

Scientific Advisory Group and Programme Board- Capercaillie Emergency Plan

Meeting note

Thursday 6 August, 3pm - 5pm | Park Authority Office, Grantown-on-Spey and Teams

Attendees

- Alice Broome - Forest Research, Senior Scientist - Priority species / habitats
- Andy Ford - Park Authority, Director of Nature and Climate Change
- Carolyn Robertson - Park Authority, Cairngorms Nature Manager
- Dave Parish - NatureScot, Terrestrial Ornithologist
- Holly Niven - University of Glasgow, Research Assistant
- Jason Matthiopoulos - University of Glasgow, Head of Ecology and Environmental Change
- John Risby - Scottish Forestry, Highland and Islands Conservator
- Kath Leys - NatureScot, Head of Biodiversity and Geodiversity
- Kathy Fletcher - GWCT, Senior Scientist Scottish Upland Research
- Shona Shentall - NatureScot, Head of Operations Central Highlands
- Steven Ewing - RSPB, Senior Conservation Scientist
- Stuart MacQuarrie - NatureScot, Deputy Director Nature and Climate Change (Chair)
- Xavier Lambin - University of Aberdeen, Professor of Ecology

Apologies

- Alex Macleod - Forestry and Land Scotland, North Region Manager
- Chris Sutherland - University of St Andrews, Reader of Statistics
- Helen Senn - RZSS, Head of Conservation and Science Programmes

1. Review the draft Research and Monitoring Plan

The group reviewed the third draft of the Research and Monitoring Plan. This was the final opportunity for substantive comments, with the aim of agreeing the plan in principle.

The main changes to the draft were highlighted and discussed:

- A diagram has been added showing the relationship between the Capercaillie Emergency Plan and the Research and Monitoring Plan.

- The Research and Monitoring Plan now focuses on tracking indicators of productivity, with population increase and range expansion remaining longer-term measures of success.
- The Research and Monitoring Plan does not seek to quantify the impact of individual interventions, as it is not possible to carry out experimental work at the scale needed. It was noted that the plan should instead be clear about what is and is not currently known about interventions, highlighting key knowledge gaps to help prioritise monitoring and provide context for interpreting results.
- A simple Theory of Change has been added to the plan, and a more detailed version underpins the Capercaillie Integrated Population Model.
- A recovery curve has been added with initial annotations. This should evolve over time to describe in more detail what changes might reasonably be expected at different stages of recovery. The curve should extend to 2045, consistent with the proposed timescale of the Research and Monitoring Plan.
- The funding table has been refined but requires final figures. It should cross-reference the funding table in the Capercaillie Emergency Plan where appropriate to avoid duplication.
- A map of capercaillie core areas has been added to illustrate the geographical scope of the Research and Monitoring Plan. The National Park boundary should also be shown, and the text should make clear that the plan is primarily focused on the Cairngorms National Park.
- Additional predator datasets have been included, recognising that incorporating more relevant data should strengthen analysis through the Integrated Population Model.

Key points from discussion

The group supported the Research and Monitoring Plan extending to 2045. Longer-term measures of success, specifically population increase and range expansion, will be reflected in the next National Park Partnership Plan 2027 - 2032. The Research and Monitoring Plan therefore provides an appropriate longer-term framework within which these changes can be assessed. The need to align monitoring and reporting with the Cairngorms Nature Index was also highlighted.

The plan should set out a clear annual monitoring and decision-making cycle, showing when new data become available and are incorporated into the Integrated Population Model, when assessments take place, and when findings and recommendations are reported to inform adaptive management.

The group discussed how adaptive management will work in practice using outputs from the Integrated Population Model combined with other evidence to inform assessments and recommendations. A priority is to integrate the model with habitat suitability maps currently being developed by the RSPB. The maps are being developed using distance sampling, with the strongest data currently available for the Cairngorms Connect area due to the availability of 2022/23 LiDAR data.

Invertebrate data should be added to the data table in the Research and Monitoring Plan. This remains a significant evidence gap and efforts could be made to improve the available data.

There is scope to give reinforcement greater prominence within the plan, including in the introduction to the Capercaillie Integrated Population Model as the model can account for birds added to the population.

The risk table should be broadened to include background environmental change, including climate change and associated impacts such as wildfire, as well as stochastic events that could cause a rapid and potentially catastrophic population decline. Reinforcement should be identified as a potential mitigation in this context.

