

<p>UK SPA & RAMSAR (AVIAN) SCIENTIFIC WORKING GROUP</p> <p>PROGRESS REPORT</p> <p>NOVEMBER 2011 – NOVEMBER 2017</p>
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SUMMARY

1. The UK SPA & Ramsar (Avian) Scientific Working Group (SPAR SWG) was established following the publication of the second SPA network Review in 2001 to assist government in further development of the UK SPA and Ramsar Site networks. It has made major progress in providing the scientific rationale needed to support development of these networks, and has recently completed a third review of the UK SPA network.
2. This is the 9th SPAR SWG report. It includes all activities from November 2011 to November 2017, during which the SPAR SWG met on 13 occasions.
3. The main achievements were:
 - Completion of Phase 1 of the third Review of the UK SPA network, its submission to Ministers in October 2016 and publication. Phase 1 comprised an assessment of sufficiency for all relevant species, 151 of which were documented in detail.
 - Completion of Phase 2 of the third network Review and submission to the Executive Steering Group (ESG) in October 2017. Phase 2 comprised advice and recommendations as to how identified insufficiencies might be addressed for consideration by relevant administrations and their agencies as Phase 3¹.
 - Continued advice on work related to SPA provision in the marine environment, including field survey, data analysis and reporting on possible SPA boundary options.
 - Continuing advice to government on issues within the remit of the group regarding the SPA and Ramsar Site networks as required.
 - Agreement on revised Terms of Reference and a work programme for the SPAR SWG for the period from 2017 to 2021.

¹ Considered as part of Phase 2 in Scotland

INTRODUCTION

4. The SWG is a consultative group that was established in November 2001, by the Department for Environment, Food and Rural Affairs (Defra) and the devolved Government administrations. It exists to assist these administrations and the statutory nature conservation agencies in further developing the SPA and Ramsar (Avian) networks in both the terrestrial and marine environments, including advising on UK-scale scientific and technical issues regarding these networks, advising on and promoting the coherent management of these networks, and monitoring of sites.
5. Formal Terms of Reference were established at the inauguration of the SWG (see 2001-2002 Annual Report, page 12)² and revised in 2004 (see Appendix 1 of 2004 Annual Report)³. Most recent Terms of Reference (November 2017) are given at Appendix 1.
6. The broad elements of SWG's work plan for the period of this report were established in 2001 (see Terms of Reference at Appendix 1) and with the detail then subject to rolling-update. The work plan for the period 2017-2019 is given at in Appendix 2.
7. The SWG comprises representatives from UK Government departments, devolved Government administrations and their statutory nature conservation agencies across the UK, the Joint Nature Conservation Committee (JNCC), and scientists from the voluntary conservation sector and other stakeholder groups, such as land-owners and managers, the water industry, marine and business sectors. The list of member organisations is:

Government Administrations	<ul style="list-style-type: none">• Department for Environment, Food and Rural Affairs• Scottish Government• Department for Agriculture, Environment and Rural Affairs, Northern Ireland• Welsh Government
Statutory nature conservation agencies	<ul style="list-style-type: none">• Countryside Council for Wales/Natural Resources Wales• Joint Nature Conservation Committee• Natural England• Northern Ireland Environment Agency• Scottish Natural Heritage
Other organisations	<ul style="list-style-type: none">• ABP Research & Consultancy Ltd./Marine Environmental Research Ltd.• Country Land & Business Association <i>[also acting on behalf of Country Land & Business Association in Wales and the</i>

² via <http://www.jncc.gov.uk/PDF/ar2001-2002.pdf>

³ see http://jncc.defra.gov.uk/pdf/2004_Annual_Report_approved_version.pdf

Scottish Rural Property and Business Association]

- Forestry Commission GB
 - National Farmers Union [*also acting on behalf of Undeb Amaethwyr Cymru/Farmer's Union of Wales and National Farmers Union Scotland*]
 - National Federation of Fishermen's Organisations (corresponding member)
 - Royal Society for the Protection of Birds (and on behalf of Wildlife & Countryside Link)
 - Scottish Environment Link
 - UK Offshore Operators Association
 - Water UK
 - Wildfowl & Wetlands Trust
8. Representatives of these organisations in the period of this report are listed at Appendix 3a with current representation listed in Appendix 3b.
9. The SWG has an independent Chair appointed by Defra.
10. The SWG sits within a network of fora for the consideration of Natura 2000 issues in the UK, namely bilateral discussions between NGOs, devolved Government administrations and the statutory nature conservation agencies and their associated fora.
11. The SWG provides advice and recommendations to the UK government administrations (latterly the SPA Review Executive Steering Group) and the UK Marine Biodiversity Policy Steering Group (MBPSG), as well as acting on issues identified by them.
12. The SWG typically meets three times per year. JNCC provides the Secretariat and hosts the group's website⁴ where approved minutes of meetings, annual reports, published outputs and finalised briefings are published.
13. The Terms of Reference include the production of an annual progress report which summarise issues considered by the SWG; makes recommendations to and seeks guidance from UK government administrations and/or the UK MBPSG; and outlines the main components of the future work programme.

⁴ see <http://www.jncc.gov.uk/page-1770>

PROGRESS MADE DURING NOVEMBER 2011 – NOVEMBER 2017

Meetings, Reporting and Membership

13. The SWG met on 13 occasions during the period:
- in 2012 on 9 May and 20 September;
 - in 2013 on 5 February, 23 May and 12 November;
 - in 2014 on 23 June and 1 October (by teleconference);
 - in 2015 on 17 February and 3 November;
 - in 2016 on 1 February and 22 June; and
 - in 2017 on 10 May and 23 November.
14. Approved minutes of meetings and associated papers were uploaded onto the UK SWG website⁴.
15. The membership list for the SWG (Appendix 3) was updated.
16. During this period, the main work of the group was focussed on undertaking the substantial third Review of the UK SPA network and the production and publication of documentation.
17. In June 2016, Ian Bainbridge stood down as Chair of the Group since its inception in 2001. At that meeting, the Group thanked Ian for his very considerable inputs in effectively developing work of the Group over 15 years, and for steering it through some 40 meetings. In 2017, following consultation, Defra appointed Chris Spray to Chair the SWG and he commenced this role from the November 2017 meeting.

Third review of the UK SPA Review

18. The main item progressed by the SWG was completion of Phases 1 and 2 of the third Review of the UK SPA Network (SPA Review) (Appendices 4 and 6 respectively). This involved undertaking a full review of all elements of the current UK network of terrestrial and coastal Special Protection Areas (SPAs) to ensure that UK obligations under Article 4 of the EU Birds Directive are met.
19. The geographical scope of the third Review was limited to the terrestrial and coastal environments of the UK, with Gibraltar having been invited to undertake its own review along similar lines. SPA provision within the marine environment has continued to be examined through a separate programme of work⁵, although an overview of the whole network is anticipated in due course. The five main issues that the SPA Review especially addressed were:
- species that the second SPA Review (2001) stated would be reviewed in light of the lack of data at the time of that review;
 - scarce species for which periodic national surveys have been undertaken since the second SPA Review;
 - inclusion of cropped habitats within the SPA network for relevant species;

⁵ see <http://www.jncc.gov.uk/page-1414>

- consideration of all Annex I species consequential to the 2007 ECJ Judgment of the EC Commission v Ireland Case (C-418/04) (Irish ECJ-judgment);⁶
 - updating data and information on SPA suites for all qualifying species and undertaking assessments of sufficiency according to a defined methodology.
20. The third SPA Review was divided into three phases. Phase 1 was largely science-based and was the focus of SWG activity during the reporting period in their role as the Technical Advisory Group for the review. Phase 2 involved the consideration and application of principles and guidelines established during Phase 1, whilst Phase 3 will involve necessary action and revision of relevant documentation.
21. We do not repeat here the extensive information within the published Phase 1⁷ and 2 outputs, rather summarise key issues.

