

# The status of seabirds breeding in the Isles of Scilly 2015/16

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**April 2017**

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## **Contents**

|                                                                              | <b>Page no</b> |
|------------------------------------------------------------------------------|----------------|
| <b>Summary</b>                                                               | <b>1</b>       |
| <b>1 Introduction</b>                                                        | <b>4</b>       |
| 1.1 Objectives                                                               | 4              |
| <b>2 2015/16 Isles of Scilly seabirds survey</b>                             | <b>5</b>       |
| 2.1 Background                                                               | 5              |
| 2.2 Methods                                                                  | 5              |
| 2.3 Results                                                                  | 5              |
| <b>3 Seabird diversity: An overview of seabirds breeding in Scilly</b>       | <b>6</b>       |
| 3.1 Most abundant and most widespread seabird species                        | 6              |
| 3.2 Important breeding seabird populations                                   | 7              |
| 3.3 Changes in the seabird breeding community                                | 7              |
| 3.4 Changes in the seabird interest features of the SSSIs                    | 10             |
| <b>4 Species accounts</b>                                                    | <b>13</b>      |
| 4.1 Northern fulmar                                                          | 14             |
| 4.2 Manx shearwater                                                          | 16             |
| 4.3 European storm petrel                                                    | 18             |
| 4.4 Great cormorant                                                          | 19             |
| 4.5 European shag                                                            | 21             |
| 4.6 Lesser black-backed gull                                                 | 23             |
| 4.7 Herring gull                                                             | 25             |
| 4.8 Great black-backed gull                                                  | 27             |
| 4.9 Black legged kittiwake                                                   | 29             |
| 4.10 Common tern                                                             | 31             |
| 4.11 Common guillemot                                                        | 33             |
| 4.12 Razorbill                                                               | 35             |
| 4.13 Atlantic puffin                                                         | 37             |
| <b>5 Site accounts</b>                                                       | <b>39</b>      |
| 5.1 The status of seabirds in the Isles of Scilly SPA                        | 39             |
| 5.2 The status of seabirds in the Isles of Scilly seabird SSSIs              | 39             |
| <b>6 Discussion</b>                                                          | <b>41</b>      |
| 6.1 Recent changes in seabird distribution and numbers in Scilly             | 41             |
| 6.1.1 The condition of the Isles of Scilly SPA                               | 41             |
| 6.1.2 The condition of the seabird SSSIs in the Isles of Scilly              | 41             |
| 6.2 Factors driving change in seabird numbers in Scilly                      | 42             |
| 6.2.1 Mammalian predators                                                    | 45             |
| 6.2.2 Climate change and food availability                                   | 46             |
| 6.2.3 Avian predators                                                        | 47             |
| 6.2.4 Habitat change                                                         | 48             |
| 6.2.5 Human disturbance                                                      | 49             |
| 6.2.6 Changes in fisheries discards, agriculture and the management of waste | 50             |
| 6.2.7 Pollution, disease and fisheries by-catch                              | 50             |



*The status of seabirds breeding in the Isles of Scilly 2015/16*

|               |                                                                                                                                                               |           |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>7</b>      | <b>Recommended action to safeguard and enhance seabird populations in the Isles of Scilly</b>                                                                 | <b>52</b> |
| 7.1           | Amendments to the terrestrial & marine boundaries of designated sites                                                                                         | 52        |
| 7.2           | Monitoring change in seabird distribution, numbers and productivity                                                                                           | 52        |
| 7.3           | Avian predators                                                                                                                                               | 53        |
| 7.4           | Non-native predators                                                                                                                                          | 53        |
| 7.5           | Vegetation and habitat management                                                                                                                             | 54        |
| 7.6           | Food availability                                                                                                                                             | 55        |
| 7.7           | Recreational disturbance                                                                                                                                      | 55        |
| 7.8           | Use of seabirds as indicators                                                                                                                                 | 56        |
| <b>8</b>      | <b>Conclusion</b>                                                                                                                                             | <b>57</b> |
| <b>9</b>      | <b>Acknowledgements</b>                                                                                                                                       | <b>58</b> |
| <b>10</b>     | <b>References</b>                                                                                                                                             | <b>59</b> |
| <b>Tables</b> |                                                                                                                                                               |           |
| Table 1       | Full results by island 2015/16 (Appendix 2)                                                                                                                   | 81        |
| Table 2       | Summary of condition assessment for SSSI Seabird Interest Features                                                                                            | 3         |
| Table 3       | The most abundant/widespread seabird species                                                                                                                  | 7         |
| Table 4       | A brief summary of the status of the seabirds breeding in Scilly                                                                                              | 9         |
| Table 5       | Summary of SSSI seabird notified features and species present breeding                                                                                        | 10        |
| Table 6a      | Changes in seabird numbers for SSSIs with a qualifying breeding seabird interest since SPA and SSSI designations                                              | 11        |
| Table 6b      | Changes in seabird numbers and assemblage from 1999 to 2015/16 (since SPA designation) for SSSIs not specifically listed for their seabird interest features. | 12        |
| Table 7       | Change in number of breeding pairs of fulmar 2006-2015/16                                                                                                     | 15        |
| Table 8       | Change in number of breeding pairs of Manx shearwater 2000-2015                                                                                               | 17        |
| Table 9       | Change in number of breeding pairs of storm petrel 2000-2015/16                                                                                               | 18        |
| Table 10      | Change in number of breeding pairs of cormorant 1999-2015/16                                                                                                  | 20        |
| Table 11      | Change in number of breeding pairs of shag 1999-2015/16                                                                                                       | 22        |
| Table 12      | Change in number of breeding pairs of lesser black-backed gull 1999-2015/16                                                                                   | 24        |
| Table 13      | Change in number of breeding pairs of herring gull 1999-2015/16                                                                                               | 26        |
| Table 14      | Change in number of breeding pairs of great black-backed gull 1999-2015/16                                                                                    | 28        |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

|                                                                                       |     |
|---------------------------------------------------------------------------------------|-----|
| Table 15 Change in number of breeding pairs of kittiwake 1999-2015                    | 30  |
| Table 16 Change in number of breeding pairs of common tern 1999-2015                  | 32  |
| Table 17 Change in number of breeding pairs of guillemot 1999-2015                    | 34  |
| Table 18 Change in number of breeding pairs of razorbill 1999-2015/16                 | 36  |
| Table 19 Change in number of breeding pairs of puffin 1999-2015                       | 38  |
| Table 20 Summary of changes in Scilly in relation to national trends and their causes | 43  |
| Table 21 Population changes in shag and great black-backed gull 2006 to 2015/16       | 48  |
| Table 22 Numbers of breeding seabirds on Annet SSSI 1999 to 2015                      | 95  |
| Table 23 Numbers of breeding seabirds at Samson SSSI 1999 to 2015/16                  | 96  |
| Table 24 Numbers of breeding seabirds at Western Rocks SSSI 1999 to 2015              | 97  |
| Table 25 Numbers of breeding seabirds at St. Helen's SSSI 1999 to 2015/16             | 98  |
| Table 26 Numbers of breeding seabirds at Norrard Rocks SSSI 1999 to 2015/16           | 99  |
| Table 27 Numbers of breeding seabirds at Pentle Bay SSSI 1999 to 2015                 | 100 |
| Table 28 Numbers of breeding seabirds at Chapel Down SSSI 1999 to 2015                | 101 |
| Table 29 Numbers of breeding seabirds at the Eastern Isles SSSI 1999 to 2015          | 102 |
| Table 30 Numbers of breeding seabirds at Gugh SSSI 1999 to 2015                       | 103 |
| Table 31 Numbers of breeding seabirds at Tean SSSI 1999 to 2015                       | 104 |
| Table 32 Numbers of breeding seabirds at White Island SSSI 1999 to 2015               | 104 |
| Table 33 Numbers of breeding seabirds at Shipman Head SSSI 1999 to 2015/16            | 105 |
| Table 34 Numbers of breeding seabirds at Castle Down SSSI 1999 to 2015                | 105 |
| Table 35 Numbers of breeding seabirds at Wingletang SSSI 1999 to 2015                 | 106 |
| Table 36 Numbers of breeding seabirds at Rushy Bay SSSI 1999 to 2015                  | 106 |
| Table 37 Numbers of breeding seabirds at Peninnis SSSI 1999 to 2015                   | 107 |
| Table 38 Numbers of breeding seabirds at Big Pool & Browarth SSSI 1999 to 2015        | 107 |
| Table 39 Rocks and islands outside designation supporting breeding seabirds in 2015   | 108 |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

|                                                                                  |     |
|----------------------------------------------------------------------------------|-----|
| Table 40 Rat clearance priorities by island group                                | 113 |
| Table 41 Breeding seabirds in the SPA in 2015/16 and change since classification | 119 |
| <b>Figures</b>                                                                   |     |
| Figure 1 Species assemblage total 1969-2015/16                                   | 6   |
| Figure 2 Numbers of breeding fulmar (pairs) 1969-2015/16                         | 14  |
| Figure 3 Numbers of breeding cormorant (pairs) 1945-2015/16                      | 19  |
| Figure 4 Numbers of breeding shag (pairs) 1969-2015/16                           | 21  |
| Figure 5 Numbers of breeding lesser black-backed gull (pairs) 1969-2015/16       | 23  |
| Figure 6 Numbers of breeding herring gull (pairs) 1969-2015/16                   | 25  |
| Figure 7 Numbers of breeding great black-backed gull (pairs) 1969-2015/16        | 27  |
| Figure 8 Numbers of breeding kittiwake (pairs) 1969-2015                         | 29  |
| Figure 9 Numbers of breeding tern (pairs) 1969-2015                              | 31  |
| Figure 10 Numbers of breeding guillemot (pairs) 1969-2015                        | 33  |
| Figure 11 Numbers of breeding razorbill (pairs) 1969-2015/16                     | 35  |
| Figure 12 Numbers of breeding puffin (pairs) 1969-2015                           | 37  |
| <b>Maps</b>                                                                      |     |
| Map 1 Distribution of breeding seabirds in 2015/16                               | 67  |
| Map 2 Distribution of breeding fulmar 2015/16                                    | 68  |
| Map 3 Distribution of breeding Manx shearwater 2015                              | 69  |
| Map 4 Distribution of breeding storm petrel 2015/16                              | 70  |
| Map 5 Distribution of breeding cormorant 2015/16                                 | 71  |
| Map 6 Distribution of breeding shag 2015/16                                      | 72  |
| Map 7 Distribution of breeding lesser black-backed gull 2015/16                  | 73  |
| Map 8 Distribution of breeding herring gull 2015/16                              | 74  |
| Map 9 Distribution of breeding great black-backed gull 2015/16                   | 75  |
| Map 10 Distribution of breeding kittiwake 2015                                   | 76  |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

|                                                                                        |        |
|----------------------------------------------------------------------------------------|--------|
| Map 11 Distribution of breeding common tern 2015                                       | 77     |
| Map 12 Distribution of breeding guillemot 2015                                         | 78     |
| Map 13 Distribution of breeding razorbill 2015/16                                      | 79     |
| Map 14 Distribution of breeding puffin 2015                                            | 80     |
| <b>Appendices</b>                                                                      |        |
| 1 Maps                                                                                 | 67-80  |
| 2 Table 1 Full counts by island                                                        | 81     |
| 3 Further notes on methodology for individual species & estimated counts               | 85     |
| Isles of Scilly Wildlife Trust Research Access Application                             | 87     |
| Isles of Scilly Seabird Survey 2015 Disturbance Statement                              | 92     |
| Protocol for burrow scope use at storm petrel and Manx shearwater burrows              | 93     |
| 4 Notes on individual SSSIs that support breeding seabirds (Tables 22-38)              | 95-107 |
| Seabirds breeding outside designations (Table 39)                                      | 108    |
| 5 Annual counts for Annet SSSI 2000 to 2016                                            | 109    |
| 6 Information to aid discussion on rat clearance priorities                            | 110    |
| Table 40 Rat clearance priorities by island group                                      | 113    |
| 7 Breeding seabirds in the Isles of Scilly SPA 2015/16 and change since classification | 119    |

## **Summary**

This report presents the results of a comprehensive breeding survey of all the seabirds breeding in Scilly in 2015/16 and was carried out as part of the Isles of Scilly Seabird Recovery Project and Natural England's SSSI monitoring programme. The main objective was to obtain an accurate estimate of the population sizes and distribution of all the breeding seabirds in Scilly and to compare them with the 2006 Special Protection Area (SPA) count as well as with baseline data for the Isles of Scilly SPA and Sites of Special Scientific Interest (SSSIs). These figures can then be used to assess the condition (population size and variety) of the bird interest features within the SPA and SSSIs and to direct future conservation work in Scilly. In total 8,266 territories of 13 species of seabird were recorded from 55 rocks and islands, achieving complete coverage of all islands (see Map 1).

- A total of 7,657 seabird territories were recorded within the Isles of Scilly SPA (with 609 outside of the designated area), and a total of 7,997 seabird territories were recorded within the 26 Isles of Scilly SSSIs (with 269 recorded outside these designated sites).
- The archipelago supports important populations of a number of seabird species:
  - internationally important numbers of storm petrel and lesser black-backed gull
  - nationally important numbers of shag (possibly the largest colony in the UK) and great black-backed gull
  - regionally important numbers of fulmar, Manx shearwater, common tern, razorbill and puffin.

Though roseate tern has not been recorded breeding in Scilly since 1995, Scilly is still considered regionally important because the terns are a target species for re-establishment here.

- The overall number of seabirds breeding within the Isles of Scilly archipelago in 2015/16 (8266 pairs) has decreased by 9.8% in the last nine years. There has been a 14.3% decline in the SPA population since the SPA baseline and a 31.3% decrease in the size of the total seabird population since 1983 (the date of baseline data used for most SSSI notifications on Scilly in 1986) when 12,063 breeding pairs of seabird were recorded (see Figure 1 in section 3).
- The diversity of the seabird assemblage is almost unchanged since 2006 with all of the 13 species of seabird regularly breeding in Scilly still present in 2015/16. However, Sandwich and roseate terns, only intermittent breeders into the 1990s, have been lost and the numbers of eight of the 13 main species have shown a decrease in the last nine years (see Table 4).
- One of the greatest changes for seabirds in Scilly in the last nine years has been the removal of rats from St. Agnes and Gugh in 2013/14. This has resulted in successful breeding of Manx shearwaters on these islands with a minimum of 10 chicks fledged in 2014, 28 in 2015 and 32 in 2016.

*The status of seabirds breeding in the Isles of Scilly 2015/16*

- Also in 2015, just two years after removal, storm petrels re-colonised both St. Agnes and Gugh and chicks were heard from burrows on both islands in August-October 2015 and 2016.
- Manx shearwaters have shown a massive increase in numbers across the islands in the last nine years; trebling from 171 pairs in 2006 to 523 in 2015. This is likely due to increases in regional shearwater populations following removal of rats from Lundy and slightly further afield in Wales.
- Since 2006 there has been a marked increase in the numbers of both razorbill and guillemots across the islands, whilst puffins have remained relatively stable.
- In addition to the success stories above, there have been many worrying declines of seabirds. These include:
  - Five species of seabirds across all the islands have declined in numbers by more than 20% in just the last nine years; lesser black-backed gull (-26%), herring gull (-22%), shag (-21%), common tern (-85%) and kittiwake (-72%). In particular kittiwake and common tern are now in danger of being lost as breeding species in Scilly.
  - In terms of overall numbers, four of the seven SSSIs listed for bird interest have shown declines (see Table 6a) in the last 9 years; St. Helen's group (-20%), Pentle Bay & Round Is. (-15%), Samson Group (-19%) and Annet (-12%).
  - Annet, which has long been recognised as the most important seabird island in Scilly both in terms of numbers and diversity, has shown a decline in numbers of 12% since 2006 and over 45% since designation in 1983.
- The trends in the numbers of the different species within the assemblage are mostly in line with national trends although, as these wider trends are based on the last national survey Seabird 2000, they may not represent the current situation.
- Although there is some good news, overall the 2015/16 survey provides an alarming assessment of the state of the SPA for seabirds – with very significant declines in the overall assemblage, individual species and within certain island groups. Further management is required to reverse these declines – in particular the continuation of the predator control programme as well as other habitat and people management as necessary.
- A number of specific recommendations are given in the report.

**Table 2 Summary of changes in SSSI Seabird Interest Features**

| SSSI notified specifically for seabird interest | SSSI seabird notified features | Breeding pairs 2015/16 | Breeding pairs 2006 | Breeding pairs 1983 | % change since SSSI notification |
|-------------------------------------------------|--------------------------------|------------------------|---------------------|---------------------|----------------------------------|
| Annet                                           | Manx shearwater                | 229                    | 89                  | 123*                | +86% Favourable                  |
|                                                 | Great black-backed gull        | 235                    | 187                 | 231                 | +2% Favourable                   |
|                                                 | Storm petrel                   | 778                    | 788                 | 938*                | -17% Favourable                  |
|                                                 | Puffin                         | 31                     | 50                  | 67                  | -54% Unfavourable                |
|                                                 | Common tern                    | 2                      | 1                   | 5                   | -60% Unfavourable                |
|                                                 | Lesser black-backed gull       | 1                      | 281                 | 898                 | -99% Unfavourable                |
| St. Helen's (incl. Men-a-vaur)                  | Fulmar                         | 24                     | 21                  | 16*                 | +50% Favourable                  |
|                                                 | Guillemot                      | 110                    | 95                  | 117*                | -6% Favourable                   |
|                                                 | Razorbill                      | 88                     | 90                  | 101*                | -13% Favourable                  |
| Samson                                          | Common tern                    | 10                     | 59                  | 44                  | -77% Unfavourable                |
| Pentle Bay & Round Island                       | Storm petrel                   | 172                    | 251                 | 183*                | -6% Favourable                   |
|                                                 | Roseate tern                   | 0                      | 0                   | 0*                  | Lost – Unfavourable              |
|                                                 | Common tern                    | 0                      | 5                   | 39*                 | Lost – Unfavourable              |
| Chapel Down (St. Martin's)                      | Kittiwake                      | 0                      | 15                  | 27*                 | Lost - Unfavourable              |
| Norrard Rocks                                   | Cormorant                      | 0                      | 18                  | 27                  | Lost - Unfavourable              |
| Western Rocks                                   | Shag                           | 350                    | 392                 | 466                 | -25% Unfavourable                |

- \*Figures from Seabird 2000 are used as a proxy for 1983 (prior to 1999 counts could not be separated into component SSSIs or non-comparable methods were used – storm petrel and Manx shearwater)



## **1 Introduction**

The Isles of Scilly comprise five inhabited islands and more than 300 uninhabited islands, islets and rocks, situated 40km west of the southwest tip of mainland Britain. They are the sole European example of a Lusitanian<sup>1</sup> semi-oceanic archipelago (UK Biodiversity Steering Group 1995).

The archipelago supports a greater diversity of seabirds than any other site in England, with over 8,000 pairs of 13 species of regularly breeding seabird. It supports internationally important populations of storm petrel and lesser black-backed gull, and nationally important populations of great black-backed gull and shag. It is one of only two sites in England where Manx shearwater and storm petrel breed (the other being Lundy). The UK supports more than 50% of the bio-geographical populations of Manx shearwater and lesser black-backed gull (*graellsii* subspecies), and over 30% of European shag, and so has a particular responsibility for their protection.

The Isles of Scilly are designated as a Special Protection Area, Ramsar site, Special Area of Conservation, Marine Conservation Zone and contain 26 component Sites of Special Scientific Interest in recognition of this international and national interest.

### **1.1 Objectives**

- To present the results of the 2015/16 all-islands seabird count.
- To present comment on the status, distribution, population and trends of breeding seabirds in the Isles of Scilly, especially in relation to the condition of the bird interest features of designated sites and wider national trends.
- To help identify key areas of conservation action required to be included in the Isles of Scilly Seabird Conservation Strategy.

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<sup>1</sup> Denoting flora or fauna characteristically found only in the warm, moist, west-facing coastal regions of Portugal, Spain, France and the west and southwest coasts of Great Britain and Ireland.

## **2 2015/16 Isles of Scilly seabirds survey**

### **2.1 Background**

It is important to maintain regular all-species population counts across the archipelago to meet both SPA and SSSI condition reporting requirements. The Isles of Scilly Seabird Conservation Strategy (St Pierre *et al.* 2014) recommends a complete seabird survey every six years to integrate with national survey cycles. The last full survey was carried out in 2006 and although this current survey represents a delay of three years in this cycle, it was proposed to fit into the national survey which may now be further delayed. This survey was carried out as part of the Isles of Scilly Seabird Recovery Project. It was part funded by Natural England (as *Isles of Scilly SPA (All islands) Seabird Survey 2015/16*), to assess the condition of the seabird features of the Isles of Scilly SPA and its component SSSIs), LIFE Nature and Heritage Lottery Fund.

### **2.2 Methods**

Counting methods, as outlined in Gilbert, Gibbons and Walsh (1998) were followed and the results are therefore directly comparable with those of Seabird 2000 and the Isles of Scilly breeding seabird survey of 2006. Further details are given in Appendix 3, with special reference to the counting of auks, gulls and burrow nesting Manx shearwaters and storm petrels. To minimise errors with birds moving between sites, as occurs in Scilly between years, as far as possible all species were covered on all islands during May to July 2015. Unseasonably rough weather during the survey period in 2015 meant that, although we did access and fully survey the vast majority of islands and rocks, we did not land on four islands: Men-a-vaur, Scilly Rock, White and Puffin Island. In 2016 we were successfully able to land on and survey Men-a-vaur, White and Puffin Islands and these results are presented alongside the 2015 survey numbers in this report and reflected where relevant in updated tables, figures and maps. While we failed to land on Scilly Rock in 2015 and 2016, we were able to estimate numbers from the water (see Appendix 3 for details). Survey work in Scilly was co-ordinated by RSPB and completed by RSPB staff and volunteers.

### **2.3 Results**

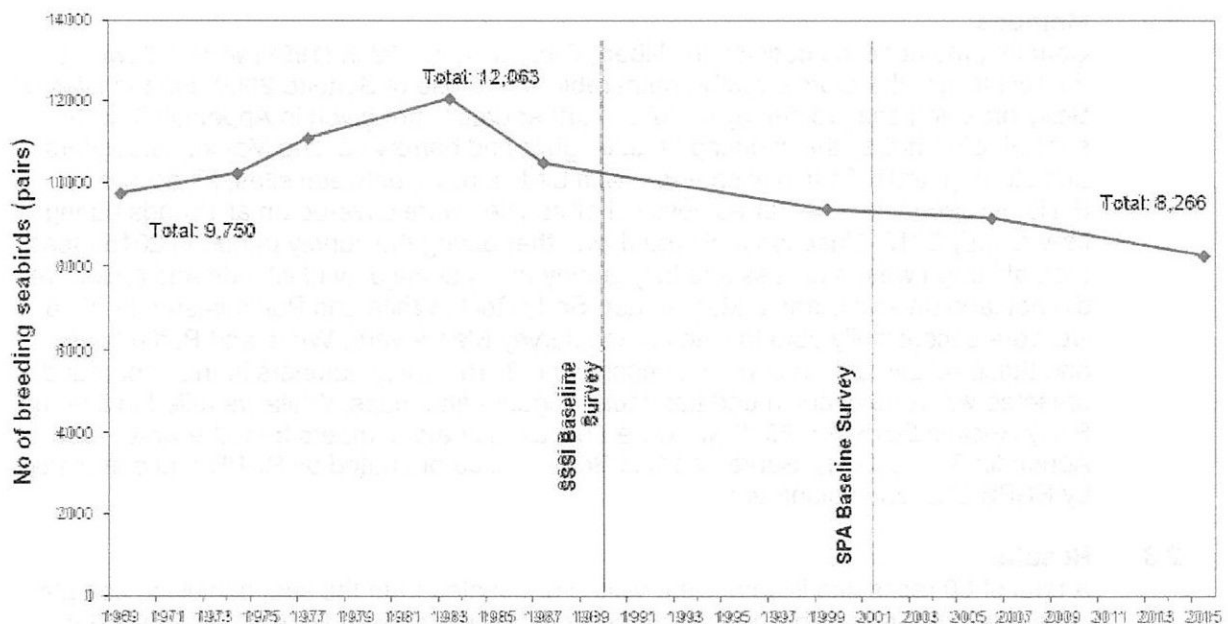
A total of 60 rocks and islands were visited or counted from the sea, achieving complete coverage of all islands believed to be occupied by seabirds in 2015/16. In total 8,266 territories of 13 species of seabird, were recorded across 55 islands. The full results are presented in Table 1 (Appendix 2) and in the individual species accounts. They are interpreted within the content of historical information and with reference to the qualifying interest of the islands' SPA and SSSIs.

### 3 Seabird diversity: an overview of seabirds breeding in Scilly

A total of 8,266 pairs of seabirds were recorded breeding in Scilly in 2015/16. This represents a decrease of 9.8% since the last full count in 2006 and over 20% in the last 25 years. For the Special Protection Area (SPA) the seabird assemblage (see Appendix 7) has declined by 14.6% since the baseline survey in 1999/2000.

Of the 13 species of seabird that regularly breed in Scilly, all are still present, though eight have decreased in numbers in the past nine years (with the largest decreases of 85% and 72% seen in common tern and kittiwake respectively).

**Figure 1 Species assemblage total 1969-2015/16**



#### 3.1 Most abundant and most widespread seabird species

Table 3 ranks species according to their distribution and abundance during the 2015/16 all islands seabird survey. The most widespread species is the herring gull – present on 47 rocks and islands (86% of the 55 seabird occupied islands). The most abundant species is the lesser back-backed gull, with 2,485 pairs.

**Table 3 The most abundant/widespread seabird species**

| <b>ABUNDANCE</b>         |                    | <b>DISTRIBUTION</b>          |                               |
|--------------------------|--------------------|------------------------------|-------------------------------|
| <b>Species</b>           | <b>No of pairs</b> | <b>Species</b>               | <b>No of islands occupied</b> |
| Lesser black-backed gull | 2,485              | Herring gull                 | 47                            |
| Storm petrel             | 1,335              | Great black-backed gull      | 45                            |
| Shag                     | 1,025              | Shag                         | 31                            |
| Great black-backed gull  | 984                | Lesser black-backed gull     | 30                            |
| Herring gull             | 556                | Fulmar                       | 18                            |
| Manx shearwater          | 523                | Razorbill                    | 16                            |
| Razorbill                | 473                | Storm petrel                 | 14                            |
| Guillemot                | 291                | Manx shearwater              | 10                            |
| Fulmar                   | 287                | Puffin                       | 10                            |
| Puffin                   | 167                | Guillemot                    | 5                             |
| Kittiwake                | 75                 | Cormorant                    | 3                             |
| Cormorant                | 53                 | Common tern                  | 2                             |
| Common tern              | 12                 | Kittiwake                    | 1                             |
| <b>Total</b>             | <b>8,266</b>       | <b>Total Seabird Islands</b> | <b>55</b>                     |

### **3.2 Important breeding seabird populations**

Taking the definition for international or national importance as the population total exceeding 1% of the NW European or GB total respectively, and regional importance as exceeding 10% of the southwest total (based upon the previous national surveys covering the counties of Isles of Scilly, Cornwall, Devon, Dorset, Wiltshire, Bristol and Avon and Gloucestershire), Scilly supports important populations of a number of different seabirds:

- internationally important: storm petrel and lesser black-backed gull
- nationally important: shag and great black-backed gull
- regionally important: fulmar, Manx shearwater, common tern, razorbill and puffin.

### **3.3 Changes in the seabird breeding community**

Fulmars first colonised the islands in 1951 and increased rapidly in line with national trends. Numbers have continued to increase in recent years to just under 300 pairs across the islands, though are showing signs of slowing down in line with elsewhere in the southwest and nationally.

This survey represents the third quantitative survey for storm petrels and Manx shearwater in Scilly so that we can start to get an idea of trends in numbers. Unfortunately storm petrels appear to be declining slowly, with losses higher inside the SPA, although evidence of new breeding sites outside are a cause for optimism. However, Manx shearwaters have shown a population increase and this is in line with trends at other nearby island populations where rats have been removed (Lundy, Ramsey).

### *The status of seabirds breeding in the Isles of Scilly 2015/16*

Numbers of cormorants have remained remarkably similar in Scilly between 50 and 60 pairs since records began in the 1940s. The number of shags breeding in Scilly has shown a general decline since a peak of 1,470 pairs in 1977. Although the 2006 count suggested an upturn, numbers are now at 1,025 pairs (12.4% of the assemblage total), more similar to the level recorded in the 1960s. Nationally cormorants have been increasing, whereas shags have shown large declines.

In line with national trends, all the large gull species increased in Scilly between the 1920s and 1980s and are now widespread throughout the islands. In line with national trends which show declines at most other SPAs, lesser black-backed gulls, for which Scilly is internationally important, have been in decline since a peak of 4,050 pairs in the early 1980s to the current total of 2,485 pairs (30.1% of the total assemblage). A sustained decline in the numbers of breeding herring gulls in the last 35 years is also of concern, although this reduction is also in line with national trends. Since a low of 808 pairs in 1999, the number of great black-backed gulls in the islands has increased steadily to the current total of just 984 pairs (now measuring 11.9% of the total assemblage). Kittiwakes returned to breed in Scilly in 1938 after an absence of nearly 40 years and increased steadily through the 1970s. Since the 1980s though, they declined steeply to just 75 pairs at a single site in 2015. This steep decline is mirrored across the region and much of the birds' British range.

Numbers of common terns have decreased steadily since a peak of 210 pairs in the early 1980s. In recent years they have started to breed intermittently, with only 12 pairs attempting to breed in 2015 (all failing in early incubation). It is possible they will be lost as a regular breeding species for Scilly in the near future. There have been no recent breeding records for roseate, Sandwich or Arctic terns in Scilly.

In contrast with most other groups, auks in Scilly appear to be doing relatively well. In line with regional trends, the numbers of razorbills have increased steadily in Scilly from the early 1980s and, despite a low count in 2006, guillemots are also increasing with a peak of 291 territories in 2015. Although numbers of puffins in Scilly were formerly huge, there were enormous losses between the 1920s and 1950s across the region. Numbers appeared to stabilise in Scilly through the 1970s and 1980s and have remained relatively stable around 170 pairs for the last 15 years. Across the region puffins have shown a 3% decline since Seabird 2000 (Porter, Brown & Lock 2010).

There has been a complex pattern of change in the seabird community in Scilly, so detailed accounts are presented here for the individual species. Most species have changed in line with national and regional trends, although there are some exceptions. The reasons for changes in numbers differ between species and relate to regional/global issues as well as more local factors operating on the breeding grounds in Scilly. These are examined in detail in the discussion.

*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Table 4 A brief summary of the status of the seabirds breeding in Scilly**

| <b>Species</b>           | <b>Breeding pairs 2015/16</b> | <b>% Change since 2006</b> | <b>Long-term trends</b>                                                                                                                               |
|--------------------------|-------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manx shearwater          | 523                           | +206%                      | 3-fold increase in the last nine years and new colonies found                                                                                         |
| Common guillemot         | 291                           | +88%                       | Increasing – population almost trebled since 1983                                                                                                     |
| Razorbill                | 473                           | +38%                       | Steady increase – population more than doubled since 1983                                                                                             |
| Great black-backed gull  | 984*                          | +9%                        | General decline in 1980s (still down 31% on 1983), increasing since 1999                                                                              |
| Fulmar                   | 287                           | +3%                        | Large increases since first bred 1951, appears to be slowing now                                                                                      |
| Great cormorant          | 53                            | +6%                        | Generally stable at 50-60 pairs since the 1940s                                                                                                       |
| Atlantic puffin          | 167                           | -4%                        | Generally stable since 1999, 45% increase since 1980s                                                                                                 |
| European storm petrel    | 1,335*                        | -5%                        | Declining – down 12% since 2000                                                                                                                       |
| Herring gull             | 556                           | -22%                       | Continued steep decline – down 75% on peak of 2,249 pairs in 1974                                                                                     |
| European shag            | 1,025*                        | -21%                       | General decline since peak of 1,470 pairs in 1977                                                                                                     |
| Lesser black-backed gull | 2,485*                        | -26%                       | Continued decline- down 38% on peak of 4,050 pairs in 1983                                                                                            |
| Black-legged kittiwake   | 75                            | -72%                       | Continued steep decline – now just 9% of peak of 861 pairs in 1983                                                                                    |
| Common tern              | 12                            | -85%                       | Continued steep decline and intermittent breeding since peak of 210 pairs in 1983                                                                     |
| <b>Overall numbers</b>   | 8,266                         | -9.8%                      | Steady decline since peak of 12,063 pairs in 1983. 31% decline since SSSI designation (1983 count); -12% since SPA designation (Seabird 2000 figures) |

\* Represents >10% of overall breeding assemblage.



