

Appendix 1

Minutes of the SMP Review Working Group meetings

SEABIRD MONITORING PROGRAMME

REVIEW WORKING GROUP

MEETING 1: 20 JANUARY 2003, ABERDEEN (SNH OFFICE)

DRAFT MINUTES

Attendees:

Ian Mitchell (IM) (Chair), JNCC

Matt Parsons (MP), JNCC

Helen Baker (HB), JNCC

Catherine Gray (CG), CCW (representing IAOWG)

Norman Ratcliffe (NR), RSPB

Chris Wernham (CW), BTO

Mike Harris (MH), CEH (on behalf of Sarah Wanless)

1. Apologies were received from Jim Reid (JNCC) and Sarah Wanless (CEH).
2. Terms of reference were not detailed or agreed, but are appended to these minutes. In brief, the output of the review will be a paper detailing recommendations on the development of the SMP for consideration by the Joint Committee in June 2004, with implementation of any agreed changes in FY 2005/6.
3. **SMP after 16 years – what has been achieved and why the review (JNCC Paper 1; appended)**
 - 3.1. Discussion of the first period of the programme identified a number of considerations:
 - Not all of the initial aims may have been met for a variety of reasons, but principally logistical difficulties in monitoring seabirds, and a full review would be valuable. In particular the degree to which SMP is representative of GB/UK is a key issue.
 - Not all of the initial drivers of the programme may still be relevant or there may be new drivers to consider, hence, a review of current needs would be needed.
 - The uses of seabird data are varied and, while requests are readily serviced and audited, it is not always clear how data are being used and the degree to which publications have been based on SMP data. Development of a database of publications would be worthwhile to aid in gaining a better understanding of data needs.

- The publication of SMP data by JNCC, in the form of the annual report, has been very successful and as a format should continue.
- Using SMP data to assess impacts of pollution events or fisheries has been of value at local scale, but been of limited value at the population level.
- Not all SMP data have been analysed and published, mainly because the number of samples is often too small. Re-evaluation of collection of some of the SMP data is required.
- The value of SMP data as an indicator of the marine environment hasn't been fully explored, but with increased interest from the government in these kinds of indicators, it may be worthwhile revisiting the suitability of SMP for developing a seabird indicator.

4. SMP – the next 15 years: what do we want to achieve and how do we do it? (JNCC Paper 2; appended)

- 4.1. All agreed that a full review of legislative and policy drivers for seabird data would be essential in informing the development of SMP. Many developments have taken place in the last 16 years, for example the UK has moved from a period focused on SPA designation to one where the regular monitoring of these is now a priority, and the UK has become a signatory to the 1992 OSPAR Convention.

Action Point 1/1: HB to produce a brief paper on legislative and policy drivers influencing the monitoring of seabirds in the UK.

- 4.2. The aim of the SMP was discussed and it was agreed that it needs revision, in particular clarifying the role of breeding performance and adding population status.

Action Point 1/2: MP to draft a new statement of aim of the SMP and circulate for agreement by the group.

- 4.3. Species coverage and periodicity of surveys were discussed. There is a statutory requirement to have some monitoring data on all species. While there will be a need to have monitoring of qualifying species in SPAs at a minimum of once every six years, the driver for timing of national surveys is unclear. It was agreed that the relationship between coverage in SPAs and national populations be further investigated. If possible the future monitoring of SPAs should significantly contribute to national population assessments. The scope for synchronous monitoring of breeding seabird SPAs should be discussed with the relevant agency staff – this could provide national estimates when coupled with any necessary gap filling. However, not all species are included in SPAs, e.g. black guillemot, and so national surveys would remain necessary.

Action Point 1/3: MP to draw up an integrated monitoring framework for seabirds to inform further discussions about data needs and timing of surveys.

Action Point 1/4: MP/IM to assess for all relevant species how representative of national populations the proportions in the SPA network are.

Action Point 1/5: HB to raise issue of feasibility of synchronous SPA monitoring with the IAOWG and other relevant agency staff.

- 4.4. Few data are collected on survivorship and diet, but this is restricted to the four key sites. Analyses of national ringing data are not funded within SMP. Data are also collected on productivity and analysed within the SMP. NR and CW are doing an in-house analysis of survivorship that may be completed in summer 2003, and they agreed to circulate this to the group as soon as it is ready. All agreed that productivity was a valuable parameter to assess and can give a good indication of recruitment, but that there may be advantages in collecting other information for some species.