Phase 1

22. **Development of methodology – Site Provision Index.** A key element of the work for Phase 1 was the development of an approach to assess sufficiency of SPA provision for relevant bird species – which have a wide variety of different ecologies and distribution patterns. A Site Provision Index (SPI) was developed which summarises ecological information in a succinct way that makes it more accessible to decision makers and thus aids assessment of sufficiency of a protected area network for particular species of birds based on objective and scientific approaches.
23. A paper was drafted by the SWG and subjected to peer-review prior to publication. In addition to background information on the SPI, this paper explained the index development, testing and results, and discussed the choice of index elements and interpretation of index values. It was published in *Bird Study* in 2016⁸.
24. **Decision Framework.** As noted in the eighth Progress Report, the SWG developed a Decision Framework to aid the consistent review of SPA suites. This approach was subjected to independent peer-review and issues raised were incorporated into the final Framework adopted. The Framework was published in the Phase 1 report.
25. **Incomplete implementation of the second Review.** The Phase 1 report noted that:
 “The starting point for the audit of the SPA network and assessments of sufficiency were, for each species and/or population, the SPA suites agreed and published by JNCC’s second SPA network Review. Although many of the relevant classifications have yet to occur, it is envisaged that these will occur in the next

⁶ see [ECJ Judgment C-418/04](#)

⁷ Stroud, D.A., Bainbridge, I.P., Maddock, A., Anthony, S., Baker, H., Buxton, N., Chambers, D., Enlander, I., Hearn, R.D., Jennings, K.R., Mavor, R., Whitehead, S. & Wilson, J.D. - on behalf of the UK SPA & Ramsar Scientific Working Group (eds.) 2016. *The status of UK SPAs in the 2000s: the Third Network Review*. 1,100 pp. JNCC, Peterborough. <http://jncc.defra.gov.uk/page-7309>

⁸ Williams, G., Stroud, D.A., Hirons, G.J.M. & Wilson, J.D. on behalf of the UK SPA and Ramsar Scientific Working Group 2016. Developing a quantitative index as a pragmatic aid to assessing implementation of European Union Birds Directive site protection measures for individual species. *Bird Study* 63: 447-458. <http://dx.doi.org/10.1080/00063657.2016.1211089> .

stages of this third Review, since their implementation is integral to the sufficiency conclusions reached.

Unimplemented recommendations made by Joint Committee following the second Review have been incorporated with the advice provided by Phase 2 of the third Review.

26. **Phase 1 final report.** The final contents list of the final report is given in Appendix 5.
27. The findings of the third Review were widely disseminated, especially in publications likely to reach those who collect relevant SPA monitoring data via national surveillance schemes. Targeted publications included articles in:
- *Rare breeding birds in the United Kingdom in 2012* (2014)⁹;
 - *Scottish Raptor Monitoring Scheme Report 2015* (2016)¹⁰;
 - *Waterbirds in the UK 2015/16: The Wetland Bird Survey* (2017)¹¹;
 - *British Wildlife* (2017)¹² and
 - *Rare breeding birds in the United Kingdom in 2015* (2017)¹³.

Other scientific outputs

28. The work undertaken for Phase 1 stimulated other publications. Uncertainty concerning the past and current status of Spotted Crane resulted in a major exercise to collate all UK breeding records of this rare Annex I species¹⁴. This significantly informed the conclusions reached by the Review.
29. It became clear from early offshore surveys that numbers of non-breeding Red-throated Divers were very much greater than previously published estimates. This stimulated work to collate all available data and revise the national non-breeding estimate¹⁵.

⁹ Holling, M. & the Rare Breeding Birds Panel (2014). Rare breeding birds in the United Kingdom in 2012. *British Birds* 107: 504-560.

¹⁰ Buxton, N. & Stroud, D.A. (2016). Assessment of the UK SPA network for raptors. Pp. 36-39. In: Challis, A., Wilson, M.W., Holling, M., Roos, S., Stevenson, A. & Stirling-Aird, P. eds. *Scottish Raptor Monitoring Scheme Report 2015*. BTO Scotland, Stirling.

¹¹ Stroud, D.A. (2017). The state of the UK Special Protection Area network. Pp. 22-23, in Frost, T.M., Austin, G.E., Calbrade, N.A., Holt, C.A., Mellan, H.J., Hearn, R.D., Stroud, D.A., Wotton, S.R. & Balmer, D.E. (2017). *Waterbirds in the UK 2015/16: The Wetland Bird Survey*. BTO, RSPB and JNCC, in association with WWT. British Trust for Ornithology, Thetford. 40 pp.

¹² Stroud, D.A. & Bainbridge, I.P. (2017). Changes in bird populations on the UK's Special Protection Areas: a third decadal 'health check'. *British Wildlife* 28(5): 342-250.

¹³ Holling, M. & the Rare Breeding Birds Panel (2017). Rare breeding birds in the United Kingdom in 2015. *British Birds* 110: 706-754.

¹⁴ Stroud, D.A., Francis, I.S. & Stroud, R.A. (2012). Spotted Cranes breeding in Britain and Ireland: a history and evaluation of current status. *British Birds* 105: 197-220.

Francis, I.S. & Stroud, D.A. (2007). Spotted Crane *Porzana porzana* (Linnaeus). Pp. 519-521. In: *The Birds of Scotland*. Ed. Forrester, R.W. & Andrews, I.J. Scottish Ornithologists' Club, Aberlady.

¹⁵ O'Brien, S.H., Wilson, L.J., Webb, A. & Cranswick, P.A. 2008. Revised estimate of wintering Red-throated Divers *Gavia stellata* in Great Britain. *Bird Study* 55: 152-160.

30. We note that the Phase 1 Review would not have been possible without the context and information provided by multiple publications (and supporting datasets) derived from UK survey and monitoring programmes. These are fully listed in the Phase 1 report and key sources are summarised in Appendix 8.

Phase 2

31. The contents of the final report of Phase 2 of the third Review are summarised in Appendix 7. The following species were addressed by Phase 2 of the third Review with advice and recommendations made as appropriate:

Red-throated Diver (breeding)	Barnacle Goose (Svalbard population)	Golden Plover (non-breeding)
Red-throated Diver (non-breeding)	Dark-bellied Brent Goose	Lapwing (non-breeding)
Black-throated Diver (breeding)	Wigeon (breeding)	Sanderling
Black-throated Diver (non-breeding)	Pochard (non-breeding)	Purple Sandpiper (non-breeding)
Great Northern Diver (non-breeding)	Eider <i>mollissima</i> (non-breeding)	Dunlin (breeding)
Little Grebe (non-breeding)	Eider <i>faeroeensis</i> (non-breeding)	Ruff (non-breeding)
Great Crested Grebe (breeding)	Long-tailed Duck (non-breeding)	Common Snipe (non-breeding)
Great Crested Grebe (non-breeding)	Common Scoter (non-breeding)	Whimbrel (breeding)
Slavonian Grebe (breeding)	Velvet Scoter (non-breeding)	Curlew (breeding)
Slavonian Grebe (non-breeding)	Goldeneye (non-breeding)	Curlew (non-breeding)
Fulmar (breeding)	Smew (non-breeding)	Redshank (breeding)
Storm Petrel (breeding)	Red-breasted Merganser (non-breeding)	Greenshank (non-breeding)
Cormorant (breeding)	Goosander (non-breeding)	Turnstone
Cormorant (non-breeding)	Red Kite (breeding)	Red-necked Phalarope
Shag (non-breeding)	Red Kite (non-breeding)	Arctic Skua (breeding)
Bittern (breeding)	White-tailed Eagle (breeding)	Mediterranean Gull (breeding)
Bittern (non-breeding)	Montagu's Harrier	Mediterranean Gull (non-breeding)
Little Egret (breeding)	Hen Harrier (breeding)	Little Gull (non-breeding)
Little Egret (non-breeding)	Hen Harrier (non-breeding)	Black-headed Gull (non-breeding)
Spoonbill (breeding)	Osprey	Common Gull (breeding)
Spoonbill (non-breeding)	Merlin (breeding)	Common Gull (non-breeding)
Bewick's Swan	Merlin (non-breeding)	Lesser Black-backed Gull (non-breeding)
Whooper Swan (non-breeding)	Peregrine (breeding)	Herring Gull (non-breeding)
Icelandic Greylag Goose	Spotted Crake	Great Black-backed Gull (breeding)
Pink-footed Goose	Common Crane (breeding)	Great Black-backed Gull (non-breeding)
European White-fronted Goose	Common Crane (non-breeding)	Non-breeding gull assemblage
Greenland White-fronted Goose	Avocet (breeding)	Sandwich Tern (breeding & passage)
Barnacle Goose (Greenland population)	Ringed Plover (non-breeding)	Common Tern (passage)
	Dotterel	Arctic Tern (breeding)
	Golden Plover (breeding)	

Short-eared Owl (breeding)	Ring Ouzel	Chough (non-breeding)
Nightjar	Aquatic Warbler (passage)	Scottish Crossbill
Kingfisher (breeding)	Dartford Warbler	Twite (breeding & non-breeding)
Kingfisher (non-breeding)	Red-backed Shrike	
Woodlark	Chough (breeding)	

32. The Phase 1 report identified a number of issues relating to specific existing SPAs. These were addressed and summarised in the Phase 2 report and include the following:

Site boundary reviews

Phase 1 identified several sites and species where there is a need to review boundaries of existing SPAs for various reasons. These include:

- i. to ensure the adequacy of ecological provision for existing qualifying species, for example if the site currently excludes important feeding or other areas important to sustain the species for which the site is classified;
- ii. in the context of the addition of new qualifying species, to ensure that important areas (possibly adjacent to the existing site) are included within the SPA for the new interest(s); and
- iii. where extension of a boundary could include more of a population of an existing qualifying species, thus increasing numbers protected by the site and reducing the degree of UK insufficiency.

Site management reviews

Phase 1 identified several sites and species where reviews of current management should be undertaken because of non-typical population trends. Guidance has been developed to assist such reviews.

Enhanced site monitoring needs

Phase 1 identified several sites where there is a need for enhanced monitoring of some (or all) of the qualifying species occurring there.

Future survey and monitoring needs

The Phase 2 assessments highlighted several broad-scale survey and monitoring issues which would deliver data and information of multiple species and/or sites.

Climate change impacts on the SPA network

33. The eighth progress report noted progress with the Defra-funded CHAINSPAN project (Climate Change Impacts on Avian Interests of the SPA Network). This project was undertaken by BTO, RSPB and collaborators to help assess the resilience of the UK SPA network to projected climate change. Since then the full report has been published

by Defra¹⁶ and the results summarised in a paper published by *Nature Climate Change*¹⁷.

34. The results from the CHAINSPAN project were incorporated in the conclusions of the Phase 1 report.
35. CHAINSPAN concluded that:

“...the current SPA network will be relatively resilient to future climate change. However, we project that the spatial distribution, abundance and composition of species within the SPA network could be significantly different to the present day and that this will be exacerbated in the event of increasing severity of climate change. The UK SPA network will not be static. This has significant implications for management of the SPA network at a UK level and suggests the need for periodic review in light of relevant monitoring data and scientific evidence on the impacts of climate change on UK bird populations. In order to take account of the emerging effects of climate change in the future management of the SPA network, it would seem appropriate to continue with the roughly decadal reviews of the UK SPA network.”
36. The third Review noted the SWG's agreement with this conclusion, especially in the context both of the significant changes across the network in the decade since the second network Review, and of the likely continued extent of future change due to the increasing impacts of climate change. The SWG noted the significant benefit in aligning future reviews of the SPA network with the established six-yearly cycle of reporting on the status of UK's birds.

Other issues

37. The SWG continued to address a range of other issues at its meetings, full details of which are given in the relevant minutes. These included:
 - Updates on marine survey methodologies.
 - Advice on approaches to estimating population sizes for data-deficient species such as Little Gull, Whimbrel in passage periods and Capercaillie.

¹⁶ Pearce-Higgins, J.W., Johnston, A., Ausden, M., Dodd, A., Newson, S.E., Ockendon, N., Thaxter, C.B., Bradbury, R.B., Chamberlain, D.E., Jiguet, F., Rehfisch, M.M. & Thomas, C.D. 2011. Final Report to the Climate Change Impacts on Avian Interests of Protected Area Networks (CHAINSPAN). Report to DEFRA. Available at: <http://randd.Defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=2&ProjectID=16731>

¹⁷ Johnston, A., Ausden, M., Dodd, A.M., Bradbury, R.B., Chamberlain, D.E., Jiguet, F., Thomas, C.D., Cook, A.S.C.P., Newson, S.E., Ockendon, N., Rehfisch, M.M., Roos, S., Thaxter, C., Brown, A., Crick, H.Q.P., Douse, A., McCall, R.A., Pontier, H., Stroud, D.A., Cadiou, B., Crowe, O., Deceuninck, B., Hornman, M. & Pearce-Higgins, J.W. 2013. Observed and predicted effects of climate change on species abundance in protected areas. *Nature Climate Change* 3: 1055-1061. [doi:10.1038/nclimate2035](https://doi.org/10.1038/nclimate2035)

- Updates on progress in each country with new SPA classifications and Ramsar designations.
- Discussion of need to update overdue Information Sheets for UK Ramsar Sites.
- Further discussion of guidance on the use of minimum thresholds for non-breeding waterbirds which resulted in revised guidance:
<http://jncc.defra.gov.uk/pdf/Minimum%20threshold%20guidance%202014%20update%20v3.pdf>
- Updates on international processes under the Ramsar Convention and the African-Eurasian Waterbird Agreement that generated revised, updated population estimates and 1% thresholds.

SPAs in the marine environment

38. The SPAR SWG's role includes the provision of advice to government on SPAs in the marine as well as the terrestrial environment. To this end, the period 2011-17 has been significant, being a period of methodological development of both survey and analytical techniques and their application to selection of marine SPAs. Of particular note has been the significant use of increasingly lower cost tracking technologies which have given major insights into seabird ranging behaviour and site-fidelity¹⁸ – knowledge that, in combination with more traditional techniques, has provided a significant contribution to the development of a coherent network of marine SPAs.
39. During the period, and as reported by the third Review, UK governments announced that they would undertake an assessment of the sufficiency of the resulting suite of marine SPAs at the culmination of the programme of identification. That assessment is underway and will encompass some species considered by the third Review, including seabird species that breed terrestrially in the UK and waterbird species (seaduck, divers and grebes) that frequent estuarine coastal waters and marine waters. A third group of species will be unique to the marine assessment, namely those seabirds that are passage migrants or winter visitors to the UK and are essentially marine species within UK territories.
40. During the period, the SPAR SWG:
 - maintained oversight of the progress to classification of marine SPAs and associated supporting fieldwork and analysis;
 - considered issues related to the determination of site boundaries in the marine environment and the need for consistent terminology across the UK SPA network;
 - discussed how to stimulate urgently needed national-scale survey and monitoring for breeding seabirds;
 - advised on relevant population estimates and selection thresholds for relevant marine species (notably for Red-throated Diver and Little Gull); and
 - offered its expertise in relation to the ongoing review of the sufficiency of the proposed marine SPA network currently being co-ordinated by JNCC.

