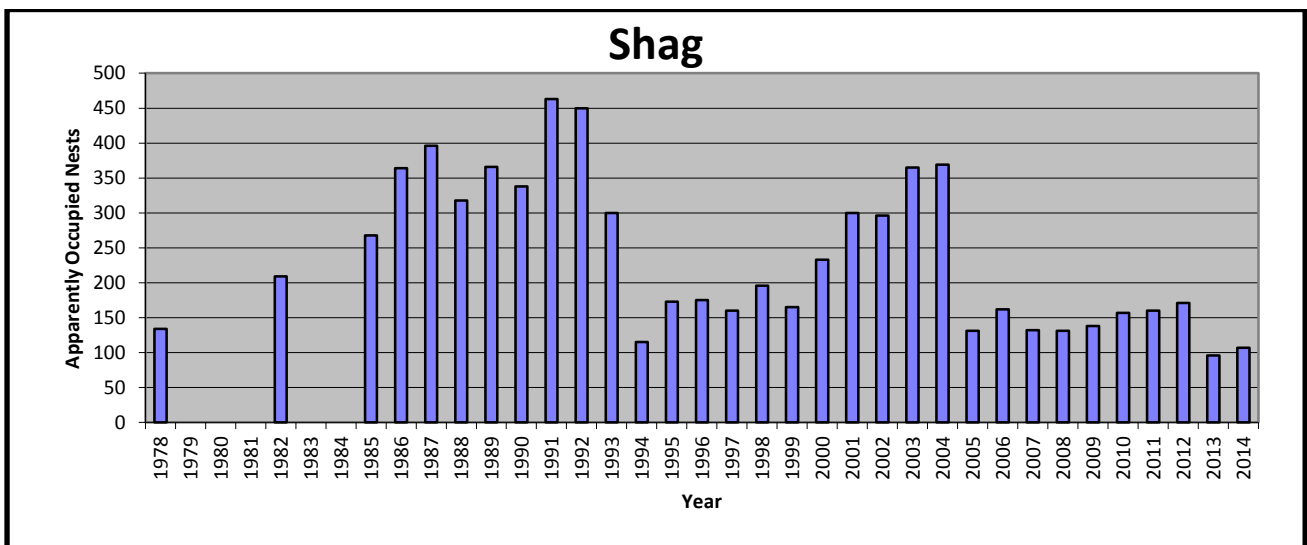
Shag

Whole Colony Count

A count of apparently occupied nests (AON ie a well built nest capable of holding eggs with at least one bird in attendance) was carried out on 26th, 27th and 31st May. Blind spots were counted from a boat on 31st May for all except section 8, where an inability to count Piper's cave resulted in the count for this section having to be estimated using last year's figures..

Results

107 AON were counted, an increase of 11% on the 2013 count of 94 AON. The second lowest count on record, this represents 77% of the 10 year mean of 139 AON, and 45% of the 30 year mean of 240 AON.