### 3.4 Changes in the seabird interest features of the SSSIs

Of the 26 SSSIs in the Isles of Scilly, 17 supported breeding seabirds in 2015/16. However, only seven of these have seabirds as part of their qualifying interest – see Table 5.

**Table 5 Summary of SSSI seabird notified features and seabird species present breeding**

| Site of Special Scientific Interest                    | SSSI seabird notified features                                 | Species present and surveyed in 2015/16                                                                                                       |
|--------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Annet                                                  | Common tern, GBBG, LBBG, Manx shearwater, Puffin, Storm petrel | Common tern, GBBG, LBBG, Manx shearwater, Puffin, Storm petrel, Razorbill, Fulmar, Shag, HG (Kittiwake, Cormorant & Roseate tern not present) |
| Chapel Down (St. Martin's)                             | Kittiwake                                                      | Fulmar, Manx shearwater, LBBG, GBBG, HG, (Kittiwake not present)                                                                              |
| Norrard Rocks                                          | Cormorant                                                      | Storm petrel, LGGB, GBBG, Shag, Fulmar, HG, Guillemot, Razorbill, Puffin, (Cormorant not present)                                             |
| Pentle Bay, Merrick & Round Island                     | Common tern, Roseate tern, Storm petrel                        | Fulmar, Manx shearwater, Shag, LBBG, GBBG, HG, Puffin, Storm petrel (Common tern, Roseate tern not present)                                   |
| Samson (with Green, White, Puffin & Stony Islands)     | Common tern                                                    | LBBG, GBBG, Shag, Fulmar, HG, Cormorant, Common tern (Storm petrel not present)                                                               |
| St. Helen's (with Norwethel, Men-a-vaur & Peasehopper) | Fulmar, Guillemot, Razorbill                                   | Storm petrel, LBBG, GBBG, Shag, Manx shearwater, Puffin, HG, Fulmar, Guillemot, Razorbill                                                     |
| Western Rocks                                          | Shag                                                           | Storm petrel, LBBG, GBBG, Cormorant, Fulmar, HG, Puffin, Razorbill, Guillemot, Shag                                                           |
| Big Pool & Browarth (St. Agnes)                        | None                                                           | HG                                                                                                                                            |
| Castle Down (Tresco)                                   | None                                                           | Manx shearwater                                                                                                                               |
| Eastern Isles                                          | None                                                           | Fulmar, Manx shearwater, Cormorant, Shag, LBBG, GBBG, HG, Razorbill, Puffin                                                                   |
| Gugh                                                   | None                                                           | Storm petrel, LBBG, GBBG, Manx shearwater, Fulmar, HG                                                                                         |
| Shipman Head & Down (Bryher)                           | none                                                           | Shag, LBBG, GBBG, Manx Shearwater, Fulmar, HG, Razorbill                                                                                      |
| Tean (with Pednbrose & Old Man)                        | none                                                           | LBBG, GBBG, HG (Shag not present)                                                                                                             |
| White Island (St. Martin's)                            | none                                                           | LBBG, GBBG, Fulmar, HG (Kittiwake not present)                                                                                                |
| Peninnis Head (St. Mary's)                             | none                                                           | Manx shearwater                                                                                                                               |
| Wingletang Down (St. Agnes)                            | none                                                           | Manx shearwater, HG                                                                                                                           |
| Rushy Bay & Heathy Hill (Bryher)                       | none                                                           | LBBG, HG                                                                                                                                      |

GBBG = great black-backed gull  
LBBG = lesser black-backed gull  
HG = herring gull



*The status of seabirds breeding in the Isles of Scilly 2015/16*

The changes in seabird numbers (sum of all each species count unit) and diversity (no of species recorded) on these SSSIs over recent years and since their designation in 1986 are summarised in Tables 6a & 6b below.

**Table 6a Changes in seabird numbers for SSSIs with a qualifying breeding seabird interest since SPA and SSSI designations**

| SSSI Name                                              | No. of breeding species 2015/16 | 2015/16 total breeding pairs | % change since 2006                                                                                                | % change since SSSI designation <sup>2</sup> |
|--------------------------------------------------------|---------------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Annet                                                  | 10                              | 1,443                        | -12% (from 1638) Loss of LBBG, HG and shags, but increase in fulmar, Manx shearwater and GBBG                      | -45%                                         |
| Chapel Down (St. Martin's)                             | 5                               | 86                           | +8% (from 80) Manx shearwaters new to site, fulmars stable, kittiwakes lost                                        | n/a                                          |
| Norrard Rocks                                          | 9                               | 884                          | +12% (from 787) Large increase in auks, decline of HG and shag, cormorants lost                                    | n/a                                          |
| Pentle Bay, Merrick & Round Island                     | 8                               | 315                          | -15% (from 372) Decline in storm petrels Round Island but more Manx shearwaters there                              | n/a                                          |
| Samson (with Green, White, Puffin & Stony Islands)     | 7                               | 1,325                        | -19% (from 1641) Decline in HG & LBBG and loss of kittiwakes, increasing shag and fulmar, terns nesting here       | -45%                                         |
| St. Helen's (with Norwethel, Men-a-vaur & Peasehopper) | 10                              | 961                          | -20% (from 1207) Large decline LBBG & HG, kittiwakes lost, increase in Manx shearwaters, auks stable on Men-a-vaur | n/a                                          |
| Western Rocks                                          | 10                              | 1,028                        | No change (from 1030) Increase in guillemots, but decrease shags, storm petrels and cormorants                     | -14%                                         |

<sup>2</sup> The individual SSSIs were designated in 1986 using 1983 census figures as a baseline. Unfortunately it is not possible to separate the data accurately into the component SSSIs for most of the counts prior to the Seabird 2000 survey. Also for Annet and the Western Rocks where comparable counts are not available for storm petrel and Manx shearwater in 1983, numbers are assumed to be the same as in Seabird 2000.

*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Table 6b Changes in seabird numbers and assemblage from 1999 to 2015/16 (since SPA designation) for SSSIs not specifically listed for their seabird interest features.**

| SSSI name                        | No of breeding species 2015/16 | 2015/16 total pairs | % change since 2006 | Breeding species lost/gained since 1999                                   |
|----------------------------------|--------------------------------|---------------------|---------------------|---------------------------------------------------------------------------|
| Big Pool & Browarth (St. Agnes)  | 1                              | 1                   | -97% (from 30)      | Lesser black-backed gull & common tern lost                               |
| Castle Down (Tresco)             | 1                              | 46                  | -73% (from 170)     | Lesser black-backed, herring gull and kittiwake lost; Manx shearwater new |
| Eastern Isles                    | 9                              | 928                 | +46% (from 634)     | Puffin & Manx shearwater new                                              |
| Gugh                             | 6                              | 503                 | -66% (from 1,464)   | Kittiwake lost; Storm petrel new                                          |
| Shipman Head & Down (Bryher)     | 6                              | 98                  | -4% (from 102)      | Fulmar and razorbill new                                                  |
| Tean (with Pednbrose & Old Man)  | 3                              | 221                 | +115% (from 103)    | Common tern lost; Increase in gulls (from St. Helen's?)                   |
| White Island (St. Martin's)      | 4                              | 130                 | +33% (from 98)      | Increase in gulls                                                         |
| Peninnis Head (St. Mary's)       | 1                              | 8                   | New site            | Manx shearwater new                                                       |
| Wingletang Down (St. Agnes)      | 2                              | 11                  | +120% (from 5)      | Herring gull new                                                          |
| Rushy Bay & Heathy Hill (Bryher) | 2                              | 9                   | +800% (from 1)      | Common tern lost; Lesser black-backed & herring gull new                  |

The tables above show that, in terms of overall numbers, four of the seven SSSIs listed for bird interest have shown declines in the last nine years. In particular Annet, which has long been recognised as the most important seabird island in Scilly both in terms of numbers and diversity, has shown a decline in numbers of 12% since 2006 and over 45% since designation in 1983. Much of this loss is due to the complete abandonment of the lesser black-backed gull colony here which once numbered over 500 pairs. The population of shags is also declining steadily here as they are across most of Scilly.

Of the other SSSIs with seabird interest features, the main changes relate to the loss again of kittiwake, lesser black-backed and herring gull, particularly on St. Helen's, Samson and Gugh) and the declines in shag numbers (Western and Norrard Rocks, Eastern Isles), the loss of kittiwake sub-colonies (Gugh, St. Helen's, Samson, and Chapel Down) and of cormorants (Norrard & Western Rocks). The main increases, or offset of other losses, are due to more auks (Norrard & Western Rocks) and Manx shearwaters (Round Island, St. Helen's & Gugh). These changes at the individual SSSIs are examined in greater detail in Appendix 4.

#### 4.1 Northern fulmar *Fulmarus glacialis*

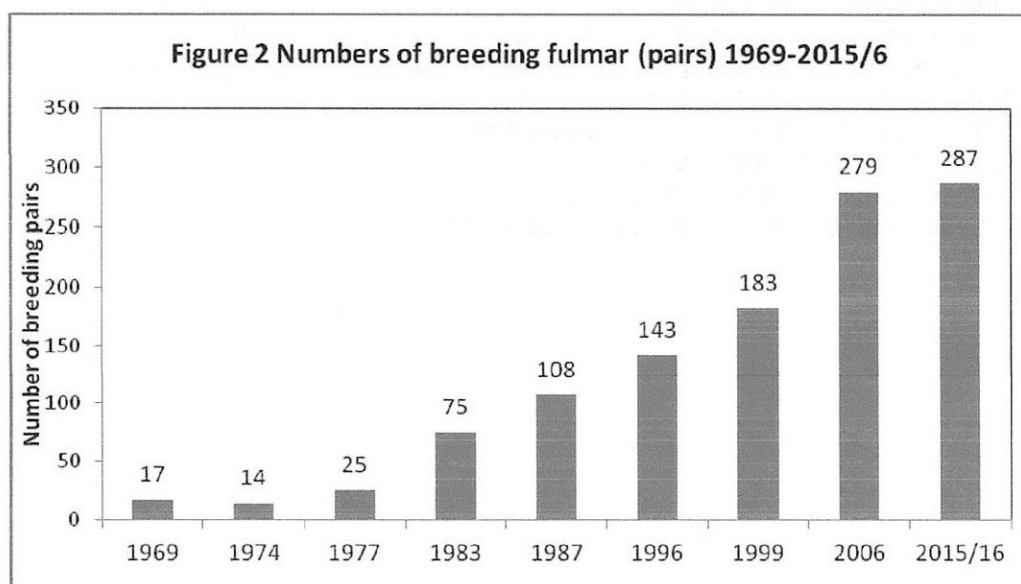
Conservation status: **Amber** (ERLOB - EN, BL)

[BoCC3: Amber]

Population: 287 Apparently Occupied Sites  
(= pairs) on 18 islands  
(see Table 1 and Map 2)



Fulmars first bred in Scilly in 1944 (Penhallurick 1969), but numbers remained low until at least the late 1960s (Robinson 2003). Figure 2 charts the rapid population growth recorded since 1969, which only seems to be slowing down with this latest count of 287 pairs in 2015/16. This represents a 3% increase in numbers over the last nine years. The breeding pairs are spread fairly evenly through the archipelago with the largest colonies to be found on Menawethan, Annet and the Daymark (see Map 2). Since 2006, the pattern of population change in Scilly has been varied with losses of birds across the Eastern Isles, Round Island and Bryher being compensated by increases in birds nesting on Annet, Samson and the Western Rocks.



The spectacular rise recorded in the number of fulmars breeding in Scilly is in line with national trends. Although by 2000, the rate of increase of birds nesting in England as a whole had begun to slow and nationally numbers declined by 3% between 1985 and 2000 (Mitchell *et al.* 2004), it seems that the growth of the Scilly population may now be slowing in accordance.

The 2015/16 total of 287 pairs in Scilly represents less than 1% of the UK total fulmar population, but 4.5% of the English total and 11.7% of the southwest population (Mitchell *et al.* 2004), and is therefore of regional importance.

## 4 Species accounts

Species' conservation status is from *Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man (2015)*, with the previous status from BoCC3 (2007) cited in square brackets.

The BoCC4 qualifying criteria and their values are set out below:

### **Red-list criteria:**

IUCN: Globally Threatened (CR=Critically Endangered, EN=Endangered, VU=Vulnerable).

HD: historical decline in the breeding population.

BDp<sup>1/2</sup>: severe breeding population decline over 25 years/longer term.

WDp<sup>1/2</sup>: severe non-breeding population decline over 25 years/longer term.

BDr<sup>1/2</sup>: severe breeding range decline over 25 years/longer term.

WDr<sup>1</sup>: severe non-breeding range decline over 25 years.

### **Amber-list criteria:**

ERLOB: Threatened in Europe (CR=Critically Endangered, EN=Endangered, VU=Vulnerable).

HDrec: historical decline – recovery.

BDMp<sup>1/2</sup>: moderate breeding population decline over 25 years/longer term.

WDMp<sup>1/2</sup>: moderate non-breeding population decline over 25 years/longer term.

BDMr<sup>1/2</sup>: moderate breeding range decline over 25 years/longer term.

WDMr<sup>1</sup>: moderate non-breeding range decline over 25 years.

BR/WR: breeding/non-breeding rarity.

BL/WL: breeding/non-breeding localisation.

BI/WI: breeding/non-breeding international importance.

**Table 7 Change in number of breeding pairs of fulmar 2006-2015/16**

| <b>Island Group</b>                                                                 | <b>1999</b> | <b>2006</b> | <b>2015/16</b> | <b>% Change since 2006</b>                 |
|-------------------------------------------------------------------------------------|-------------|-------------|----------------|--------------------------------------------|
| Eastern Isles (Great Arthur, Menawethan, Great Innisvouls, Hanjague, Great Ganilly) | 43          | 77          | 63             | -18%<br>Lost from Great Ganilly & Hanjague |
| Annet                                                                               | 21          | 37          | 57             | 54%                                        |
| St. Martin's (Daymark)                                                              | 32          | 46          | 46             | No change                                  |
| Norrard Rocks (Mincarlo & Castle Bryher, Gweal)                                     | 28          | 37          | 36             | -3%<br>New to Gweal (2 prs)                |
| Men-a-vaur                                                                          | 16          | 20          | 19             | -5%                                        |
| Western Rocks (Gorregan, Rosevean)                                                  | 2           | 6           | 16             | +167%<br>New to Rosevean (4 prs)           |
| Samson                                                                              | 2           | 5           | 15             | 200%                                       |
| Round Island                                                                        | 32          | 28          | 11             | -61%                                       |
| White Island (St. Martin's)                                                         | 5           | 6           | 8              | 33%                                        |
| Shipman Head & Down (Bryher)                                                        | 0           | 13          | 6              | -54%<br>Lost from Shipman Head Down        |
| St. Helen's                                                                         | 0           | 1           | 5              | 400%                                       |
| Castle Vean (St. Agnes)                                                             | 0           | 0           | 4              | New site                                   |
| Kittern Rock (Gugh)                                                                 | 2           | 3           | 1              | -67%                                       |
| <b>Total</b>                                                                        | <b>183</b>  | <b>279</b>  | <b>287</b>     | <b>+3% overall</b>                         |



#### 4.2 Manx shearwater *Puffinus puffinus*

Conservation status: **Amber** (BDMr<sup>2</sup>, BL, BI)

[BoCC3: Amber]

Population: 523 Apparently Occupied Burrows  
(= pairs) on 10 islands  
(see Table 1 and Map 3)



The first comprehensive survey of the distribution and abundance of Manx shearwaters in Scilly using diurnal tape playback was conducted in 2000. This survey represents the third comparable count so that we can start to get an idea of trends. Although the count in 2006 suggested a 15% decrease in the number of apparently occupied burrows, this 2015 count documents a trebling of the population (see Table 8). In addition to increases at all the sites where birds had previously been recorded breeding, colonies were located at five new sites in 2015, most notably at the north ends of both Tresco and St. Martin's. Although historically Manx shearwater breeding had been suspected at both at Castle Down and around the Daymark, previous surveys of these areas in 2000 and 2006 failed to produce evidence of breeding. It is to some extent possible that a small number of burrows were overlooked in previous years or that birds simply didn't respond to playback. However, around the north of Tresco in particular, the large area of burrows discovered, many with plenty of fresh digging, couldn't have been missed. It is also notable that on Gugh and Bryher areas with occupied burrows that have been studied in detail over the last three years showed a much higher occupancy rate and evidence of new burrows in 2015, supporting a genuine increase in new breeders.

This spectacular increase in breeding birds also coincides with record numbers of shearwaters seen rafting on evening trips around St. Agnes and Annet (1,000+ birds) in 2015, as well as the novel records of birds seen in good numbers between St. Agnes and St. Mary's during the daytime (W. Wagstaff & J Peacock *pers. comm & pers. obs.*)

The only other site in England where Manx shearwater breed is Lundy which has seen a tenfold increase in numbers following rat removal in 2002-04 here (Booker & Price 2014).

The 2015 count for Scilly represents less than 1% of the UK total Manx shearwater population, but 13% of the English and southwest totals (Booker & Price 2014) and is therefore regarded as regionally important.



**Table 8 Change in number of breeding pairs of Manx shearwater 2000-2015**

| <b>Island</b>              | <b>2000</b> | <b>2006</b> | <b>2015</b> | <b>% Change since 2006</b>                                  |
|----------------------------|-------------|-------------|-------------|-------------------------------------------------------------|
| Annet                      | 123         | 89          | 229         | +157%                                                       |
| Round Island               | 34          | 43          | 78          | +81%                                                        |
| Castle Down (Tresco)       | 0           | 0           | 46          | New site                                                    |
| Gugh                       | 22          | 9           | 45          | +400%                                                       |
| Shipman Head Down (Bryher) | 12          | 13          | 39          | +200%                                                       |
| St. Helen's                | 5           | 9           | 36          | +300%                                                       |
| Chapel Down (St. Martin's) | 0           | 0           | 26          | Recolonised – historical site                               |
| St. Agnes                  | 5           | 8           | 12          | +50% New sites at Troytown & Castle Vean                    |
| St. Mary's                 | 0           | 0           | 11          | New to Peninnis (2010), Carn Morval & Giant's Castle (2015) |
| Great Ganilly              | 0           | 0           | 1           | New site                                                    |
| <b>Total</b>               | <b>201</b>  | <b>171</b>  | <b>523</b>  | <b>+206%</b>                                                |

### 4.3 European storm petrel *Hydrobates pelagicus*

Conservation status: **Amber** (BL)

[BoCC3: Amber]

Population: 1,335 Apparently Occupied Sites  
(= pairs) on 14 islands  
(see Table 1 and Map 4)



As with Manx shearwater this is only the third comparable systematic all islands survey; prior to this estimates of the numbers of storm petrels breeding in Scilly were vague, ranging in the 'thousands' and differences in methods used made it hard to draw any conclusions. Using diurnal call playback to elicit responses from incubating birds underground we estimated a total of 1,335 pairs (see Appendix 3 for further details) representing sustained decline of 5% in the last nine years and 10% since the first count in 2000.

This 2015/16 count of storm petrels represents 5.2% of the UK population of this Annex 1 species and is therefore of international importance (Mitchell *et al.* 2004). At the time of the last count in 2006, Scilly was the only known breeding site for storm petrels in England. Following the removal of rats from Lundy 2002-04 a few storm petrel chicks have been recorded fledging there too in 2014 and 2015.

**Table 9 Change in number of breeding pairs of storm petrel 2000-2015/16**

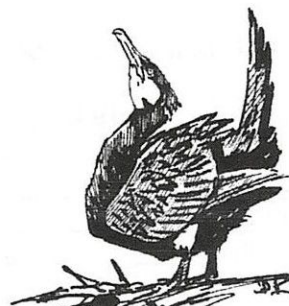
| Island        | 2000         | 2006         | 2015/16      | % Change since 2006      |
|---------------|--------------|--------------|--------------|--------------------------|
| Annet         | 938          | 788          | 778          | -1% (rat incursion 2004) |
| Round Island  | 183          | 251          | 172          | -32%                     |
| Rosevear      | 57           | 129          | 112          | -13%                     |
| Melledgan     | 140          | 69           | 97           | +41%                     |
| Gorregan      | 49           | 37           | 32           | -14%                     |
| Rosevean      | 37           | 46           | 26           | -44%                     |
| Scilly Rock   | 14           | 23           | 21           | -9%                      |
| Men-a-vaur    | 20           | 20           | 14           | -30%                     |
| Burnt Island  | 0            | 0            | 11           | New site                 |
| Mincarlo      | 17           | 20           | 9            | -55%                     |
| Illiswilgig   | 3            | 9            | 52           | +478%                    |
| Castle Bryher | 17           | 6            | 3            | -50%                     |
| St. Agnes     | 0            | 0            | 6            | New site                 |
| Gugh          | 0            | 0            | 2            | New site                 |
| <b>Total</b>  | <b>1,475</b> | <b>1,398</b> | <b>1,335</b> | <b>-5%</b>               |

#### 4.4 Great cormorant *Phalacrocorax carbo*

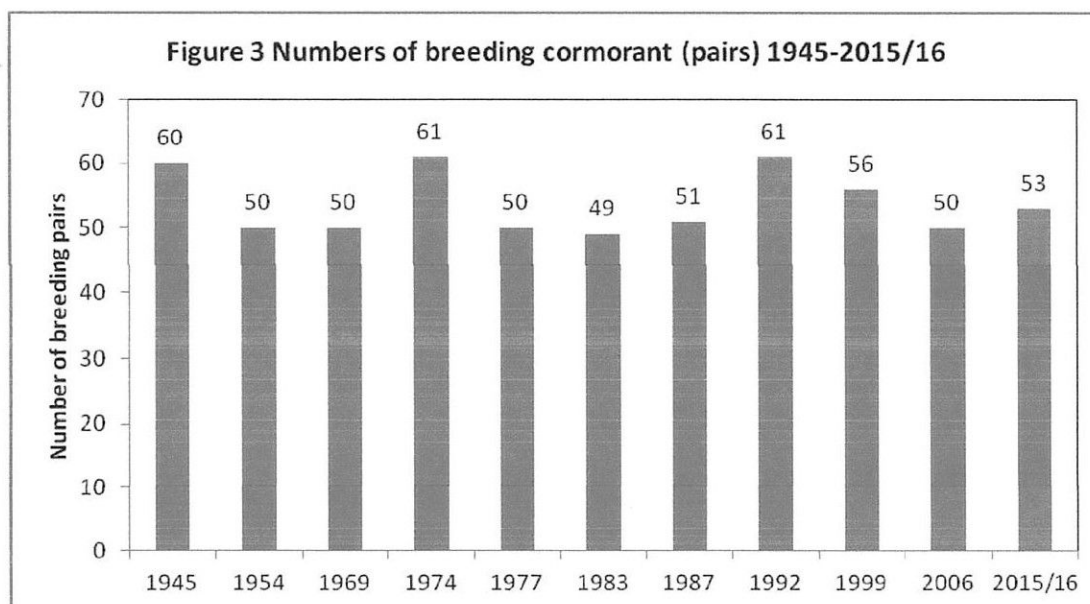
Conservation status: **Green**

[BoCC3: Green]

Population: 53 Apparently Occupied Nests  
(= pairs) on three islands  
(see Table 1 and Map 5)



Counts since 1945 suggest that the number of cormorants breeding in Scilly has remained remarkably stable at between 49-61 pairs (see Figure 3). In addition the spread of sub-colonies, though traditionally transient in their location with at least eight other islands having supported breeding birds in the past (Robinson 2003), has reduced from five sites in 1999, to four in 2006 and just three in 2015/16.



The population of cormorants breeding in England and the UK as a whole increased by 8% and 10% respectively between 1985 and 2000 (Mitchell *et al.* 2004). This 2015/16 Scilly population count now represents less than 2% of the UK and English totals and just 3.9% of the southwest population (Mitchell *et al.* 2004) so that numbers are not considered to be of regional importance.

*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Table 10 Change in number of breeding pairs of cormorant 1999-2015/16**

| <b>Island</b>         | <b>1999</b> | <b>2006</b> | <b>2015/16</b> | <b>% change since 1999 &amp; notes</b>    |
|-----------------------|-------------|-------------|----------------|-------------------------------------------|
| White Island (Samson) | 1           | 9           | 38             | +3700% Mincarlo birds moved here?         |
| Melledgan             | 16          | 13          | 10             | -23%                                      |
| Great Ganinnick       | 0           | 0           | 5              | New site                                  |
| Mincarlo              | 25          | 18          | 0              | Site abandoned - last recorded nests 2013 |
| Ragged Island         | 12          | 10          | 0              | Site abandoned                            |
| Great Innisvouls      | 2           | 0           | 0              | Site abandoned                            |
| <b>Total</b>          | <b>56</b>   | <b>50</b>   | <b>53</b>      | <b>+6%</b>                                |



#### 4.5 European shag *Phalacrocorax aristotelis*

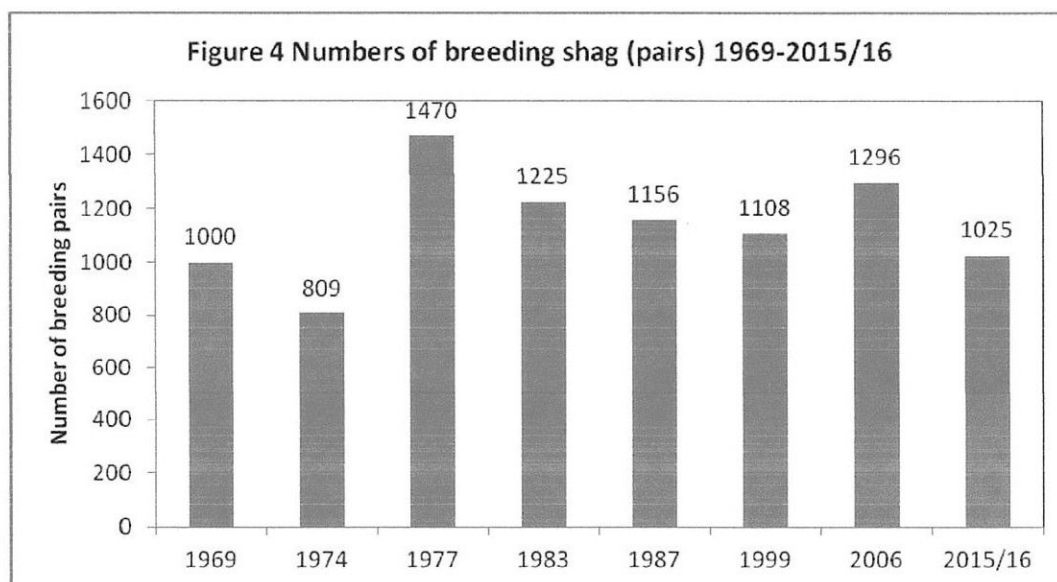
Conservation status: **Red** (BDp<sup>1</sup>),  
Also **Amber** (BDMp<sup>2</sup>, BI)

[BoCC3: Amber]

Population: 1,025 Apparently Occupied Nests  
(= pairs) on 31 islands  
(see Table 1 and Map 6)



The first systematic 'all islands' survey of shags was conducted in 1969 as part of Operation Seafarer. Since then counts have fluctuated around 1,100 pairs, with a particularly low count in 1974 (see Figure 4). Following a 7% increase in numbers between 1999 and 2006, this latest count represents a 21% decrease in the numbers of breeding shags in Scilly. Losses are spread across a number of sites, notably the Western and Norrard Rocks, the Eastern Isles and Annet. Annual counts of birds nesting on Annet in the last nine years (see Appendix 5) suggest that the decline there has been gradual.



The southwest region as a whole recorded a 4% decline in numbers of shag between 2000 and 2006 (Porter, Brown & Lock 2010) and wider trends in the UK record larger declines of 27% between 1985 and 2000 (Mitchell *et al.* 2004).

The 2015/16 total for Scilly represents 3.9% of the UK total, 26.6% of the English total and 41% of the Southwest population of shags (Mitchell *et al.* 2004). Scilly is the fourth largest colony in the UK and Ireland, behind Foula (Shetland), Farnes and Lambay Island (Co. Dublin) and is considered as nationally important.

*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Table 11 Change in number of breeding pairs of shag 1999-2015/16**

| <b>Island</b>                                     | <b>1999</b>  | <b>2006</b>  | <b>2015/16</b> | <b>% Change since 2006</b>          |
|---------------------------------------------------|--------------|--------------|----------------|-------------------------------------|
| Western Rocks                                     | 331          | 392          | 350            | -11%                                |
| Eastern Isles                                     | 221          | 330          | 276            | -16%                                |
| Norrard Rocks                                     | 273          | 312          | 188            | -40%                                |
| Annet                                             | 209          | 177          | 85             | -52%                                |
| St. Helen's (incl. Men-a-vaur)                    | 24           | 38           | 31             | -18%                                |
| Samson (Incl. White & Puffin Is.)                 | 43           | 35           | 49             | +40%                                |
| Round Island                                      | 2            | 7            | 16             | +129%                               |
| St. Martin's satellites (Pernagie & Guther's Is.) | 1            | 1            | 11             | New to Pernagie, increased Guther's |
| Shipman Head (Bryher)                             | 4            | 4            | 19             | +375%                               |
| <b>Total</b>                                      | <b>1,108</b> | <b>1,296</b> | <b>1,025</b>   | <b>-21%</b>                         |

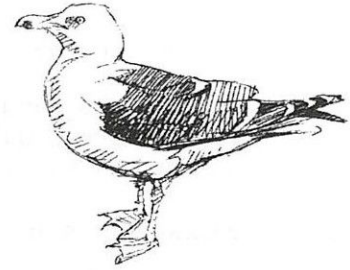


#### 4.6 Lesser black-backed gull *Larus fuscus*

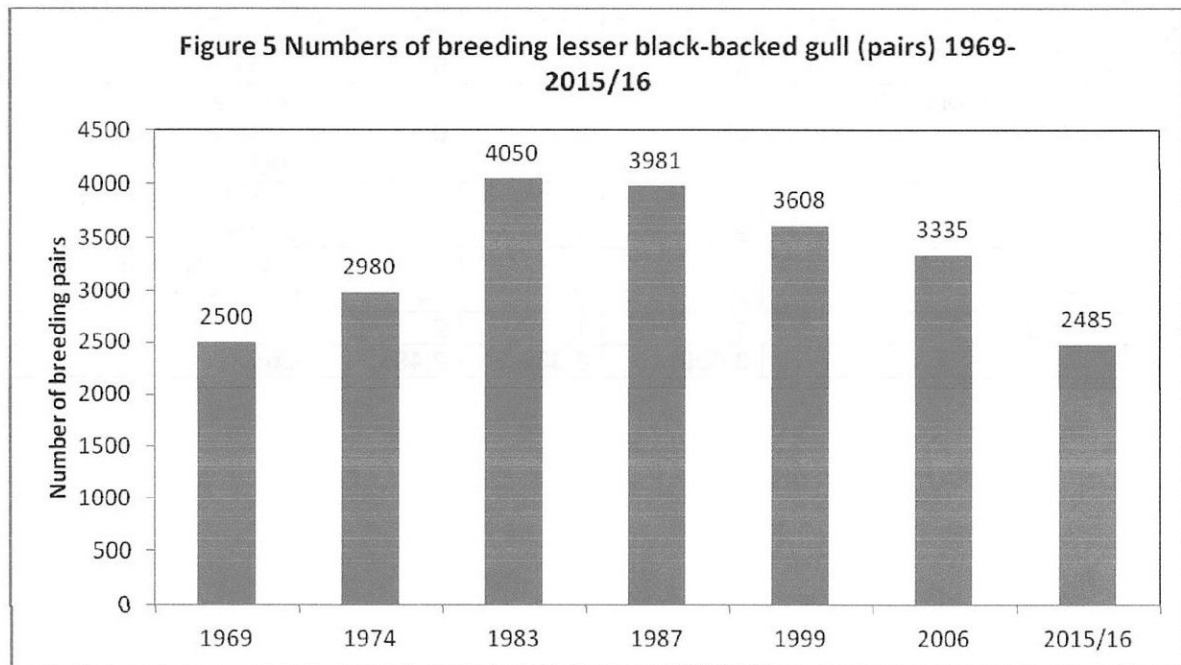
Conservation status: **Amber** (BL, BI)

[BoCC3: Amber]

Population: 2,485 Apparently Occupied Nests  
(= pairs) on 30 islands  
(see Table 1 and Map 7)



Since the first systematic count in 1969 the number of lesser black-backed gulls nesting in Scilly increased to a peak of 4,050 pairs in 1983 but has declined steadily ever since. This 2015/16 count represents a continuation of this trend with a loss of 26% of breeding pairs in the last nine years. The three largest sub-colonies on Samson, St. Helen's and Gugh have all declined dramatically since 2006 and the sub-colony on Annet has been lost altogether. Outside the main sites lesser black-backed gulls are spread widely across 30 islands and some islands, notably Norwethel, Tean and a couple of Eastern Isles, may have picked up some of the birds lost elsewhere.