¹⁸ e.g. through the EU-funded FAME project <http://www.fameproject.eu/en/>

41. In the third Review, the SPAR SWG noted its expectation is that future UK network Reviews will consider the terrestrial and marine elements of the current SPA series as a single integrated network.

Future work programme for the period 2017 - 2021

42. The future work programme for the SPAR SWG for the period 2017 – 2021 is provided in Appendix 2. Priority tasks include:
- a. Provide scientific advice on issues arising from the implementation of the third network Review including strategic needs for relevant data and information.
 - b. Provide scientific advice on issues related to the development and classification of SPAs in the marine environment and the marine SPA sufficiency review.
 - c. Consider and promote more strategic approaches to the collection, interpretation, and public availability of relevant new data relevant to Ramsar Sites and SPAs both individually and collectively.
 - d. Advise and promote effective measures to report internationally on the status of UK Ramsar Sites, making resource-effective use of existing sources of data and information.
 - e. Develop understanding of data needs for site management, especially in the context of climate change mitigation requirements.
 - f. Provide advice (as necessary) on implications of changed international contexts for Ramsar Sites and SPAs both individually and collectively.

APPENDIX 1 – Terms of Reference for the UK Special Protection Area & Ramsar (Avian) Scientific Working Group (SWG)

Formal Terms of Reference were established at the inauguration of the SWG in 2001 (http://jncc.defra.gov.uk/PDF/terms_ref1nov_01.pdf).

The Terms of Reference were revised in 2004 (see Appendix 1 of 2004 Annual Report http://jncc.defra.gov.uk/pdf/2004_Annual_Report_approved_version.pdf).

Most recent Terms of Reference for the period 2017-2019 are at:
http://jncc.defra.gov.uk/pdf/UKSPA_SWG_2017ToRrevision.pdf

APPENDIX 2 – Main components of the SWG future work programme for the period 2017-2019 (as at May 2018)

	Bilateral contact at country level	UK SPA & Ramsar Scientific Working Group	UK government administrations
Lead organisation	<i>Country agencies</i>	<i>JNCC</i>	<i>Defra</i>
Geographic scope	<i>Country</i>	<i>UK</i>	<i>UK</i>
Objective Issues for resolution and timescale	Detailed consideration of site-related issues within countries.	Consideration of UK-scale scientific issues related to the SPA network (note, not policy issues).	Government to consider and decide upon policy and management issues, including those raised at Scientific Working Group meetings
Immediate (by end 2017) <i>Issues for attention = 1 & 2</i>	<ul style="list-style-type: none"> Consideration, with government, of country responses to the third network Review and development of forward plans to implement 	<ul style="list-style-type: none"> Develop and finalise work plan for 2017-2019 based on items listed below. <ul style="list-style-type: none"> ➤ Advice on which races and/or populations of Common Eider should be considered in marine SPA assessment. ➤ Draft and submit report on SWG activities for period 2012-2017 to UK government administrations, and publish. 	

	Bilateral contact at country level	UK SPA & Ramsar Scientific Working Group	UK government administrations
<p>Short-term (by end of 2018)</p> <p><i>Issues for attention = 1, 2, 3 & 6</i></p> <p><i>Commence 4, 5</i></p>	<ul style="list-style-type: none"> Implementation, with government, of country responses to the third network Review, including: <ul style="list-style-type: none"> reviews of management and/or monitoring of 19 species as recommended by third review; review of boundaries for some or all SPAs for 17 species as recommended by third review; and commencement of (re)classifications arising from third SPA review. 	<p>Spring meeting</p> <ul style="list-style-type: none"> Consider SPA provision for species where major new national surveys have become available since third SPA review (Hen Harrier). [High priority – discussion paper for spring meeting on relevant species] Consider methodological approaches for the monitoring of data deficient species, especially raptors in the non-breeding season. [High priority – initiated by discussion paper for spring meeting] Assess potential to harmonise lists of qualifying species on coincident Ramsar Sites and SPAs through application of relevant criteria. [Discussion paper for spring meeting] In the context of the third network review, further review issues related to classification of SPAs for re-establishing and colonising species and provide advice to the government administrations. [Initial discussion paper for spring meeting] Provide scientific advice on issues arising from the development and classification of SPAs in the marine environment. [High priority - spring meeting] <p>Autumn meeting</p> <ul style="list-style-type: none"> Develop a plan as to how SWG can advise and promote effective measures to report internationally on the status of UK Ramsar Sites making resource-effective use of existing sources of data and information. [Lower priority - possibly autumn meeting] 	<ul style="list-style-type: none"> Consider the views of the scientific working group and offer it and the Liaison Group opinions and reactions.

	Bilateral contact at country level	UK SPA & Ramsar Scientific Working Group	UK government administrations
		<ul style="list-style-type: none"> ● Draft and submit report on SWG activities for 2018 to UK government administrations, and publish. [High priority - draft for autumn meeting] ● Advise on SPA-related aspects of 2019 report under Article 12 of the Birds Directive. [Autumn meeting] ● Consider implications of revised bird population sizes including: <ul style="list-style-type: none"> ➤ biogeographical estimates for waterbirds as agreed at Ramsar COP 13; ➤ revised national estimates collated through the 2019 Article 12 process; and ➤ promotion of means to address data deficiency in the context of deriving estimates at national scales. [Autumn meeting] ● Draft a scoping paper on the development of a decision-making process, at a UK network level, where a decline in the site interest feature(s) is attributed solely to the effects of climate change (i.e. not an effect of proximal anthropogenic influence). ● Further review issues of range provision in the context of sufficiency assessments for the UK SPA network. [Autumn meeting as resources allow] 	

	Bilateral contact at country level	UK SPA & Ramsar Scientific Working Group	UK government administrations
<p>Medium-term (2019 to end 2021)</p> <p>Issues for attention = all</p>	<ul style="list-style-type: none"> • Ongoing implementation, with government, of country responses to the third network review, including: <ul style="list-style-type: none"> ➤ progress and complete (re)classifications arising from third SPA review. 	<ul style="list-style-type: none"> • Draft and submit annual reports on SWG activities to UK government administrations, and publish. [High priority] • Provide scientific advice on issues arising from the development and classification of SPAs in the marine environment • Consider SPA provision for species where major new national surveys have become available since third SPA Review (likely: Whimbrel, Marsh Harrier, Dartford Warbler). • Consideration of implications of fourth national seabird census results for seabird colonies when available. Overall priorities to be discussed and agreed. • Review Terms of Reference by end of 2019. • Develop understanding of data needs for site management, especially in the context of climate change mitigation requirements. • Review needs for longer term research requirements to determine movements of birds between component parts of composite sites. 	<ul style="list-style-type: none"> • Consideration of respective roles of site-based as contrasted with wider-countryside measures for conserving UK wildlife and habitats in relation to obligations under the Birds Directive.

APPENDIX 3a – Membership of the SPA & Ramsar Scientific Working Group during 2001 – to the conclusion of the third network Review

The following individuals have represented their respective organisations on the Working Group at some time during 2001-2015.