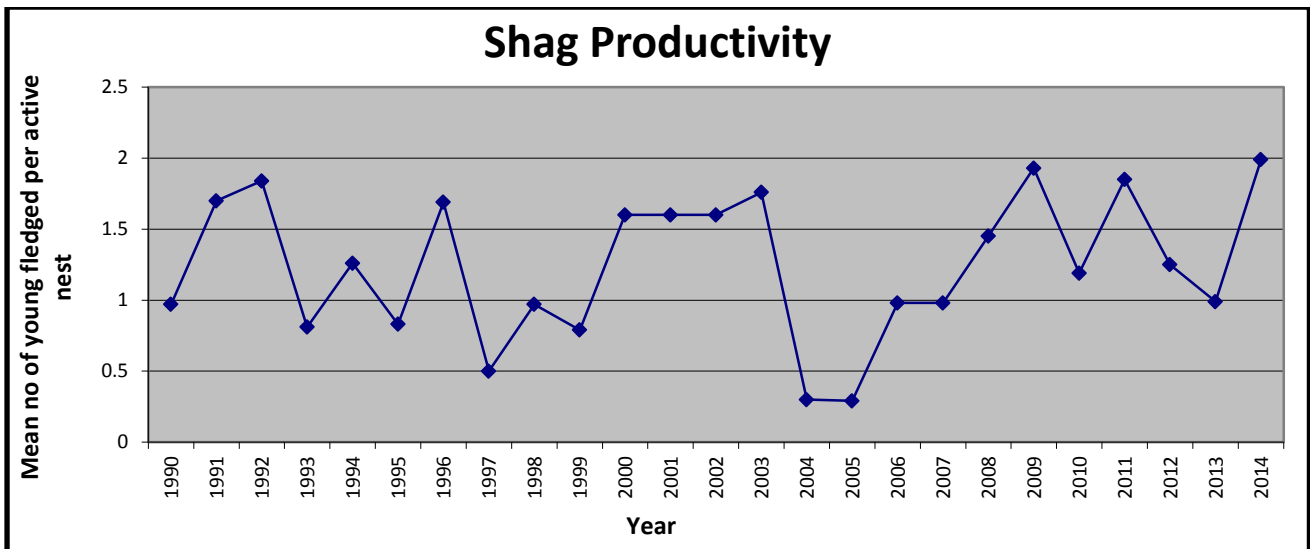


Breeding Success

An assessment of Shag breeding success was carried out using methods described in the 1990 report and following recommendations in the Seabird Monitoring Handbook. Nests were individually mapped on monitoring plots and 18 visits were made to the 4 monitoring plots between the 12th April and 10th August to record the progress of each nest up to fledging.

Results

A total of 50 active nests were mapped on the plots and 97 chicks successfully fledged. The breeding success, expressed as the mean of the individual plot figures, was 1.99 young fledged per active nest. This is an increase of 201% on the 2013 figures of 0.99 chicks fledged per active nest, and is the highest figure on record representing 154% of the 10 year mean of 1.29 and 160% of the 25 year mean of 1.24 chicks fledged per active nest.



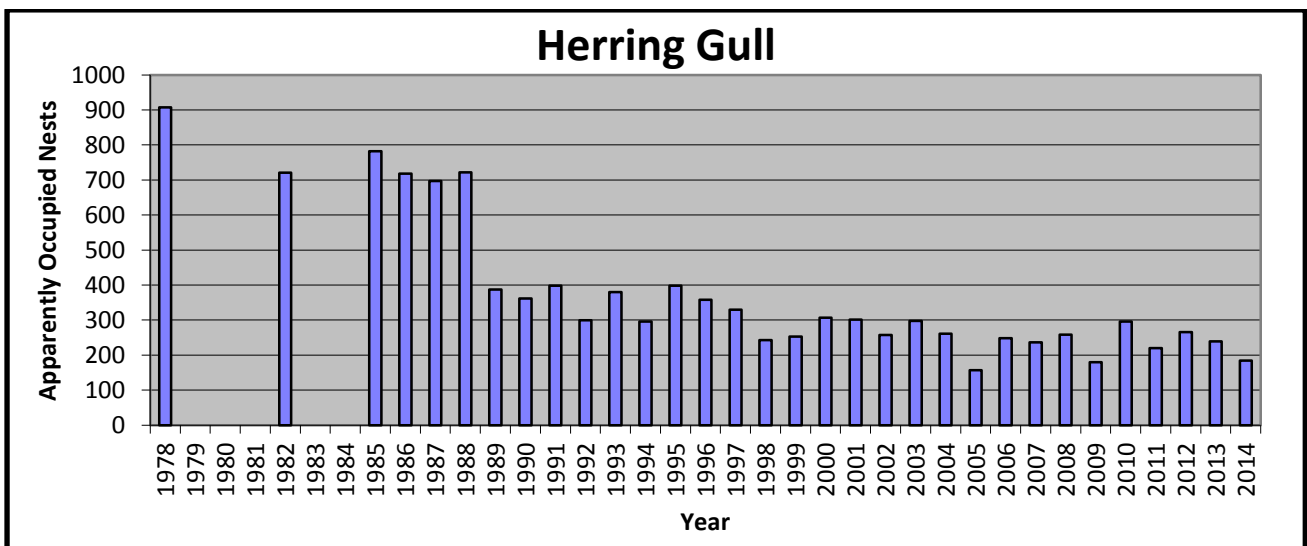
Herring Gull

Whole Colony Count

A whole colony count of apparently occupied nests (AON) was carried out on 26th, 27th and 31st May. Blind spots were counted from a boat on 31st May.

Results

184 AON were counted, a decrease of 23% on the 2013 count of 239 AON. This is the third lowest count on record, and represents 81% of the 10 year mean of 228 AON, and 53% of the 30 year mean of 344 AON.