This decline in breeding numbers found in Scilly in recent years is in line with national trends. Populations in the UK increased by as much as 40% between 1985 and 2000, with main increases within SPAs e.g. 132% increase at Bowland and 95% increase at Walney, but with huge declines since. Regional counts for this species in coastal areas showed a 9% decline in numbers between 2000 and 2006 (Porter, Brown & Lock 2010).

The 2015/16 total for Scilly represents 2.0% of the GB total, 3.6% of the English total and 33.3% of the southwest population of lesser black-backed gull (Mitchell *et al.* 2004).

*The status of seabirds breeding in the Isles of Scilly 2015/16*

It is a key species in the SPA designation of the archipelago representing 31% of the total assemblage. The current population is 1.38% of the biogeographic population and still meets the international importance threshold which is 1,830 or 1% of the biogeographic population of *Graelsii*. Great Britain supports about 65% of the world population of the subspecies.

**Table 12 Change in number of breeding pairs of lesser black-backed gull 1999-2015/16**

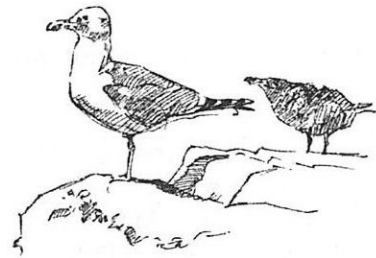
| Island                                             | 1999         | 2006         | 2015/16      | % Change since 2006                                  |
|----------------------------------------------------|--------------|--------------|--------------|------------------------------------------------------|
| Samson (Incl. White & Puffin Is.)                  | 1,197        | 1,223        | 1,027        | -16%                                                 |
| St. Helen's (incl. Men-a-vaur, Norwethel & Crow's) | 543          | 722          | 553          | -23%                                                 |
| Gugh                                               | 1,123        | 875          | 419          | -52%                                                 |
| Eastern Isles                                      | 19           | 14           | 159          | +1,036% Large increases Great Ganilly & Great Arthur |
| Tean (incl. Pednbrose & Old Man)                   | 24           | 5            | 136          | +2,620%                                              |
| White Island (St. Martin's)                        | 28           | 187          | 106          | -43%                                                 |
| Norrard Rocks                                      | 13           | 6            | 37           | +517% Increase Gweal                                 |
| Bryher                                             | 50           | 8            | 17           | +113%                                                |
| Western Rocks                                      | 4            | 1            | 5            | +400%                                                |
| Chapel Down (St. Martin's) & Satellites (Guther's) | 58           | 8            | 8            | No change                                            |
| Annet                                              | 517          | 281          | 1            | -99%                                                 |
| Tresco                                             | 29           | 4            | 1            | -75% Gimble Porth abandoned                          |
| St. Agnes                                          | 2            | 0            | 14           | New settlement below Turk's Head                     |
| Round Island                                       | 1            | 1            | 2            | +100%                                                |
| <b>Total</b>                                       | <b>3,608</b> | <b>3,335</b> | <b>2,485</b> | <b>-26%</b>                                          |

#### 4.7 Herring gull *Larus argentatus*

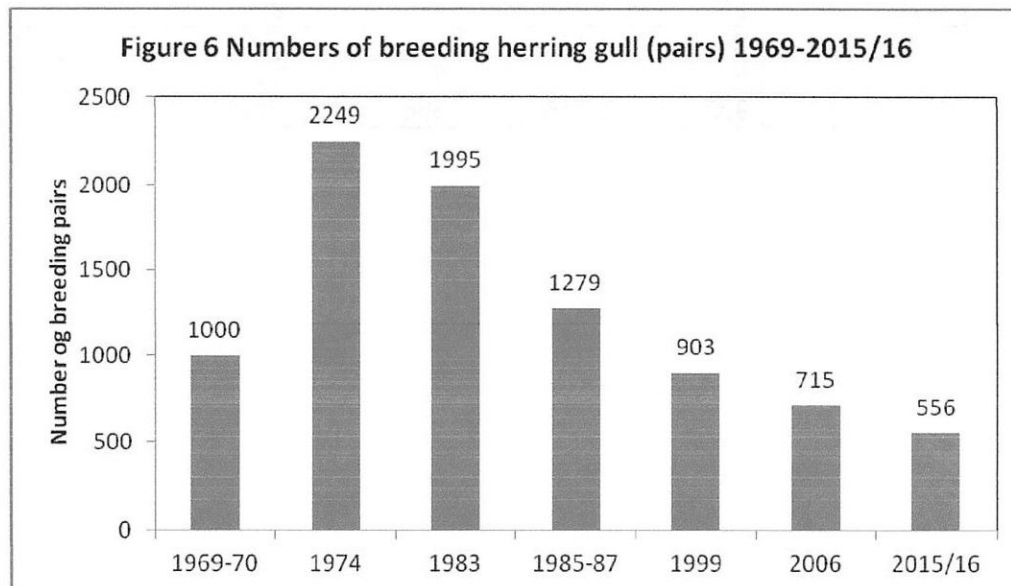
Conservation status: **Red** (BDp<sup>2</sup>, WDp<sup>1</sup>)  
Also **Amber** (WI)

[BoCC3: Red]

Population: 556 Apparently Occupied Nests  
(= pairs) on 47 islands  
(see Table 1 and Map 8)



Herring gulls are the most widespread breeding seabirds in Scilly, found on 47 islands; however most islands support only a few pairs (see Map 8 and Table 1). Since a peak of 2,249 pairs in 1974 herring gull numbers have been declining steadily to the current count of just 556 pairs in 2015/16, representing a loss of 22% in the last nine years and 38% since SPA designation. In particular since 2006 the entire mixed colony of gulls and kittiwakes on Gimble Porth, Tresco, has been abandoned. The only sites to show an increase in pairs in 2015/16 are in the Eastern Isles, Tean and Bryher but the numbers are relatively small and do not offset the large losses on Samson, Gugh, Tresco and St. Helen's. The only other increase in breeding pairs is to be found on the rooftops of Hugh Town, St. Mary's (15 pairs in 2015 cf 3 in 2006).



Between 1985 and 2000, although the numbers of herring gull nesting in England increased by 59%, there was a decrease in numbers of 13% across the UK as a whole (Mitchell *et al.* 2004).

The 2015/16 count for Scilly represents less than 1% of the UK and English totals of herring gull, and just 3.3% of the southwest population so is not considered of regional importance (Mitchell *et al.* 2004).

*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Table 13 Change in number of breeding pairs of herring gull 1999-2015/16**

| <b>Island</b>                                          | <b>1999</b> | <b>2006</b> | <b>2015/16</b> | <b>% Change since 2006</b>            |
|--------------------------------------------------------|-------------|-------------|----------------|---------------------------------------|
| Samson (Incl. White & Puffin Is.)                      | 230         | 189         | 144            | -24%                                  |
| Eastern Isles                                          | 49          | 34          | 73             | +115%                                 |
| St. Helen's (incl. Men-a-vaur, Norwethel & Crow's Is.) | 82          | 116         | 59             | -49%                                  |
| Tean (incl. Pednbrose & Old Man)                       | 62          | 51          | 57             | +12%                                  |
| Bryher                                                 | 23          | 25          | 53             | +112%                                 |
| St. Martin's & Satellites (incl. Guther's)             | 42          | 37          | 32             | -14%                                  |
| Gugh                                                   | 159         | 69          | 30             | -57%<br>Lost from the eastern beaches |
| Tresco                                                 | 102         | 87          | 25             | -72%<br>Lost from Gimble Porth        |
| Annet                                                  | 42          | 24          | 20             | -17%                                  |
| White Island (St. Martin's)                            | 34          | 32          | 15             | -53%                                  |
| Norrard Rocks (incl. Gweal)                            | 41          | 19          | 15             | -21%                                  |
| St. Mary's                                             | 2           | 3           | 15             | +400% HughTown                        |
| St. Agnes                                              | 25          | 15          | 11             | -27%                                  |
| Western Rocks                                          | 2           | 11          | 5              | -55%                                  |
| Round Island                                           | 8           | 3           | 2              | -33%                                  |
| <b>Total</b>                                           | <b>903</b>  | <b>715</b>  | <b>556</b>     | <b>-22%</b>                           |



#### 4.8 Great black-backed gull *Larus marinus*

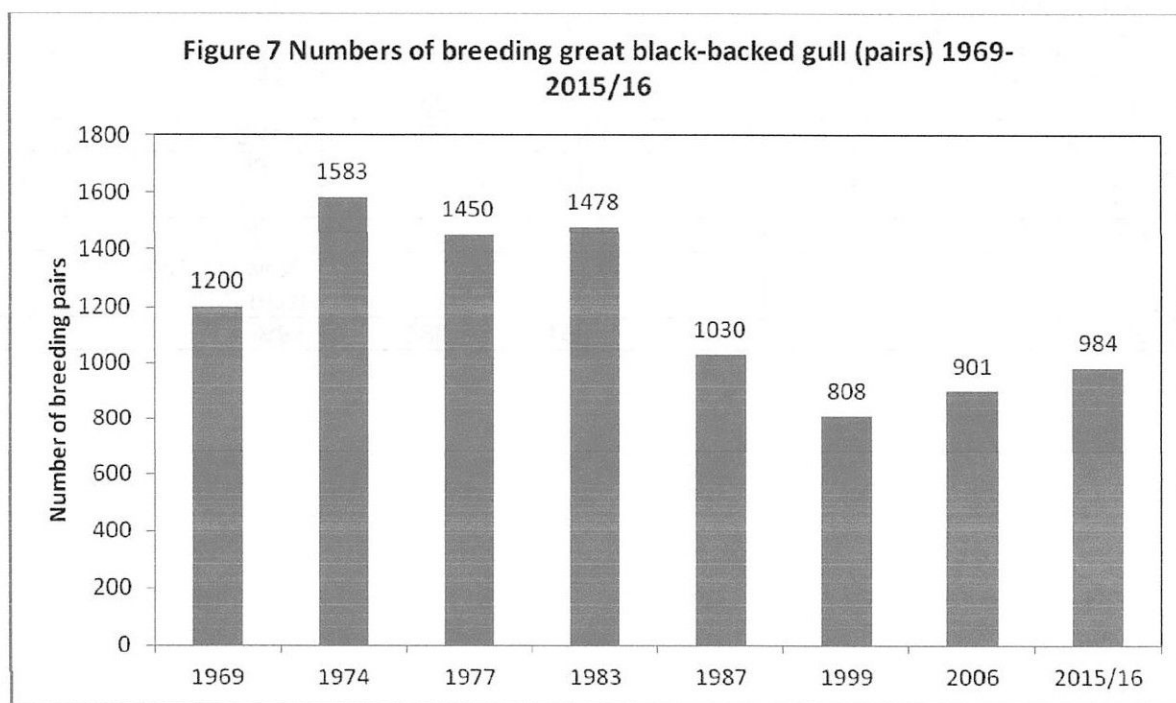
Conservation status: **Amber** (BDMp<sup>2</sup>, WDMp<sup>1</sup>)

[BoCC3: Green]

Population: 984 Apparently Occupied Nests  
(= pairs) on 45 islands  
(see Table 1 and Map 9)



After a peak of 1,583 pairs in 1974, after which a cull was carried out by the Nature Conservancy Council, the number of great black-backed gulls breeding in Scilly declined to a low of 808 pairs in 1999 (see Figure 7). Since then, numbers have begun increasing again with this current 2015/16 count of 984 pairs representing a 9% increase in numbers in the last nine years. The birds are widespread across 45 islands with most holding a few pairs and a few islands supporting larger colonies, notably Annet, Gweal, Rosevear and the Eastern Isles, all of which are increasing.



This pattern of general decline since the 1970s followed by an upturn in recent years reflects regional trends for this species (Porter, Brown & Lock 2010) but is somewhat in contrast with national trends which showed a decrease of 4% in the numbers of great black-backed gulls breeding in the UK as a whole between 1985 and 2000 (Mitchell *et al.* 2004).



*The status of seabirds breeding in the Isles of Scilly 2015/16*

The 2015/16 total for Scilly represents 5.9% of the UK total, 64.4% of the English total and 68.3% of the Southwest population of great black-backed gull (Mitchell *et al.* 2004) and is therefore at least nationally important.

**Table 14 Change in number of breeding pairs of great black-backed gull 1999-2015/16**

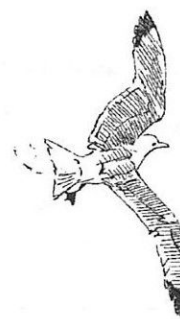
| Island                                                 | 1999       | 2006       | 2015/16    | % Change since 2006                                |
|--------------------------------------------------------|------------|------------|------------|----------------------------------------------------|
| Eastern Isles                                          | 286        | 265        | 310        | +17% Mostly Menawethan, Great Arthur & Innisvoulcs |
| Annet                                                  | 137        | 187        | 235        | +26% Large colony at Carn Irish                    |
| Western Rocks                                          | 124        | 157        | 136        | -13% Decline on Rosevear                           |
| Norrard Rocks (incl. Gweal)                            | 101        | 106        | 125        | +18% Increase Gweal                                |
| Samson (Incl. White & Puffin Is.)                      | 46         | 73         | 42         | -43%                                               |
| St. Martin's & Satellites (incl. Guther's & White Is.) | 47         | 46         | 43         | -7%                                                |
| St. Helen's (incl. Men-a-vaur, Norwethel & Crow's Is.) | 30         | 28         | 31         | +11%                                               |
| Tean (incl. Pednbrose & Old Man)                       | 16         | 18         | 28         | +56%                                               |
| Round Island                                           | 5          | 9          | 20         | +122%                                              |
| Gugh                                                   | 3          | 4          | 6          | +50%                                               |
| Bryher                                                 | 13         | 7          | 5          | -29%                                               |
| St. Agnes                                              | 0          | 1          | 2          | +100%                                              |
| Tresco                                                 | 0          | 0          | 1          | New site Merrick Island                            |
| <b>Total</b>                                           | <b>808</b> | <b>901</b> | <b>984</b> | <b>+9%</b>                                         |

#### 4.9 Black-legged kittiwake *Rissa tridactyla*

Conservation status: **Red** (BDp<sup>1</sup>, BDp<sup>2</sup>)  
Also **Amber** (ERLOB - VU)

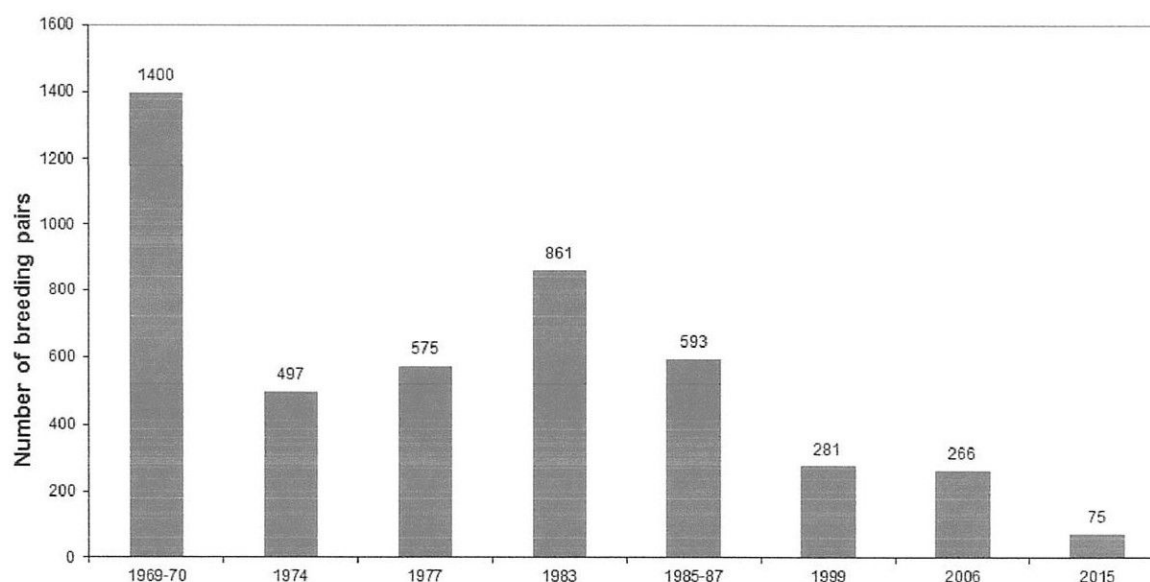
[BoCC3: Amber]

Population: 75 Apparently Occupied Sites  
(= pairs) on one island  
(see Table 1 and Map 10)



After increasing to a peak of 861 pairs in 1983, the number of kittiwakes breeding in Scilly has declined steadily. The current 2015 count of just 75 pairs represents a particularly rapid drop of 72% in just the last nine years. In addition, the division of birds into a number of sub-colonies appears to have been abandoned as the numbers have fallen. In 2015 all 75 pairs nested at just one location on the low 'cliffs' between the Turk's Head pub and the Gugh Bar on St. Agnes.

Figure 8 Numbers of breeding kittiwake (pairs) 1969-2015



These population trends seen in Scilly reflect those at a national scale with considerable increases in the first half of the 20<sup>th</sup> century giving way to large declines, with the kittiwake population in England declining by as much as 39% between 1985 and 2000 (Mitchell *et al.* 2004) and by a further 66% across the southwest between 2000 and 2006 (Porter, Brown & Lock 2010).

The 2015 total for Scilly now represents less than 1% of the UK and English total and just 2.2% of the Southwest population of kittiwake (Mitchell *et al.* 2004) and is not considered regionally important.

**Table 15 Change in number of breeding pairs of kittiwake 1999-2015**

| <b>Colony site</b>      | <b>1999</b> | <b>2006</b> | <b>2015</b> | <b>% Change since 2006</b>        |
|-------------------------|-------------|-------------|-------------|-----------------------------------|
| Turk's Head (St. Agnes) | 0           | 0           | 75          | New site, first colonised in 2009 |
| Daymark (St. Martin's)  | 27          | 15          | 0           | Site abandoned 2014               |
| Gugh                    | 155         | 131         | 0           | Site abandoned 2011               |
| Gimble Porth (Tresco)   | 54          | 37          | 0           | Site abandoned 2010               |
| St. Helen's             | 7           | 36          | 0           | Site abandoned 2011               |
| Samson North Hill       | 28          | 25          | 0           | Site abandoned 2010               |
| Samson South Hill       | 10          | 22          | 0           | Site abandoned 2009               |
| <b>Total</b>            | <b>281</b>  | <b>266</b>  | <b>75</b>   | <b>-72%</b>                       |

#### 4.10 Common tern *Sterna hirundo*

Conservation status: **Amber** (BL)

[BoCC3: Amber]

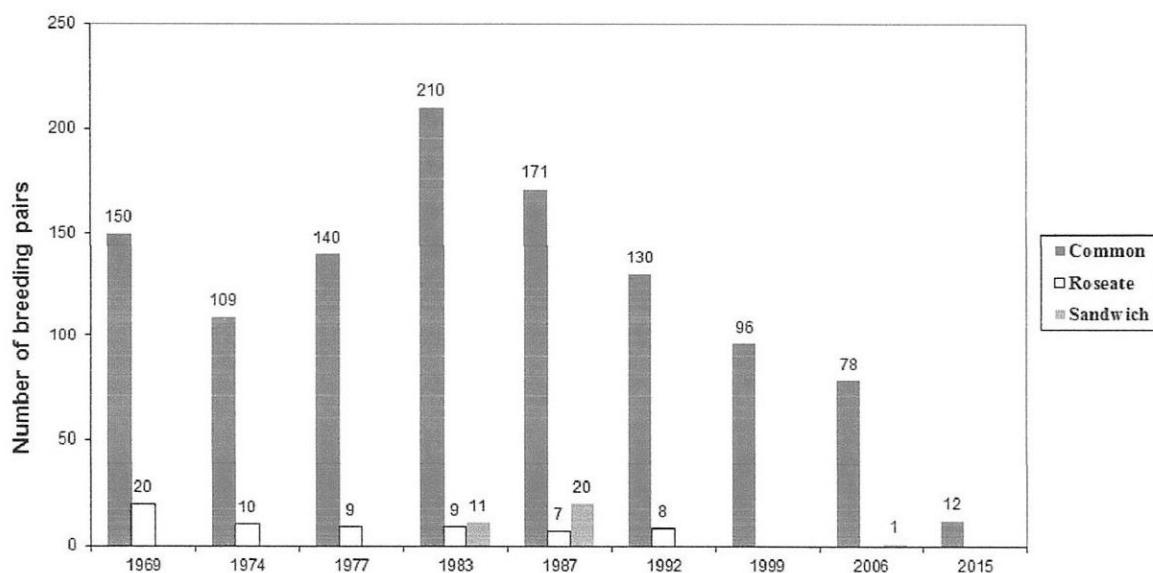
Population: 12 Apparently Occupied Nests  
(= pairs) on two islands  
(see Table 1 and Map 11)



Numbers of common terns breeding in Scilly can be quite erratic (see Figure 9) but have shown a clear and sustained decline since a maximum of count of 210 pairs in 1983. In the last nine years common terns have been arriving to the islands later each year and showing low interest in breeding with no breeding attempts at all recorded in 2010 and 2014 (Heaney 2014, W Wagstaff *pers. comm.*). Also the breeding attempts are not as spread as prior to 2006 with the birds showing a particular preference for nesting on the low lying Green Island (Samson). In 2015 as in 2014 the main breeding site was on the north hill of Samson.

In the past, up to four species of tern have bred in Scilly usually all in association with the most numerous common terns. At the periphery of their global range, Sandwich terns are intermittent breeders. A maximum of 18-22 pairs was recorded in 1998, but since then only single pairs have been recorded in 1998 and 2006-8. No breeding attempts by Sandwich terns were recorded in 2015. Roseate terns have also been recorded in small numbers in Scilly, from a maximum of 20 pairs in 1969 to the last recorded attempt in 1995. Arctic terns have also been recorded in Scilly, most recently in 1995, but again no record of this species breeding was made in 2015.

**Figure 9 Numbers of breeding tern (pairs) 1969-2015**



*The status of seabirds breeding in the Isles of Scilly 2015/16*

In the period between Operation Seafarer and Seabird 2000, the common tern population in the UK declined by 9% despite remaining relatively stable across England. Across the southwest numbers have been increasing with a rise of 9% between 2000 and 2006 (Porter, Brown & Lock 2010).

The 2015 total for Scilly now represents less than 1% of the UK and English total (Mitchell *et al.* 2004) and just 3.2% of the Southwest population of common terns (Porter, Brown & Lock 2010). However, as one of only three common tern breeding sites in the southwest and a previous site for roseate terns, Scilly is still considered regionally important.

**Table 16 Change in number of breeding pairs of common tern 1999-2015**

| Colony site             | 1999      | 2006      | 2015      | % Change since 2006           |
|-------------------------|-----------|-----------|-----------|-------------------------------|
| North Hill, Samson      | 11        | 3         | 10        | +233%                         |
| Annet                   | 1         | 1         | 2         | +100%                         |
| Green Island (Samson)   | 7         | 56        | 0         | Regular site - last used 2013 |
| Peasehopper Island      | 1         | 13        | 0         | Site abandoned 2008           |
| Green Island (Tresco)   | 1         | 4         | 0         | Site abandoned                |
| Merrick Island (Tresco) | 0         | 1         | 0         | Site abandoned                |
| Merrick Island (Bryher) | 13        | 0         | 0         | Site abandoned                |
| Appletree Banks, Tresco | 39        | 0         | 0         | Site abandoned                |
| Castle Down, Tresco     | 13        | 0         | 0         | Site abandoned                |
| Great Cheese Rock       | 5         | 0         | 0         | Site abandoned                |
| Browarth, St. Agnes     | 3         | 0         | 0         | Site abandoned                |
| Colvel Rock, Bryher     | 1         | 0         | 0         | Site abandoned                |
| Teian                   | 1         | 0         | 0         | Site abandoned                |
| <b>Total</b>            | <b>97</b> | <b>78</b> | <b>12</b> | <b>-85%</b>                   |



#### 4.11 Common guillemot *Uria aalge*

Conservation status: **Amber** (BL, BI)

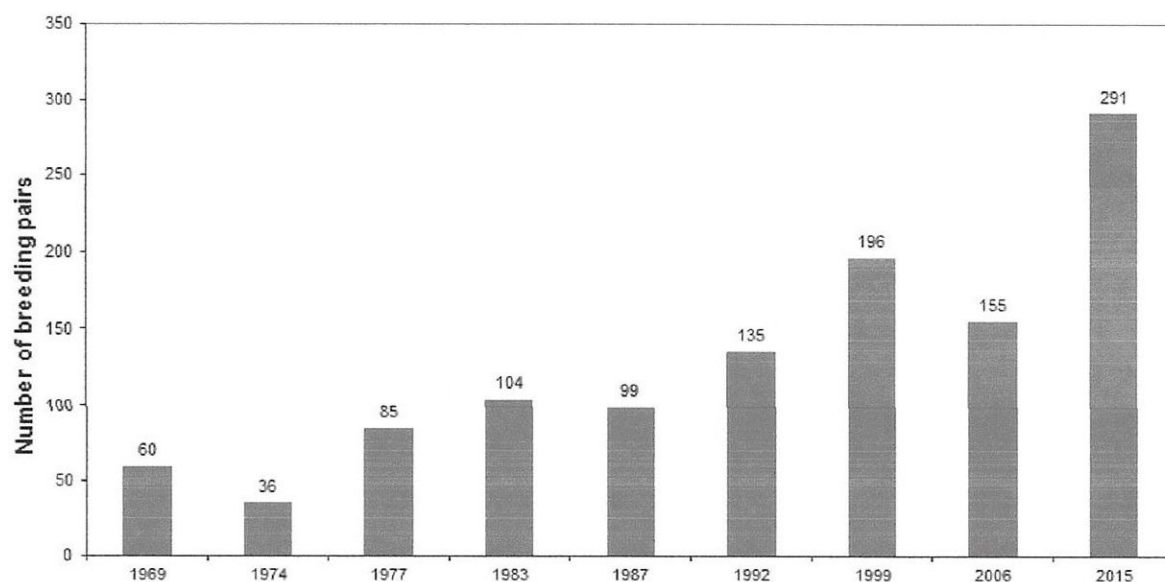
[BoCC3: Amber]

Population: 291 pairs recorded at five sites  
(see Table 1 and Map 12)



All islands counts of guillemot breeding in Scilly since 1969, shown in Figure 10, reveal a general increase in numbers with the 2015 count representing a maximum in recent years of 291 pairs; an increase of 88% since the low count of 155 pairs in 2006. As in previous years the birds were found to be breeding in concealed nest sites under boulders and on ledges in cavities, a trend possibly related to high avian predation pressure (Robinson 1993, Swann 2003) as well as the absence of their preferred cliff ledge sites (Chown & Lock 2002). These boulder colonies are hard to survey accurately and, when coupled with the fact that they are located on the most inaccessible outer rocks (see Map 12), means that counts of guillemots and auks in general in Scilly can be difficult to make (see Appendix 3). Nevertheless, this 2015 count appears to represent a definite increase in guillemot numbers in Scilly with the number of pairs at the three main sites increasing as well as new pairs at Melledgan and Mincarulo (see Table 17).

Figure 10 Numbers of breeding guillemot (pairs) 1969-2015



The trends seen in Scilly follow the national pattern with the number of breeding pairs of guillemot in Britain and Ireland increasing substantially between 1969 and 2006, especially in the small southern colonies (Mitchell *et al.* 2004, Porter, Brown & Lock 2010).

*The status of seabirds breeding in the Isles of Scilly 2015/16*

The 2015 total for Scilly represents less than 1% of the UK and English total and 4.5% of the Southwest population of common guillemot (Mitchell *et al.* 2004), so is not of regional importance.

**Table 17 Change in number of breeding pairs of guillemot 1999-2015**

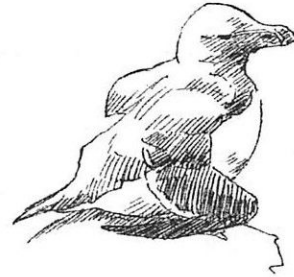
| <b>Colony Site</b> | <b>1999</b> | <b>2006</b> | <b>2015</b> | <b>% Change since 2006</b> |
|--------------------|-------------|-------------|-------------|----------------------------|
| Men-a-vaur         | 117         | 95          | 110         | +16%                       |
| Gorregan           | 39          | 31          | 99          | +200%                      |
| Scilly Rock        | 39          | 29          | 60          | +161%                      |
| Mincarlo           | 1           | 0           | 20          | Re-colonised               |
| Melledgan          | 0           | 0           | 2           | New site                   |
| <b>Total</b>       | <b>196</b>  | <b>155</b>  | <b>291</b>  | <b>+88%</b>                |

#### 4.12 Razorbill *Alca torda*

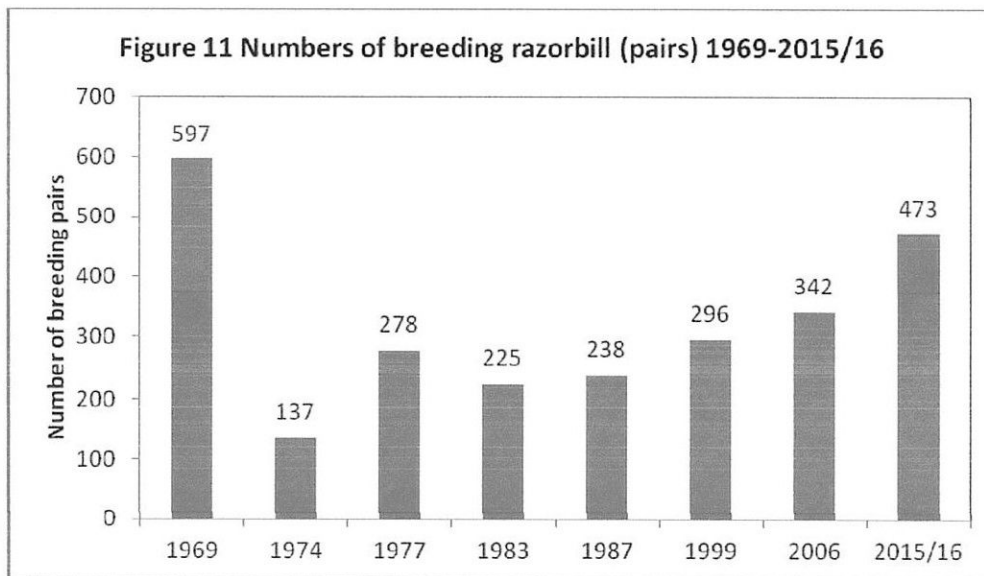
Conservation status: **Amber** (BL, BI)

[BoCC3: Amber]

Population: 473 pairs recorded at 16 sites  
(see Table 1 and Map 13)



As with guillemots, razorbills in Scilly nest exclusively under boulders making accurate assessment of breeding numbers and comparison of counts difficult (see Appendix 3). After a low count of 137 pairs in 1974 (possibly as a result of high mortality and low recruitment following the Torrey Canyon oil spill), numbers have shown a gradual increase to the current count of 473 pairs. Found at 16 sites, razorbills are the most abundant and widespread of the three auk species found breeding in Scilly (see Map 13). The bulk of pairs nest on four islands; Mincarlo, Men-a-vaur, Scilly Rock and Gorregan. Over the last nine years the number of pairs breeding in Scilly has increased by 38% with large increases in birds at Mincarlo and Melledgan and new sites colonised in the Norrard Rocks, the Eastern Isles (Gweal and Little Ganinnick respectively) and at Shipman Head.



