GROUSE NEWS

Newsletter of the Grouse Group *of the*
IUCN-SSC Galliformes Specialist Group

Galliformes Specialist Group

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Chair Grouse Group within the IUCN-SSC Galliformes Specialist Group

Mike Schroeder, Former Chair, Grouse Group within the IUCN-SSC Galliformes SG (GSG)
Washington Department of Fish and Wildlife, 1530 Douglas Avenue, Bridgeport, Washington 98813, USA, Michael.schroeder@dfw.wa.gov

David Dahlgren, New Chair, Grouse Group – IUCN-SSC Galliformes Specialist Group
Rangeland Wildlife Extension Specialist Associate Professor, Utah State University 1- (435) 881-1910 dave.dahlgren@usu.edu. https://qcnr.usu.edu/directory/wild/faculty/dahlgren-david

Editor

Tor Kristian Spidsø, Editor Grouse News
Skilsøtoppen 33, N-4818 Færvik, Norway, TKS.Grouse@gmail.com

Co-editor North America

Don Wolfe, Co-editor North America
G. M. Sutton Avian Research Center, P.O. Box 2007, Bartlesville, OK 74005, dwolfe@suttoncenter.org

Editorial Board

Claude Novoa, 7 Impasse Saint Jacques, 66500 Catllar, France, claude.novoa@orange.fr.
Leslie Robb, P.O. Box 1077, Bridgeport, WA 98813, USA robblar@homenetnw.net
Yasuyuki Nagano, Rock Ptarmigan Research Group / NPO Wildlife Research Organization in Niigata, 783-1 Sekigawa, Myoko 949-2112, Japan, jybunting@gmail.com.
Yua-Hua Sun, Key Laboratory of Animal Ecology and Conservation Biology, Institute of Zoology, Chinese Academy of Sciences, Beijing 100101, China, sunyh@ioz.ac.cn

Contents

From the Editors

As you may have recognized, we have a new Chair of Grouse Group. Mike Schroeder will soon be retiring, and has decided to step down from the Grouse Chair position. We greatly appreciate Mike's passion and leadership over the past several years. Dave Dahlgren was elected as new chair. There is information under News from Grouse Group.

It is often hard to get people to write for Grouse News. For many of you it is more important to write in international journals to get credit for your work. But with joint efforts we will make Grouse News a good newsletter for grouse people all over the world where they may find interesting things and be updated of what is going on in grouse research. But it is up to you folks. The more you contribute to Grouse News, the better it will be. If you have anything that can be of interest to other grouse people around the world, please send it. We welcome articles, reports from projects, conservation news; abstracts from papers (if permitted by the journal) and also other things you think may be of interest to grouse people.

When we publish Grouse News some are returned undelivered of different reason. Some have full email box, some unknown address, and some can't receive the email of security reasons. Or it may be other reasons. If you don't receive Grouse News but think you should have it, please check out why you don't get it. Also if you know of anybody you think should receive GN tell them to send a message.

It seems much of the world is still reeling from the 2020/21 pandemic, and it has certainly affected the ability for professionals to meet at normally scheduled conferences and workshops. The Prairie Grouse Technical Council (PGTC), which usually meets in odd-numbered years, did not meet in 2021, and the meeting was bumped back a year to 2022. This created an additional conflict, as the Sage and Columbian Sharp-tailed Grouse Workshop generally meets in even-numbered years (2022, 2024, etc.), and the many would-be participants could not attend both in a given year. Thus, the PGTC was once again pushed back a year to 2025 to accommodate those wanting or needing to attend both, and hopefully, both groups can continue the long-standing plan of meeting alternating years. More information on the PGTC is included in this issue of Grouse News. The 16th International Grouse Symposium will be in Norway 2026 and organised by University of Inland.

Tor Kristian Spidsø, Editor Grouse News
Skilsøtoppen 33, N-4818 Færvik, Norway, TKS.Grouse@gmail.com
Don Wolfe, Co-editor North America
G. M. Sutton Avian Research Center, P.O. Box 2007, Bartlesville, OK 74005, dwolfe@suttoncenter.org

From the Chair

The former chair

You are now aware that leadership of the International Grouse Group will be in the capable hands of Dr. Dave Dahlgren (dave.dahlgren@usu.edu). Dave has substantial experience in the world of grouse and his academic and professional contacts will help him support the collaborative nature of the international grouse community.