Action Point 1/6: JNCC to review analyses of productivity, diet and survivorship data from the four key sites to inform the group on the value of collecting these kinds of data.

- 4.5. The sample plot approach has proved successful as a standardised approach for assessing annual changes within individual colonies and across regions. However, over time the chosen plots may not remain representative of the colony. Research on this issue is currently being done (by Michelle Sims at Macaulay Institute). An alternative method may be to make whole colony counts once per annum, but this fails to take account of changes in detection through the season. In addition, the analysis of trends is more challenging if sampling methods change. Methods used in the SMP are more flexible than those recommended in the Seabird Monitoring Handbook (SMH) so as to be pragmatic, but data quality is assessed before being used. While there is a need to review guidance on sampling methods for some species, notably petrels, it is a low priority to improve sampling guidance in the SMH.
- 4.6. Completion of Seabird 2000 will allow assessment of whether SMP data can generate national population estimates, and if not where the significant gaps in coverage are. Regionalisation of results has proved popular, although the most significant regions from a statutory perspective are the individual countries. There is no clear ecological rationale for regionalisation of results, although understanding distributional shifts may be valuable (especially in relation to climate change assessment), but there may be some practical reasons where this may be beneficial (such as devolved needs). Reviews of both data adequacy in each region and the representativeness of individual colonies used for each regional assessment are needed.

Action Point 1/7: JNCC to review both data adequacy in each region and the representativeness of individual colonies used for each regional assessment.

- 4.7. Within SMP the frequency of coverage of some sites is not as high as desired and additional funds would be required to enhance this, thus giving better geographical coverage. Need to balance this against volunteer input, but financial support of the Seabird Group is not a viable option. There is also a need to assess which parameters would benefit from increased frequency of data collection at a species-specific level.
- 4.8. Data storage, analysis and publication require review, but this is a potentially sensitive issue as not all data are owned by JNCC. There was general agreement that data should be more

accessible, including publishing via the internet – this is compatible with the approach to the Seabird 2000 data. However, this will require dialogue with other stakeholders and also with NBN representatives. Improvements to the spatial referencing of data are required with enhanced use of GIS for storage and analysis. As a preliminary stage, JNCC will audit current approaches to handling data. All agreed that an assessment of new analytical methods is needed, as is analysis of some data previously not fully explored, and that this can lead to new evaluations of field and analytical methods currently in use. The need for developing indices needs to be informed by Government policy, but some members of the group considered it to be of low priority. However, care would be needed to ensure that indices were ecologically valid.

Action Point 1/8: JNCC to initiate discussions with stakeholders and NBN over publication of data over the internet.

Action Point 1/9: JNCC to audit current forms of data storage and handling within the SMP.

4.9. Improvements in the dissemination of information are possible (see discussions above in relation to data handling) – but an assessment of stakeholder needs would be valuable. More scientific publications of SMP analyses should be an aim. The group agreed that publication of the hard copy report should be maintained.

5. AOB – none.

6. Date of next meeting – autumn 2003, to be agreed.

Helen Baker, JNCC

March 2003

SEABIRD MONITORING PROGRAMME

REVIEW WORKING GROUP

MEETING 2: 1 JUNE 2006, ABERDEEN (SNH OFFICE)

Attendees:

Jim Reid (JR), JNCC (Chair)

Ian Mitchell (IM), JNCC

Matt Parsons (MP), JNCC

Helen Baker (HB), JNCC

Catherine Gray (CG), CCW (representing Inter Agency Ornithology Working Group - IAOWG)

Chris Wernham (CW), BTO

Sarah Wanless (SW), CEH

Papers:

- 2.1 SMP Review: Progress Report 2006 (Powerpoint presentation – IM & MP)
- 2.2 SMP Monitoring Fracommonork (MP)
- 2.3 Synchronising CSM¹ of breeding seabird features within and between Country Agencies (IM).

1. Introductions and Apologies.

Apologies for absence were received from Norman Ratcliffe (RSPB). JR welcomed all, especially Chris Wernham to her first meeting of the group.

2. Minutes of last meeting.

The minutes of the first meeting of the Review Group (20 January 2003) were circulated.

Re 4.4. CW clarified that the report on survivorship was being led by RSPB and was a review of available information to date and the potential analyses that could be performed on them. The report was, as far as was known, unfinished. **Action point 2.1: NR to update the group on progress with the report and, when appropriate, circulate to the Review Group.**

JR reported that BTO and JNCC had met to discuss ways in which the BTO ringing scheme could be used to enhance our understanding of survivorship of seabirds. One outcome of that meeting was that the issue is on the agenda of the BTO Ringing Committee.