Despite difficulties in comparing methodologies, the number of razorbills across the UK appeared to increase from 1969 to 2006 as seen in Scilly (Mitchell *et al.* 2004, Porter, Brown & Lock 2010).

The 2015/16 total for Scilly now represents less than 1% of the UK total, 4.1% of the English total and 24.9% of the Southwest population of razorbill (Mitchell *et al.* 2004), so is considered of regional importance.

*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Table 18 Change in number of breeding pairs of razorbill 1999-2015/16**

| <b>Colony Site</b>   | <b>1999</b> | <b>2006</b> | <b>2015/16</b> | <b>% Change since 2006</b>                           |
|----------------------|-------------|-------------|----------------|------------------------------------------------------|
| Norrard Rocks        | 103         | 129         | 232            | +80% New to Gweal (8 pairs)                          |
| Western Rocks        | 85          | 107         | 109            | +2%                                                  |
| Men-a-vaur           | 101         | 90          | 88             | -2%                                                  |
| Eastern Isles        | 3           | 12          | 37             | +208% New to Little Ganinnick,<br>lost from Hanjague |
| Annet                | 4           | 4           | 5              | +25%                                                 |
| Shipman Head, Bryher | 0           | 0           | 2              | New site                                             |
| <b>Total</b>         | <b>296</b>  | <b>342</b>  | <b>473</b>     | <b>+38%</b>                                          |

#### 4.13 Atlantic puffin *Fratercula arctica*

Conservation status: **Red** (IUCN - VU),  
Also **Amber** (BDMr<sup>2</sup>, ERLOB – EN, BL)

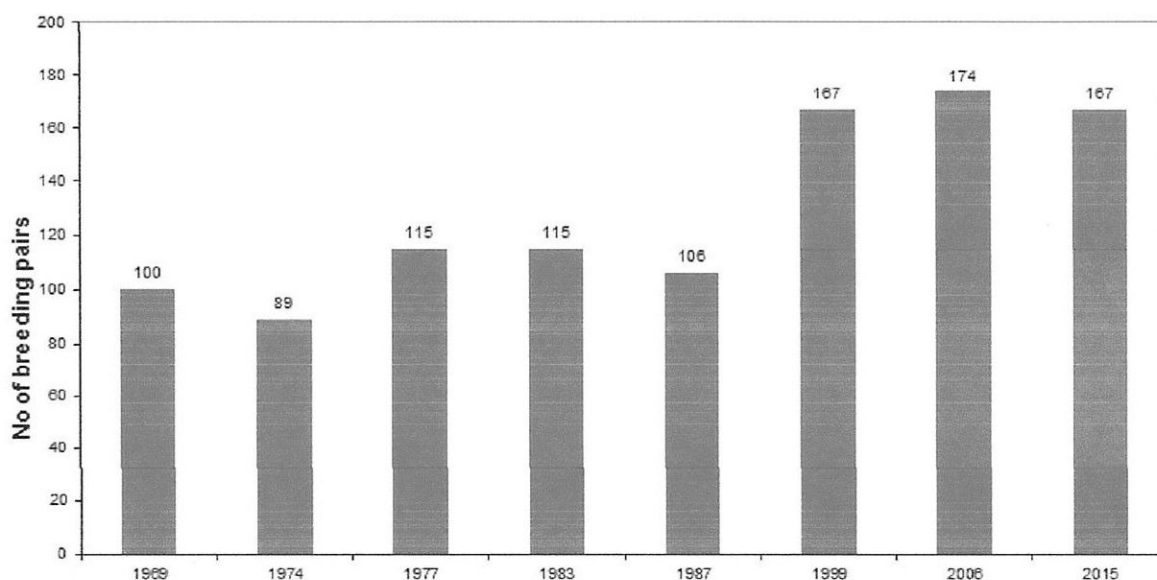
[BoCC3: Amber]

Population: 167 pairs recorded at 10 sites  
(see Table 1 and Map 14)



Although historical records suggest 1000s of pairs of puffins once bred in Scilly, comprehensive counts from 1969 onwards record much lower numbers (see Figure 12). The last three counts suggest a slight upturn in numbers with numbers fluctuating around 170 pairs. Although spread across 10 sites, there are three main sub-colonies of puffins in Scilly; Mincarlo, Annet and Scilly Rock (see Table 19). In the last nine years a drop in the number of pairs breeding on Annet appears to have been compensated by an increase in pairs at Mincarlo, this movement of birds between nearby sites has been recorded in other colonies (Breton *et al.* 2006). Of interest in 2015 was the record of a few pairs at Menawethan in the Eastern Isles. Although puffins were recorded here in the past, this is the first time in recent memory that they have been seen here.

Figure 12 Numbers of breeding puffin (pairs) 1969-2015



Puffins declined across the UK in the first half of the 20<sup>th</sup> century, with losses occurring first and being most severe in the southernmost colonies. More recent declines on breeding numbers have led to the puffin being red listed in October 2015. Continuing declines seen in many small southern colonies in Devon, Cornwall and the Channel



*The status of seabirds breeding in the Isles of Scilly 2015/16*

Islands (Wanless *et al.* 2003, Mitchell *et al.* 2004, Porter, Brown & Lock 2010) make it all the more important that we continue to monitor and protect our Scilly birds.

The 2015 total for Scilly represents less than 1% of the UK and English totals but is of regional importance.

**Table 19 Change in number of breeding pairs of puffin 1999-2015**

| Colony Site  | 1999       | 2006       | 2015       | % Change since 2006 |
|--------------|------------|------------|------------|---------------------|
| Mincarlo     | 53         | 38         | 51         | +34%                |
| Annet        | 47         | 50         | 31         | -38%                |
| Scilly Rock  | 25         | 36         | 35         | -3%                 |
| Rosevear     | 3          | 14         | 14         | No change           |
| St. Helen's  | 11         | 13         | 11         | -15%                |
| Melledgan    | 2          | 13         | 13         | No change           |
| Men-a-vaur   | 25         | 6          | 5          | -17%                |
| Rosevean     | 0          | 4          | 0          | Site abandoned      |
| Gorregan     | 1          | 0          | 2          | Site re-colonised   |
| Menawethan   | 0          | 0          | 4          | New site            |
| Round Island | 0          | 0          | 1          | New site            |
| <b>Total</b> | <b>167</b> | <b>174</b> | <b>167</b> | <b>-4%</b>          |

## **5 Site accounts**

The specific objective of this 2015/16 survey was to assess the status of the Isles of Scilly Special Protection Area and of its constituent Sites of Special Scientific Interest for seabirds. The survey also makes possible an assessment of the status of seabirds on the other SSSIs not specifically designated for seabird interest and across other areas in Scilly that lie outside designations.

### **5.1 The status of seabirds in the Isles of Scilly SPA**

The Isles of Scilly SPA (see maps in Appendix 1) was classified in August 2001 and data from the Seabird 2000 census (collected in 1999 and 2000) were used to support the classification. The site qualifies under Article 4.1 of Directive 79/409 for its breeding population of storm petrel (based on 1999 estimate of 5,406-8,798 pairs, some 6.4-10.4% of the GB population) and under Article 4.2 for its breeding population of lesser black-backed gulls (based on 1999 figure of 3,608 pairs, some 2.9% of the race *graellsii*). It also qualifies under article 4.2 by supporting a population of at least 20,000 waterbirds, specifically 26,478 seabirds in 1999.

Accurate storm petrel counts using diurnal call playback since 2000 fall short of the 1999 estimate on which SPA designation was based and the total number of seabirds estimated to be breeding in Scilly now falls short of the 20,000 birds threshold for which the SPA was designated. Nevertheless, the 2015/16 estimate of 1,335 pairs of breeding storm petrel in the Scilly SPA is still of international importance. The 2015/16 count estimated 8,266 breeding pairs – 16,532 seabirds supported by the archipelago, a fall of 9.8% in the last 9 years and 37.6% since SPA designation. It should be noted that this figure includes the high storm petrel population estimate obtained using methods which are not directly comparable to these obtained since. Using the Seabird 2000 figures including the playback surveys of storm petrel and Manx shearwater the decline in numbers since 1999/2000 is nearer 11.9%, see Figure 1.

The 2015/16 results show that the islands still support internationally important numbers of storm petrel and lesser black-backed gull as well as nationally important numbers of shag and great black-backed gull.

All-island seabird count figures are used in this report because boundary anomalies mean that features of the SPA move in and out of the SPA but still occur within the archipelago. Therefore it is more meaningful to present the figures for all the islands as more representative of the state of features of the SPA.

Appendix 7 provides an analysis of the numbers of seabirds recorded breeding within the SPA boundary in 2015/16.

### **5.2 The status of seabirds in the Isles of Scilly seabird SSSIs**

Table 5 gives a summary of the seabird notified features and seabird species present breeding in each of the 26 SSSIs in the Isles of Scilly. Of these, 17 supported breeding seabirds in 2015/16; however, only seven are notified in whole or part recognition of their qualifying seabird interest. Tables 6a and 6b provide a breakdown of the numbers of each seabird species present in each of the SSSIs in the Scilly archipelago from 1999 to 2015/16.

## *The status of seabirds breeding in the Isles of Scilly 2015/16*

Since the designation of SSSIs in 1986 the number of seabirds breeding in three of the seven SSSIs designated for their seabird interest has declined by as much as 45%. (Comparative data are not available for four of these 'seabird' SSSIs, as it is not possible to allocate individual island counts to SSSIs for surveys prior to 1999). Table 2 details the condition of these SSSIs according to the individual seabird interest features and Appendix 4 gives more detail on the changes at each of the individual Scilly SSSIs.

Franeker *et al.* 2011). It is likely that this may be a problem for fulmars breeding in Scilly too.

Inshore fixed gill nets can be a source of considerable mortality for pursuit-diving seabirds, especially if set close to large breeding colonies (Piatt & Nettleship 1987, Regular *et al.* 2010) but, as discussed before, the local Scilly fishery is small and unlikely to cause any changes at a population level. Due to the large foraging range and seasonal movements of some of the seabirds, bycatch may be an issue for some species in their breeding foraging ranges or non breeding areas.

## **7 Recommended action to safeguard and enhance seabird populations in the Isles of Scilly**

### **7.1 Amendments to the terrestrial & marine boundaries of designated sites**

The Isles of Scilly has a number of designations for its seabird assemblage and species interest features; Special Protection Area, 26 Sites of Special Scientific Interest (of which seven are recognised for their seabirds), it is a Ramsar site and in 2013 a Marine Conservation Zone was established consisting of 11 distinct marine areas around the islands. Lastly the entire archipelago lies within a Special Area of Conservation.

Looking in detail at the location of breeding seabirds on the various islands of Scilly in 2015/16, 269 seabird territories (3.3% of the total assemblage), supporting eight different species including storm petrel, Manx shearwater and kittiwake, are located at sites which have no protection under either SSSI or SPA designation (see Table 39 Appendix 4 for details). The seven SSSIs cited for their seabird interest features support 6,042 seabird territories between them (73.1% of the total assemblage), although only 2,030 of these nesting sites are of the seabird interest feature species actually notified.

- **Review of the SSSI and SPA boundaries and species interest features supported to ensure that the island's seabird populations are appropriately protected and meet obligations as part of the Isles of Scilly Seabird Recovery Project LIFE funding**

Until now Marine Protected Areas have most often been designated to protect benthic habitats and their biota and this indeed was the basis for the selection of the 11 constituent sites of the Isles of Scilly MCZ. Increasingly there is a need and a desire to account for the more mobile pelagic taxa as well. In order to protect seabirds it is important not only to consider their land based breeding colonies but to extend protective measures into the marine feeding areas they depend on during both the breeding and non-breeding seasons. This will need to take into account the waters near breeding colonies but also offshore foraging areas and movement corridors, inshore habitats for wintering species and migratory bottlenecks (Louzao *et al.* 2006, Thaxter *et al.* 2012). Studies to investigate foraging range and distribution using land-based observations, radio-tagging and aerial photography, will all be useful in determining the best plan for marine extension of the Isles of Scilly SPA to take into account the waters that our seabirds depend upon (Thaxter *et al.* 2012, Bogdanova *et al.* 2014).

- **Use national guidelines as well as recent studies of foraging distribution in Scilly (NE shag aerial photos; Exeter University shag studies; FAME tracking data for shag and kittiwake) to inform recommendations for seaward extension of the SPA.**
- **Feed this data into the MCZ process.**

### **7.2 Monitoring change in seabird distribution, numbers and productivity**

The development, funding and implementation of a robust seabird monitoring programme is essential to inform an effective conservation programme (Green & Hirons 1991, Ratcliffe in Mitchell *et al.* 2004). A jointly agreed Seabird Conservation Strategy for the islands has been developed to inform conservation and research



work for seabirds across the archipelago (St. Pierre *et al.* 2014). Key in its recommendations are a cycle of six yearly 'all seabirds on all islands' and annual counts of key species at key sites (notably on Annet) and of annual productivity monitoring for selected species. Species for which there is a national productivity recording scheme have been targeted. Since 2006 productivity has been recorded for fulmar (Menawethan and Daymark), kittiwake (all sites), common tern (all sites), herring gull (Hugh Town and selected beaches Samson) and for Manx shearwater and lesser black-backed gull on Gugh and St. Agnes since 2012 (Heaney 2016).

- **Continuation of yearly counts on Annet and as far as possible 6-yearly cycle of 'all seabirds, all islands' count.**
- **Continuation of current productivity monitoring programme and review of overall findings.**
- **Identify a new study beach on Annet for recording annual storm petrel settlement (boulder beach monitored since 2010 destroyed in winter storms 2013/14).**
- **Look into feasibility of including shag and puffin in the productivity monitoring programme.**
- **Other studies as recommended in the Seabird Conservation Strategy, including initiation of a herring and lesser black-backed gull colour-ringing programme.**

### **7.3 Avian predators**

As discussed earlier, although corvid and gull predation has affected productivity in kittiwakes and possibly common terns also, the underlying causes of declines in numbers are likely to be food availability at a wider scale. It is also not clear how desirable or effective removing any specialist great black-backed gull pairs would be. However, the possibility of pricking or coating the eggs of any great black-backed nests within the kittiwake colony, could be investigated. The provision of artificial nest boxes has been used in the past in Scilly with varying degrees of success (Lascelles 2005) and these may be worth trying again following their success elsewhere. Artificial nesting boxes have also been shown to be helpful in reducing gull predation of storm petrel (Libois *et al.* 2012), with the added bonus of facilitating nest monitoring.

- **Provision of nesting boxes and/ or chick shelters at common tern nesting sites.**
- **Provision of storm petrel nesting boxes.**

### **7.4 Non-native predators**

The key species affected by rat predation are Manx shearwater and storm petrel (Scilly supports internationally important numbers of storm petrel). Other birds of particular conservation concern that can be susceptible to rat predation are common terns (85% decline in the last nine years in Scilly) and puffin (regionally important numbers in Scilly and recently UK Red Listed). In addition, Scilly holds internationally important numbers of lesser black-backed gulls and although they are not known to be particularly at risk from rats, studies have shown a negative effect on productivity.

The decline of storm petrel by over 18% within the SPA since the baseline and the loss of SPA European storm petrel habitat due to storms is of concern and any further decline may trigger the requirement for conservation action. There is significant apparently otherwise suitable habitat on the islands which is currently occupied by rats which could provide replacement habitat if rat removal was undertaken. Appendix 6 includes a table detailing for each island group, the history of rat presence and control, the current level of protection, the species present, including those that are most vulnerable and the trends in their numbers since 1999. Further detail is given in the appendix but the suggested priorities are as follows;

- **St. Agnes & Gugh – highest priority vigilance and awareness to guard against re-incursion.**
- **Islands currently highest priority but believed to be rat free and unlikely to suffer incursion - Western & Norrard Rocks, Annet and Round Island – maintain vigilance.**
- **St. Helen's - high priority to clear of rats – Manx shearwater, puffin and lesser black-backed gulls present, possible stepping stone to Men-a-vaur and Round Island.**
- **Eastern Isles - high priority to maintain rat-free by concentrating on stepping stone islands – recent return of puffin and Manx shearwater as well as good numbers of gulls.**
- **Samson - medium priority - suffers annual incursion but supports 39% of lesser black-backed gull population and is one of the main breeding sites for common tern.**
- **23% of current Manx shearwater AOBs on inhabited islands of Tresco, Bryher, St. Martin's and St. Mary's, as well as their function as sources of rats, raises the impetus for exploring a wider archipelago solution to rat control. Approximately 160 ha of otherwise suitable habitat for Manx shearwater and European storm petrel is currently occupied by rats on Bryher, Tresco and St Martins.**

## **7.5 Vegetation and habitat management**

Currently there is no evidence that vegetation change is causing declines in seabird so on the islands. The declines caused mainly by other factors (e.g. lack of available food) could have resulted in vegetation changing due to a lack of seabirds controlling the vegetation in some places (and in some cases by, or in-combination with abandonment from farming). This could place pressure on the remaining birds by providing habitat that is not in optimum condition unless management is in place. The vegetation cover of many of the islands has changed considerably over the years and a review of historical change on key islands would be immensely useful. An experimental study of the effects of vegetation patch clearance on the settlement patterns and productivity of gulls on key islands would also be helpful, especially given the precipitous decline of both lesser black-backed and herring gulls across the archipelago. However, vegetative habitats and specific vascular plants are notified features on many SSSIs and usually require management (e.g. grazing) to maintain open conditions, particularly for many of the rare and small plants. Management

needs to be tailored and targeted to provide suitable conditions for the SSSI seabirds and plants.

As well as chick and nest shelters, a number of other management measures were trialled in the early 2000s to try to support terns breeding in Scilly. Solar powered CD lures and dummy terns were used to try and encourage breeding on the North Hill of Samson with limited success, as well adding sand to low-lying islands favoured by the terns. However, this did not offer much protection for the chicks and the nests were still vulnerable to high tide inundation (Lascelles 2005).

- **Experimental clearance of thick woody scrub from isolated areas with irregular 'fingers' to maximise sheltered edge habitat on Samson and St. Helen's.**
- **Continuation of IOSWT programme to help direct activity on uninhabited off-islands away from sensitive areas using selective path clearance.**
- **Review of historical vegetation control and management in Scilly (particularly Samson, St. Helen's, Tean, Norwethel, Eastern Isles and Annet).**

#### **7.6 Food availability**

Most of the studies investigating the relationship between climate change and food availability for seabirds have been done in the North Sea and as the assemblage differs around Scilly it is entirely possible that the mechanisms and effects of change differ here too. There has been some work by the Plymouth Marine Laboratory to investigate the effects of unsettled spring weather in weakening fronts where cold and warm water mix and previously predictable seasonal prey abundances are reduced (Miller *et al. in press*). Climate change itself is clearly a global issue. As many seabirds have large foraging ranges a better understanding of the impact that fisheries is having on the prey species within the ranges of the islands' seabirds needs further investigation.

- **Further investigation into changes in food availability in southwest waters and the factors influencing this**
- **Review of personal and organisational resource and energy use as well as dietary choices, travel and carbon footprint.**

#### **7.7 Recreational disturbance**

The impact of recreational disturbance on birds is becoming more widely appreciated, with the trade-off between potential costs and benefits of public access to a site being species and site specific (Rodgers & Schwikert 2002, Blumstein *et al.* 2003, Drewitt 2007, Watson *et al.* 2014). This is especially relevant to Scilly with its thriving tourism industry heavily based on appreciation of the seabirds and wildlife found here. There is a programme of restricted or controlled access to prevent disturbance to seabird colonies and grey seals which is documented on OS Maps and in various seabird leaflets. However, further awareness raising work with island residents and visitors alike is needed, and where appropriate, action to enforce legislation should be taken.

- **Raise awareness of the restricted island access system and of the potential impacts of disturbance amongst the general public.**
- **Use disturbance reporting mechanisms of Cornwall Marine and Coastal Code Group and encourage marine recreational businesses in Scilly to join Cornwall Outdoor Charter Group and to follow *WiSe* guidelines (UK standard for commercial marine wildlife watching <http://www.wisescheme.org/>).**
- **Erect disturbance signs (asking people not to linger and to keep dogs on a lead) at the tern nesting site on Samson and also at the main shearwater nesting sites particularly on Gugh.**
- **Conduct a sensitivity mapping exercise to help identify where the most sensitive locations are within the islands.**

#### **7.8 Use of seabirds as indicators**

Included as one of the 13 indicators of sustainable development in the UK, the Government recognises the importance of wild birds to our general quality of life and experience. The use of seabirds, particularly those such as kittiwakes that are more constrained in their dietary and energy budgets, as sentinels of the condition of aquatic ecosystems has been well established. They can provide valuable information on the extent of marine plastics, the health of fish stocks and ecosystems and the effects of climatic change (Mallory 2006, Einoder 2009, Mallory *et al.* 2010; Parsons *et al.* 2008; Furness 2007, Jennings *et al.* 2012). Birds and seabirds in particular are a key visitor attraction to Scilly and, as much of the islands' prosperity is founded on tourism, an index of the health of the archipelagos seabird populations (based on numbers and productivity) could provide a useful indicator of the islands' attractiveness both to birds and people and of its suitability for seabirds.

- **Raise awareness across the islands and further afield of the importance and changing fortunes of Scilly's Seabird Heritage.**
- **Review of economic factors around seabird assemblage in Scilly.**
- **Inform the AONB management plan on the status of seabirds on the islands**

## **8 Conclusion**

There has been a complex pattern of change within the seabird community in Scilly in the last nine years – with individual species and islands showing some contrasting patterns.

The main aim of this survey was to assess the current state of the Isles of Scilly SPA and constituent SSSIs for seabirds. It is clear that overall numbers and in particular numbers of some species have declined markedly across the SPA as a whole and at the various SSSIs where a number of notified seabird interest features have been lost altogether. The report highlights particular management issues which need to be addressed if the fortunes of seabirds are to be reversed. The removal of rats has been a great success and possible extension of the programme now needs to be considered, and supported by other habitat and people management as necessary. The Isles of Scilly Seabird Conservation Strategy sets out a prioritised work pattern based upon island groups. This latest report will help inform the work priorities for the strategy.

The continuation of a robust seabird monitoring programme is essential to inform the conservation programme.

## **9 Acknowledgements**

Many thanks go to:

- Natural England, LIFE Nature and Heritage Lottery Fund: this survey part of the Isles of Scilly Seabird Recovery Project and part funded by Natural England (as *Isles of Scilly SPA (All islands) Seabird Survey 2015/16*, ref ECM 181121, to assess the condition of the seabird features of the Isles of Scilly SPA and its component SSSIs), LIFE Nature and Heritage Lottery Fund.
- Lydia Titterton (RSPB), Will Scott (RSPB), Holly Paget-Brown (RSPB) and Lana Austin (RSPB) who helped co-ordinate the 2015/16 fieldwork
- the following staff and volunteers from the RSPB who carried out the 2015/16 SPA Seabird Survey fieldwork; Lydia Titterton, Lana Austin, Will Scott, Holly Paget-Brown, Jaclyn Pearson, Gemma Bowcock, Leigh Lock, Myriam Lynch, Lucia Watts, Amy King, Amy Wheeldon, Will Brown, Steven Henry, Mathew Tickner, Vickie Heaney, Alice Trevail, Lorraine Leicester, Helen Raynham, Martin Auld, Ed Marshall, Alec Taylor, Natasha Simmons, John Peacock, Paul St Pierre, Zach Laverick, Emma Eberlein, Jess Vian, Bob Dawson, Toby Branston, Emma Foulger, Trina Rosheen Davies and Andy Brown from Natural England
- John Peacock (St Agnes Boating), Richard Mills (Endeavour Boating) and Mike Shave (St. Mary's Harbour Office, Duchy of Cornwall) for the boat work.
- Jen Dunster (RSPB), Helene Jessop (RSPB), Natasha Laverick (RSPB) and Maureen Mitchell (RSPB) for administrative support, help with licences and production of the distribution maps and formatting of the report
- Andy Brown, Mark Beard, Alex Banks and Annie Jenkin (NE), Leigh Lock (RSPB), Jaclyn Pearson (RSPB), Sarah Mason (IOSWT), Darren Mason (RSPB), Jim Askins and Martin Goody (IOSBG) for comments on the report
- Paul Buckley, Paul St. Pierre, Maureen Mitchell, Tony Richardson, Ruth Sharman, Jaclyn Pearson, Andy Stokes, Colin Horne, Manohar Wahiwala, Adrian Oates and Hannah Page for help with contracts and health and safety (all RSPB)
- Roddy Mavor (JNCC) for advice and the loan of tape playback equipment
- Will Wagstaff (IOSBG), Greg Morgan (RSPB), Helen Booker (RSPB), Jim Askins, Jo Badcock (SMBA) and Mark & Susie Groves (Sea Safaris) who provided useful additional information
- Mark Bolton (RSPB) for advice on survey methodology and interpretation of the results particularly for storm petrels and Manx shearwaters
- Bernard Cadiou for storm petrel breeding phenology data and advice
- Illustrations: John Busby and Dan Powell (RSPB).



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*The status of seabirds breeding in the Isles of Scilly 2015/16*

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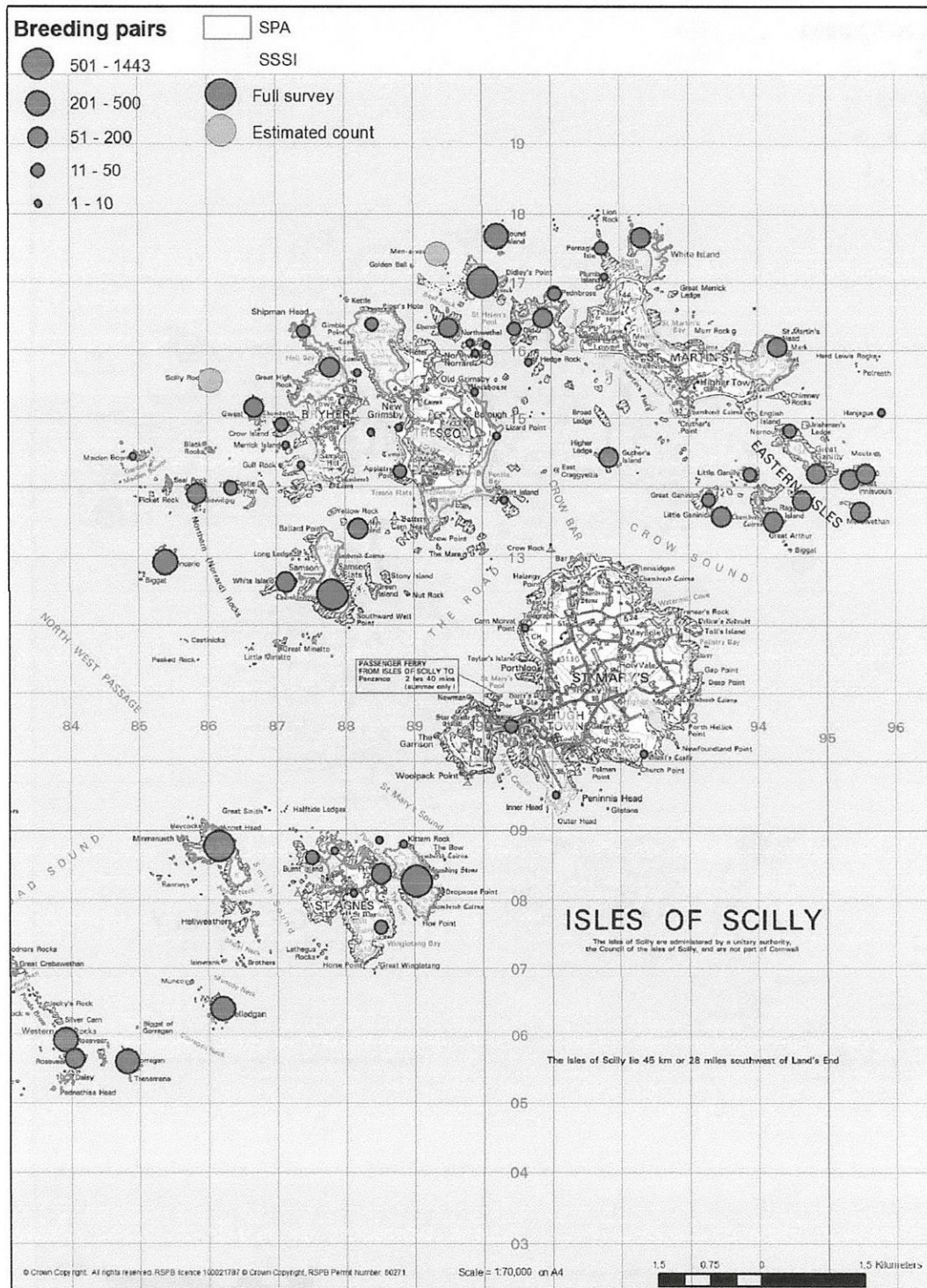
## **Appendix 1**

### **Maps**

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Map 1 Distribution of breeding seabirds in 2015/16              | 67 |
| Map 2 Distribution of breeding fulmar 2015/16                   | 68 |
| Map 3 Distribution of breeding Manx shearwater 2015             | 69 |
| Map 4 Distribution of breeding storm petrel 2015/16             | 70 |
| Map 5 Distribution of breeding cormorant 2015/16                | 71 |
| Map 6 Distribution of breeding shag 2015/16                     | 72 |
| Map 7 Distribution of breeding lesser black-backed gull 2015/16 | 73 |
| Map 8 Distribution of breeding herring gull 2015/16             | 74 |
| Map 9 Distribution of breeding great black-backed gull 2015/16  | 75 |
| Map 10 Distribution of breeding kittiwake 2015                  | 76 |
| Map 11 Distribution of breeding common tern 2015                | 77 |
| Map 12 Distribution of breeding guillemot 2015                  | 78 |
| Map 13 Distribution of breeding razorbill 2015/16               | 79 |
| Map 14 Distribution of breeding puffin 2015                     | 80 |

# The status of seabirds breeding in the Isles of Scilly 2015/16

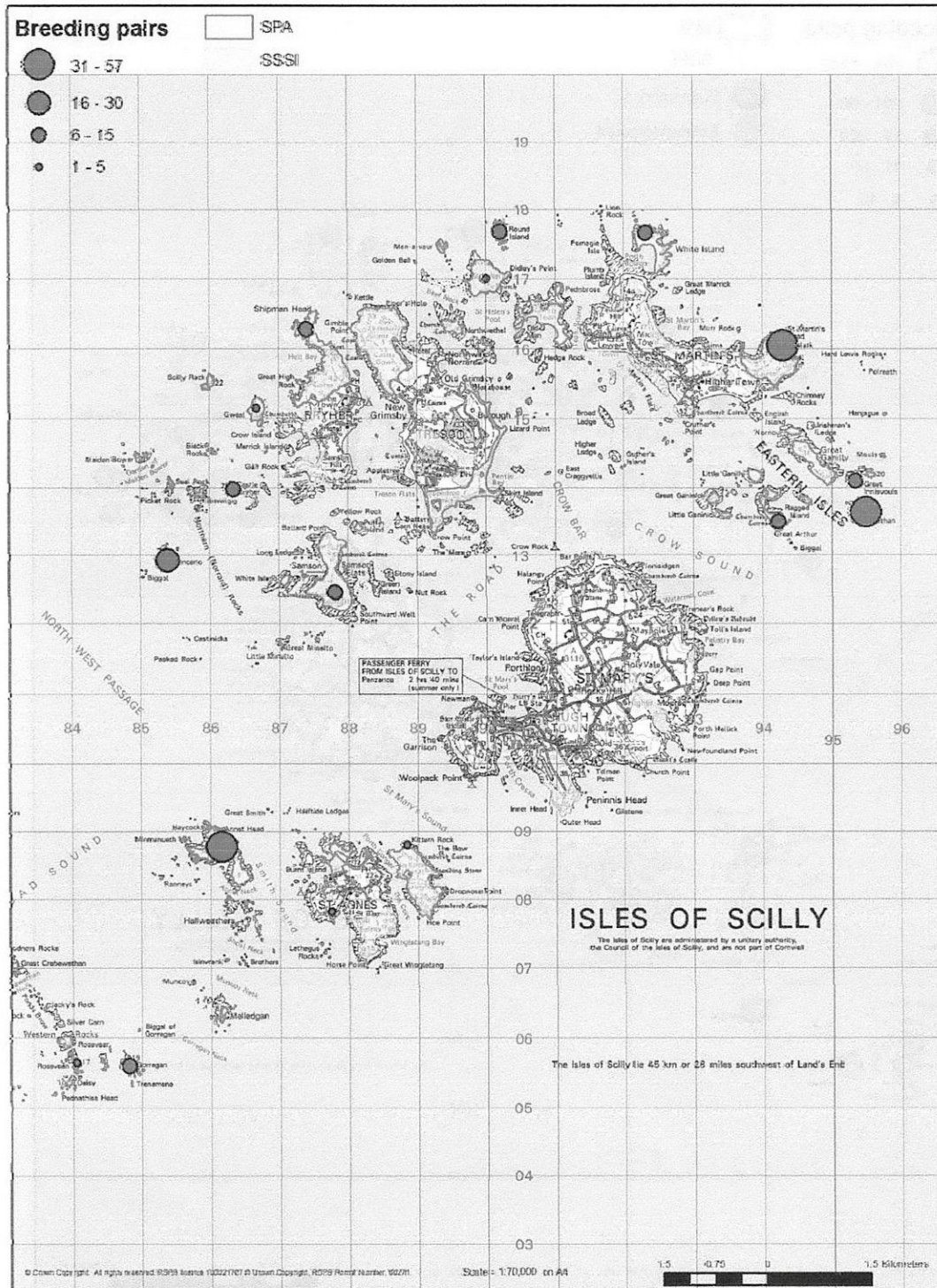
Map 1 Distribution of breeding seabirds in 2015/16