It is this spirit of collaboration that first attracted me to grouse. While writing a paper titled "Sympatric relationships of spruce grouse, ruffed grouse, and blue grouse" for a class project in spring of 1980, I noticed that two of the often-cited researchers were Dr. Fred Zwickel and Dr. David Boag at the University of Alberta in Canada. How could two grouse researchers end up on the faculty of the same university? After having the pleasure of working with them for many years I learned that both had a long-standing history of interest in grouse. They met each other at Washington State University in the USA. David Boag was working on his Ph.D. with Dr. Irvin Buss who was a former graduate student of Dr. Aldo Leopold. Many of you reading this will be aware that Leopold is widely considered to be the founder of the field of Wildlife Management in the United States. Leopold was also a big fan of grouse, as his writings, graduate students, and colleagues clearly illustrate. It was David Boag (Canadian) that invited Fred Zwickel (American) to apply for an open position at the University of Alberta many years ago. Alberta was hoping to attract somebody with an interest in conducting research on deer. However, the attraction of grouse was too much for Fred, and he soon switched his research focus to grouse and the rest is history.

Everything I have written so far is very North American-centric, primarily because that is where my expertise is. However, the examples of collaboration in the world of grouse are far more numerous with Europe and Asia. There are examples of multinational research projects among many countries including Russia, China, Georgia, Germany, Norway, Sweden, France, Scotland, and Iceland, to name a few.

What is it about grouse that brings the world together? For many, their interest in grouse is focused on their stature as gamebirds. Lewis and Clark were explorers that crossed what eventually became the western portions of the United States of America more than 200 years ago (I know this is recent history for many of you). Their journals are full of detailed descriptions of grouse. The usefulness of grouse as a source of food was clearly one of the reasons. However, there is far more to grouse than their existence as a source of food. Every time I am with somebody seeing and hearing sage-grouse on a strutting ground for the first time, the excitement of the observer is undeniable. Even the aboriginal cultures in North America immortalized grouse in their art and dances. Perhaps it helps that grouse live in our areas throughout the year. They share with us the intense heat of the summers, the bitter cold of the winters, and the ferocity of storms…without the shelter of a house. How can you not respect that?

Finally, as a citizen of the USA, it is easy to be distressed about the current direction of science, management, and opportunities for collaboration. I will do my best to take comfort in the thought that people dedicated to grouse throughout the world have kept their focus in much more difficult times. My biggest hope is that the spirit of collaboration, which makes the world of grouse so vibrant, exciting, and resilient, will continue. Cheers!

Michael A. Schroeder, Former Chair of the Grouse Group within the IUCN-SSC Galliformes SG (GSG), Washington Department of Fish and Wildlife, P.O. Box 1077, Bridgeport, WA 98813 USA, michael.schroeder@dfw.wa.gov or grouse@homenetnw.net

The new chair

Hello fellow grousers, I'm excited to introduce myself as the new Chair of the Grouse Group within IUCN-SSC Galliformes Specialist Group. I'm David Dahlgren, PhD, Associate Professor and Rangeland Wildlife Extension Specialist at Utah State University, where my programming focuses on conservation, ecology, and management of rangeland-wildlife habitat and associated species. I have often used the lens of our native grouse species to understand these systems and their conservation needs.

A fascination with grouse began in my childhood growing up in North Dakota pursuing sharp-tailed grouse, both in and out of the season. I still remember visiting the Badlands National Park Museum and seeing a stuffed male sage-grouse under glass and my parents having to pry me away to look at other collections. I captured and radio-marked my first grouse in 2002 as one of many graduate students studying sage-grouse at the time. I have been riding the sage-grouse conservation wave ever since. I have also had been fortunate to conduct research on greater and lesser prairie-chickens, Columbian sharp-tailed grouse, dusky grouse, ruffed grouse, and white-tailed ptarmigan. As for the rest of the Tetraonids, I look forward to getting to know them better.

My introduction to this group was in 2015 when I attended the 13th International Grouse Symposium in Iceland (thanks Oli). Like many grouse-related gatherings, I found a common almost familial and jovial thread of sociality. In 2018, I had the privilege of chairing and hosting the 14th IGS in Logan, Utah. What an incredible experience it was to have so many from around the globe (northern hemisphere anyways) come and present their work and get better acquainted.

I'm honored to be stepping into this role following Mike Schroeder, who I deeply respect as a grouser, expert, and person. Mike's leadership and dedication have set a high bar, and if I have any self-doubts about this endeavor, it is in filling the empty shoes. I hope to build on the strong foundation he's helped establish, along with all past leaders in our grouse world. I also look forward to working more closely with J. Carroll as the head of our Galliformes Specialist Group. I will certainly need help in continuing and growing our collective Grouse Group and supporting future IGS meetings. I am eager to participate in the 16th IGS in Norway.

I'm excited to work more with all of you—sharing ideas, collaborating across borders, and pushing grouse conservation forward together. Please don't hesitate to reach out—I'd love to connect.