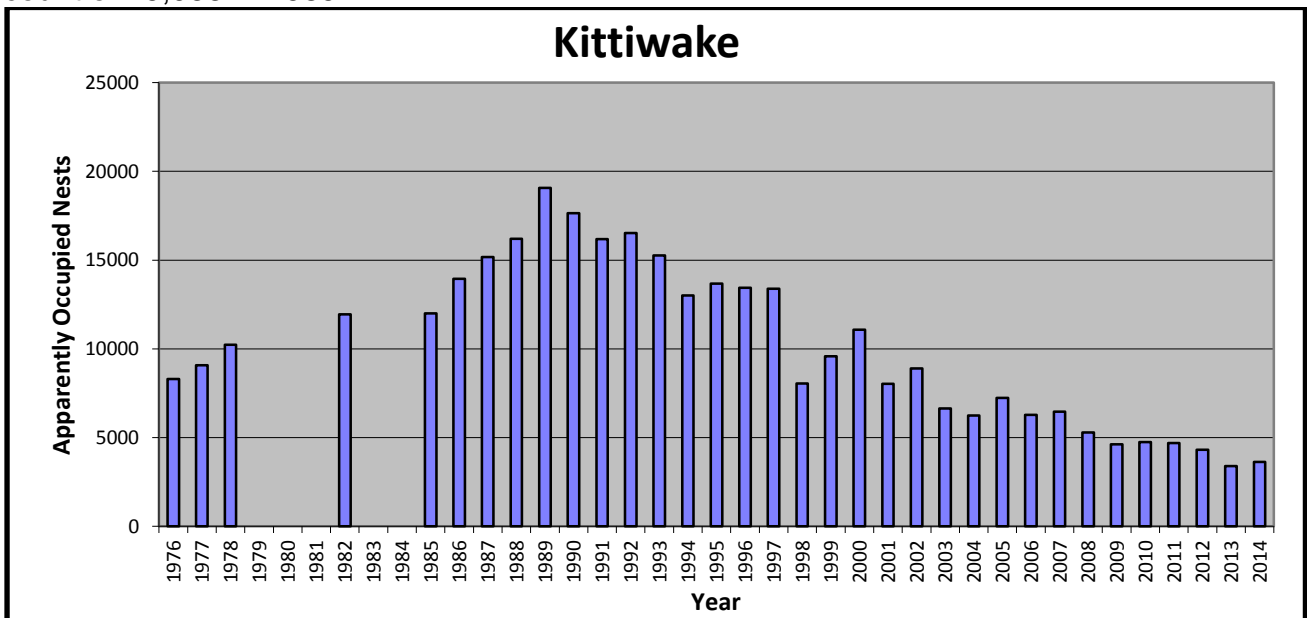
Kittiwake

Whole Colony Count

A count of apparently occupied nests (AONs) was carried out on 11th, 12th & 14th June. It was not possible to carry out a count of blind spots from the sea, so an estimate was calculated using last year's figures.

Results

3,625 AON were counted, an increase of 6% on the 2013 count of 3,403 AON. This is the second lowest count on record, and represents 72% of the 10 year mean of 5,068, and just 35% of the 30 year mean of 10,156 AON. This is a decline of 81% on the highest recorded count of 19,066 in 1989.