# The status of seabirds breeding in the Isles of Scilly 2015/16

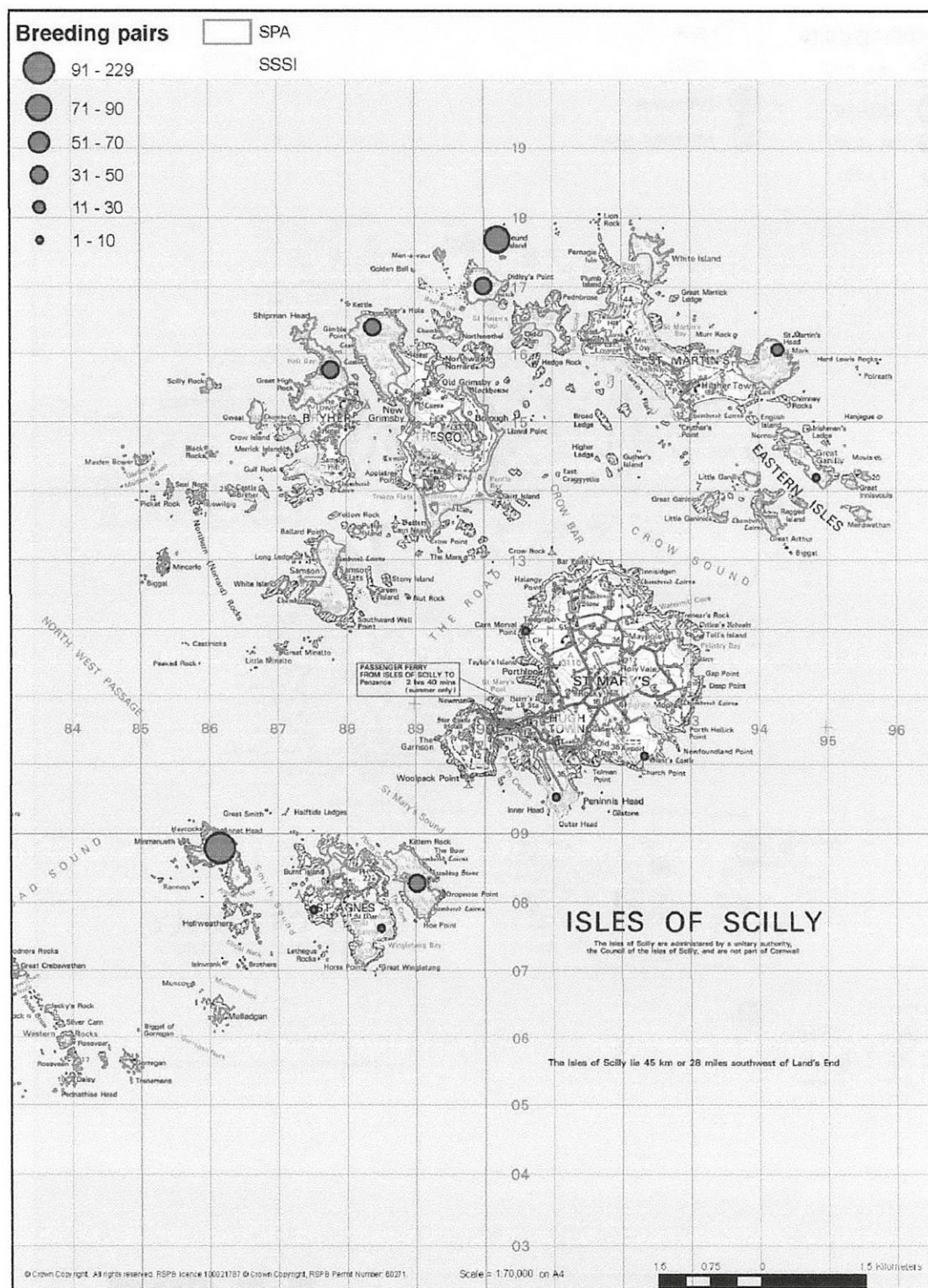
Map 2 Distribution of breeding fulmar 2015/16





# The status of seabirds breeding in the Isles of Scilly 2015/16

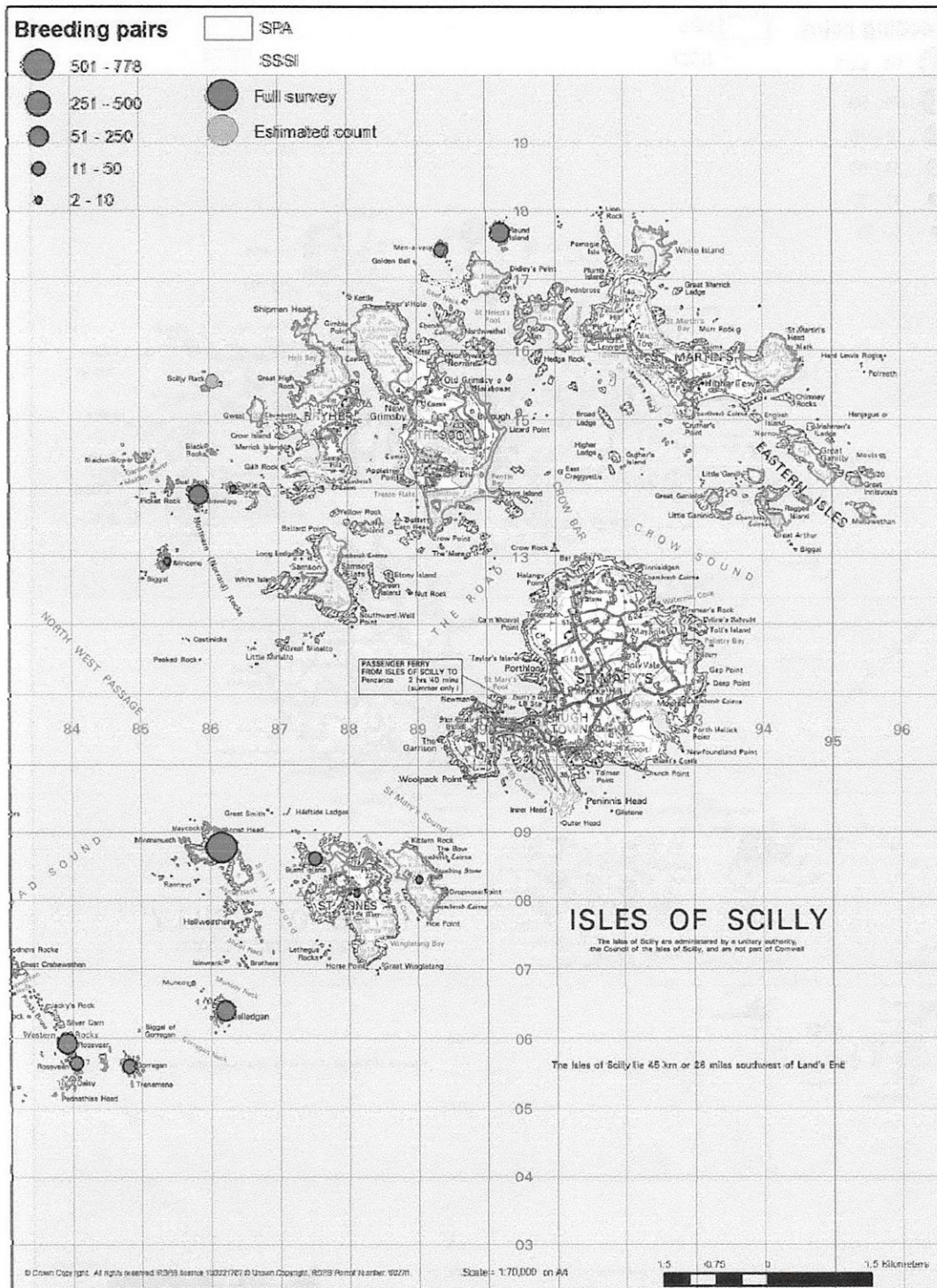
Map 3 Distribution of breeding Manx shearwater 2015





# The status of seabirds breeding in the Isles of Scilly 2015/16

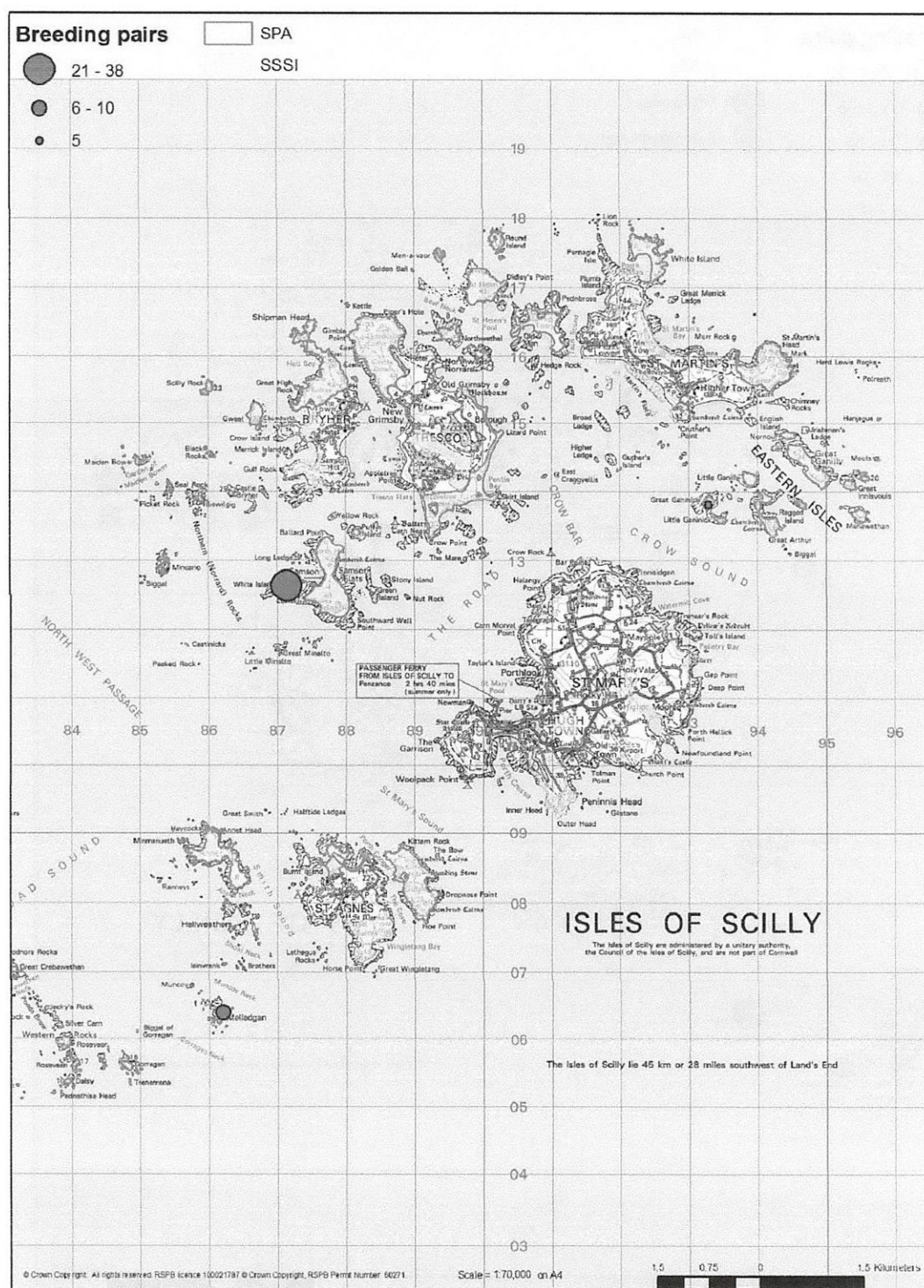
Map 4 Distribution of breeding storm petrel 2015/16





# The status of seabirds breeding in the Isles of Scilly 2015/16

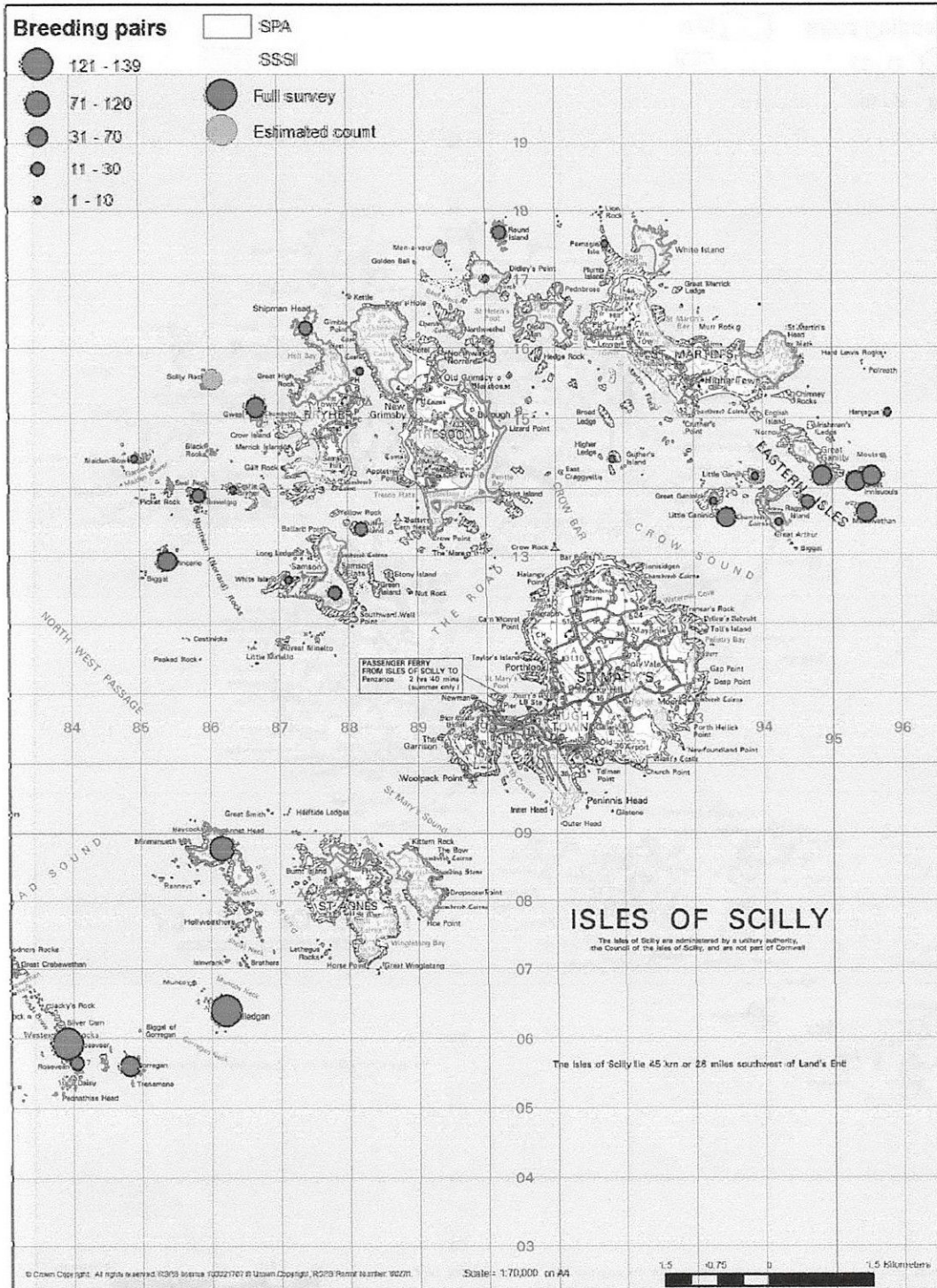
Map 5 Distribution of breeding cormorant 2015/16





## The status of seabirds breeding in the Isles of Scilly 2015/16

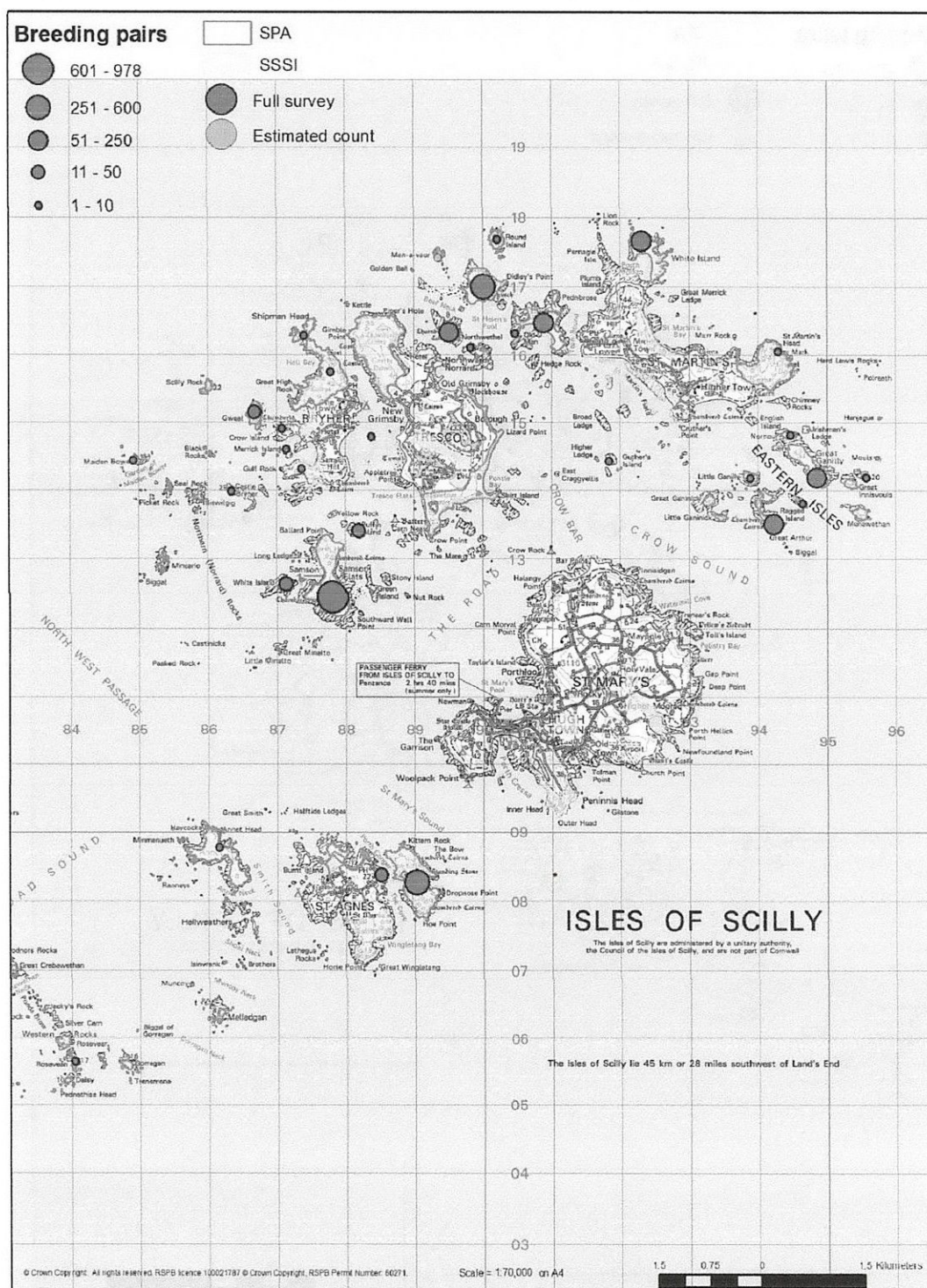
Map 6 Distribution of breeding shag 2015/16





# The status of seabirds breeding in the Isles of Scilly 2015/16

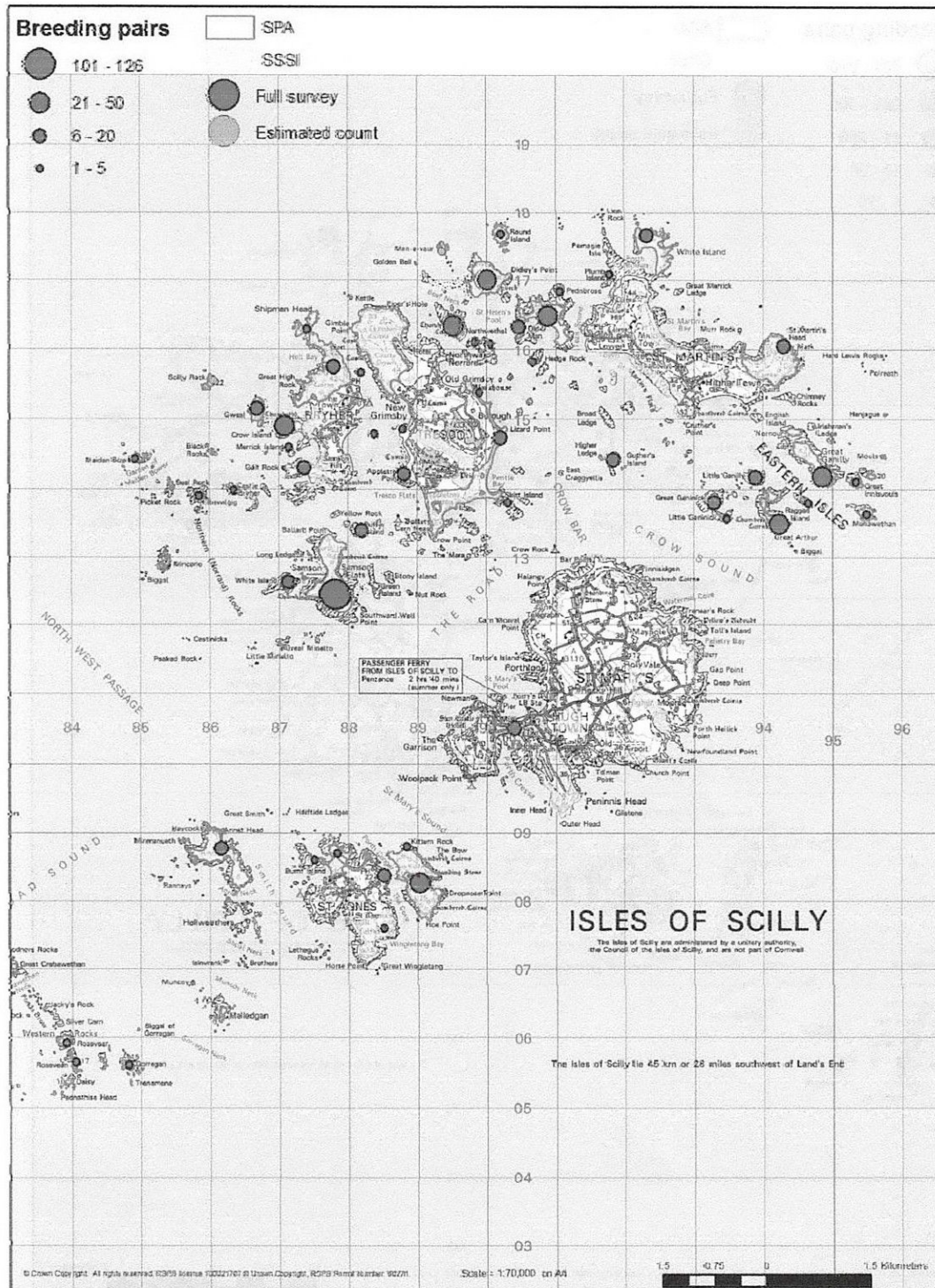
Map 7 Distribution of breeding lesser black-backed gull 2015/16





# The status of seabirds breeding in the Isles of Scilly 2015/16

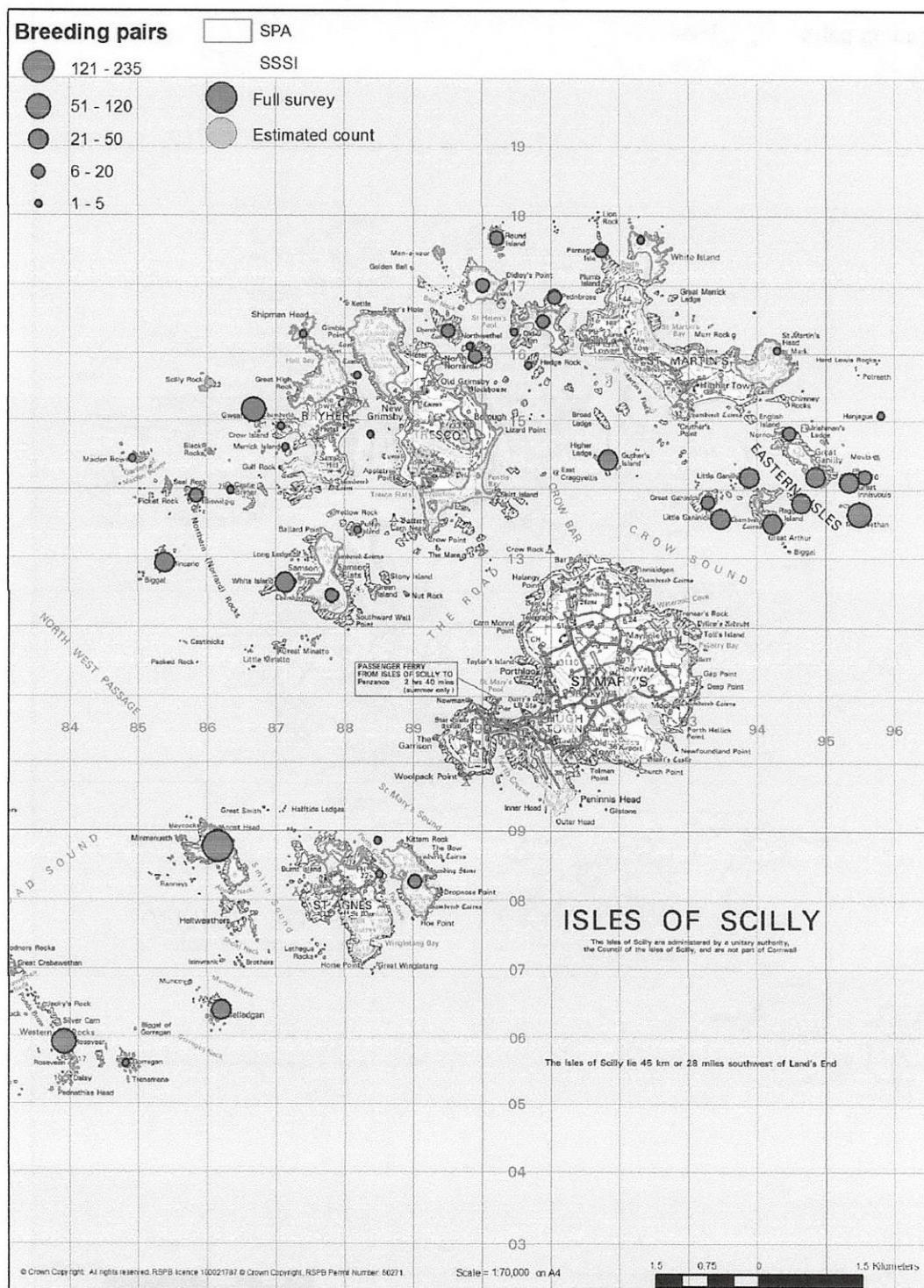
Map 8 Distribution of breeding herring gull 2015/16





# The status of seabirds breeding in the Isles of Scilly 2015/16

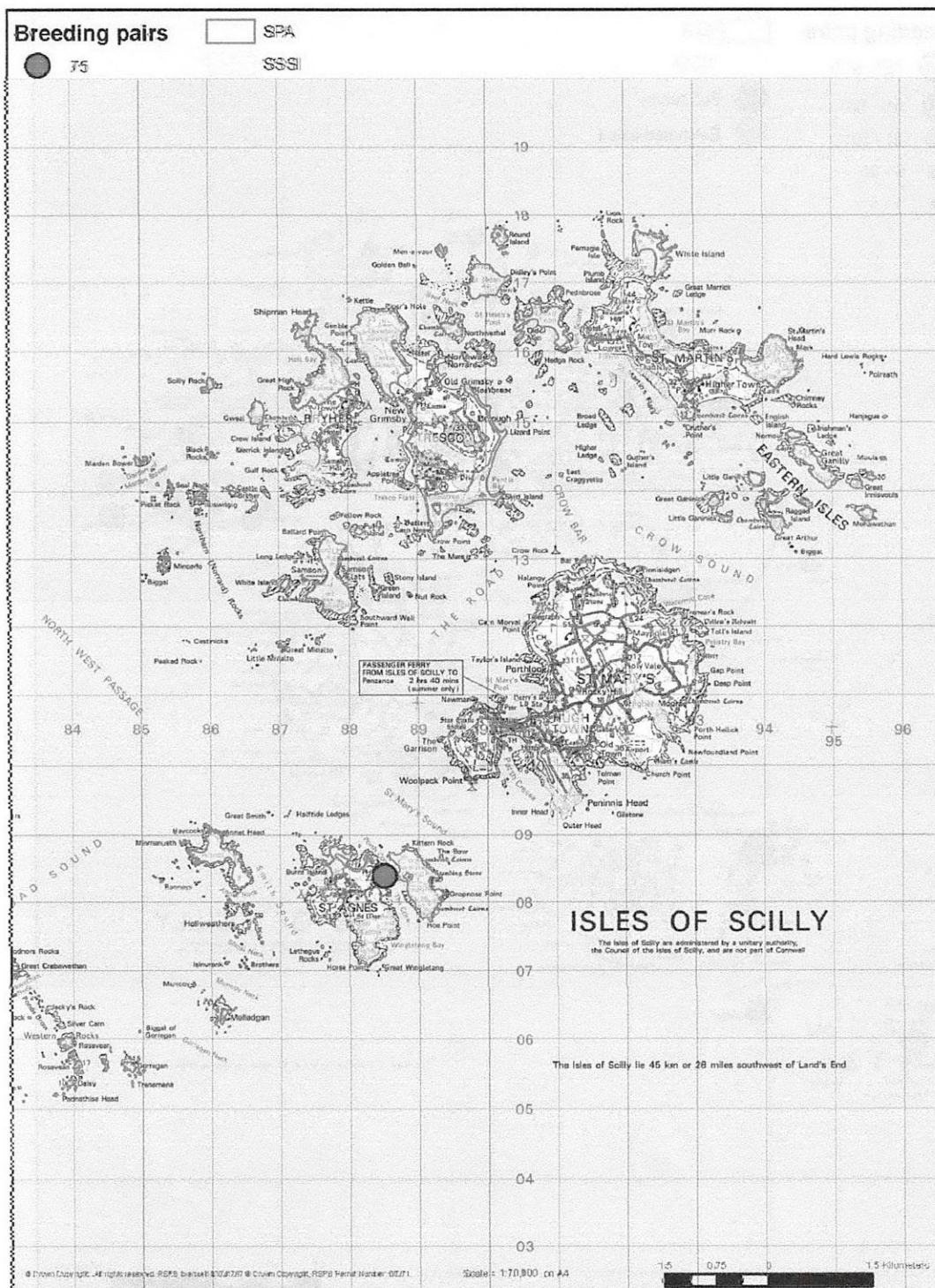
Map 9 Distribution of breeding great black-backed gull 2015/16