Chair: Ian Bainbridge

ABP Research & Consultancy Ltd./ABP Marine Environment Research Ltd.: Lucy Adams, Steven Hull, Don Morrissey, Andy Murdock, Andrew Pearson

Country Land & Business Association: Megan Cameron, Claire Collyer, Sue Evans, Colin Hedley, Tanya Olmeda-Hodge

Countryside Council for Wales/Natural Resources Wales: Catherine Gray, Adam Cole-King, Sian Whitehead

Department for Environment, Food and Rural Affairs (DEFRA): Geoff Audcent, Steve Lee-Bapty, Herran Buhecha, John Clorley, Bob Ford, Simon Hopkinson, Louise Leighton, Emily Musson, Trevor Salmon, David Smallshire, Andy Swash, Andy Tully, Louise Vall

English Nature/Natural England: Sarah Anthony, Peter Clement, Allan Drewitt, Ben Fraser, Anthony Mould

Environment & Heritage Service Northern Ireland/Department of the Environment Northern Ireland: Gregor Watson, Ian Enlander, Ken Bradley

Farmers' Union of Wales/Undeb Amaethwyr Cymru: Rhian Nowell-Phillips

Forestry Commission: Sallie Bailey, Jason Hubert

Joint Nature Conservation Committee: Helen Baker (Secretariat), Jessa Battersby, Chris Bingham, Julie Black, Nichola Burnett (Secretariat), Ben Dean, Richard Ferris, Charlotte Johnston, Kerstin Kober, Ant Maddock (Secretariat), Ian McLean, Claire McSorley, Ed Mountford (Secretariat), Sue O'Brien, Matt Parsons, Jim Reid, David Stroud, Andy Webb, Linda Wilson

National Assembly of Wales/Welsh Government: Nicola Donlon, Trish Fretten, Louise George, Diana Reynolds, Jill Thomas, Wendy Twell, Chris Worker

National Farmers Union (representing also Undeb Amaethwyr Cymru/Farmer's Union of Wales and NFU Scotland): Andrew Clark, Andrea Graham, Claire Robinson

National Federation of Fishermen's Organisations (on behalf also of the Scottish Fishermen's Federation): Barrie Deas

Royal Society for the Protection of Birds (and on behalf of Wildlife & Countryside Link): Richard Evans, Richard Gregory, Kate Jennings, Gwyn Williams

Scottish Executive Environment and Rural Affairs Department/Scottish Government: Phil Alcock, Bob Bryson, Steven Dora, Daniel Hall, David Mallon, Liam Mathers, Connor McKinney, Michael McLeod

Scottish Natural Heritage: Nigel Buxton, Greg Mudge

Scottish Environment Link: Richard Evans, Jeremy Wilson

UK Offshore Operators Association: Mick Borwell

Water UK: Miranda Cooper (Northumbrian Water), Chris Spray (Northumbria Water)

Wildfowl & Wetlands Trust: Peter Cranswick, Richard Hearn, James Robinson

World Wide Fund for Nature-UK: Dave Burges

APPENDIX 3b – UK SPAR SWG membership list as at November 2017

Attending SWG members

Name	Position & postal address	Telephone & e-mail
Professor Chris Spray (Chair)	Chair of Water Science and Policy UNESCO-IHP Centre for Water Law, Policy & Science School of Social Sciences University of Dundee Dundee DD1 4HN	Tel: 01382 388362 E-mail: C.J.Spray@dundee.ac.uk
Dr Matt Parsons (Secretary)	Joint Nature Conservation Committee Inverdee House Baxter Street Aberdeen AB11 9QA	Tel: 01224 266574 E-mail: Matt.Parsons@jncc.gov.uk
Dr Sallie Bailey	Specialist Advisor for Biodiversity and Environment Forestry Commission Silvan House 231 Corstorphine Road Edinburgh EH12 7AT	Tel: 0131 314 6449 E-mail: sallie.bailey@forestry.gsi.gov.uk
Dr Nigel Buxton	Policy and Advice Manager (Sites and Science) Scottish Natural Heritage Achantoul, Aviemore Inverness-shire PH22 1QD	Tel: 01479 810477 E-mail: nigel.buxton@snh.gov.uk
Claire Collyer	Conservation Adviser Country Land and Business Association (CLA) 16 Belgrave Square London SW1X 8PQ	Tel: 020 7460 7916 E-mail: claire.collyer@cla.org.uk
Kim Wallis	Conservation Advisor Essex & Suffolk Water (Northumbrian Water Ltd) Sandon Valley House Canon Barns Road East Hanningfield Essex CM3 8BD	Tel: 01268 664 293 E-mail: Kim.Wallis@nwl.co.uk
Steven Dora	Policy Manager (Nature Conservation Strategy and Protected Areas) The Scottish Government Landscapes and Habitats Division Rural Directorate Mail point 5, 1-A North Victoria Quay Edinburgh EH6 6QQ	Tel: 0131 244 6518 E-mail: steven.dora@scotland.gsi.gov.uk
Phil Eckersley	Senior Specialist – International Site Designations Mail Hub Natural England County Hall Spetchley Road Worcester WR5 2NP	Tel: 01325 484180 E-mail: phil.eckersley@naturalengland.org.uk
Dr Andrea Graham	Countryside Adviser National Farmers' Union Agriculture House Stoneleigh Park Stoneleigh Warwickshire CV8 2LZ	Direct line: 024 7685 8534 E-mail: andrea.graham@nfu.org.uk

Name	Position & postal address	Telephone & e-mail
Richard Hearn	Head of Species Monitoring The Wildfowl and Wetlands Trust Slimbridge Gloucester GL2 7BT	Tel: 01453-891185 E-mail: richard.hearn@wwt.org.uk
Kate Jennings	Head of Site Conservation Policy RSPB – UK Headquarters Site Conservation Policy The Lodge Sandy Bedfordshire SG19 2DL	Tel: 01767 693457 E-mail: kate.jennings@rspb.org.uk
Patrick Lindley*	Senior Terrestrial / Marine Ornithologist Natural Resources Wales Terrestrial Ecosystems Group Maes y Ffynnon Penrhosgarnedd Bangor, Gwynedd LL57 2DW <i>* responsible for liaison with Welsh Government contacts</i>	Tel: 0300 0654991 E-mail: patrick.lindley@cyfoethnaturiolcymru.gov.uk
Michael McLeod	Marine Scotland – Marine Planning and Policy Scottish Government Area 1A South Victoria Quay Edinburgh EH6 6QQ	Tel: 0131 244 5562 E-mail: michael.mcleod@scotland.gsi.gov.uk
Dr Greg Mudge	Principal Advisor International Designations Scottish Natural Heritage Great Glen House Leachkin Road, Inverness IV3 8NW	Tel: 07770 223319 Email: greg.mudge@snh.gov.uk
Andrew Pearson	Marine Ecologist ABP Marine Environmental Research Ltd Suite B Waterside House Town Quay Southampton SO14 2AQ	Tel: 023 80 711 854 Email: apearson@abpmer.co.uk
Clive Porro	Wildlife Team Area 1D, Nobel House 17 Smith Square London SW1P 3JR	Tel: 0208 0262941 E-mail: Clive.Porro@defra.gsi.gov.uk
David Stroud	Senior Ornithological Advisor Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY	Tel: 01733 866810 E-mail: david.stroud@jncc.gov.uk
Richard Weyl	Head of Ornithology Team Department of Agriculture, Environment and Rural Affairs Northern Ireland Environment Agency Klondyke Building, Cromac Avenue Lower Ormeau Road Belfast BT7 2JA	Tel: 02890 569684 E-mail: richard.weyl@daera-ni.gov.uk
Prof Jeremy Wilson**	Head of Conservation Science, Scotland RSPB Centre for Conservation Science 2 Lochside View Edinburgh Park Edinburgh EH12 9DH ** representative for Scottish Environment Link	Tel: 0131 317 4100 E-mail: jeremy.wilson@rspb.org.uk