Re 4.8 last two sentences, it was pointed out that references to 'indices' should have read 'indicators'.

Re Action Point 1.1 (i.e. HB to produce a brief paper on legislative and policy drivers influencing the monitoring of seabirds in the UK). A paper is yet to be finalised; taken forward as **Action point 2.2: HB/JR/IM to finalise paper on policy drivers, in light of recent policy developments.**

¹ Common Standards Monitoring

Re. Action Point 1.2 (i.e. MP to draft a new statement of aim of the SMP and circulate for agreement by the group). MP circulated a redrafted SMP aim around the group prior to the meeting. Notes on the discussion of the aim are in item 3.1 below.

Re. Action Point 1.3. (i.e. MP to draw up an integrated monitoring framework for seabirds to inform further discussions about data needs and timing of surveys). MP produced a 'monitoring framework' for the SMP i.e. a species by species summary of what data is collected and from where; this was presented as Paper 2.2 (see item 3.2 below).

Re. Action Point 1.4 (i.e. MP/IM to assess for all relevant species how representative of national populations the proportions in the SPA network are). IM determined the proportion of the total population of each species in Scotland present in Scottish SPAs in order to demonstrate the role that common standards monitoring (CSM) could play in updating national population estimates for some species (see Paper 2.1).

Re. Action Point 1.5 (i.e. HB to raise issue of feasibility of synchronous SPA monitoring with the IAOWG and other relevant agency staff). HB raised this issue and received a positive response. IM presented a paper to IAOWG in March 2006 outlining how such seabird related CSM activities might be synchronised (a summary of the proposals is given in Paper 2.1). IM is to discuss these proposals further with Andy Douse (SNH) before presenting a more detailed version to IAOWG in September 2006.

Re. Action Point 1.6 (i.e. JNCC to review analyses of productivity, diet and survivorship data from the four key sites to inform the group on the value of collecting these kinds of data). No progress has been made on this, so carry forward as **Action Point 2.3: MP/IM to review analyses of productivity, diet and survivorship data from the four key sites to inform the review of the value of collecting such data.**

Re. Action Point 1.7 (i.e. JNCC to review both data adequacy in each region and the representativeness of individual colonies used for each regional assessment). JNCC, with RSPB and Biological Statistics for Scotland (BioSS) recently conducted analyses on SMP abundance data in Scotland (as part of a contract with SNH to develop a seabird indicator for the Scottish Biodiversity Strategy). They determined how representative the trends at individual colonies were of overall regional and national trends as determined from complete censuses. The results are summarised in Paper 2.1 and discussed in section 3.5.

Re Action Point 1.8 (i.e. JNCC to initiate discussions with stakeholders and NBN over publication of data over the internet). This item was raised at the SMP Liaison Group meeting in November 2005 (in relation to the Environmental Information Regulations), where concerns were raised, though no firm conclusion on the way forward was reached. Taken forward as **New Action point 2.4: MP to progress discussions with stakeholders and NBN over web publication of data at 2006 SMP Liaison Group meeting.**

Re Action point 1.9 (i.e. JNCC to audit current forms of data storage and handling within the SMP). JNCC conducted an internal audit of how the various SMP data are stored. Major inadequacies were identified and JNCC is currently working towards addressing them (more details are given under item 3.6 below).

Re Action point 1.10, (i.e. Development of a database of publications and uses of SMP data). It was agreed that this would be a valuable resource to demonstrate the uses of SMP data in current cutting-edge research, and should be used to demonstrate the importance of the SMP and a way of encouraging development of the SMP. Taken forward as **New Action Point 2.5: MP/RM/IM to assemble, for the conclusion of the Review, a catalogue of uses and publications that have used SMP data.**

3. Progress report on SMP review

IM and MP gave a Powerpoint presentation (Paper 2.1) charting the progress under seven key headings (3.1-3.7, below), organising discussion of each around three topics: main issues; actions taken/conclusions; further actions required/further questions.

Has SMP achieved its aims? Are they relevant to the next 15 years?

IM presented the revised aim of the SMP, which resulted from discussions during the first steering group meeting, namely:

‘To ensure that sufficient data on breeding numbers of seabirds are collected- both regionally and nationally - to enable their population and conservation status to be assessed , and to ensure that sufficient data on breeding performance and survival is collected to help to investigate the factors responsible for population changes’.