# The status of seabirds breeding in the Isles of Scilly 2015/16

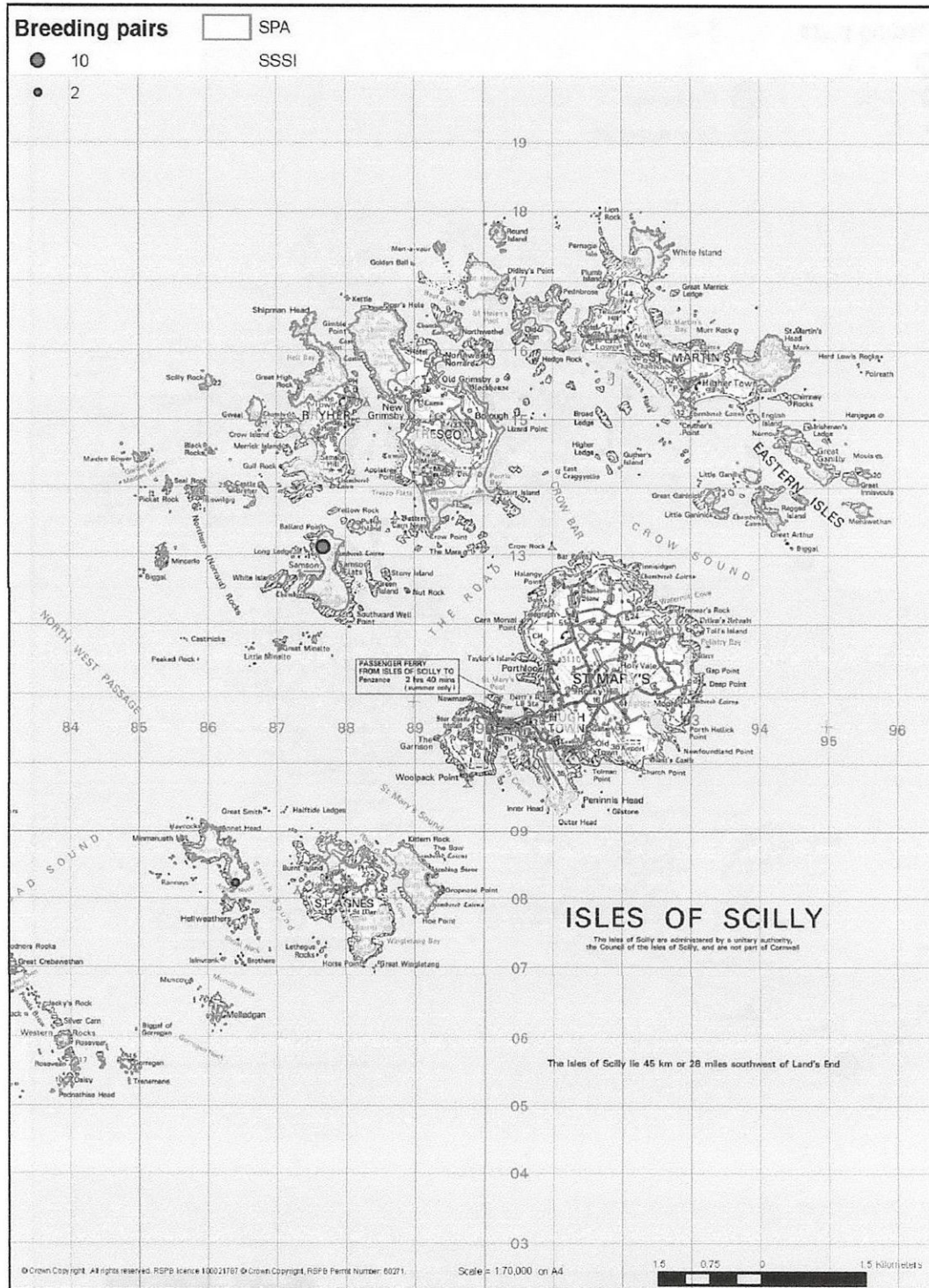
Map 10 Distribution of breeding kittiwake 2015





# The status of seabirds breeding in the Isles of Scilly 2015/16

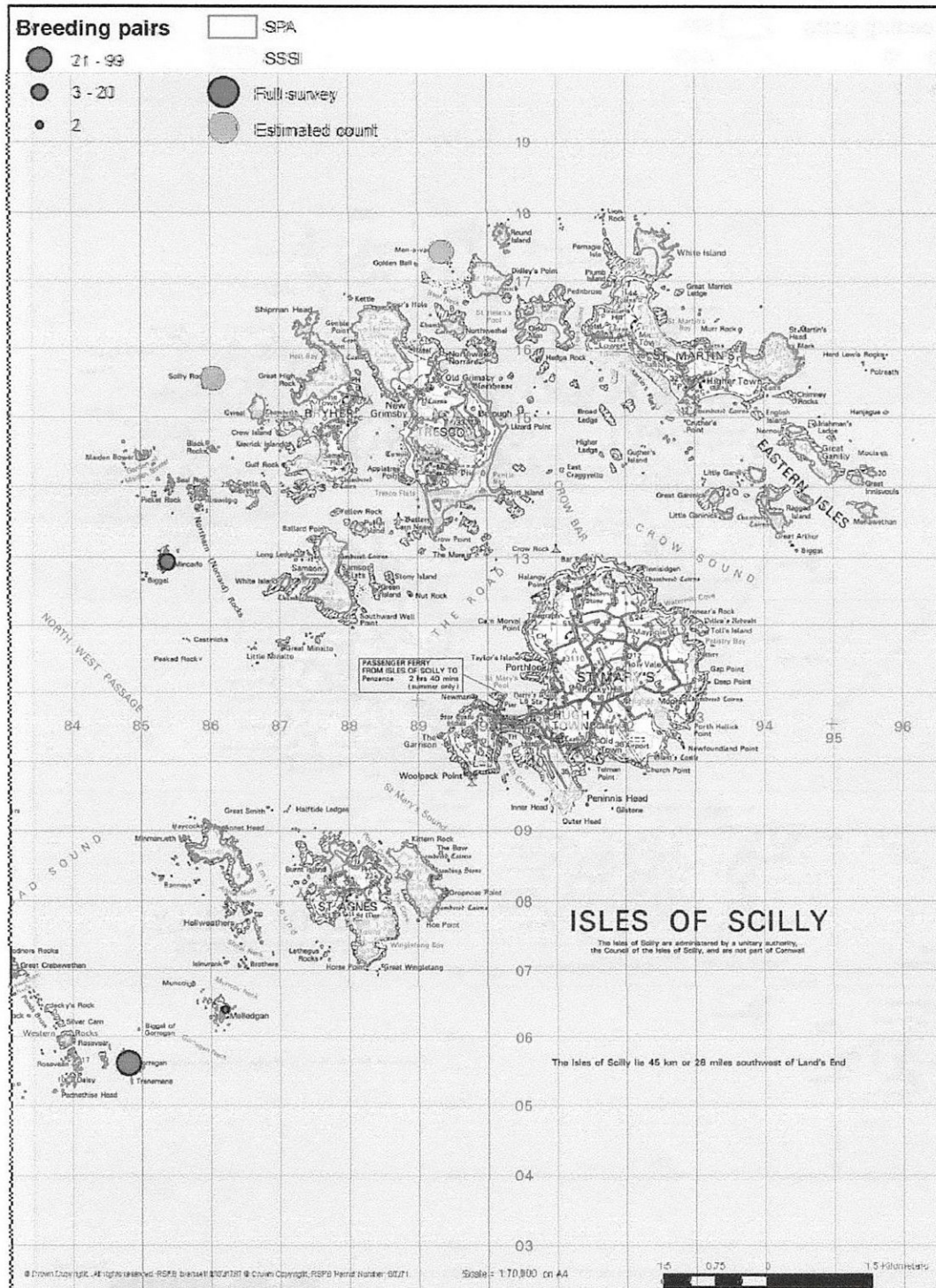
Map 11 Distribution of breeding common tern 2015





# The status of seabirds breeding in the Isles of Scilly 2015/16

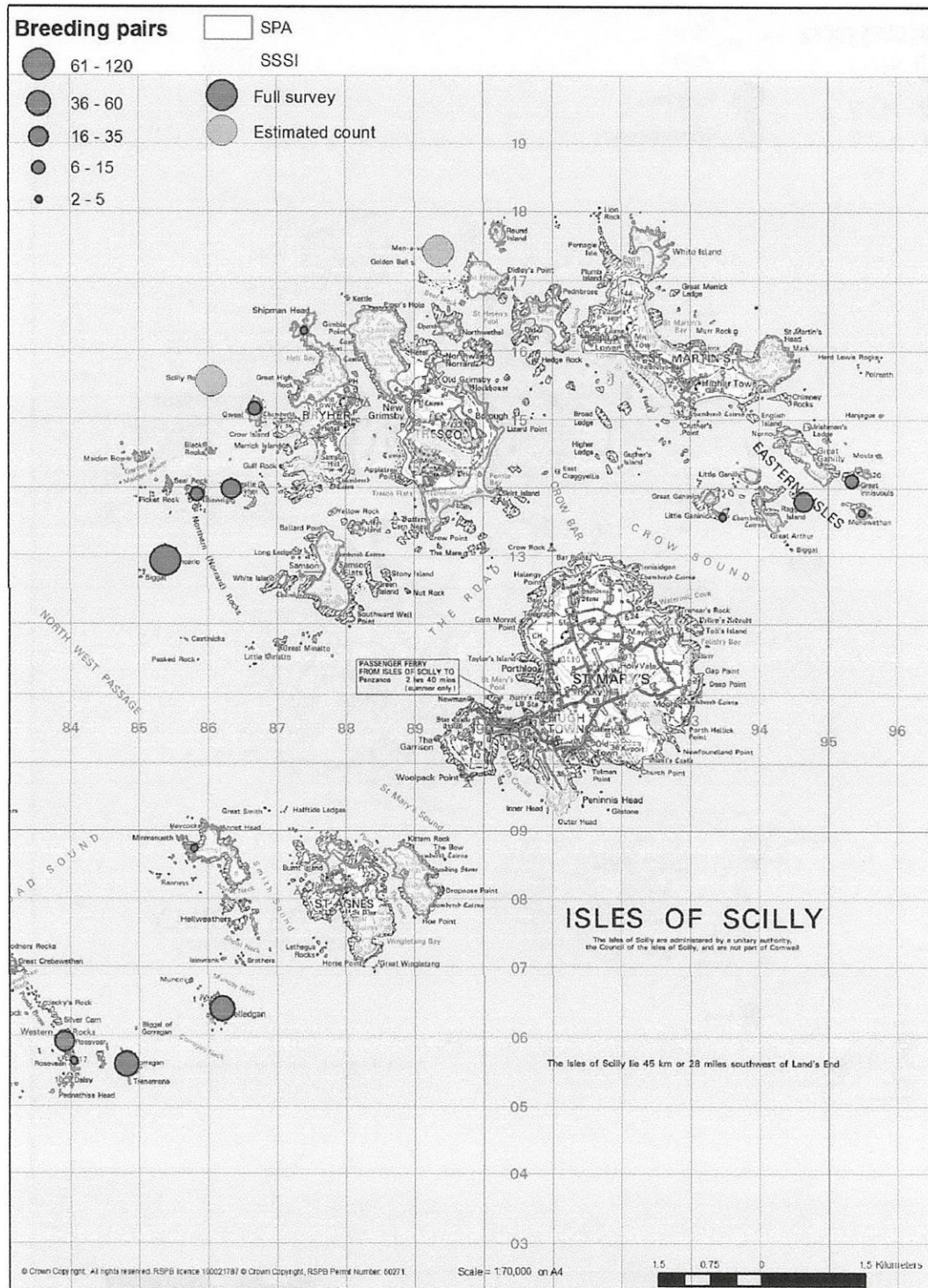
Map 12 Distribution of breeding guillemot 2015





# The status of seabirds breeding in the Isles of Scilly 2015/16

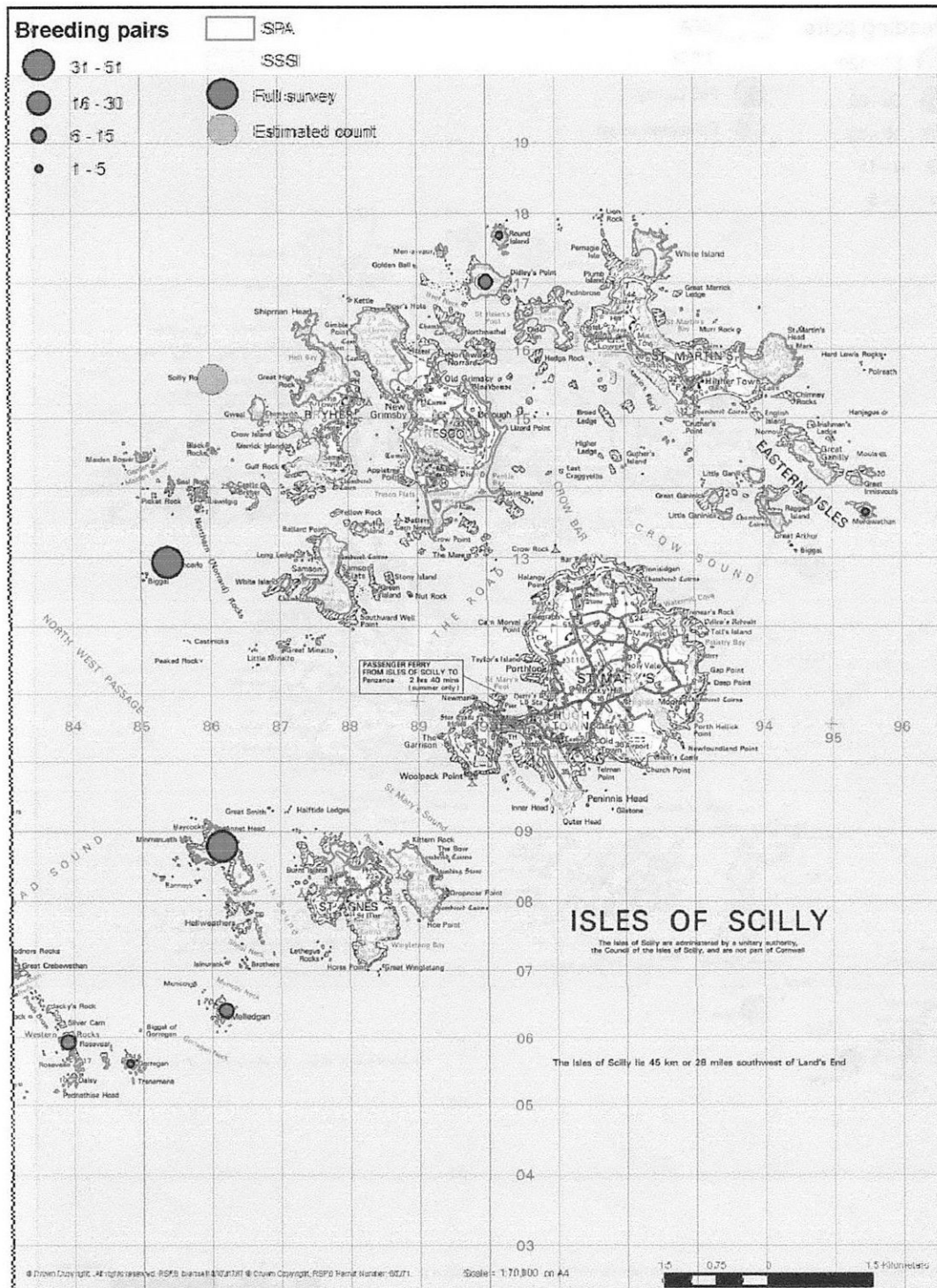
Map 13 Distribution of breeding razorbill 2015/16





# The status of seabirds breeding in the Isles of Scilly 2015/16

Map 14 Distribution of breeding puffin 2015



## Appendix 2 - Table 1 Full counts by island 2015

| ISLAND                        | FUL | MX  | SP  | COR | SH | LB  | HG | GB  | KIT | COT | SAT | GUI | RAZ | PUF | TOTAL | 2006 | 2000 | SSSI grouping               |
|-------------------------------|-----|-----|-----|-----|----|-----|----|-----|-----|-----|-----|-----|-----|-----|-------|------|------|-----------------------------|
| Annet                         | 57  | 229 | 778 |     | 85 | 1   | 20 | 235 |     | 2   |     |     | 5   | 31  | 1443  | 1638 | 2039 | Annet                       |
| Bow, St Agnes                 |     |     |     |     |    |     |    | 1   |     |     |     |     |     |     | 1     |      |      | None                        |
| St Agnes, Big Pool & Browarth |     |     |     |     |    |     | 1  |     |     |     |     |     |     |     | 1     | 9    |      | Big pool and Browarth Point |
| St Agnes, Wingletang          |     | 10  |     |     |    |     | 1  |     |     |     |     |     |     |     | 11    | 12   | 35   | Wingletang Down             |
| St Agnes, not SSSI            | 4   | 2   | 6   |     |    | 14  | 8  | 1   | 75  |     |     |     |     |     | 110   | 3    |      | None                        |
| Burnt Island, St Agnes        |     |     | 11  |     |    |     | 1  |     |     |     |     |     |     |     | 12    | 0    | 0    | None                        |
| Tins Walbert                  |     |     |     |     |    |     |    |     |     |     |     |     |     |     | 0     | 0    | 0    | none                        |
| Gugh                          |     | 45  | 2   |     |    | 419 | 29 | 6   |     |     |     |     |     |     | 501   | 1090 | 1464 | Gugh                        |
| Kittern Rock, Gugh            | 1   |     |     |     |    |     | 1  |     |     |     |     |     |     |     | 2     | 1    | 0    | Gugh                        |
| Tresco, Castle Down           |     | 46  |     |     |    |     |    |     |     |     |     |     |     |     | 46    |      |      | Castle Down                 |
| Tresco, Porth Mellin          |     |     |     |     |    |     | 1  |     |     |     |     |     |     |     | 1     |      |      | None                        |
| Tresco, Appletree Point       |     |     |     |     |    |     | 11 |     |     |     |     |     |     |     | 11    | 4    |      | None                        |
| Tresco, Gimble Porth          |     |     |     |     |    |     |    |     |     |     |     |     |     |     | 0     | 95   | 237  | Castle Down                 |
| Tresco, Pentle Bay            |     |     |     |     |    |     | 8  |     |     |     |     |     |     |     | 8     | 25   |      | Pentle Bay, Merrick & Round |
| Merrick Island, Tresco        |     |     |     |     |    | 1   | 2  | 1   |     |     |     |     |     |     | 4     | 1    |      | Pentle Bay, Merrick & Round |
| Green Is (Tresco)             |     |     |     |     |    |     | 1  |     |     |     |     |     |     |     | 1     | 4    | 1    | Pentle Bay, Merrick & Round |
| Plumb Is, Tresco              |     |     |     |     |    |     | 2  |     |     |     |     |     |     |     | 2     | 4    | 13   | None                        |
| Round Island                  | 11  | 78  | 172 |     | 16 | 2   | 2  | 20  |     |     |     |     |     | 1   | 302   | 342  | 265  | Pentle Bay, Merrick & Round |
| Gweal                         | 2   |     |     |     | 61 | 35  | 7  | 72  |     |     |     |     | 8   |     | 185   | 175  | 186  | Norrard Rocks               |
| Mincarlo                      | 21  |     | 9   |     | 58 |     |    | 33  |     |     |     | 20  | 120 | 51  | 312   | 310  | 294  | Norrard Rocks               |
| Illiswilgig                   |     |     | 52  |     | 24 |     | 3  | 16  |     |     |     |     | 8   |     | 103   | 59   | 55   | Norrard Rocks               |
| Maiden Bower                  |     |     |     |     | 1  | 1   | 1  | 1   |     |     |     |     |     |     | 4     | 1    | 7    | Norrard Rocks               |
| Castle Bryher                 | 13  |     | 3   |     | 9  | 1   | 2  | 1   |     |     |     |     | 26  |     | 55    | 53   | 59   | Norrard Rocks               |
| Scilly Rock                   |     |     | 21  |     | 35 |     | 2  | 2   |     |     |     | 60  | 70  | 35  | 225   | 189  | 152  | Norrard Rocks               |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

| ISLAND                        | FUL | MX | SP | COR | SH | LB  | HG | GB | KIT | COT | SAT | GUI | RAZ | PUF | TOTAL | 2006 | 2000 | SSSI grouping                       |
|-------------------------------|-----|----|----|-----|----|-----|----|----|-----|-----|-----|-----|-----|-----|-------|------|------|-------------------------------------|
| Seal Rock                     |     |    |    |     |    |     |    |    |     |     |     |     |     |     | 0     | 1    | 0    | Norrard Rocks                       |
| Men-a-vaur                    | 19  |    | 14 |     | 24 | 1   | 1  |    |     |     |     | 110 | 88  | 5   | 262   | 264  | 303  | St Helen's<br>(N'wethel&Men-a-vaur) |
| Norwethel                     |     |    |    |     |    | 102 | 22 | 11 |     |     |     |     |     |     | 135   | 83   | 41   | St Helen's<br>(N'wethel&Men-a-vaur) |
| Peashopper Is                 |     |    |    |     |    |     |    | 6  |     |     |     |     |     |     | 6     | 15   | 2    | St Helen's<br>(N'wethel&Men-a-vaur) |
| Crow's Is                     |     |    |    |     |    | 2   | 4  | 2  |     |     |     |     |     |     | 8     | 4    | 6    | St Helen's<br>(N'wethel&Men-a-vaur) |
| Foremans Island               |     |    |    |     |    |     | 1  |    |     |     |     |     |     |     | 1     | 5    | 6    | St Helen's<br>(N'wethel&Men-a-vaur) |
| St Helens                     | 5   | 36 |    |     | 7  | 448 | 30 | 12 |     |     |     |     |     | 11  | 549   | 836  | 623  | St Helen's<br>(N'wethel&Men-a-vaur) |
| Tean                          |     |    |    |     |    | 131 | 42 | 6  |     |     |     |     |     |     | 179   | 54   | 103  | Tean                                |
| Pednbrose                     |     |    |    |     |    |     | 5  | 20 |     |     |     |     |     |     | 25    | 18   | 0    | Tean                                |
| Old Men, Tean                 |     |    |    |     |    | 5   | 10 | 2  |     |     |     |     |     |     | 17    | 2    | 0    | Tean                                |
| St Martin's,<br>Daymark       | 46  | 26 |    |     |    | 2   | 9  | 3  |     |     |     |     |     |     | 86    | 80   | 138  | Chapel Down                         |
| St Martins,<br>Pernagie Point |     |    |    |     |    |     |    |    |     |     |     |     |     |     | 0     | 1    |      | Porth Seal                          |
| Plumb Is, St<br>Martins       |     |    |    |     |    |     | 3  |    |     |     |     |     |     |     | 3     | 13   | 6    | None                                |
| White Island (St<br>Martins)  | 8   |    |    |     |    | 106 | 15 | 1  |     |     |     |     |     |     | 130   | 231  | 69   | White Island                        |
| Guther's Island               |     |    |    |     | 7  | 6   | 20 | 30 |     |     |     |     |     |     | 63    | 41   | 48   | None                                |
| Pernagie Island               |     |    |    |     | 4  |     |    | 8  |     |     |     |     |     |     | 12    | 11   | 11   | None                                |
| Hedge Rock                    |     |    |    |     |    |     | 1  | 1  |     |     |     |     |     |     | 2     | 1    | 2    | None                                |
| Great Cheese<br>Rock          |     |    |    |     |    |     |    |    |     |     |     |     |     |     | 0     | 0    | 5    | None                                |
| Great Ganinick                |     |    |    | 5   | 10 |     | 9  | 11 |     |     |     |     |     |     | 35    | 49   | 48   | Eastern Isles                       |
| Little Ganinick               |     |    |    |     | 45 |     | 5  | 27 |     |     |     |     | 2   |     | 79    | 58   | 63   | Eastern Isles                       |
| Little Ganilly                |     |    |    |     | 2  | 4   | 7  | 21 |     |     |     |     |     |     | 34    | 27   | 20   | Eastern Isles                       |
| Great Ganilly                 |     | 1  |    |     | 33 | 70  | 23 | 35 |     |     |     |     |     |     | 162   | 45   | 58   | Eastern Isles                       |
| Nomour                        |     |    |    |     |    | 5   |    | 17 |     |     |     |     |     |     | 22    | 14   | 10   | Eastern Isles                       |
| Great/Little<br>Arthur        | 9   |    |    |     | 10 | 76  | 26 | 45 |     |     |     |     |     |     | 166   | 53   | 46   | Eastern Isles                       |
| Ragged Island                 |     |    |    | 0   | 30 | 2   | 1  | 27 |     |     |     |     | 18  |     | 78    | 88   | 79   | Eastern Isles                       |
| Menawethan                    | 43  |    |    |     | 38 |     | 1  | 66 |     |     |     |     | 4   | 4   | 156   | 182  | 139  | Eastern Isles                       |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

| ISLAND                                 | FUL        | MX          | SP          | COR       | SH          | LB          | HG         | GB         | KIT        | COT        | SAT        | GUI        | RAZ        | PUF        | TOTAL       | 2006        | 2000        | SSSI grouping                  |
|----------------------------------------|------------|-------------|-------------|-----------|-------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|--------------------------------|
| Little Innisvoulis                     |            |             |             |           | 46          | 2           |            | 15         |            |            |            |            |            |            | 63          | 52          | 38          | Eastern Isles                  |
| Great Innisvoulis                      | 11         |             |             |           | 60          |             | 1          | 45         |            |            |            |            | 13         |            | 130         | 169         | 131         | Eastern Isles                  |
| Hanjague                               |            |             |             |           | 2           |             |            | 1          |            |            |            |            |            |            | 3           | 5           | 3           | Eastern Isles                  |
| Samson                                 | 15         |             |             |           | 27          | 978         | 126        | 7          |            | 10         |            |            |            |            | 1163        | 1310        | 1309        | Samson<br>(Gr,Wh,Puffin,Stony) |
| Green Island<br>(Samson)               |            |             |             |           |             |             |            |            |            |            |            |            |            |            | 0           | 57          | 7           | Samson<br>(Gr,Wh,Puffin,Stony) |
| White Island<br>(Samson)               |            |             |             | 38        | 7           | 14          | 6          | 31         |            |            |            |            |            |            | 96          | 100         | 114         | Samson<br>(Gr,Wh,Puffin,Stony) |
| Puffin Island                          |            |             |             |           | 15          | 35          | 12         | 4          |            |            |            |            |            |            | 66          | 174         | 145         | Samson<br>(Gr,Wh,Puffin,Stony) |
| Bryher, Shipman<br>Head Down           |            | 39          |             |           |             | 5           | 8          |            |            |            |            |            |            |            | 52          | 18          | 1           | Shipman Head & Down            |
| Bryher, not SSSI                       |            |             |             |           |             | 2           | 27         | 1          |            |            |            |            |            |            | 30          | 8           |             | None                           |
| Bryher Rushy<br>Bay                    |            |             |             |           |             | 1           | 8          |            |            |            |            |            |            |            | 9           |             |             | Rushy Bay                      |
| Shipman Head                           | 6          |             |             |           | 17          | 8           | 5          | 2          |            |            |            |            | 2          |            | 40          | 35          | 102         | Shipman Head & Down            |
| Hangmans<br>Island                     |            |             |             |           | 2           |             | 3          | 1          |            |            |            |            |            |            | 6           | 6           | 0           | Shipman Head & Down            |
| Merrick Island, Bryher<br>carn of bars |            |             |             |           |             | 1           | 2          | 1          |            |            |            |            |            |            | 4           | 3           | 0           | None                           |
| Rosevean                               | 4          |             | 26          |           | 21          | 5           | 1          |            |            |            |            |            | 4          |            | 61          | 99          | 74          | Western Rocks                  |
| Rosevear                               |            |             | 112         |           | 139         |             | 1          | 95         |            |            |            |            | 16         | 14         | 377         | 401         | 285         | Western Rocks                  |
| Gorregan                               | 12         |             | 32          |           | 62          |             | 3          | 1          |            |            |            | 99         | 53         | 2          | 264         | 232         | 230         | Western Rocks                  |
| Great<br>Crebawethan                   |            |             |             |           |             |             |            |            |            |            |            |            |            |            | 0           | 3           | 6           | Western Rocks                  |
| Melledgan                              |            |             | 97          | 10        | 128         |             |            | 40         |            |            |            | 2          | 36         | 13         | 326         | 295         | 297         | Western Rocks                  |
| St Marys,<br>Peninnis                  |            | 8           |             |           |             |             |            |            |            |            |            |            |            |            | 8           | 0           | 0           | Peninnis                       |
| St Marys not<br>SSSI                   |            | 3           |             |           |             |             | 15         |            |            |            |            |            |            |            | 18          | 3           | 2           | None                           |
| <b>2015/16 Totals</b>                  | <b>287</b> | <b>523</b>  | <b>1335</b> | <b>53</b> | <b>1025</b> | <b>2485</b> | <b>556</b> | <b>984</b> | <b>75</b>  | <b>12</b>  | <b>0</b>   | <b>291</b> | <b>473</b> | <b>167</b> | <b>8266</b> |             |             |                                |
| <b>2006 SPA<br/>Survey</b>             | <b>279</b> | <b>171</b>  | <b>1398</b> | <b>50</b> | <b>1296</b> | <b>3335</b> | <b>715</b> | <b>901</b> | <b>266</b> | <b>78</b>  | <b>1</b>   | <b>155</b> | <b>342</b> | <b>174</b> |             | <b>9161</b> |             |                                |
| <b>Seabird 2000</b>                    | <b>183</b> | <b>201</b>  | <b>1475</b> | <b>56</b> | <b>1108</b> | <b>3608</b> | <b>903</b> | <b>808</b> | <b>281</b> | <b>96</b>  | <b>0</b>   | <b>196</b> | <b>296</b> | <b>167</b> |             |             | <b>9378</b> |                                |
| <b>Changes since<br/>2006</b>          | <b>3%</b>  | <b>206%</b> | <b>5%</b>   | <b>6%</b> | <b>21%</b>  | <b>26%</b>  | <b>22%</b> | <b>9%</b>  | <b>72%</b> | <b>85%</b> | <b>n/a</b> | <b>88%</b> | <b>38%</b> | <b>4%</b>  |             | <b>9.8%</b> |             |                                |



## **Appendix 3**

**Further notes on methodology for individual species & estimated counts**

**Isles of Scilly Wildlife Trust Research Access Application**

**Isles of Scilly Seabird Survey 2015 Disturbance Statement**

**Protocol for burrow scope use at storm petrel and Manx shearwater burrows**

### **Notes on methodology for individual species and estimated counts**

Between April and September 2015 and 2016, data on seabird breeding distribution and numbers was collected using standard methods as set out in the National Seabird 2000 Census Instructions in *The Seabird Monitoring Handbook* (Walsh *et al.* 1995) with further details taken from Gilbert, Gibbons and Walsh (1998). Although the majority of counts were carried out in 2015, rough weather meant that counts for a few islands were completed in 2016; Illiswilgig, Castle Bryher, Men-a-vaur, White and Puffin Islands. Further notes for methodology relevant for individual species specifically as part of the Scilly SPA count in 2015/16 are outlined below;

#### **Manx shearwater**

Diurnal playback using a tape of Manx shearwater calls recorded on Skokholm (including male and female calls within 10 sec loop) was conducted at all suitable habitat across the islands other than Annet (and away from the immediate coastal strip of Tresco, St. Martin's, St. Mary's and Bryher as well as inhabited areas of St. Agnes). The extent of suitable habitat for Manx shearwaters on Annet precluded a full survey of all areas particularly where breeding density was low. The whole of the South end of the island and the entire coastline was surveyed up to a depth of between 10 and 30m into the interior was surveyed fully, and 12 randomly selected 10x10m quadrats used to survey the remaining areas inland (mostly unsuitable dense bracken yielding only one response). As in the Seabird 2000 and 2006 surveys, the number of responses recorded was multiplied by 1.08 to correct for the proportion of birds not responding (Heaney *et al.* 2002).