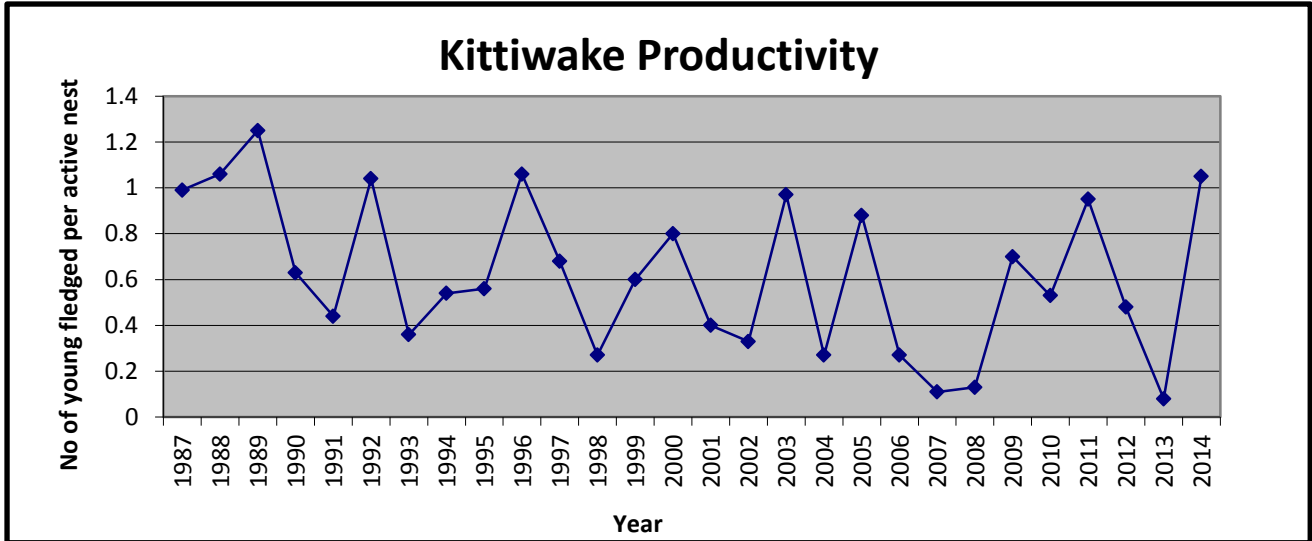


Breeding Success

An assessment of breeding success was carried out using methods described in the 1995 Report following recommendations from the Seabird Monitoring Handbook. Unfortunately there were not enough AON on one of the study plots used in previous years, so a different one was selected. Each of the plots was visited on 2nd June when all nests were marked on transparent overlays placed on photographs, then again on 9 further occasions up to 13th August to check the progress of each nest up to fledging.

Results

The productivity, expressed as the mean of individual plot figures, was 1.05 young fledged per AON. This is an increase of 1313% on the 2013 figure of 0.08 young fledged per active nest, and the third highest figure on record. It represents 202% of the 10 year mean of 0.52 and 169% of the 28 year mean of 0.62 chicks fledged per active nest.



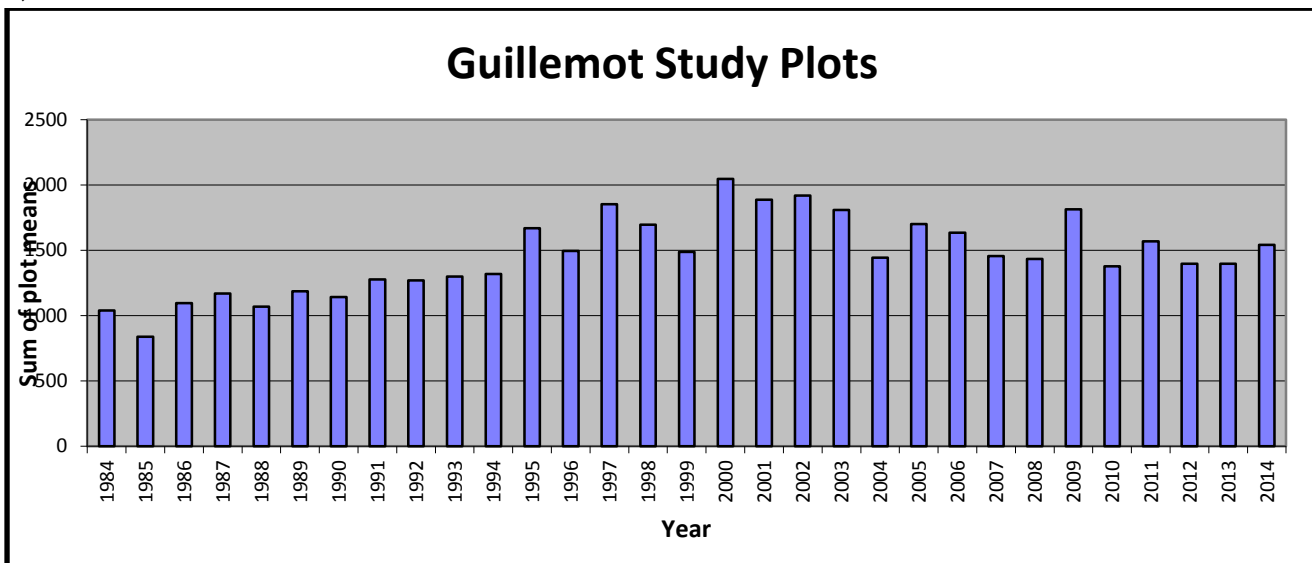
Guillemot

Counts at Monitoring Plots

Nine counts of individual birds on ledges were carried out at each of the five plots between 2nd & 20th June.