Much discussion ensued, and the following amendment was proposed, which frames the aim in a wider context:

‘To contribute information to enable the appropriate agencies to maintain favourable status of seabird populations in the UK and the Republic of Ireland. It ensures that sufficient data on breeding numbers of seabirds are collected- both regionally and nationally - to enable their population and conservation status to be assessed, and to ensure that sufficient data on appropriate demographic parameters - such as breeding performance and survival - are collected to help to investigate the factors responsible for population changes’.

The geographical scope of the SMP was queried, with respect to Republic of Ireland. It was agreed that data from the Republic should be collated to place those from Northern Ireland and the rest of the UK in context. Representation of bodies from Ireland on the SMP liaison group was thought to be inadequate at present. **Action point 2.6: MP to seek involvement and representation on the SMP Liaison Group of Birdwatch Ireland, Duchas (Republic of Ireland) and Environment and Heritage Service, Northern Ireland.**

Which species should be monitored and how often?

MP presented this topic with reference to Paper 2.2: SMP Monitoring Fracommonork; and Paper 2.3: Synchronising CSM² of breeding seabird features within and between Country Agencies.

Paper 2.2 set out, for each seabird species, what demographic and other parameters were currently monitored under the SMP and the number of sites at which each was monitored. It also listed which species had been part of a recent modelling analysis that JNCC (with BioSS & RSPB) had been contracted by SNH to undertake as part of an indicator for the Scottish Biodiversity Strategy. It was concluded that annual indices of abundance could be calculated for 13 of the 25 seabirds species breeding in Scotland using the SMP sample, but that further analysis was required to see if indices could be produced for the *Larus* gulls, black guillemot and puffin, the numbers of which are less intensely monitored. Similar analyses are planned for UK, England, Wales and N Ireland (funding permitting).

From the analysis of the Scotland trends, information about the required frequency of sampling was obtained. It was concluded that while annual monitoring would produce trends with the smallest confidence intervals, the Bayesian modelling approach using the SMP sample could adequately predict counts in missing years, though confidence intervals for modelled regional or national trends became wider in years more distant from complete censuses.

With reference to Paper 2.3, IM had taken the proposal of synchronising Common Standards Monitoring of seabird populations within and between country agencies to the March 2006

² Common Standards Monitoring

meeting of the Inter Agency Ornithological Working Group (IAOWG), following up HB's earlier proposal to that group. The proposal was greeted favourably by IAOWG, but it was recognised that since most of the UK's seabirds are in Scotland, IM should first explore the logistic implications of his plan with SNH before presenting a more detailed proposal at the September 2006 IAOWG. HB did not think there would be a conflict of interest between the CSM priority of determining the condition of a listed seabird feature and providing robust seabird data for the SMP, although scrutiny of methods would be required to ensure that agency staff followed the standard methods of the SMP. **Action point 2.7: IM to liaise with SNH and then present a more detailed proposal on seabird CSM to IAOWG in September 2006.**

There was a brief discussion about how the number of contributors to the SMP might be increased. A concerted effort was required by JNCC to engage individuals and organisations who may already be collecting data but are not submitting it to the SMP – CW suggested that BTO's Birdtrack might be useful and SW suggested incorporating more universities. There is also a need to liaise with the co-ordinators of the next Atlas of Breeding Birds in Britain and Ireland – the Atlas may wish to incorporate coastal data from the SMP and in return the SMP would benefit from counts from inland colonies of terns, gulls and cormorants.

What parameters should be monitored?

IM presented this topic, covering sections on breeding success, adult survival, phenology, diet and predation.

Breeding success

It was suggested that one reason why breeding success should be monitored is that it is a 'valuable indicator of recruitment' but the group agreed that it would be better to say 'potential recruitment into the breeding population' because evidence suggested that there was in fact no clear relationship between breeding success and future breeding population size. Instead, it was suggested that breeding success was a better indicator of local feeding conditions.

IM reported that analyses of the SMP breeding success data are proposed as part of a project to develop the existing DEFRA seabird indicators for UK and England, for which funding is being sought through a joint bid from JNCC, RSPB and BTO. This should establish if national and regional patterns in breeding success can be discerned from the SMP sample.