#### **European storm petrel**

As with Manx shearwaters, complete surveys of all suitable habitat (including boulder beach, scree or loose rock, cavities in dry stone walls, cracks in rocks, burrows in soil or peat especially by rocks) were undertaken on all rat free islands except for Annet (and inland areas of St. Agnes & Gugh), where a combination of full survey and the sampling methods outlined in Heaney *et al.* (2002) were again employed. The entire coastline and up to 20m inland was surveyed fully on Annet and 12 randomly selected 10x10m quadrats used to survey the remaining areas inland (no further responses). A tape of a male purr call recorded on Mousa was used and, as in the Seabird 2000 and 2006 surveys, the number of responses recorded was multiplied by 2.86 to correct for the proportion of birds not responding (Ratcliffe *et al.* 1998).

Where no burrow entrances were visible in boulder beach ropes marked at 2m intervals, were used to identify where to play the tape. In order to ensure that the playback survey coincided with the peak of incubation (which can vary significantly between years), as in 2000 and 2006, data on laying phenology from storm petrel colonies at the Molène archipelago in Brittany was used (B. Cadiou, *unpubl. data*). These data placed the peak of incubation and therefore nest attendance between the last week of June and the second week on July in 2015 and 2016. Accordingly, all storm petrel playback surveys were completed between 25th June and 16th July 2015/16.

### **Razorbill and common guillemot**

All the razorbills and guillemots nesting in Scilly occupy concealed nest sites mostly under boulders or in rock crevices. This precludes the usual method employed at most cliff nesting colonies of simply counting the number of visible birds from a suitable vantage point. On Scilly all breeding sites were visited in the first 3 weeks of June, with a count of all visible birds made in addition to a count of the number of birds that flushed from crevices when the breeding area was entered and an estimate of the number of birds that remained concealed. Birds on intertidal rocks and those on the sea were not included in the count. No correction factor (usually 0.67 to estimate the number of apparently occupied nests from a count of individuals, Lloyd *et al.* 1991) was applied to the data.

### **Atlantic puffin**

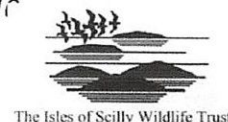
The preferred census method for puffins is to make a count of apparently occupied burrows in late-April to mid-May. In this method, apparently occupied burrows are identified by signs of regular use, such as fresh digging, hatched eggshells or fish in the entrance. Unfortunately, as with the other auks, most of the puffins in Scilly nest under boulders or in burrows along cliff faces, and this is not possible. As a result, counts of individuals to estimate the general size of the small colonies must be used. For this method, a number of counts are made in mid-May of the total number of birds on land, on the sea and flying around the site (within 200m of shore). The peak count (usually achieved late in the day or in foggy conditions) is used as a best estimate of the number of breeding birds present.

### **Estimated Counts**

Rough weather meant that a couple of the more remote islands with rocky landings could not be accessed safely in either or both of the summers of 2015 and 2016, so that breeding numbers had to be estimated.

**Scilly Rock**— For storm petrel, shag, fulmar and gulls an estimate was based on the totals for 2006 multiplied by the average change across islands 2006 to 2015/16. For auks a number of counts were made from the sea in May (puffins) and June (razorbills & guillemot) and the maximum number of birds recorded - low confidence is given to these estimates as many auks nest in crevices and under boulders here and a landing is recommended for surveying these sites.

**Men-a-vaur** – A landing in July 2016 allowed a count of apparently occupied sites for storm petrel. However no landing was possible earlier in the season and an estimate of breeding numbers for shag, fulmar and gulls was based on the totals for 2006 multiplied by the average change across islands 2006 to 2015/16. For auks, as on Scilly Rock, a number of counts were made from the sea in May (puffins) and June (razorbills & guillemot) and the maximum number of birds recorded.



### **Would you like to carry out research on our land?**

The Isles of Scilly Wildlife Trust (IOSWT) welcome responsible researchers (who are working on behalf of a recognised institute or body) on their land where there is a clear benefit to the conservation of the habitats or species found, where the access does not have any significant or long lasting negative impacts and where the information produced is made available to the islands to improve the understanding and support for the special nature of these islands, to residents and visitors.

The Isles of Scilly are regionally, nationally and internationally important for a range of features (habitats and species), including its populations of seabirds, extensive reefs, grey seals, mud/sand flats, sandbanks, raised beaches and rare waved heath with heather and western gorse habitat. The important land areas for these features are accordingly designated (see fig. 1) as Sites of Special Scientific Interest (SSSI), Special Protection Area (SPA), Special Area of Conservation (SAC) (see fig. 2.) and Ramsar site. In addition to requiring permission from the IOSWT, assent is also required from Natural England to access designated sites. Additionally the archaeology of Scilly is internationally important. The islands have the greatest density of statutorily protected terrestrial sites in Britain. Scilly's 238 scheduled monuments represent at least 4000 years of social, economic, cultural and religious activity and many cover extensive areas.

Permission from the IOSWT is required to ensure that your project does not affect the day to day work of the trust, create additional hazards for the general public and so the public can be adequately informed of what is happening on sites.

Due to the sensitive nature of the seabird and seal colonies to disturbance a number of sites have restricted or no general access (see map). Because there is no public access there needs to be a good conservation justification for projects particularly at these sites. Overnight access will only be granted in exceptional circumstances.

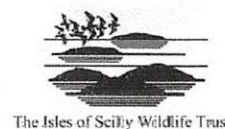
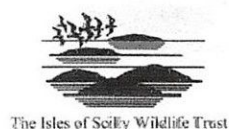
Research is already carried out on a number of topics on Isles of Scilly Wildlife Trust's land. To ensure that there is no duplication or that projects provide the best possible outcome for the conservation of that habitat or species it is important that you identify documents that justify the need for the work (e.g. species and habitat action plans, local landscape plans or strategies), identify any support you have from any third party organisations and let us know who you have liaised with to determine there is a need for this project. Please refer to supporting documents. In addition, the IOSWT have produced a register of preferred projects.

In the past a number of projects have been carried out where the information produced has not been provided by the researcher. Failure to provide a report or to comply with access conditions may result in applications by that individual, institute or body to be denied in the future.

For access to and or collection of specimens from an SSSI, SPA, SAC or RAMSAR a Natural England assent form will need to be completed. To carry out any trapping or ringing activities you will need to be qualified and possess a licence to disturb from Natural England.



*The status of seabirds breeding in the Isles of Scilly 2015/16*



**Isles of Scilly Research Access Application Form**

|                                                                                                              |                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name of Proposer: Paul St Pierre                                                                             |                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |
| Institute or body: RSPB                                                                                      |                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |
| Address:                                                                                                     | 2 The Old Smelting House<br>Chyandour Coombe<br>Penzance TR18 3LP                                                                                                                                                                                                                                                                                 | Telephone: 01736 362979<br>Mobile:<br>Email Address: paul.stpierre@rspb.org.uk                                                                                                                                                            |
| Name and phone numbers of people requiring access:                                                           | Survey Project Manager: Vickie Heaney Tel: 07900 933683<br>Name: Will Scott<br>Name: Lydia Titterton<br>Name: Lana Austin<br>Volunteers (to be confirmed)                                                                                                                                                                                         |                                                                                                                                                                                                                                           |
| When is access required?                                                                                     | Start date:<br>May 2015                                                                                                                                                                                                                                                                                                                           | End Date:<br>September 2015                                                                                                                                                                                                               |
| Where is access required?<br>(Which islands do you wish to visit)                                            | All islands                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                           |
| Title of project: Isles of Scilly Seabird Survey 2015                                                        |                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |
| Project Brief<br>(please give a brief description of your project)                                           | To survey all seabird species breeding on all islands of the Isles of Scilly to determine their population and provide information on their trends.                                                                                                                                                                                               |                                                                                                                                                                                                                                           |
| Project Justification and Support                                                                            | This assessment of the condition of the SPA and SSSI's is set out in the Isles of Scilly Seabird Strategy 2014 -17. An assessment is required by Natural England.                                                                                                                                                                                 |                                                                                                                                                                                                                                           |
| Public Liability Insurance: please attach a copy to your application                                         |                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |
| Project Method<br>Statement (please tell us how you will carry out your project)                             | All counts to use standard agreed methodology as outlined Walsh PM, Halley DJ, Harris MP, del Nevo A, Sim IMW & Tasker MC (1995) <i>Seabird monitoring handbook for Britain and Ireland</i> . JNCC/ RSPB/ ITE/ Seabird Group, Peterborough.<br>See attached methodology and disturbance statements                                                |                                                                                                                                                                                                                                           |
| Project Outputs (Please tell us how you will communicate your findings to the trust and the local community) | A survey report will be available at the end of the project (November 2015)<br>There will be two press releases and a PowerPoint presentation will be produced about the work to use with the community. A summary will be provided for inclusion within the annual Isles of Scilly Natural History Report.                                       |                                                                                                                                                                                                                                           |
| Please also attach:                                                                                          | Conservation Features Risk Assessments<br>Health and Safety Risk Assessments<br>Relevant permissions and licences (see links below)<br>Please complete and return the attached NE accent form<br>Please attach a copy of NE licence to disturb birds, or any other licences required for work<br>Please attach a copy of your BTO ringing licence | <input checked="" type="checkbox"/> [X]<br><input type="checkbox"/> [ ]<br><input checked="" type="checkbox"/> [X]<br><br><input checked="" type="checkbox"/> [X]<br><br><input type="checkbox"/> [n/a]<br><input type="checkbox"/> [n/a] |
| <b>*Please return to: Sarah Mason, Isles of Scilly Wildlife Trust (IOSWT)*</b>                               |                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                           |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

Useful Links:

General Licence:

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/licences/generallicences.aspx>

Specially protected birds:

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/speciallyprotectedbirds.aspx>

English Heritage:

<http://www.english-heritage.org.uk/>

List of properties:

<http://www.english-heritage.org.uk/daysout/properties/?geocode=Isles%20of%20Scilly>

## Features at risk from Access

### Risk Assessment Colour Code

You may need to adjust the methodology set out on your application form based upon the following risk assessment.

The following table summarises the risks identified for each of the interest features, within each group of activities, and the scale of risk annotated through the following colour code.

|                                        |                                                                                                                                                                                                                                                                                     |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>High</b>                            | Key structural or functional species in the biotope are likely to be killed and, or the habitat is likely to be destroyed by the activity under consideration                                                                                                                       |
| <b>Medium</b>                          | The population(s) of key structural or functional species in the biotope may be reduced by the activity under consideration, the habitat may be partially destroyed or the viability of a species population, diversity and function of a community may be reduced.                 |
| <b>Low</b>                             | Key structural or functional species in the biotope are unlikely to be killed or destroyed by the activity under consideration and the habitat is unlikely to be damaged although the viability of a species' population, diversity or functionality in a community may be reduced. |
| <b>No Known Effect on SAC Features</b> | The activity is not practicable or it does not have a detectable effect on structure and function of a biotope or the survival or viability of key                                                                                                                                  |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

| Feature at risk from Access (please list protected features) | Potential Impact                                           | High/medium/low | Proposed Mitigation Measures                                                                                                                                                                                                                         |
|--------------------------------------------------------------|------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subtidal Sandbanks                                           | N/A                                                        | No effect       |                                                                                                                                                                                                                                                      |
| Intertidal Sand flats                                        | N/A                                                        | No effect       |                                                                                                                                                                                                                                                      |
| Reefs                                                        | N/A                                                        | No effect       |                                                                                                                                                                                                                                                      |
| Grey Seals                                                   | Avoid loafing sites                                        | No effect       | Majority of surveys carried out (May to mid July) outside of pupping season or away from known pupping sites (Manx shearwater colonies on St Agnes and Gugh in early September).<br>SPA survey will avoid main haul out sites as identified by IOSWT |
| Seabirds                                                     | Disturbance during breeding season during monitoring       | Low             | SPA survey will use standard methodologies which reduce disturbance to a minimum.                                                                                                                                                                    |
| Heathland/grassland/dunes                                    | Trampling of species                                       | No effect (SAC) |                                                                                                                                                                                                                                                      |
| Plant species<br>Listed on SAC: Shore dock                   | Trampling of species                                       | No effect (SAC) | SPA survey will avoid Shore dock locations as guided by NE and IOSWT ( <a href="http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013694">http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013694</a> )   |
| Land birds                                                   | Disturbance during breeding season                         | No effect       | Survey methodology reduces impacts                                                                                                                                                                                                                   |
| Geological                                                   |                                                            | N/A             |                                                                                                                                                                                                                                                      |
| Ancient or Historic Monuments<br>Isles of Scilly (238 SAMs)  | Disturbance of ancient monuments by trampling and climbing | Low             | Follow existing paths and access points wherever possible and avoid climbing and trampling on exposed structures wherever possible.                                                                                                                  |



**Isles of Scilly Seabird Survey 2015 Disturbance Statement**

| <b>Potential Environmental Impact</b>                              | <b>Mitigation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disturbance and stress caused to breeding seabirds and their young | <p>Standard approved methods used</p> <p>No counts heavy or continuous rain, &gt; Beaufort Force 4</p> <p>Avoid flush counts and disturbance of gulls or terns in wet weather</p> <p>Utmost care taken when walking in areas where nests are present and full briefing of any volunteers on all disturbance mitigation protocols</p> <p>Time in colony kept to a minimum, with counts of denser sub-colonies (e.g. gulls and Annet) conducted by a team of surveyors</p> <p>Care taken to avoid exposure or over-heating of nest contents (counts not conducted in heavy rain, shags not disturbed in hot sunlight)</p> <p>As much as possible counts conducted before chicks hatch to avoid issues with displacement of mobile chicks</p> <p>Fulmar counts in cliff or sloping areas conducted from the sea to avoid egg rolling by startled adults (Annet, Menawethan, Daymark)</p> |
| Negative publicity                                                 | <p>Liaison with local residents, boatmen and birders about purpose of study and methods employed to minimise disturbance</p> <p>Explain work to any visitors that stop to observe in any areas with public access</p> <p>Awareness of any sensitive local issues and where necessary advice and steer taken from the IOSWT and their Seabird Liaison Group Partners</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Habitat damage                                                     | <p>Utmost care taken to avoid disturbance of the natural and historic habitat, paths kept to as much as possible.</p> <p>Special care taken around areas with burrow nesting birds.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**Protocol for burrow scope use at storm petrel and Manx shearwater burrows**

There are three main risks associated with burrow scope use;

- risk of damaging an egg or very young chick if used clumsily
- risk of excessive disturbance and desertion by the adults
- risk of damaging the burrow/ nest access because of user activity on the surface

The device can be unwieldy to use, require contortionist movements from the operator, and concentration on a screen. In order to minimise the risks of nest damage or desertion:

- all users will first practice using the device on empty burrows
- the device will be used in pairs with one person operating the camera end and the other concentrating on the screen
- all operators will employ good general field skills to reduce any potentially negative impact at breeding sites, particularly in areas with many burrows or if any changes in behaviour are seen
- notes will be shared between operators on any difficult burrows (tunnel shape/length etc.) or locations where burrows could be crushed if not approached correctly
- burrows will not be inspected more than once per week and inspection time will be kept to a minimum, with operators remaining quiet when inspecting burrows

Work on Manx shearwater burrows on Skomer suggests that these birds are particularly robust to disturbance from responsible burrow scope use and no significant problems have been encountered at any stages of breeding (Chris Perrins *pers. comm.*). However, storm petrels appear to be more sensitive to disturbance at the nest chamber (Mark Bolton *pers. comm.*) and therefore no storm petrel nest cavity inspections will be carried out until after incubation.

## **Appendix 4**

### **Notes on individual SSSIs that support breeding seabirds**

#### **Seabirds breeding outside designations**

**Annet SSSI**

**Table 22 Numbers of breeding seabirds on Annet SSSI 1999 to 2015**

| Species         | 1999/<br>2000 | 2006        | 2015        | %<br>change<br>since<br>1999 | % change<br>since 2006 | Trend & notes                        |
|-----------------|---------------|-------------|-------------|------------------------------|------------------------|--------------------------------------|
| Manx shearwater | 123           | 89          | 229         | +86%                         | +157%                  | Decline then increase                |
| Lesser BBG      | 517           | 281         | 1           | >99%                         | >99%                   | Loss of 3 sub-colonies               |
| Storm petrel    | 938           | 788         | 778         | -17%                         | -1%                    | Decline then stable                  |
| Herring gull    | 42            | 24          | 20          | -52%                         | -17%                   | Continued decline                    |
| Shag            | 209           | 177         | 85          | -59%                         | -52%                   | Large sustained decline              |
| Razorbill       | 4             | 4           | 5           | +25%                         | +25%                   | Small numbers                        |
| Common tern     | 1             | 1           | 2           | +100%                        | +100%                  | Small numbers, intermittent breeding |
| Puffin          | 47            | 50          | 31          | -34%                         | -38%                   | Declining                            |
| Great BBG       | 137           | 187         | 235         | +72%                         | +26%                   | Large increases                      |
| Fulmar          | 21            | 37          | 57          | +171%                        | +54%                   | Increasing                           |
| <b>Total</b>    | <b>2039</b>   | <b>1638</b> | <b>1443</b> | <b>-29%</b>                  | <b>-12%</b>            | <b>Sustained decline</b>             |

- Seabird notified spp: common tern, great black-backed gull, lesser black-backed gull, Manx shearwater, puffin & storm petrel
- Other SPA assemblage spp present: razorbill, fulmar, shag, herring gull & common tern
- Sustained decline – smaller gulls and shags
- Rat incursion here in 2004
- See Appendix 5 for further count details



*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Samson SSSI (with Green, White, Puffin & Stoney)**

**Table 23 Numbers of breeding seabirds at Samson SSSI 1999 to 2015/16**

| Species          | 1999/<br>2000 | 2006        | 2015/16     | %<br>Change<br>since<br>%1999 | % Change<br>since 2006 | Trend & notes                                            |
|------------------|---------------|-------------|-------------|-------------------------------|------------------------|----------------------------------------------------------|
| Herring gull     | 230           | 189         | 144         | -37%                          | -24%                   | Continued decrease                                       |
| Shag             | 43            | 35          | 49          | +14%                          | +40%                   | Increasing S hill<br>north beaches                       |
| Sandwich<br>tern | 0             | 1           | 0           | Lost                          | Lost                   | Intermittent breeder<br>- last bred Green<br>Island 2006 |
| Lesser<br>BBG    | 1197          | 1223        | 1027        | -14%                          | -16%                   | Continued decline                                        |
| Kittiwake        | 38            | 47          | 0           | Lost                          | Lost                   | Last bred N 2009 &<br>S hill 2008                        |
| Great BBG        | 46            | 73          | 42          | -9%                           | -43%                   | Decreasing White<br>Island                               |
| Common<br>tern   | 18            | 59          | 10          | -44%                          | -83%                   | Declining - failed<br>2015                               |
| Fulmar           | 2             | 5           | 15          | +650%                         | +200%                  | Increasing S hill<br>beaches                             |
| Cormorant        | 1             | 9           | 38          | +3700%                        | +322%                  | White Island<br>increasing – gained<br>from Mincarlo?    |
| <b>Total</b>     | <b>1575</b>   | <b>1641</b> | <b>1325</b> | <b>-16%</b>                   | <b>-19%</b>            | <b>Loss of gulls and<br/>kittiwakes</b>                  |

- SSSI seabird notified spp: common tern
- SPA assemblage spp present: lesser black-backed gull, great black-backed gull, herring gull, shag, cormorant, fulmar
- Lost all kittiwakes and many herring gulls

**Western Rocks SSSI (Melledgan, Gorregan, Great Crebawethan, Rosevear & Rosevean)**

**Table 24 Numbers of breeding seabirds at Western Rocks SSSI 1999 to 2015**

| Species         | 1999/<br>2000 | 2006        | 2015        | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                                          |
|-----------------|---------------|-------------|-------------|------------------------------|------------------------|--------------------------------------------------------|
| Guillemot       | 39            | 31          | 101         | +159%                        | +226%                  | Trebled Gorregan,<br>new to Melledgan                  |
| Cormorant       | 16            | 13          | 10          | -38%                         | -23%                   | Decreased<br>Melledgan                                 |
| Lesser<br>BBG   | 4             | 1           | 5           | +25%                         | +400%                  | Small numbers                                          |
| Herring gull    | 2             | 11          | 5           | +150%                        | -46%                   | Small numbers,<br>decreased                            |
| Storm<br>petrel | 283           | 281         | 267         | -6%                          | -5%                    | Increase Melledgan,<br>decrease Rosevear<br>& Rosevean |
| Great BBG       | 124           | 157         | 136         | +10%                         | -13%                   | Fluctuate/ stable                                      |
| Razorbill       | 85            | 107         | 109         | +28%                         | +2%                    | Stable, less<br>Gorregan more<br>Melledgan             |
| Puffin          | 6             | 31          | 29          | +383%                        | -6%                    | Increase levelled off                                  |
| Shag            | 331           | 392         | 350         | +6%                          | -11%                   | Decrease Melledgan                                     |
| Fulmar          | 2             | 6           | 16          | +700%                        | +167%                  | New to Rosevean                                        |
| <b>Total</b>    | <b>892</b>    | <b>1030</b> | <b>1028</b> | <b>+15%</b>                  | <b>-1%</b>             | <b>Increase then<br/>levelled off</b>                  |

- SSSI seabird notified spp: shag
- SPA assemblage spp present: lesser black-backed gull, great black-backed gull, herring gull, shag, storm petrel, cormorant, fulmar, puffin, razorbill, guillemot

*The status of seabirds breeding in the Isles of Scilly 2015/16*

**St. Helen's SSSI (incl. Norwethel, Peasehopper, Crow's, Foreman's & Men-a-vaur)**  
**Table 25 Numbers of breeding seabirds at St. Helen's SSSI 1999 to 2015/16**

| Species         | 1999/<br>2000 | 2006        | 2015/16    | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                                            |
|-----------------|---------------|-------------|------------|------------------------------|------------------------|----------------------------------------------------------|
| Great BBG       | 30            | 28          | 31         | +3%                          | +11%                   | Stable                                                   |
| Puffin          | 36            | 19          | 16         | -56%                         | -16%                   | Decreasing St Helens & MAV                               |
| Guillemot       | 117           | 95          | 110        | -6%                          | +16%                   | Stable Men-a-vaur                                        |
| Herring gull    | 82            | 113         | 58         | -29%                         | -47%                   | Decreasing St Helens                                     |
| Razorbill       | 101           | 90          | 88         | -13%                         | -2%                    | Stable                                                   |
| LBBG            | 543           | 722         | 553        | +2%                          | -23%                   | Decreasing St Helens                                     |
| Manx shearwater | 5             | 9           | 36         | +620%                        | +300%                  | Increasing St Helens (rats)                              |
| Storm petrel    | 20            | 20          | 14         | -30%                         | -30%                   | Decreased Men-a-Vaur                                     |
| Common tern     | 1             | 13          | 0          | Lost                         | Lost                   | Lost                                                     |
| Kittiwake       | 7             | 36          | 0          | Lost                         | Lost                   | Last bred St Helens 2010                                 |
| Shag            | 24            | 38          | 31         | +29%                         | -18%                   | Stable                                                   |
| Fulmar          | 16            | 21          | 24         | +50%                         | +14%                   | Increasing slowly                                        |
| <b>Total</b>    | <b>982</b>    | <b>1204</b> | <b>961</b> | <b>-2%</b>                   | <b>-20%</b>            | <b>Decrease in gulls, loss of kittiwakes &amp; terns</b> |

- SSSI seabird notified spp: fulmar, guillemot, razorbill
- SPA assemblage spp present: Manx shearwater, lesser black-backed gull, great black-backed gull, herring gull, shag, puffin, storm petrel

*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Norrard Rocks SSSI (Scilly Rock, Castle Bryher, Mincarlo, Illiswilgig, Gweal, Maiden Bower & Seal Rock)**

**Table 26 Numbers of breeding seabirds at Norrard Rocks SSSI 1999 to 2015/16**

| <b>Species</b> | <b>1999/<br/>2000</b> | <b>2006</b> | <b>2015/16</b> | <b>%<br/>Change<br/>since<br/>1999</b> | <b>% Change<br/>since 2006</b> | <b>Trend &amp; notes</b>    |
|----------------|-----------------------|-------------|----------------|----------------------------------------|--------------------------------|-----------------------------|
| Herring gull   | 41                    | 19          | 15             | -63%                                   | -21%                           | Sustained decline           |
| Cormorant      | 25                    | 18          | 0              | Lost                                   | Lost                           | Last bred Mincarlo 2013     |
| Guillemot      | 40                    | 29          | 80             | +100%                                  | +176%                          | Large increase              |
| Lesser BBG     | 13                    | 6           | 37             | +185%                                  | +517%                          | Increase Gweal              |
| Puffin         | 78                    | 74          | 86             | +10%                                   | +16%                           | Stable, increasing          |
| Storm petrel   | 51                    | 58          | 85             | +67%                                   | +47%                           | Increased Illiswilgig       |
| Razorbill      | 103                   | 129         | 232            | +125%                                  | +80%                           | Large increase Mincarlo     |
| Great BBG      | 101                   | 106         | 125            | +24%                                   | +18%                           | Increasing Gweal            |
| Shag           | 273                   | 312         | 188            | -31%                                   | -40%                           | Decreasing                  |
| Fulmar         | 28                    | 37          | 36             | +29%                                   | -3%                            | Increased then levelled off |
| <b>Total</b>   | <b>753</b>            | <b>788</b>  | <b>884</b>     | <b>+17%</b>                            | <b>+12%</b>                    | <b>Increase in auks</b>     |

- SSSI seabird notified spp: cormorant
- SPA assemblage spp present: storm petrel, lesser black-backed gull, great black-backed gull, shag, herring gull, guillemot, razorbill, puffin & fulmar
- Cormorants lost from Mincarlo



**Pentle Bay, Merrick & Round Island SSSI, Tresco**

**Table 27 Numbers of breeding seabirds at Pentle Bay SSSI 1999 to 2015**

| <b>Species</b>  | <b>1999/<br/>2000</b> | <b>2006</b> | <b>2015</b> | <b>%<br/>Change<br/>since<br/>1999</b> | <b>% Change<br/>since 2006</b> | <b>Trend &amp; notes</b>  |
|-----------------|-----------------------|-------------|-------------|----------------------------------------|--------------------------------|---------------------------|
| Manx shearwater | 34                    | 43          | 78          | +129%                                  | +81%                           | Large increases           |
| Lesser BBG      | 1                     | 1           | 3           | +200%                                  | +200%                          | Small numbers, increasing |
| Storm petrel    | 183                   | 251         | 172         | -6%                                    | -32%                           | Declining                 |
| Herring gull    | 30                    | 28          | 13          | -57%                                   | -54%                           | Declining                 |
| Shag            | 2                     | 7           | 16          | +700%                                  | +129%                          | Increasing                |
| Common tern     | 39                    | 5           | 0           | Lost                                   | Lost                           | Lost from Pentle Bay      |
| Puffin          | 0                     | 0           | 1           | New colony                             | New colony                     | New colony                |
| Great BBG       | 5                     | 9           | 21          | +320%                                  | +133%                          | Increasing                |
| Fulmar          | 32                    | 28          | 11          | -66%                                   | -61%                           | Declining                 |
| <b>Total</b>    | <b>326</b>            | <b>372</b>  | <b>315</b>  | <b>-3%</b>                             | <b>-15%</b>                    | <b>Overall decline</b>    |

- SSSI seabird notified spp: common tern, roseate tern, storm petrel
- SPA assemblage spp present: Manx shearwater, lesser black-backed gull, great black-backed gull, herring gull, shag, puffin, fulmar
- Roseate & common terns lost from Pentle Bay
- Puffin new to Round Island

**Chapel Down SSSI, St. Martin's**

**Table 28 Numbers of breeding seabirds at Chapel Down SSSI 1999 to 2015**

| <b>Species</b>  | <b>1999/<br/>2000</b> | <b>2006</b> | <b>2015</b> | <b>%<br/>Change<br/>since<br/>1999</b> | <b>% Change<br/>since 2006</b> | <b>Trend &amp; notes</b>              |
|-----------------|-----------------------|-------------|-------------|----------------------------------------|--------------------------------|---------------------------------------|
| Manx shearwater | 0                     | 0           | 26          | New colony                             | New colony                     | New colony                            |
| Lesser BBG      | 58                    | 4           | 2           | -97%                                   | -50%                           | Large declines                        |
| Herring gull    | 18                    | 12          | 9           | -50%                                   | -25%                           | Declining                             |
| Kittiwake       | 27                    | 15          | 0           | Lost                                   | Lost                           | Last bred 2013                        |
| Great BBG       | 3                     | 3           | 3           | No change                              | No change                      | Stable, small numbers                 |
| Fulmar          | 32                    | 46          | 46          | +44%                                   | No change                      | Increase now plateaued                |
| <b>Total</b>    | <b>138</b>            | <b>80</b>   | <b>86</b>   | <b>-38%</b>                            | <b>+8%</b>                     | <b>Loss of kittiwakes &amp; gulls</b> |

- SSSI seabird notified spp: kittiwake
- SPA assemblage spp present: lesser black-backed gull, great black-backed gull, fulmar, Manx shearwater, herring gull

**Eastern Isles (Menawethan, Hanjague, Great & Little Ganilly, Great & Little Arthur, Great & Little Ganinnick, Great & Little Innisvoul, Ragged, Nornour) SSSI**  
**Table 29 Numbers of breeding seabirds at the Eastern Isles SSSI 1999 to 2015**

| Species         | 1999/<br>2000 | 2006       | 2015       | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                               |
|-----------------|---------------|------------|------------|------------------------------|------------------------|---------------------------------------------|
| Herring gull    | 49            | 34         | 73         | +49%                         | +115%                  | Increasing                                  |
| Lesser BBG      | 19            | 14         | 159        | +737%                        | +1036%                 | Large Increase – Great Ganilly & Arthurs    |
| Great BBG       | 286           | 265        | 310        | +8%                          | +17%                   | Increasing – large colony                   |
| Cormorant       | 14            | 10         | 5          | -64%                         | -50%                   | Declining, moved Ragged to Great Ganinnick  |
| Shag            | 221           | 330        | 276        | +25%                         | -16%                   | Increase then declined                      |
| Razorbill       | 3             | 12         | 37         | +1133%                       | +208%                  | Increasing                                  |
| Fulmar          | 43            | 77         | 63         | +47%                         | -18%                   | Increasing then levelled/ decline           |
| Manx shearwater | 0             | 0          | 1          | New colony                   | New colony             | New colony                                  |
| Puffin          | 0             | 0          | 4          | New colony                   | New colony             | New colony                                  |
| <b>Total</b>    | <b>635</b>    | <b>742</b> | <b>928</b> | <b>+46%</b>                  | <b>+25%</b>            | <b>More gulls and new Puffin &amp; Manx</b> |

- SSSI seabird notified spp: None
- SPA assemblage spp present: shag, lesser black-backed gull, great black-backed gull, herring gull, cormorant, razorbill, fulmar, Manx shearwater, puffin
- Manx shearwater & puffin re-colonised
- Large Increase of lesser black-backed gull Great Ganilly & Arthurs

**Gugh SSSI (including Kittern Rock)**

**Table 30 Numbers of breeding seabirds at Gugh SSSI 1999 to 2015**

| Species            | 1999/<br>2000 | 2006        | 2015       | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                     |
|--------------------|---------------|-------------|------------|------------------------------|------------------------|-----------------------------------|
| Lesser<br>BBG      | 1123          | 875         | 419        | -63%                         | -52%                   | Large declines                    |
| Herring<br>gull    | 159           | 69          | 30         | -81%                         | -57%                   | Main loss from<br>eastern beaches |
| Kittiwake          | 155           | 131         | 0          | Lost                         | Lost                   | Last nested 2010                  |
| Manx<br>shearwater | 22            | 9           | 45         | +105%                        | +400%                  | Increasing                        |
| Great BBG          | 3             | 4           | 6          | +100%                        | +50%                   | Small numbers,<br>increasing      |
| Fulmar             | 2             | 3           | 1          | -50%                         | -67%                   | Kittern Rock, small<br>numbers    |
| Storm<br>petrel    | 0             | 0           | 2          | New<br>colony                | New colony             | New colony –<br>confirmed chicks  |
| <b>Total</b>       | <b>1464</b>   | <b>1090</b> | <b>503</b> | <b>-66%</b>                  | <b>-54%</b>            | <b>Declining</b>                  |