All the best, David Dahlgren, PhD

David Dahlgren, Chair, Grouse Group – IUCN-SSC Galliformes Specialist Group
Rangeland Wildlife Extension Specialist Associate Professor, Utah State University 1- (435) 881-1910
dave.dahlgren@usu.edu. https://qcnr.usu.edu/directory/wild/faculty/dahlgren-david

NEWS FROM GALLIFORMES SG

Report from the Chairs of GSG

GSG continues to slowly move forward. As you all know Dave Dahlgren is the new Chair of the GG which now automatically makes him the Taxonomic Coordinator for grouse within GSG. Others who have agreed to be Taxonomic Coordinators include, Luis Fabio Silveira for Cracids, Ann Goeth for Megapodes, and Jeff Thompson for Tinamous. We are still working on several other taxonomic based coordinators. Regional Coordinators include, Rob Little for Africa, Amelie Laux for Europe, and Luis Fabio Silveira for South America. A number of other regions are in the works.

We are coming to the close of another Quadrennium within the Species Survival Commission. This means that Rahul and I will be submitting reports on activities of GSG and GG for that report next month. This also means that soon all members will need to be renewed. For those who are already members of GSG this is fairly transparent. For those who want to join now or for the new Quadrennium please reach out to Rahul or me and we can start the membership process. Joining is now more streamline than it has been in the past. In addition, John Paul Rodriguez has completed his second term as head of SSC, so he must step down. Typically, there is an election for the new head. The office of the SSC then moves to their location. This also means there will likely be some changes in how SSC operates. The past 8 years has seen much more activity in updating technology and web presence. There has also been much more emphasis on species groups that are underserved. We have a number of new SGs for plants, invertebrates and so on. JP was also much more broad minded in who could be invited to join SSC. For example, in the past graduate students were not encouraged to join. That has changed in many SGs.

With the loss of the previous website and the gray literature database we found a gap especially for older literature and also the tenuous nature of websites that might come and go. We have moved that database to Digital Commons and they are providing free uploading and archiving of our literature. If there are hard to get reports or conference proceedings that you wish to have included, please send our way. https://digitalcommons.unl.edu/galliformes/

John Carroll, GSG Co-Chair

John Carroll and Rahul Kaul, co-chairs of IUCN-SSC Galliformes Specialist Group.
John Carroll, School of Natural Resources, University of Nebraska, Lincoln, galliformesguy@gmail.com
Rahul Kaul, co-chair of IUCN-SSC Galliformes Specialist Group.rahul@wti.org.in.

NEWS FROM GROUSE GROUP

Dave Dahlgren new chair of Grouse Group

Dave Dahlgren (dave.dahlgren@usu.edu) was raised in North Dakota in the USA. He completed his B.Sc., M.Sc., Ph.D., and postdoc at Utah State University, much of it for work on greater sage-grouse conservation and management. He subsequently worked as the Small Game Specialist for the State of Kansas from 2010 to 2013, and then returned to Utah State University as an Extension Associate. In 2016, Dave accepted an assistant professor position as the Rangeland Wildlife Habitat Extension Specialist at Utah State University. He also hosted the International Grouse Symposium in Logan, Utah in 2018. Dave has experience with many grouse species in North America and has numerous peer-reviewed publications and book chapters. Some of these are listed below.

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CONSERVATION NEWS

Cairngorms Connect and the Capercaillie Emergency Plan

Sydney Henderson

In September 2024, the Cairngorms National Park Authority and NatureScot launched the Capercaillie Emergency Plan 2024 – 2030. The Plan sets out "immediate and targeted measures in the short-term… (aiming) to rapidly benefit Capercaillie, from improving habitat to reducing the impacts of predation and disturbance at scale."

In 2024, the forests within the Cairngorms Connect Partnership Area were home to a little over 62% of Scotland's lekking male Capercaillie (recorded in the National Capercaillie Survey). The partners are all active in restoring habitats across the Partnership – and much of this restoration is beneficial to Capercaillie. In this blog, we have summarised the partners' recent collaborative restoration activity that aligns with the Emergency Plan, to benefit Capercaillie and other forest biodiversity.

Habitat restoration and expansion

Restoring Capercaillie habitat at scale is an important driver for species success. The Emergency Plan calls for 'collaboration at a landscape scale' to 'help ensure the long-term recovery of the Capercaillie population in the UK,' which, as a landscape-scale Partnership, is exactly what Cairngorms Connect can deliver.

Woodland expansion – a bigger, connected habitat for Capercaillie.

Capercaillie need big forests. One of the most significant actions we can take is to make bigger and more-connected forests. The Cairngorms Connect partners currently manage 13000 ha of forest - much of it already suitable for Capercaillie. The partners share a 200-year vision to expand the Cairngorms Connect forest habitats to their natural limit, doubling the area to around 26000 ha of connected native woodland.