2. Agree communications around the Research and Monitoring Plan

The group discussed key points about how monitoring and progress should be communicated:

- It will be important to manage expectations around ecological lag, recognising that population responses to interventions may take time to become apparent.
- Communications should be clear about what is and is not being measured, and why. In particular, the focus is on monitoring population outcomes, including productivity, rather than attempting to quantify the effect of individual interventions.
- It was agreed that a basic communications plan should be developed, setting out principles for when and how monitoring findings are communicated.
- Reporting should increasingly focus on outcomes rather than inputs – for example, moving beyond kilometres of fence removed to what this is expected to achieve in terms of reducing mortality and supporting population recovery.
- The group agreed to publish a productivity dashboard, providing a regional productivity estimate for the National Park. This can be presented alongside outputs from the Integrated Population Model showing the population trajectory and estimated timescales towards stability, helping to demonstrate the anticipated benefits of continued investment. The model could also provide predictions against agreed future targets, with uncertainty clearly presented to help manage expectations.
- As monitoring shifts towards a broader set of population metrics, rather than relying primarily on lek counts, it will be important to engage stakeholders in developing and understanding this approach.
- There needs to be confidence and trust in the monitoring tools, data and analysis. Practitioners should be engaged directly in developing the productivity dashboard to ensure it provides information that is useful to them, either publicly or through appropriate access to more detailed information.
- Reporting on delivery of the Emergency Plan should align with the productivity dashboard. For example, the annual publication of the dashboard could be accompanied by a summary of progress in delivering Emergency Plan actions.

3. National Capercaillie Survey plans

The National Capercaillie Survey, previously due to take place in 2026/27, will now be undertaken at the end of the Capercaillie Emergency Plan, in 2029/30 or 2030/31. The group discussed the implications for the Integrated Population Model, particularly the resulting gap in National Survey population data between 2021/22 and 2029/30. It was agreed that the model would be tested without additional National Survey data, relying instead on available brood and lek data, with the findings reported back to the group.

4. Roundtable updates

The wildfire in Glenmore Forest Park and Abernethy National Nature Reserve was discussed. Its impacts on capercaillie remain unclear and communications will remain reactive until more is known. Whilst the wildfire is within the core capercaillie area, delivery of the Emergency Plan can be adapted to help mitigate impacts.

Updates were shared on delivery of the Capercaillie Emergency Plan. A further £500,000 of support from the Scottish Government's Nature Restoration Fund (NRF) has been secured and a new programme of work is being developed, building on the previous round of NRF-funded delivery in 2025/26. Progress highlighted included:

- In the last six months, over 12km of deer fencing has been removed from within 5km of active lek sites in the National Park. Currently, a further 5km of deer fencing has been identified for removal before the next breeding season. The Programme Board has also discussed how to accelerate progress on fence removal.
- Dense heather has been robocut across hundreds of hectares on multiple sites and woodland grazing has expanded to influence over 6,000ha of capercaillie habitat across multiple landholdings, including community woodland and the public estate. Recruitment of a Conservation Grazing Coordinator is underway to support further expansion.
- Diversionary feeding for capercaillie was delivered on 19 sites this breeding season, covering 70% of sites currently supporting female capercaillie in the National Park. Cameras have been deployed on dustbaths to help monitor the intervention and work is underway to mainstream data collection and analysis.
- Work is progressing to expand vole monitoring, and initial discussions have begun around improving understanding of goshawk foraging behaviour in capercaillie areas.
- Bog woodland restoration will be a new area of delivery this year, addressing an element of the Emergency Plan that has not yet been progressed.
- Funding is in place for RSPB to develop habitat suitability maps to help target interventions spatially, and for the University of Glasgow to continue technical support for the Integrated Population Model, including data updates, spatial outputs and real-time analysis. Questions circulated by email on priorities for further development of the Integrated Population Model were highlighted. Funding is also in place for GWCT to continue brood counting with dogs alongside camera traps to compare monitoring methods.
- Work is being scoped to explore social science input to better understand social and cultural factors influencing the delivery of interventions for capercaillie.
- It was noted that initial analysis exploring capercaillie productivity alongside proxies for disturbance had not identified any clear relationships.
- Phases 1 and 2 of the Capercaillie Reinforcement Feasibility Study are complete.
- The Cairngorms Nature Index condition assessments for the woodland ecosystem are almost complete.
- The Capercaillie Emergency Plan will be incorporated into the next National Park Partnership Plan (2027 – 2032), which is scheduled for public consultation October to December.

4. AOB

Stuart handed over the chair to Kath, who will chair the group from the next meeting on 29 October. NatureScot will therefore continue to chair the group. Stuart was thanked for his contribution and support to date.

Actions

1. **Carolyn** to finalise the draft Research and Monitoring Plan based on all final comments received.
2. **Carolyn** to work with Communications colleagues to develop a draft communications plan for the Research and Monitoring Plan.
3. **Holly and Jason** to test the Integrated Population Model without National Survey data and report back on its performance.
4. **All members of the Scientific Advisory Group** to complete the questions circulated by email regarding priorities for further development of the Integrated Population Model.
5. **Carolyn** to share the latest information on the Cairngorms Nature Index woodland ecosystem indicators and condition assessments.
6. **Carolyn** to set-up a dedicated meeting to discuss the outputs and recommendations from Phase 1 and 2 of the Capercaillie Reinforcement Feasibility Study.