- SSSI seabird notified spp: None
- SPA assemblage spp present: storm petrel, lesser black-backed gull, great black-backed gull, herring gull, Manx shearwater, fulmar
- Cleared of rats winter 2013/14
- Storm petrels recolonised and breeding successfully along with Manx shearwaters
- Loss of gulls and kittiwakes from eastern beaches



**Teaen SSSI (including Pednbrose & Old Man)**

**Table 31 Numbers of breeding seabirds at Teaen SSSI 1999 to 2015**

| Species        | 1999/<br>2000 | 2006      | 2015       | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                                   |
|----------------|---------------|-----------|------------|------------------------------|------------------------|-------------------------------------------------|
| GBBG           | 16            | 18        | 28         | +75%                         | +56%                   | Increasing                                      |
| Herring gull   | 62            | 51        | 57         | -8%                          | +12%                   | Stable                                          |
| LBBG           | 24            | 5         | 136        | +467%                        | +2620%                 | Large increase                                  |
| Common<br>tern | 1             | 0         | 0          | Lost                         | Lost                   | Lost                                            |
| <b>Total</b>   | <b>103</b>    | <b>74</b> | <b>221</b> | <b>+115%</b>                 | <b>+199%</b>           | <b>Increase in gulls –<br/>from St Helen's?</b> |

- SSSI seabird notified spp: none
- SPA assemblage spp present: lesser black-backed gull, great black-backed gull, herring gull

**White Island SSSI, St. Martin's**

**Table 32 Numbers of breeding seabirds at White Island SSSI 1999 to 2015**

| Species      | 1999/<br>2000 | 2006       | 2015       | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes               |
|--------------|---------------|------------|------------|------------------------------|------------------------|-----------------------------|
| GBBG         | 2             | 6          | 1          | -50%                         | -83%                   | Small numbers,<br>decreased |
| Herring gull | 34            | 32         | 15         | -56%                         | -53%                   | Decreasing                  |
| LBBG         | 28            | 187        | 106        | +279%                        | -43%                   | Decreasing                  |
| Fulmar       | 5             | 6          | 8          | +60%                         | +33%                   | Increasing                  |
| <b>Total</b> | <b>69</b>     | <b>231</b> | <b>130</b> | <b>+88%</b>                  | <b>-44%</b>            | <b>Loss of gulls</b>        |

- SSSI seabird notified spp: none
- SPA assemblage spp present: lesser black-backed gull, great black-backed gull, herring gull, fulmar

*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Shipman Head & Down SSSI, Bryher (including Hangman's Island)**  
**Table 33 Numbers of breeding seabirds at Shipman Head SSSI 1999 to 2015/16**

| Species         | 1999/<br>2000 | 2006      | 2015/16   | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                                                   |
|-----------------|---------------|-----------|-----------|------------------------------|------------------------|-----------------------------------------------------------------|
| Lesser BBG      | 50            | 8         | 13        | -74%                         | +63%                   | Declining                                                       |
| Great BBG       | 13            | 6         | 3         | -77%                         | -50%                   | Declining                                                       |
| Common tern     | 1             | 0         | 0         | Lost                         | Lost                   | Lost                                                            |
| Shag            | 4             | 4         | 19        | +375%                        | +375%                  | Increasing                                                      |
| Herring gull    | 23            | 15        | 16        | -30%                         | +7%                    | Decreasing                                                      |
| Manx shearwater | 12            | 13        | 39        | +225%                        | +200%                  | Large increase 2015                                             |
| Fulmar          | 0             | 13        | 6         | New colony                   | -54%                   | 1st pair recorded here in 1987                                  |
| Razorbill       | 0             | 0         | 2         | New                          | New                    | New colony                                                      |
| <b>Total</b>    | <b>103</b>    | <b>59</b> | <b>98</b> | <b>-5%</b>                   | <b>+66%</b>            | <b>Loss of gulls offset by increase in shearwaters and shag</b> |

- SSSI seabird notified spp: none
- SPA assemblage spp present: Manx shearwater, lesser black-backed gull, great black-backed gull, herring gull, shag, fulmar
- New site for razorbill at Shipman Head in 2016

**Castle Down SSSI, Tresco (including Gimble Porth)**  
**Table 34 Numbers of breeding seabirds at Castle Down SSSI 1999 to 2015**

| Species         | 1999/<br>2000 | 2006      | 2015      | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                       |
|-----------------|---------------|-----------|-----------|------------------------------|------------------------|-------------------------------------|
| Manx shearwater | 0             | 0         | 46        | New colony                   | New colony             | New colony                          |
| Lesser BBG      | 29            | 4         | 0         | Lost                         | Lost                   | Lost from G. Porth                  |
| Herring gull    | 74            | 54        | 0         | Lost                         | Lost                   | Lost from G. Porth, last nests 2013 |
| Kittiwake       | 54            | 37        | 0         | Lost                         | Lost                   | Lost from G. Porth, last bred 2009  |
| Common tern     | 13            | 0         | 0         | Lost                         | Lost                   | Lost                                |
| <b>Total</b>    | <b>170</b>    | <b>95</b> | <b>46</b> | <b>-73%</b>                  | <b>-52%</b>            | <b>Gimble Porth abandoned</b>       |

- SSSI seabird notified spp: None
- SPA assemblage spp present: Manx shearwater

**Wingletang Down SSSI, St. Agnes**

**Table 35 Numbers of breeding seabirds at Wingletang SSSI 1999 to 2015**

| Species         | 1999/<br>2000 | 2006      | 2015      | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                        |
|-----------------|---------------|-----------|-----------|------------------------------|------------------------|--------------------------------------|
| Herring gull    | 0             | 4         | 1         | New colony                   | -75%                   | Small numbers                        |
| Manx shearwater | 5             | 8         | 10        | +50%                         | +25%                   | Increasing since rat removal 2013/14 |
| <b>Total</b>    | <b>5</b>      | <b>12</b> | <b>11</b> | <b>+120%</b>                 | <b>-8%</b>             |                                      |

- SSSI seabird notified spp: none
- SPA assemblage spp present: herring gull, Manx shearwater

**Rushy Bay & Heathy Hill SSSI, Bryher**

**Table 36 Numbers of breeding seabirds at Rushy Bay SSSI 1999 to 2015**

| Species      | 1999/<br>2000 | 2006     | 2015     | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes |
|--------------|---------------|----------|----------|------------------------------|------------------------|---------------|
| Herring gull | 0             | 0        | 8        | New colony                   | New colony             |               |
| LBBG         | 0             | 0        | 1        | New colony                   | New colony             |               |
| Common tern  | 1             | 0        | 0        | Lost                         | Lost                   |               |
| <b>Total</b> | <b>1</b>      | <b>0</b> | <b>9</b> | <b>+800%</b>                 | <b>n/a</b>             |               |

- SSSI seabird notified spp: none
- SPA assemblage spp present: lesser black-backed gull, herring gull

**Peninnis Head SSSI, St. Mary's**

**Table 37 Numbers of breeding seabirds at Peninnis SSSI 1999 to 2015**

| Species         | 1999/<br>2000 | 2006     | 2015     | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                      |
|-----------------|---------------|----------|----------|------------------------------|------------------------|------------------------------------|
| Manx shearwater | 0             | 0        | 8        | New Colony                   | New Colony             | First recorded here 2010           |
| <b>Total</b>    | <b>0</b>      | <b>0</b> | <b>8</b> | New Colony                   | New Colony             | <b>Manx shearwaters new colony</b> |

- SSSI seabird notified spp: none
- SPA assemblage spp present: Manx shearwater

**Big Pool & Browarth SSSI, St. Agnes**

**Table 38 Numbers of breeding seabirds at Big Pool & Browarth SSSI 1999 to 2015**

| Species      | 1999/<br>2000 | 2006     | 2015     | %<br>Change<br>since<br>1999 | % Change<br>since 2006 | Trend & notes                     |
|--------------|---------------|----------|----------|------------------------------|------------------------|-----------------------------------|
| LBBG         | 2             | 0        | 0        | Lost                         | Lost                   | Lost                              |
| Herring gull | 25            | 9        | 1        | -96%                         | -89%                   | Large decline                     |
| Common tern  | 3             | 0        | 0        | Lost                         | Lost                   | Lost                              |
| <b>Total</b> | <b>30</b>     | <b>9</b> | <b>1</b> | <b>-97%</b>                  | <b>-89%</b>            | <b>Abandoned as breeding site</b> |

- SSSI seabird notified spp: none
- SPA assemblage spp present: herring gull



*The status of seabirds breeding in the Isles of Scilly 2015/16*

## Seabirds breeding outside designations

**Table 39 Rocks and islands outside designation supporting breeding seabirds in 2015**

| ISLAND                                   | FUL | MX | SP | SH | LB | HG | GB | KIT | GUI | RAZ | PUF | SPA? | SSSI? |
|------------------------------------------|-----|----|----|----|----|----|----|-----|-----|-----|-----|------|-------|
| Plumb Is, Tresco                         |     |    |    |    |    | 2  |    |     |     |     |     | N    | N     |
| Hedge Rock                               |     |    |    |    |    | 1  | 1  |     |     |     |     | N    | N     |
| Merrick Island, Bryher<br>Carn of Bars   |     |    |    |    | 1  | 2  | 1  |     |     |     |     | N    | N     |
| St. Agnes, not SSSI                      | 4   | 2  | 6  |    | 14 | 8  | 1  | 75  |     |     |     | N    | N     |
| Burnt Island, St. Agnes                  |     |    | 11 |    |    | 1  |    |     |     |     |     | N    | N     |
| Tresco, Porth Mellin                     |     |    |    |    |    | 1  |    |     |     |     |     | N    | N     |
| Tresco, Appletree Point                  |     |    |    |    |    | 11 |    |     |     |     |     | N    | N     |
| Plumb Is, St. Martin's                   |     |    |    |    |    | 3  |    |     |     |     |     | N    | N     |
| Guther's Island                          |     |    |    | 7  | 6  | 20 | 30 |     |     |     |     | N    | N     |
| Pernagie Island                          |     |    |    | 4  |    |    | 8  |     |     |     |     | N    | N     |
| Bryher, not SSSI                         |     |    |    |    | 2  | 27 | 1  |     |     |     |     | N    | N     |
| Bow, St. Agnes                           |     |    |    |    |    |    | 1  |     |     |     |     | N    | N     |
| St. Mary's not SSSI                      |     | 3  |    |    |    | 15 |    |     |     |     |     | N    | N     |
| Peninnis Head SSSI                       |     | 8  |    |    |    |    |    |     |     |     |     | N    | Y     |
| Rushy Bay & Heathy Hill<br>SSSI          |     |    |    |    | 1  | 8  |    |     |     |     |     | N    | Y     |
| Wingletang SSSI                          |     | 10 |    |    |    | 1  |    |     |     |     |     | N    | Y     |
| Mincarlo (part of Norrard<br>Rocks SSSI) | 21  |    | 9  | 58 |    |    | 33 |     | 20  | 120 | 51  | N    | Y     |

NB: Although the majority of SSSIs are included in the SPA designated area, Wingletang Down (St. Agnes), Peninnis Head (St. Mary's), Rushy Bay & Heathy Hill (Bryher) and Mincarlo (part of Norrard Rocks), all of which supported seabirds in 2015, are not. This gives a total of 609 pairs of seabird breeding outside the SPA of which 269 pairs are outside SSSIs.

## Appendix 5

### Annual counts for Annet SSSI 2000 to 2016\*

| Year | SH     | GB  | LB  | HG | RAZ | FUL | COT | SP  | MX  | PUF | TOTAL |
|------|--------|-----|-----|----|-----|-----|-----|-----|-----|-----|-------|
| 2000 | 209**  | 137 | 517 | 42 | 4   | 21  | 1   | 938 | 123 | 47  | 2039  |
| 2002 | 180    | 171 | 215 | 7  | 4   | -   | 0   | -   | -   | -   | (577) |
| 2003 | 150    | 164 | 18  | 17 | 0   | 45  | 0   | -   | -   | -   | (394) |
| 2004 | 159    | 197 | 7   | 32 | 2   | 44  | 0   | -   | -   | -   | (441) |
| 2006 | 177    | 187 | 281 | 24 | 4   | 37  | 1   | 788 | 89  | 50  | 1638  |
| 2007 | 140    | 88  | 0   | 5  | 1   | 37  | 0   | -   | -   | -   | (271) |
| 2008 | 164    | 47  | (5) | 4  | 3   | 48  | 0   | -   | -   | -   | (261) |
| 2009 | 154    | 168 | 54  | 7  | 7   | 43  | 0   | -   | -   | -   | (433) |
| 2010 | 198    | 213 | 76  | 11 | 2   | 40  | 0   | -   | -   | -   | (540) |
| 2011 | 115    | 180 | 27  | 5  | 4   | 37  | 0   | -   | -   | -   | (368) |
| 2012 | 107*** | 177 | 32  | 8  | 2   | 49  | 0   | -   | -   | -   | (375) |
| 2013 | 99     | 208 | 6   | 4  | 1   | 36  | 0   | -   | -   | -   | (354) |
| 2014 | 96     | 205 | 10  | 5  | 1   | 38  | 0   | -   | -   | -   | (355) |
| 2015 | 85     | 235 | 1   | 20 | 5   | 57  | 2   | 778 | 229 | 31  | 1443  |
| 2016 | 86     | 215 | 1   | 16 | 6   | 41  | 14  | -   | -   | -   | (379) |

\* The count for 2000 represents data from 1999 and 200 combined. No counts were made in 2001 or 2005.

\*\*This number is a peak – data from the Seabird Colony Register 1976-98 range from 82-163 shag pairs.

\*\*\* Very high failure rate in shags 2012. As many as 57% (61 of 107) of shag nests were empty; either deserted or predated, with many nests being found unattended.

## **Appendix 6**

### **Information to aid discussion on rat clearance priorities**

The map below is taken from IOS Seabird Conservation Strategy 2009-2013 which grouped islands into distinct groups with eradication aims i.e. blue maintain rat free, red rats present. Since this time St. Agnes & Gugh have been cleared and there have been substantial incursions recorded in summer 2015/16 on Samson and St. Helen's.

The key species affected by rat predation are Manx shearwater and storm petrel (of which Scilly supports internationally important numbers). Other birds of particular conservation concern that can be susceptible to rat predation are common terns (85% decline in last 9 years in Scilly) and puffin (regionally important numbers in Scilly and recently UK Red Listed). In addition, Scilly holds internationally important numbers of lesser black-backed gulls and although they are not known to be particularly at risk from rats, studies have shown a negative effect on productivity.

#### **St. Helen's**

St. Helen's and therefore its satellites/ stepping stones (Norwethel, Foreman's, Peashopper, Crow and probably Tean) are important despite frequent incursions, because of the large but declining lesser black-backed gull colony and burrow nesting Manx shearwaters (which have shown positive response to rat clearance in the past) and Puffins (slight decline to 11 pairs in 2015). Also St. Helen's could act as a stepping stone to high priority islands Round and Men-a-vaur.

#### **Annet**

Is obviously still a priority, but much safer now with the clearance of St. Agnes & Gugh.

#### **Samson**

Clearly this involves a lot of work and appears to suffer incursions yearly (although possibly a few rats also survive control efforts and repopulate). However, it holds a large proportion (978 of 2485prs – 39.4%) of our lesser black-backs and they are declining. It was also the main breeding site for common terns in 2014 and 2015.

#### **Eastern Isles**

Cleared in 2007 the various eastern isles have shown mixed fortunes since the last full count in 2006. Overall numbers of breeding seabirds are up by 25% and the great news is that both Manx shearwaters and puffins have been recorded breeding here for the first time since at least the 1970s. The number of shags has declined here (but also across the whole archipelago, including the rat free Norrard & Western Rocks) and the overall increases are mostly due to the settlement of new gull colonies. No rat sign was recorded during the seabird count in 2015 although not a comprehensive check. Definitely worth tackling the 'stepping stone' islands where rats from St. Martins could cross to (Little Ganilly & Nornour closest).

#### **Norrard & Western Rocks**

The thought is that these outer rocks though vital for seabirds are not capable of supporting rats through the winters, so have really only been checked sporadically.

### *The status of seabirds breeding in the Isles of Scilly 2015/16*

Under the new bait derogations all bait has now been removed from these islands (some may remain Gweal?) No sign was seen on Gweal in summer 2015 though it suffers frequent incursions due to its proximity to Bryher.

#### **Round Island**

There have never been rats here and it's a deep water channel, but if rats did get across they could survive the winters and there are lots of seabirds to eat. So important to keep on the radar. No rat sign was recorded on the 2 visits as part of the seabird count in June & July 2015.

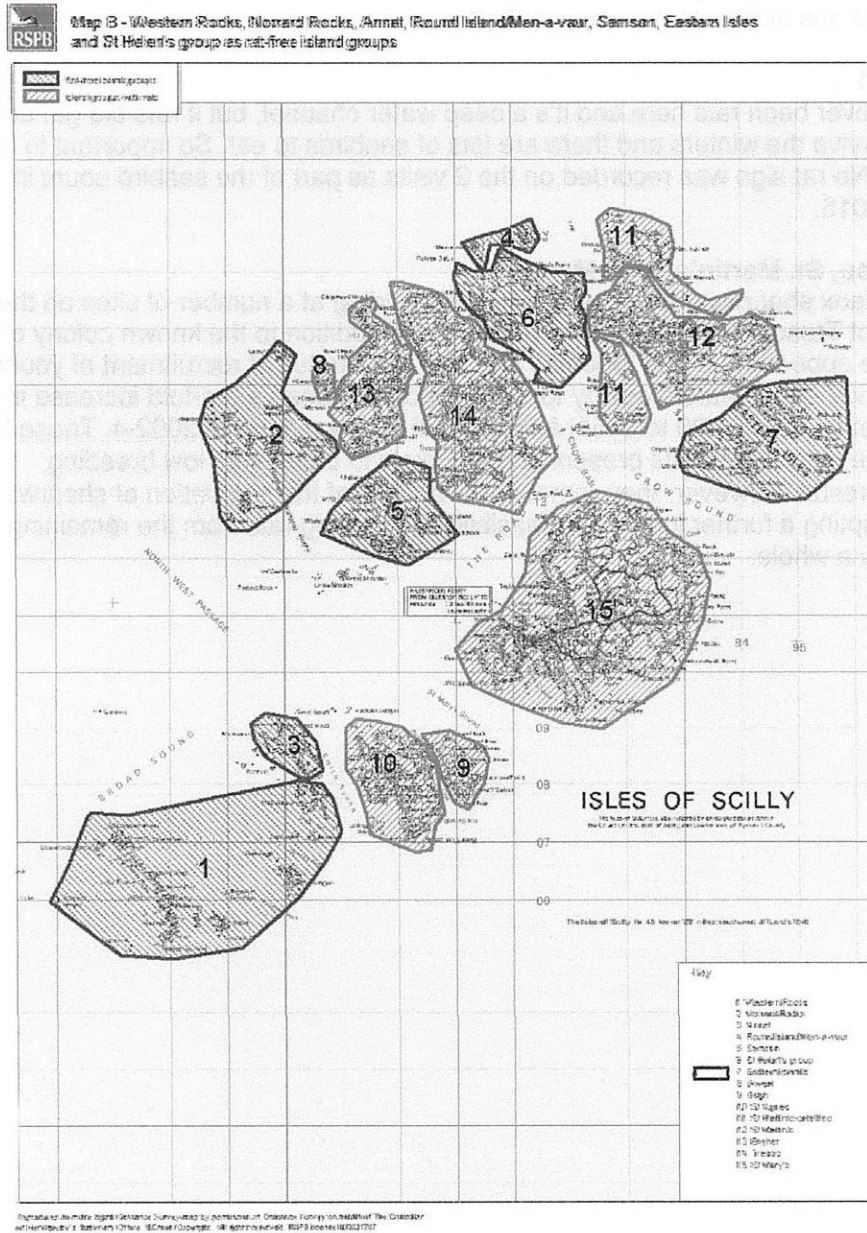
#### **Bryher, Tresco, St. Martin's & St. Mary's**

Since 2006 Manx shearwaters have been found breeding at a number of sites on the main islands of Tresco, St. Martin's and St. Mary's in addition to the known colony on Bryher. These appear to be new colonies and may be a result of recruitment of young birds from Lundy – the nearest colony to Scilly which has seen a ten-fold increase in shearwater pairs (from @300 to 3451) following rat removal there in 2002-4. These birds appear to have settled with rats present and are likely to suffer very low breeding success as a result. However, they represent over 23% of the population of shearwaters in Scilly, prompting a further look at the feasibility of clearing rats from the remaining 'off-islands' as a whole.



## The status of seabirds breeding in the Isles of Scilly 2015/16

Map below reproduced from *Isles of Scilly Seabird Conservation Strategy 2009-2013*



*The status of seabirds breeding in the Isles of Scilly 2015/16*

**Table 40 Rat clearance priorities by island group**

| ISLAND              | SSSI grouping & citation                                 | SPA Listing                                        | Species present                                             | 2000 | 2006 | 2015 /16 | Trends 2006-2015/16    | History of rats                                | Could support? | Ease of landing | Priority?  |
|---------------------|----------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------|------|------|----------|------------------------|------------------------------------------------|----------------|-----------------|------------|
| Great/Little Arthur | Eastern Isles (not listed for seabird interest features) | Listed for birds as part of SPA seabird assemblage | 5spp. 45GB<br>HG26 LB76<br>SH10 FUL9                        | 46   | 53   | 166      | Up 213% (LB&HG)        | Current prog, no sign since 2007               | Y              | Medium          |            |
| Great Ganilly       |                                                          |                                                    | 5 spp. 33SH<br>35GB 70LB<br>23HG <b>1MX (new)</b> Peregrine | 58   | 45   | 162      | Up 260% (HG&LB)        | Current prog, no sign since 2007 (has rabbits) | Y              | Medium          | <b>MX</b>  |
| Menawethan          |                                                          |                                                    | 6spp. 43FUL<br>38SH 66GB<br><b>4PUF (new)</b>               | 139  | 182  | 156      | Down 14% (SH)          | Current prog, no sign since 2007               | Y              | Difficult       | <b>PUF</b> |
| Great Innisvoul     |                                                          |                                                    | 5spp. 60SH<br>45GB 13RAZ<br>11FUL                           | 131  | 169  | 130      | Down 23% (SH)          |                                                | Y              | Difficult       |            |
| Little Ganinnick    |                                                          |                                                    | 4spp. 45SH<br>27GB                                          | 63   | 58   | 79       | Up 36% (GB)            |                                                | Y              | Medium          |            |
| Ragged Island       |                                                          |                                                    | 5spp 30SH<br>18RAZ 27GB                                     | 79   | 88   | 78       | Down 11% (SH&COR lost) |                                                | Y              | Difficult       |            |
| Little Innisvoul    |                                                          |                                                    | 3spp. 46SH 15GB                                             | 38   | 52   | 63       | Up 21% (SH)            |                                                | Y              | Difficult       |            |
| Great Ganinnick     |                                                          |                                                    | 4 spp. 10SH<br>11GB 5COR (new)                              | 48   | 49   | 35       | Down 29% (SH&GB)       |                                                | Y              | Medium          |            |
| Little Ganilly      |                                                          |                                                    | 4spp. 21GB<br>7HG 4LB                                       | 20   | 27   | 34       | Up 26% (LB&HG)         | Current prog, no sign since 2007.              | Y              | Medium          |            |
| Nornour             |                                                          |                                                    | 2spp. 17GB                                                  | 10   | 14   | 22       | Up 57% (GB)            | <b>STEPPING STONES</b>                         | Y              | Medium          |            |
| Hanjague            |                                                          |                                                    | 2spp.                                                       | 3    | 5    | 3        |                        | Unlikely                                       | N              | Difficult       |            |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

| ISLAND                            | SSSI grouping & citation                                      | SPA Listing                                        | Species present                                                     | 2000 | 2006 | 2015 /16 | Trends 2006-2015/16              | History of rats                                                       | Could support? | Ease of landing | Priority?     |
|-----------------------------------|---------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------|------|------|----------|----------------------------------|-----------------------------------------------------------------------|----------------|-----------------|---------------|
| Annet                             | Annet (Listed for COT GB LB MX PF & SP)                       | Listed for birds as part of SPA seabird assemblage | 10spp. Incl. <b>778SP, 229MX</b> , 235GB 85SH 57FUL 31PUF Peregrine | 2039 | 1638 | 1443     | Down 12% (LB& SH) GB&MX increase | Rat free since 2004                                                   | Y              | Medium          | <b>HIGH</b>   |
| St Helen's                        | St Helen's (Listed for seabird interest features FUL GUI RAZ) | Listed for birds as part of SPA seabird assemblage | 7spp <b>36MX</b> 448LB 30HG <b>11PUF</b> 7SH 12GB                   | 623  | 836  | 549      | Down 34% (LB&HG) Lost KIT        | First cleared 1994, freq incursions. <b>Rat sign summer 2015</b>      | Y              | Easy            | <b>MX PUF</b> |
| Men-a-vaur                        |                                                               |                                                    | 8spp. 110GUI 88RAZ <b>5PUF</b> <b>14SP</b>                          | 303  | 264  | 262      | No change                        | Not in prog but little shelter                                        | N              | Difficult       | <b>SP PUF</b> |
| Tean, Old Man & Pednbrose         |                                                               |                                                    | 3spp 136LB 57HG 28GB                                                | 103  | 72   | 221      | Up 207% (LB)                     | First cleared 2006, freq incursions <b>STEPPING STONE</b>             | Y              | Easy            |               |
| Norwethel                         |                                                               |                                                    | 3spp 102LB 22HG                                                     | 41   | 83   | 135      | Up 63% (LB)                      | First cleared 1996, freq incursions <b>STEPPING STONE</b>             | Y              | Easy            |               |
| Peashopper, Foreman's & Crow's Is |                                                               |                                                    | 3spp                                                                | 14   | 24   | 15       |                                  | First cleared 1996, freq incursions. Lost terns <b>STEPPING STONE</b> | Y              | Easy            |               |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

| ISLAND                | SSSI grouping & citation                                                | SPA Listing                                        | Species present                                                         | 2000 | 2006 | 2015 /16 | Trends 2006-2015/16                        | History of rats                                               | Could support? | Ease of landing | Priority?    |
|-----------------------|-------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------|------|------|----------|--------------------------------------------|---------------------------------------------------------------|----------------|-----------------|--------------|
| Samson                | Samson (Listed for seabird interest features COT)                       | Listed for birds as part of SPA seabird assemblage | 6spp 978LB<br>126HG 27SH<br><b>10COT</b> 15FUL                          | 1309 | 1310 | 1163     | Down 11% (LB&HG)<br>Lost KIT<br>Only Terns | First cleared 1993, annual incursions, <b>heavy sign 2015</b> | Y              | Easy            | <b>Terns</b> |
| Puffin Island         |                                                                         |                                                    | 4spp 35LB 15SH<br>12HG 4GB                                              | 145  | 174  | 66       | Down 62% (LBs)                             | First cleared 1994, annual incursions                         | Y              | Medium          |              |
| White Island (Samson) |                                                                         |                                                    | 5spp 7SH 31GB<br>38COR                                                  | 114  | 100  | 96       | No change                                  | First cleared 1995, freq. incursions                          | Y              | Difficult       |              |
| Green Island (Samson) |                                                                         |                                                    | 0spp.                                                                   | 7    | 57   | 0        | COT lost                                   | Not in prog, no shelter <b>STEPPING STONE</b>                 | N              | Easy            |              |
| Round Island          | Pentle Bay & Round Is (Listed for seabird interest features COT SP ROS) | Listed for birds as part of SPA seabird assemblage | 8spp <b>78MX</b><br><b>172SP</b> 16SH<br>20GB <b>1PUF</b><br>Peregrine? | 265  | 342  | 302      | Down 12% (SP&MX)                           | Not in prog, rat free 2013. Could support                     | Y              | Difficult       | <b>HIGH</b>  |



*The status of seabirds breeding in the Isles of Scilly 2015/16*

| ISLAND                       | SSSI grouping & citation                                | SPA Listing                                            | Species present                | 2000 | 2006 | 2015 /16 | Trends 2006-2015/16 | History of rats | Could support? | Ease of landing | Priority? |
|------------------------------|---------------------------------------------------------|--------------------------------------------------------|--------------------------------|------|------|----------|---------------------|-----------------|----------------|-----------------|-----------|
| Shipman Head & Down (Bryher) | Shipman Head (not listed for seabird interest features) | Listed for birds as part of SPA seabird assemblage     | 7spp. 13LB<br>16HG <b>39MX</b> | 103  | 59   | 98       | Up 66% (MX and SH)  | Rats present    | Y              | Easy            | <b>MX</b> |
| Peninnis (St. Mary's)        | Peninnis (not listed for seabird interest features)     | Not listed for birds as part of SPA seabird assemblage | 1spp. <b>8MX</b>               | 0    | 0    | 8        | New colony MX       | Rats present    | Y              | Easy            | <b>MX</b> |

## Appendix 7

### Breeding seabirds in the Isles of Scilly SPA 2015/16

Table 41 summarises change of the seabird assemblage within the Isles of Scilly Special Protection Area (SPA) since the baseline survey in 1999/2000. Although the majority of SSSIs are included in the SPA designated area, Wingletang Down (St Agnes), Peninnis Head (St Mary's), Rushy Bay & Heathy Hill (Bryher) and Mincarlo (part of Norrard Rocks), all of which supported seabirds in 2015, are not (see Table 39). This gives a total of 609 pairs of seabird breeding outside of the SPA of which 269 pairs are outside of the SSSIs.

**Table 41 Breeding seabirds in the SPA in 2015/16 and change since classification**

| <b>SPA Feature (bold) /</b><br>Species | <b>Breeding</b><br>pairs<br>2015/16 | <b>Breeding</b><br>pairs 2006 | <b>Breeding</b><br>pairs 2000 | <b>% change since</b><br><b>classification baseline</b><br><b>(2000 figures) and</b><br><b>2015/16</b> |
|----------------------------------------|-------------------------------------|-------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>European storm petrel</b>           | <b>1309</b>                         | <b>1378</b>                   | <b>1458</b>                   | <b>10.2% decline</b>                                                                                   |
| <b>Lesser black-backed gull</b>        | <b>2461</b>                         | <b>3326</b>                   | <b>3604</b>                   | <b>31.7% decline</b>                                                                                   |
| <b>Seabird assemblage</b>              | <b>7657</b>                         | <b>8742</b>                   | <b>8962</b>                   | <b>14.6% decline.</b>                                                                                  |
| Fulmar                                 | 262                                 | 250                           | 168                           | 56% increase                                                                                           |
| Manx shearwater                        | 500                                 | 163                           | 196                           | 155.1% increase                                                                                        |
| Great cormorant                        | 53                                  | 32                            | 31                            | 71% increase                                                                                           |
| European shag                          | 956                                 | 1193                          | 1025                          | 6.7% decline                                                                                           |
| Herring gull                           | 456                                 | 653                           | 846                           | 46.1% decline                                                                                          |
| Great black-backed gull                | 908                                 | 835                           | 743                           | 22.2% increase                                                                                         |
| Black-legged kittiwake                 | 0                                   | 266                           | 281                           | 100% decline                                                                                           |
| Common tern                            | 12                                  | 78                            | 75                            | 84% decline                                                                                            |
| Sandwich tern                          | 0                                   | 1                             | 0                             | 0                                                                                                      |
| Roseate tern                           | 0                                   | 0                             | 0                             | 0                                                                                                      |
| Arctic tern                            | 0                                   | 0                             | 0                             | 0                                                                                                      |
| Common guillemot                       | 271                                 | 155                           | 195                           | 39% increase                                                                                           |
| Razorbill                              | 353                                 | 276                           | 226                           | 56.2% increase                                                                                         |
| Atlantic puffin                        | 116                                 | 136                           | 114                           | 1.8% increase                                                                                          |

*The status of seabirds breeding in the Isles of Scilly 2015/16*

Declines in the overall population of the seabird assemblage and of the two SPA notified features (European storm petrel and lesser black-backed gull) are greater inside the SPA than across the islands as a whole. There may be some movement of birds in and out of the SPA; however, all species are showing similar trends.

Four species of seabirds have declined by more than 20% within the SPA since the baseline in 1999/2000: lesser black-backed gull (-31.7%), storm petrel (-10.2%) (both features), loss of kittiwake (-100%), common tern (-84%) and herring gull (-46.1%).