Non-attending SWG members receiving documentation (November 2017)

Name	Position & postal address	Telephone & e-mail
Dr Jessamy Battersby	Head of European Advice Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY	Tel: 01733 866808 Email: jessa.battersby@jncc.gov.uk
Barrie Deas	Chief Executive National Federation of Fishermen's Organisations N.F.F.O. Offices Marsden Road Fish Docks, Grimsby DN31 3SG	Tel: 01472 352141 E-mail: bdeas@nffo.org.uk
Allan Drewitt	Senior Specialist – Ornithology Natural England Eastbrook Shaftesbury Road Cambridge CB2 8DR	Tel. 0300 060 0307 Email: allan.drewitt@naturalengland.org.uk
Dr Vincent Fleming	Head Global Advice Programme Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY	Tel: 01733 866801 Email: vin.fleming@jncc.gov.uk
Ben Fraser	Senior Adviser – SSSI Designations Strategy Implementation Team Natural England Unex House Bourges Boulevard Peterborough PE1 1NG	Tel: 0300 060 1082 E-mail: ben.fraser@naturalengland.org.uk
Louise George	Marine Nature Conservation & Integrated Coastal Zone Management (ICZM) Policy Manager Welsh Government Cathays Park Cardiff CF1 3NQ	Tel: 02920 801258 E-mail: louise.george@wales.gsi.gov.uk
Stephen Grady	Senior European Advisor Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY	Tel: 01733 866818 E-mail: stephen.grady@jncc.gov.uk
Dr Liz Howe	Species Team Leader and Herpetologist Evidence, Policy and Permitting Directorate Natural Resources Wales Maes y Ffynnon Penrhos Road Bangor LL57 2DW	Tel: 03000 654830 Email: liz.howe@cyfoethnaturiolcymru.gov.uk liz.howe@naturalresourceswales.gov.uk
Stephen Hull	ABP Marine Environmental Research Ltd Suite B Waterside House Town Quay Southampton S014 2AQ	Tel: 023 8071 1840 E-mail: shull@abpmer.co.uk
Dr Kerstin Kober	Senior Seabird Ecologist Joint Nature Conservation Committee Inverdee House Baxter Street Aberdeen AB11 9QA	Tel: 01224 266567 Email: kerstin.kober@jncc.gov.uk

Name	Position & postal address	Telephone & e-mail
Richard Lowcock James	Marine Conservation Branch Welsh Government Crown Buildings Cathays Park Cardiff CF10 3NQ	Tel: 03000 253241 Email: Richard.LowcockJames@wales.gsi.gov.uk
Andy Tully	Policy Advisor Defra Wildlife Programme Protected Areas Team 2 nd Floor, Horizon House Deanery Road Bristol BS1 5AH	Tel: 02080266564 E-mail: Andy.Tully@defra.gsi.gov.uk
Chris Worker	Nature Conservation Policy Officer Welsh Government Rhodfa Padarn Llanbadarn Fawr Aberystwyth Ceredigion SY23 3UR	Tel: 0300 062 2259 E-mail: chris.worker@wales.gsi.gov.uk

APPENDIX 4 – Executive Summary of Phase 1 of the third SPA Review

Background

1. The third Review of the United Kingdom's network of Special Protection Areas (SPAs) classified under the EU Birds Directive comprises three parts (Phases). This report summarises the outcomes of Phase 1 – a gap analysis. It builds on the previous network assessments published by the Nature Conservancy Council (NCC) in 1989 and by the Joint Nature Conservation Committee (JNCC) in 2001, and places its findings in the wider context of supporting policies and activity to deliver the objectives of Article 4 of the EU Directive on the conservation of wild birds (2009/147/EC; the Birds Directive).

2. Phase 1 of the Review

This report is structured as follows:

- **Chapter 1** introduces the Birds Directive and gives a historical perspective on its transposition and implementation in the UK, with particular emphasis on Article 4.
- **Chapter 2** summarises the development of the SPA network since the second Review published in 2001, especially with respect to new (or extended) SPA classifications and the work of the UK SPA and Ramsar Scientific Working Group (SPAR SWG; Appendix 1).
- **Chapter 3** presents the approach adopted by this third Review and explains how this relates to supporting activities.
- **Chapters 4 and 5** detail the methods adopted by the Review. Chapter 5 presents an innovative method used to assess the sufficiency of population provision for individual bird species.
- **Chapter 6** presents the SPAR SWG's advice to governments in the UK relating to the future development of the SPA network *i.e.* identifies potential gaps in meeting the responsibilities of the Birds Directive, especially to ensure it remains resilient to the environmental consequences of climate change.
- **Appendices 1 to 10** present supporting data and information.

3. Phase 2 of the Review will include:

- whether new SPAs should be considered in the light of recommendations from the first Phase of the Review, and if so, their possible location and extent;
- similarly, whether existing SPAs should be extended either in spatial extent or through the addition of further qualifying species; and
- the establishment of a timetable to implement the findings of Phases 1 and 2 of the Review.

The timing of Phase 2 will be determined by each country within the UK but the aim will be to conclude this Phase as soon as possible. Some aspects are occurring in parallel with Phase 1. [Appendix 2]

4. Phase 3 will comprise:

- for existing SPAs and following consultation and other statutory processes, revision of citations (as appropriate and necessary) by individual country agencies at those sites where qualifying species have been changed;
- consulting upon and classifying boundary amendments to existing SPAs;
- consulting upon and the classification of new SPAs as relevant; and

- revision by JNCC of relevant documentation summarising the extent of SPA suites for those species where further additions to species' suites have occurred consequent upon decisions made in the second phase.

The timing of **Phase 3** will also be determined by each country, but is anticipated, resources permitting, to be completed within a year from the conclusion of decisions taken in Phase 2. [Appendix 2]

5. **Appendix 9** comprises 151 detailed accounts for those Annex 1 and migratory species for which SPAs have either already been classified in the UK, or which have been the subject of detailed assessment by this Review. These present information (where available) on the status of species at individual SPAs alongside comparable data from the 1990s.

Geographical scope

6. The scope of the Review, as previously, is limited to the terrestrial and coastal environments of the UK. It excludes areas that are offshore and which are subject to other assessment processes. However, species totals from the UK's three classified marine SPAs (as at 2015) have been included in the relevant species accounts. Assessments of sufficiency should be taken as applying to the geographical area covered by this Review only. Many seabird or seaduck species occur both in inshore/coastal areas and more widely offshore: coherent SPA provision for these species will need to integrate species requirements throughout the inshore and offshore marine areas used. [Sections 3.4 & 5.6]

Methods of assessment

7. The starting point for the audit of the SPA network and assessments of sufficiency were, for each species and/or population, the SPA suites agreed and published by JNCC's second SPA network Review. Although many of the relevant classifications have yet to occur, it is envisaged that these will occur in the next stages of this third Review, since their implementation is integral to the sufficiency conclusions reached. The third Review audits the state of the UK SPA network from that baseline after more than a decade of biological change, additional classifications and, for some species, substantial change in our understanding of the species' status. Statistical information on the extent of population coverage of each species' SPA suite in the 2000s is given in Appendix 5, alongside equivalent assessments from the 1990s. Changes at the individual site scale are considered in the context of wider national and international population changes for the species concerned.
8. In the light of the findings of the European Court of Justice (case C-418/04 Commission v Ireland), the Review has considered the need for SPA provision for the following regularly occurring Annex I species for which there are currently no UK SPAs: Spoonbill, Common Crane, Smew, White-tailed Eagle, Montagu's Harrier, Kingfisher and Red-backed Shrike. [Section 5.5 and Appendix 9]

