

Title: **Scientific Advisory Committee (SAC) Annual Report 2019/20**

Date: **06 May 2020**

Purpose:	Approval
How does this link with our corporate priorities of improving biodiversity or delivering nature-based solutions to climate change	Our Corporate Plan requires a foundation of sound science underpinning SNH policy. The SAC provides peer review of complex areas of science as a 'critical friend', draws on expertise in the natural and social sciences, and synergistically works with staff to provide robust advice and evidence.
Summary:	<p>This paper presents a summary of the activities of the Scientific Advisory Committee (SAC) between 1 April 2019 and 31 March 2020.</p> <p>The SAC met in plenary on 26 September 2019 and 19 March 2020. It met with the Board and staff on 28 January 2020.</p> <p>Six sub-groups addressed issues relating to Aichi targets, marine protected areas, forest-edge effects on Caithness and Sutherland Peatlands SPA and SAC, General Licences, genetics, and the monitoring and surveillance requirements for protected areas and surrounding landscapes to inform post-2020 reporting.</p> <p>SAC members also participated in the Uist Waders Technical Advisory Group, and the Orkney Wildlife Technical Advisory Group, SNH's 2019 student conference, and reviewed a number of draft SNH Commissioned Research Reports.</p>
Recommendations:	Note the ongoing activities of the SAC and its subgroups, and aim to increase Board input into directing the SAC programme of work to support the activities outlined in the new Corporate Plan.
Report Author(s): Sponsor:	Bob Furness and Des Thompson Sally Thomas
Appendices:	None

Purpose

1. This paper summarises the activity of the Scientific Advisory Committee in 2019-20.

Background

2. In 2014 the Board expressed a wish to be better informed about the activities carried out by the SAC. Since then six annual reports have been presented to the Board. This report covers the period between 1 April 2019 and 31 March 2020.
3. The aim of the report is to brief the Board on the work of the SAC.

Meetings

4. Following the usual plan, the SAC met in plenary on 26 September 2019 (at Battleby) and 19 March 2020 (by videoconference). Minutes of the plenary meetings of SAC are available at: <https://www.nature.scot/about-snh/who-we-are/scientific-advisory-committee/scientific-advisory-committee-meetings>
5. The main papers at the September 2019 meeting included: IPBES and the Climate Emergency; SNH's PhD support programme; a genetics framework for SNH; Aichi 2019 report; State of Nature report; update on SAC subgroups.
6. The main papers at the March 2020 meeting included: Aichi report; chough conservation; SNH genetics strategy; Darwin tree of life; updates on SAC subgroups and on current PhD process and student conference.
7. SAC also met together with the Board on 28 January 2020 at Silvan House, with presentations by staff on SNH's marine science strategy, SNH's MPA monitoring strategy and community-led marine monitoring, the habitat map of Scotland, delivering urban biodiversity through green infrastructure and habitat connectivity.
8. The SAC currently has several sub-groups, which can delve deeper into specific issues. Sub-groups are set up in a time-limited format depending on the topic, and may include members of SAC's Expert Panel and/or external experts, as well as normally at least two members of SAC.
9. Aichi Biodiversity targets: Formed of four SAC members (Bob Furness (chair), Aileen Mill, Ruth Mitchell, Jeremy Wilson), this sub-group has advised staff on the development of annual reports on progress towards meeting the 20 Aichi targets under the auspices of the Convention on Biological Diversity (CBD).
10. Marine Protected Areas: This sub-group (Bob Furness (chair), Aileen Mill, Beth Scott (Expert Panel) and Ben Wilson (Expert Panel)) met on 15 November 2019 to review the science underpinning SNH's draft advice to Scottish Ministers following the review of submissions to the consultation on four possible MPAs (Sea of the Hebrides, North East Lewis, Shiant East Bank, Southern Trench). The subgroup reviewed and broadly supported SNH's draft advice, but suggested modifications to the advice to improve clarity and transparency.