Survival

The importance of obtaining good estimates of survival rate was reiterated, and it was recommended that, as **Action point 2.8, the review currently being led by RSPB be concluded as soon as possible and the conclusions/recommendation be acted upon by the SMP Review Group to feed into the final report of the Review.**

The group was reminded that survival estimates were currently obtained only from three sites within the SMP (Skomer, Isle of May and Fair Isle), and it was asked if gaining survival estimates from the Key Site of Canna (or other sites) would be feasible or desirable, and if the number of species monitored for survival could be increased on Fair Isle. It was recommended that the methods of survival data collection and analyses at the Key Sites be reviewed, in the light of the conclusions of the RSPB study and other information. **Action point 2.9: MP/IM to review survival monitoring and analysis at Key Sites.**

Phenology

It was recognised that information on changes in the timing of breeding was an important indicator of the effects of climate change, but also that this is currently measured at a very few sites. It was agreed that there is potential to obtain proximal measurements from ringing data, such as wing length measurements of chicks on a known date, or simply from the timing of ringing of seabird chicks (given that these tend to be ringed within a rather narrow time

frame). **Action point 2.10: It was agreed that a scoping study should be undertaken to be incorporated into the final report of the SMP Review. This would address what is currently measured at Key Sites and the potential to improve estimates there (IM/MP), the potential of the ringing scheme to provide data (CW), and the potential of the Nest Record Scheme (HB) to provide data.**

Diet

It was agreed that diet studies provide an important indication of food availability of seabirds, which was especially pertinent given the observed changes in sandeel availability in the North Sea in recent years. Relatively few quantitative studies exist, however, but there has been a recent drive (organised by the CEH seabird team and others) to promote more studies of guillemot diet (prey species, size and provisioning rate) using a relatively low-input method. The method is being trialled during the 2006 season. **Action 2.11: SW/MP/NR to report to Group on the 2006 trial of guillemot diet studies.**

Predation

It was reported that most information gathered on predation under the SMP was anecdotal (with notable exceptions), but that further efforts to provide quantitative data were probably not worth pursuing. However, it was agreed that observations on specific predation events could be useful to help explain particularly productive or unproductive seasons, for example, at a particular location. The same is true of freak weather events, and these should also be recorded. **Action 2.12: MP to ensure that new SMP (on-line) recording forms allow predation, weather events, and diet observations to be recorded.**

Are current monitoring methods effective?

Plot counts

IM explained that an important step forward in our understanding of how plot counts for guillemots should be undertaken to gain optimal power to detect change was provided by Sims *et al.* (2006; *J. Appl. Ecol.* 43; 537-546). Two of the main conclusions of that study were that it is not necessary to count all plots at a given colony on the same day if poor weather prevents a round being completed (this has been responsible for much wasted data), and that maximum power is obtained if the number of plots is maximised rather than the number of visits.

Petrel census/monitoring methods

IM explained that while the tape playback is the recommended method to census the number of breeding petrels (rather than, for example, mark-recapture), further development is required to increase the precision of the method and its ability to detect trends. One key question remaining is why do some birds respond to a tape and others not? **Action 2.13: IM to liaise with KG, NR and other SMP partners in order to plan future investigative work into petrel response at colonies such Skokholm, Mousa (both European storm-petrel) and St Kilda (Leach's storm-petrel).**

Seabird Monitoring Handbook

It was agreed that an update to the Handbook would be required, to incorporate such items as petrel monitoring methods, plot counts, estimating survival rate, diet, etc., but we are not currently in a position to do this, because some of these methods (e.g. petrel tape play-back) require development before they can be fully recommended. The proposal for on-line publishing of the Handbook and revisions to it was welcomed. **Action point 2.14: MP/IM to facilitate getting the Monitoring Handbook (and any revisions to it) available on-line.**

Does the SMP accurately represent trends across the UK?

Trends in abundance

MP presented the results of an analysis of SMP abundance data for 13 seabird species, using Bayesian modelling (conducted by BioSS), which JNCC/RSPB was contracted by SNH to undertake as part of the development of seabird indicators for the Scottish Biodiversity Strategy. The results showed that the traditional method of presenting trends, using a chaining index, over-estimated population size for gannet, guillemot and razorbill, probably because annual monitoring of these species is biased towards small colonies, which show greater *per capita* rates of population change than large colonies. The modelled trends for most species closely agreed with the change revealed by the complete censuses in the mid 1980s and 1998-2002. However, the method was not suitable for terns and cormorant, which show very marked year to year variation in colony size; alternative methods of calculating trends are required for these species. Another conclusion of the modelling analysis was that it did not detect significant regional differences in trend (i.e. within Scotland), except for kittiwakes in Shetland and for great skuas.