Monitoring

9. Good progress has been made with respect to species for which the second Review had identified SPA suite insufficiencies. However, it remains the case that there are no reliable methods for monitoring and therefore almost no useable monitoring data for some non-breeding raptors. The current status of non-breeding Merlin and Hen Harrier on SPAs classified for these species remains unknown. [Section 6.2 and Appendix 9]

10. Contemporary assessments of species' populations are not available for all sites, and for a few species they are lacking completely. The species accounts in Appendix 9 consider issues of data deficiency and make recommendations for future monitoring. Key issues include:
- that appropriate monitoring regimes are in place for all relevant species and sites;
 - that count data can be matched against site boundary information; and
 - that national surveys routinely supply not only national population estimates but also relevant site assessments. [Section 4.3]
11. The results of a review of the use of cropped habitats (as defined in section 5.4) by 43 species emphasised that each shows distinct patterns of use of cropped habitats, either solely or in combination with other habitats. Accordingly, the issue of SPA classification for birds using cropped habitats needs to be considered on a species by species basis rather than by adopting a general policy. Such a species-related approach has been adopted in this Review. [Section 5.4 and species accounts].

SPAR SWG advice to governments

12. In the context of the requirement that the SPA and Ramsar Scientific Working Group (SPAR SWG) (Appendix 1) should assist "...government to meet the scientific and technical requirements of the Birds Directive", and in the light of outcomes from Phase 1 of this Review, the Group provides UK governments with the following scientific advice:
- 12.1 On the basis of the assessment methodology established by this Review (section 5), the SPA suites for 64 species/populations¹⁹ are judged to be sufficient to meet the requirements of Article 4 of the Birds Directive.
 - 12.2 Using the same methodology, the SPA suites for 87 species/populations are considered to be insufficient to meet the requirements of Article 4 of the Birds Directive. These relate to 38 breeding species and 49 non-breeding species. These insufficiencies should be addressed through Phase 2 of this Review. [Section 6.1]
 - 12.3 Additionally, the SWG advises that reviews of the management and/or monitoring of relevant SPAs should be undertaken for 19 species by the relevant country agencies to address causes of declines of these species at these sites. [Section 6.1]
 - 12.4 Reviews of the boundaries of some or all of the SPAs for 17 species are needed to ensure sites adequately provide for the species' ecological functions. [Section 6.1]
 - 12.5 A separate assessment and review of SPA provision in both the inshore and offshore marine environment should be considered for at least 49 species. [Section 3.4]
 - 12.6 The Review would not have been possible without the data and information coming from a wide range of national and local bird surveillance and monitoring schemes, many co-funded by JNCC or the statutory nature conservation agencies. Future Reviews will not be possible without such data, and it is critical to at least maintain existing monitoring coverage. [Sections 6.4 & 6.5]
 - 12.7 The second Review (2001) drew attention to the lack of information on the status of non-breeding Merlin and Hen Harrier and the SPAs which have been classified for

¹⁹ The term 'species' as used throughout this report includes those relevant biogeographical populations subject to separate evaluation and reporting (as for example for many geese).

them. Fifteen years on, there are no further available data for these species, and the SWG highlights that this issue should be addressed as a priority. [Section 6.5]

- 12.8 Specific advice in respect of future survey and monitoring needs is given in relevant species accounts [Appendix 9]
- 12.9 The SPAR SWG draws attention to the identified need for additional conservation measures under Article 3(2)(b)-(d) of the Directive to be considered outwith the scope of this third network Review. [Section 5.3.2]
- 12.10 Advice regarding SPA provision with respect to cropped habitats is given for 43 species. [Appendix 8]
- 12.11 There is need for a process to implement these recommendations during Stages 2 and 3 of this network Review.
- 12.12 There have been significant changes across the network in the decade since the second network Review and the extent of change is likely to continue not least due to the increasing impacts of climate change. There would be significant benefit in aligning future reviews of the SPA network with the six-yearly cycle of reporting required by Article 12 of the Birds Directive, noting that such an audit is required by that process anyway. [Section 6.6]
- 12.13 We consider the SPAR SWG has served a valuable function in its provision of advice to government on the wide-range of scientific and technical issues supporting the development of the UK SPA network and summarised in this report. It has also aided the development of common positions across multiple stakeholders. Its further work will be helpful in relation to many of the issues summarised in this Review. [Sections 2.1 & 6.6]

APPENDIX 5 – Contents of Phase 1 report of the third SPA Review

Executive Summary

1. Historical perspectives

- 1.1. The EU Birds Directive
- 1.2. Special Protection Areas and previous reviews
- 1.3. Implementation of Article 4.1 and 4.2 in the UK
- 1.4. The UK SPA network

2. The development of the SPA network since 2001

- 2.1. The UK SPA and Ramsar Scientific Working Group
- 2.2. SPA classification progress since the second network Review
 - 2.2.1. SPA classifications and extensions since 2001
 - 2.2.2. SPAR SWG decisions regarding site-related issues since 2001
 - 2.2.3. SPAR SWG decisions regarding species-related issues since 2001
- 2.3. European Court of Justice rulings
- 2.4. Climate change and SPAs

3. The third SPA network Review

- 3.1. Introduction and scope of the Review
- 3.2. Review Phases
 - 3.2.1. Phase 1: Review of species trends, status and site provision
 - 3.2.2. Phase 2: Evaluation of the need for further SPA provision
 - 3.2.3. Phase 3: Review of documentation
- 3.3. Review of the UK network of Ramsar Sites
- 3.4. Development of SPA in the marine environment

4. Methods: data used

- 4.1. National and international population estimates
- 4.2. Availability of new population estimates
- 4.3. Site population estimates
- 4.4. Calculation of SPA suite totals for non-breeding waterbirds

5. Assessment methodologies

- 5.1. Introduction and overall summary of approach
- 5.2. Site Provision Index
 - 5.2.1. Background
 - 5.2.2. Use of SPI in assessments
- 5.3. Decision Framework
 - 5.3.1. Types of insufficiency
 - 5.3.2. Additional conservation measures
- 5.4. Cropped Habitats
- 5.5. Annex I species for which no SPAs have been classified
- 5.6. Marine SPAs

6. Summary and advice to government

- 6.1. Changes across the SPA network

- 6.1.1. Total network provision
- 6.1.2. Summary of findings
- 6.2. Species for which SPA
- 6.3. Species accounts
- 6.4. Current scope and extent of SPA monitoring
 - 6.4.1. Sources of data used to monitor and assess SPAs in the UK
 - 6.4.2. Potential improvements
- 6.5. Monitoring recommendations
 - 6.5.1. Waterbird monitoring issues
 - 6.5.2. Monitoring rare and scarce breeding birds
- 6.6. Future SPA network audit and review

7. Acknowledgements

8. References

Appendices

- Appendix 1.** Terms of Reference for the UK SPA and Ramsar Scientific Working Group
- Appendix 2.** Terms of Reference for the third SPA network Review
- Appendix 3.** Membership of the SPA and Ramsar Scientific Working Group 2001-2015
- Appendix 4.** Reference populations used
- Appendix 5.** Population coverage within SPA suites: comparison of 1990s with 2000s
- Appendix 6.** Guidelines for use of Decision Framework
- Appendix 7.** Summary of evaluations by species
- Appendix 8.** Annex I or migratory species for which no SPAs were previously selected and subsequent status change
- Appendix 9.** Species accounts [for 151 species]
- Appendix 10.** Summary table of key information drawn from species accounts
- Appendix 11.** An assessment of the use of cropped habitats by bird species represented in the UK Special Protection Area Network