Results

The sum of the plot means was 1,541 individuals, an increase of 10% on the 2013 figure of 1,398 individuals. This represents 105% of the 31 year mean of 1,463 and 101% of the 10 year mean of 1,532.



Breeding success

An assessment of breeding success of guillemots was carried out for the first time this year following the method from the Seabird Monitoring Handbook and described in a separate report (Common, 2014). Fifty Apparently Occupied Sites (AOS) were individually marked on photographs of each of the 5 monitoring plots selected, and 13 visits were made to observe progress at each AOS between 23rd May and 1st July.

Results

A total of 192 active nests were mapped on the plots and 88 chicks successfully fledged. The breeding success, expressed as the mean of the individual plot figures, was 0.46 young fledged per active nest.

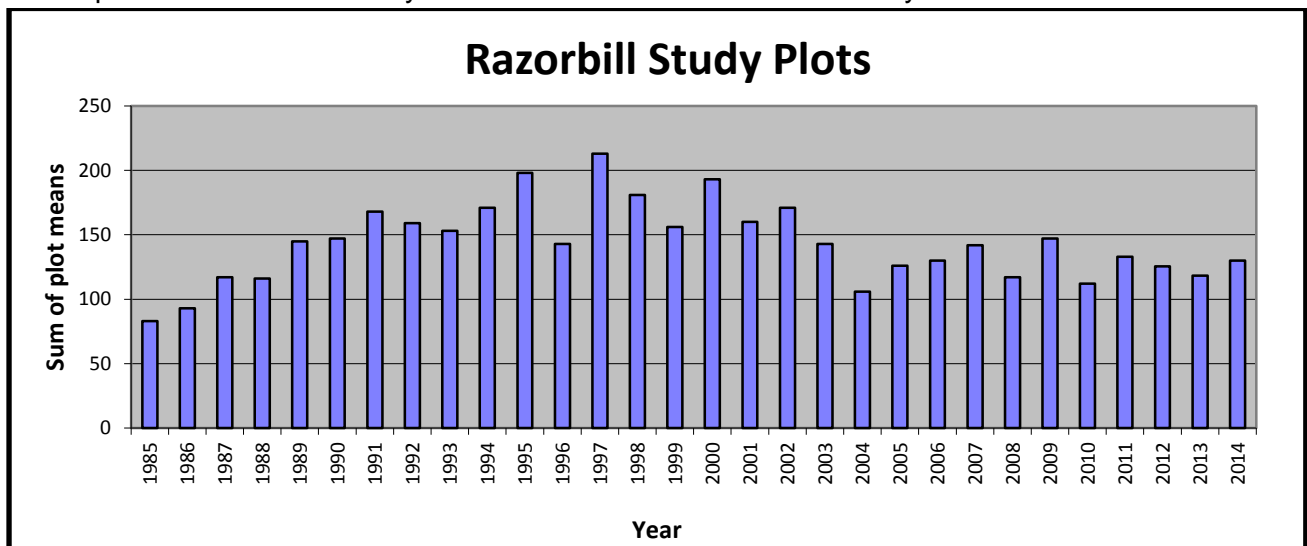
Razorbill

Counts at Monitoring Plots

Nine counts of individual birds on ledges were carried out at each of the five plots between 2nd & 20th June (as for the guillemots).

Results

The sum of plot means 130 individuals, and increase of 10% on the 2013 figure of 118 individuals. This represents 92% of the 31 year mean of 141 and 102% of the 10 year mean of 128.



Breeding success

An assessment of breeding success of guillemots was carried out this year using methods used previously in 2005 and 2008 based on recommendations found in the Seabird Monitoring Handbook (Walsh et al, 1995). Apparently Occupied Sites (AOS) were individually marked on photographs of each of the 6 monitoring plots, and 13 visits were made to observe progress at each AOS between 21st May and 5th July.

Results

A total of 52 AOS were mapped on the plots and 22 chicks successfully fledged. The breeding success, expressed as the mean of the individual plot figures, was 0.43 young fledged per AOS. This is a 34% increase on the 2008 figure of 0.32 chicks fledged per AOS.

Puffin

No puffins were seen ashore at any point during the breeding season, so it would seem that this is the first year since records began that puffins have not bred at St Abb's Head.