MP explained that similar analyses should be applied at the UK and country level, and that funding bids had been submitted to do this. **Action point 2.15: MP/IM to pursue the funding bid already submitted to DEFRA as part of its delivery of biological indicators.**

Trends in breeding success

Methods for calculating and presenting trends in breeding success have not yet been addressed as part of the SMP or the review, though proposals to DEFRA for the development of seabird population indicators (AP 2.15) have included work on this.

IM reminded the group of the paper by Frederiksen *et al.* (Mar. Ecol. Prog. Ser. 300:201-211 2005), which looked at geographical variation in trends of black-legged kittiwake breeding success using SMP data and found that, in general, colonies in the regional groupings used in the SMP showed similar trends. It was suggested that similar analyses could usefully be conducted on other suitable species data from the SMP.

Are data stored appropriately?

IM summarised the current methods of storage of SMP data: a) SCR Paradox database of colony counts 1969-1998; b) Seabird 2000 Access database of colony counts 1998-2002; c) Excel spreadsheets of colony counts 1998 – 2005 and of plot counts 1985-2005 and fledging rates 1985-2005; and d) paper records of raw productivity data (not electronically captured). The conclusion was that data were not stored in a satisfactory way, so JNCC is currently progressing the integration of databases of whole colony counts (target: March 2007). Furthermore, in 2005 JNCC trialled on-line submission of whole colony counts, which will be rolled out more widely for the end of the 2006 breeding season; the intention is that electronic submission of data will make the collation and reporting of data more efficient. The storage, analysis and reporting of breeding success data are seen to be particularly deficient; remedying this will be one recommendation of the Review.

A 'digital spatial catalogue' of count sites is currently being established for England and Northern Ireland (funded by EN and EHS, respectively; target for completion September 2006). This involves the digitisation of count sections so that, for example, geographic searches using a GIS polygon (e.g. of an SSSI or SPA) can be made of the Seabird 2000 and SCR databases. In addition, this work will seek to align the count sections used over the years. Funding is being sought by JNCC to digitise Scottish and Welsh sites.

Is information disseminated appropriately?

IM summarised the key issues that were established at the start of the Review:

- Annual report should remain
- Need to disseminate annual summary of SMP results to a wider audience e.g. policy makers

- Need to develop an online presence
- Improve trend analyses of count and productivity data
- Development of seabird indicators –DEFRA (UK), Scottish Executive, Europe (Convention on Biological Diversity - SEBI2010)

The following progress has been made on the above:

- Annual report - improvements to format made in 2003;
- Leaflet – ‘UK Seabird numbers and breeding success’ introduced in 2004 and continued in 2005;
- JNCC/RSPB/BioSS developed a Seabird indicator for the Scottish Executive (contributed to improved trend analysis of seabird numbers in Scotland).

Regarding the development of an online presence for the SMP, there was general agreement that this was worthwhile, although concerns about data security and uncontrolled access to data were raised; these concerns will be addressed at the 2006 SMP Liaison Group meeting (see AP 2.3).

The following targets for JNCC’s work programme were summarised:

- S2000 & SCR data available for download by administrative area March 2007
- Spatial querying of data 2008/2009
- Key site updates from 2006 onwards

In relation to the last point MP outlined a proposal to move away from paper publishing of Key Sites and other sites reports to online presentation of summary statistic and trends, which would increase the profile of these data and enable it to be available far sooner than paper reports. **Action point 2.16: MP to consult the SMP Liaison Group over the proposal for online presentation of Key Sites data.**

The potential for the SMP annual report to incorporate the modelled trends from the Scotland analysis (see item 3.5.1) was discussed. It was hoped that, funding permitting, modelled trends in breeding numbers could replace (or perhaps sit alongside, for comparison and continuity with past years) trends from chain indices for the 2007 report, though it remained to be seen if this could be done for the 2006 report also.

4. Agree future action and timetable

It was decided that a report detailing the work, conclusions and recommendations of the Review be drafted for presentation to the SMP Liaison Group at its November 2006 meeting. Following feedback from this group, the final report would be completed by December 2006 for submission to the country agencies Chief Scientist’s Group.

5. Any other business

None was raised, though CW expressed her thanks to those working on the review for the good progress that had been made.

JR thanked all and the meeting ended at approximately 1600.