11. General licences: This subgroup (Aileen Mill (chair), Bob Furness, Xavier Lambin (Expert Panel), Rob Ogden (Expert Panel)) met on 11 November 2019, and worked by correspondence during November and December 2019, to review evidence relating to the inclusion of particular bird species on SNH's general licences. This involved review of a very large body of complex evidence (several hundreds of pages of SNH papers and a large associated scientific literature) in a short period, in order to meet the timetable required to develop evidence-based proposals for the 2020 licencing arrangements, including review of those proposals by Board.
12. Genetics: This sub-group is not a SAC sub-group in the formal sense, as it does not contain two SAC members, but will work with staff to develop the SNH genetics framework. It comprises four members of the SAC Expert Panel – Josephine Pemberton, Pete Hollingsworth, Richard Ennos, and Rob Ogden.
13. PhD studentships: SNH funded one new PhD studentship this year. The Studentship sub-group (Neil Metcalfe (chair) Jeremy Wilson, and four SNH staff: John Uttley, Sarah Hutcheon, Paul Robertson and Des Thompson) received 35 applications and ranked top the application by Dr Allan McDevitt, University of Salford, on the topic "Validating environmental DNA as a powerful and cost-effective monitoring tool for declining, elusive and invasive mammals in the UK" with Rob Raynor as SNH supervisor. Given the competitive nature of applications for solely SNH funded PhDs, and the very low success rate for awards (1 in 35 in this instance), the subgroup considered it untenable to proceed with the existing scheme, and agreed to encourage SNH instead to act as CASE partners where funding can be provided from external sources.
14. Forest-edge effects: A new sub-group was established to assess the science on forest edge-effects relating to predation risk for moorland ground-nesting birds, and to consider whether the level of pull-back recommended by SNH for plantations at Caithness and Sutherland SPA and SAC are appropriate and in line with research findings. Formed of four members of SAC (Neil Metcalfe (chair), Bob Furness, Dan Haydon, Martin Price) this subgroup met on 1 October 2019 to discuss papers prepared by staff and stakeholders and relevant academic research. A report on the group's conclusions, supportive of existing SNH policy, was provided to SNH staff.
15. Monitoring and surveillance requirements for Protected Areas and surrounding landscapes to inform post-2020 reporting: This new sub-group (comprising Ruth Mitchell (chair), Jeremy Wilson for the SAC, Sarah Woodin, James Pierce-Higgins and Beth Scott from the SAC Expert Panel, Philip Boulcott in Scottish Government, Andy Nisbet in Natural England; supported by staff led by Brian Eardley) covers a substantial area of work for SNH and partners. The first meeting was held over two days (17 and 18 September 2019). That meeting reviewed context (Aichi reporting, State of Nature reporting, the IPBES report, Scotland's climate emergency, proposals for CBD CoP 2020), surveillance and monitoring in SNH, surveillance and monitoring in England, the marine policy context, the current approach for monitoring nature at sea, earth observation and science, terrestrial monitoring opportunities and approaches, Site Condition Monitoring programme, Scottish Biodiversity Information Forum, data acquisition and archiving, opportunities for wider countryside monitoring. The second meeting was held on 3-4 March 2020. The meeting on 3rd March expanded to involve more specialists from Scottish

Government, Natural England, Northern Ireland Environment Agency, Joint Nature Conservation Committee and the research and evidence community. It addressed how we should develop the evidence base on the IPBES drivers to improve our understanding of the State of Nature. We have had considerable interest from across the UK in this workshop and, working with Scottish Government, we propose to follow up on this with a further workshop to advise on research and evidence needs. The meeting on 4th March concluded advice on the next steps for Site Condition monitoring, and advised on how we can develop our contexting of the condition of features in Protected Areas with the wider countryside.

Other SAC activities

16. Individual members of the SAC and Expert Panel review drafts of scientifically novel or contentious SNH-commissioned research reports as part of our editorial Quality Assurance process.
17. Aileen Mill chairs, and Jeremy Wilson is a member, of the Uist Wader Project's Technical Advisory Group, which is part of a consortium effort devoted to conserving the populations of waders breeding in the Uists.
18. Xavier Lambin (Expert Panel member) is a member of the Technical Advisory Group supporting the Orkney Native Wildlife Project, which is funded largely by the National Heritage Lottery Fund.
19. The SAC and SNH staff contributed to the Scottish Ecology, Environment and Conservation Conference (SEEC) with over 170 delegates, predominantly postgraduate students, held at Glasgow University on 2 and 3 April 2019.

Reputational risk

20. The reputational risks to SNH are significantly reduced through the SAC and Expert Panel members, collectively and individually, advising on the work and reports undertaken or commissioned by staff. SNH has a strong reputation for its deployment of evidence-based advice in support of government and its own policies and good practice. We should never take this for granted, for such reputations are easily undermined where this advice is not sought or considered.

Recommendations

21. Board are invited to:

- **Note the wide range and deep reach of on-going activities of the SAC.**