APPENDIX 6 – Summary of Phase 2 of the third SPA Review

1. Phase 1 of the third Review of the UK's network of Special Protection Areas advised governments on the sufficiency of the network for 151 species of birds. It concluded that SPA suites for 87 species/populations are insufficient to meet the requirements of Article 4 of the Birds Directive for reasons of either numbers, distribution or ecological requirements. These relate to 38 breeding species and 49 non-breeding species. These totals did not include significant additional unimplemented recommendations that were the subject of formal advice from JNCC to Ministers (and published) in 2001 (Stroud *et al.* 2001).
2. Phase 2 of the third Review has provided advice and recommendations to address the identified insufficiencies. This report by the inter-agency Phase 2 Working Group (section 6) to the SPA Executive Steering Group (ESG) and SPA and Ramsar Scientific Working Group (SPAR SWG), summarises the technical assessments made as part of Phase 2. In particular:
 - whether new SPAs should be considered in the light of recommendations from the first Phase of the Review, and if so, their possible location and extent;
 - similarly, whether existing SPAs should be extended either in spatial extent, or through the addition of further qualifying species;
 - identification of situations requiring focussed monitoring and/or management actions; and
 - highlights the need to establish a prioritised timetable to implement the findings of Phases 1 and 2 of the third Review.
3. This work also summarises the outstanding recommendations made by the second SPA Review (Stroud *et al.* 2001). The Phase 1 Report noted that: "Although many of the relevant classifications [recommended by the second Review] have yet to occur, it is envisaged that these will occur in the next stages of this third Review, since their implementation is integral to the sufficiency conclusions reached." Accordingly, the Phase 2 Working Group have collated these recommendations together with advice arising from the current work to present as complete a summary of needs as the contemporary data allow, and so as to attain species sufficiency with the UK SPA network.
4. It has not been possible to resolve all the issues raised by the Phase 1 Report. However, the inter-agency Working Group have provided immediate advice relating to 72 species/seasons, also highlighting other issues which will need further analysis and/or field survey. Some of these will be resolvable in short term, others will need more time (see para 5 below). Insufficiencies for remaining species will be addressed through the marine SPA review process being undertaken in parallel.
5. Actions, whether addition or deletions of qualifying species and/or reviews of management or boundaries, have been identified for 84 existing SPAs in England, 14 in Wales, three cross-border England/Wales sites, 99 Scottish SPAs, one cross-border Scotland/England sites, and 13 SPAs in Northern Ireland.
6. Three different types of conclusion in respect to addressing insufficiencies have emerged from the Phase 2 process:

- i. robust, evidence-based advice and recommendations in relation to sites (either currently classified or unclassified) that can be progressed based on existing data and information (*i.e.* no further survey data gathering is required to develop proposals). Most proposals fall into this category²⁰;
 - ii. advice in relation to sites (either already classified or unclassified) where further analysis of existing datasets needs to occur before robust proposals can be made²¹. Such work typically could be achieved in the short-term of about two years (by end 2019); and
 - iii. identified data and information needs that require further fieldwork (*e.g.* site surveys, national surveys or research projects), and that are only likely to be realised in the longer term – typically to be undertaken over a period about five years (by c. 2023) (or longer dependent on resource and organisational requirements)²².
7. We suggest that there would be continued benefit for UK co-ordination of the further analysis of existing UK datasets related to those species in category 6ii above. It would be cost-effective to commission such work on a shared basis, and co-ordination might continue to be provided by the Phase 2 Working Group (or another group). Whilst not holding-up the implementation of the majority of Phase 2 advice and recommendations (category 6i above), it might be appropriate for the ESG to seek a further update by the end of 2019. This would serve to maintain momentum in resolving issues where conclusions cannot be reached.
 8. We highlight the need for a prioritised work programme from each agency/government outlining timescale of their implementation of Phase 3.
 9. For some species, implementing advice from the third SPA Review will require additional research and/or survey (category 6iii above). These needs are highlighted both on the individual species accounts of the Phase 1 report (<http://jncc.defra.gov.uk/page-7309>) as well as the individual Phase 2 species assessment papers. This summary report brings together and synthesises these longer-term needs (Annex 6).
 10. We note the separate assessment and review of marine SPA provision in both the inshore and offshore marine environment for relevant marine birds.
 11. In undertaking these technical assessments, we note the considerable and on-going change in numbers and distributions of some species, probably driven by changing climatic conditions. As noted in the Phase 1 report (Stroud *et al.* 2016) this implies a need to keep the SPA network under review to ensure that it remains fit for the policy and other purposes for which it has been established.

²⁰ including, for example, site recommendations related to non-breeding Great Crested Grebe, Bittern, Little Egret, Whooper Swan, Greenland White-fronted Goose, Pochard, Ruff, Goldeneye, Turnstone and Greenshank; and breeding Bittern, White-tailed Eagle, Osprey, Avocet, Common Crane, Mediterranean Gull amongst others.

²¹ including, for example, site recommendations related to some non-breeding gulls; and breeding Black-throated Diver, Hen Harrier, Merlin and Ring Ouzel amongst others.

²² including, for example, a national breeding seabird survey, and breeding Golden Plover amongst others.

APPENDIX 7 – Contents of Phase 2 report of the third SPA Review

0. Summary

1. Introduction

- 1.1 Reasons for insufficiency and inclusion in Phase 2

2. Assessments made in Phase 2

3. Species covered by Phase 2

4. Issues covered by Phase 2

- 4.1 Site boundary reviews
- 4.2 Site management reviews
- 4.3 Enhanced site monitoring needs
- 4.4 Future survey and monitoring needs
- 4.5 Issues arising from incomplete implementation of the second SPA Review

5. Conclusions from Phase 2

6. Acknowledgements

7. References

Annex 1. Recommended format for SPA management reviews

Annex 2. Summaries of each Phase 2 report

Annex 3a. SPAs needing boundary review (by species)

Annex 3b. SPAs needing boundary review (by site)

Annex 4. Summary of recommended management reviews, status reviews and/or site monitoring needs

Annex 5. Summary of recommended monitoring needs at specific sites

Annex 6. Recommended wide-scale monitoring needs arising from Phase 2 assessments

Annex 7. Qualifying features for deletion agreed by second SPA network Review

Annex 8. Features recommended for classification by the second SPA Review which have yet to occur

Annex 9. Discussion paper on approaches to addressing range insufficiency

APPENDIX 8 – Key publications from UK surveillance programmes that were critical to the delivery of the Phase 1 and 2 reports

National single species surveys undertaken under the auspices of the Statutory Conservation Agency/RSPB Annual Breeding Bird Survey (SCARABBS)

- Conway, G.J., Wotton, S., Henderson, I., Eaton, M., Drewitt, A. & Spencer, J. 2009. The status of breeding Woodlarks *Lullula arborea* in Britain in 2006. *Bird Study* 56: 310–325.
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- Holling, M. & the Rare Breeding Birds Panel 2010. Rare breeding birds in the United Kingdom in 2007. *British Birds* 103: 2–52. [2007 national Common Scoter survey]
- Holling, M. & the Rare Breeding Birds Panel 2015. Rare breeding birds in the United Kingdom in 2013. *British Birds* 107: 373–422. [Annual national White-tailed Eagle surveys]
- Schmitt, S., Eaton, M. & Drewitt, A. 2015. The Spotted Crake in the UK in 2012: results of the 2012 survey. *British Birds* 108: 220–230.
- Stanbury, A. & the UK Crane Working Group 2011. The changing status of the Common Crane in the UK. *British Birds* 104: 432–447.
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