Recent surveys by the Cairngorms Connect partners, reveal that between January 2019 and March 2024, 888 ha of newly regenerated native forests have been recorded – that's over a thousand football pitches. In addition, the partners have planted 1170 ha of new native woodland.

A collaborative Cairngorms Connect deer management programme is helping to maintain a sustainable population of deer across 600sqkm of forest, moorland, and mountain. This helps to keep woodlands in good condition and is allowing woodlands to regenerate naturally. You can learn more about the results of 30+ years of deer management in the Partnership area here.

Photos (L to R): Regenerating trees at Loch a Garbh-Choire and planting Downey Willow seedings at Loch A'an on RSPB Scotland Abernethy Reserve. Credit: Scotland the Big Picture and Lizzie Brotherston

Scots pine plantation restructuring

In Strathspey, native Scots Pine plantations are a valuable timber commodity, as well as being a vital component of the network of Capercaillie habitats. As plantations mature, the light regime changes, affecting the type of forest dwarf-shrub field layer. Capercaillie favour a forest floor with a high proportion of light-loving Blaeberry – a species rich in invertebrates, as well as nutritious berries, leaves and shoots.

The Cairngorms Connect partners have been actively managing Scots Pine plantations – through a mix of commercial, and semi-commercial thinning (reducing stem density to promote stronger growth in the remaining tree crop), as well as restructuring to create deadwood and open areas in the forest. Since 2019, the Cairngorms Connect partners have restructured 2,275 ha of Scots Pine plantation, opening up glades to fill areas with sunlight and healthy Blaeberry, to positively support Capercaillie and other forest biodiversity. Partners have also removed 7802ha of non-native conifers, which also opens up the forest structure, and creates niches for native forest to regenerate.

Woodland grazing

Natural forests are characterised not just by their species and their physical structure, but also by ecological processes – for example disturbances created by wild grazing mammals. These disturbances are a normal function of a healthy habitat, and certain species – including Capercaillie - that survive in native woodlands are adapted to exploit and benefit from these ecological processes.

At RSPB Scotland Abernethy National Nature Reserve in the Cairngorms Connect Partnership area, the reserve team has undertaken 'large-scale field-layer disturbance", using cattle grazing, and a robotic mower mimicking missing natural processes.

So far, the team has grazed or cut over 1100 ha of in-forest field-layer. This creates a complex mosaic of open areas, cover and food plants, provide space for Capercaillie chicks to forage, hide, to dry out on wet days, and to move around the forest. Although this study is ongoing, early results suggest that Capercaillie usage of the grazed areas appears to have increased significantly - the Capercaillie lek in the grazing area has more than tripled, and in both the grazed and cut areas the team has recorded large broods on trail cameras.

This work is supported by the EU LIFE Programme-funded *LIFE 100% for Nature Project*, and The Famous Grouse.

Mike Butler checks the grazing cows on RSPB Scotland Abernethy Reserve. Credit: Scotland the Big Picture

Bog woodland restoration

Bog woodlands are an important habitat for Capercaillie, as plants that grow on boggy ground (like Cotton Grass) provide food sources for the breeding female Capercaillies, and the high density of bog invertebrates is a vital source of protein for chicks. Historically, many of these bogs were drained and planted with non-native conifers. The Cairngorms Connect partners are restoring these areas, by blocking up drainage ditches, and encouraging boggy areas to 're-wet'. Since 2019, 77ha of bog woodland on RSPB Scotland Abernethy and NatureScot Dell Woods have been rewetted by blocking drains, using low ground pressure excavators and hand labour.

Looking ahead, work is ongoing to identify and restore more bog woodland, led, in many areas, by the Cairngorms National Park Peatland Action Team. The Forestry and Land Scotland Strathspey Land Management Plan identifies bog woodland areas for restoration within the life of the Plan, and RSPB Abernethy undertake to restore up to 20ha of bog woodland habitat annually until all sites are complete.

Other management measures

Diversionary feeding

Since 2019, the Cairngorms Connect Predator Project has been investigating the potential of diversionary feeding to reduce the risk of predation of Capercaillie nests and broods. This was the focus of a PhD study carried out by Jack Bamber*. Through strategically re-distributing carrion, predators are discouraged from further foraging during the Capercaillie breeding season. The trial was conducted over two years and 60 sites within the Cairngorms Connect Partnership Area and results are promising. Other land managers in the Capercaillie range are now exploring this as an opportunity for reducing predator impacts on Capercaillie.

Reducing disturbance

Across the Partnership, we are carrying out works to minimise disturbance to Capercaillie, especially through the breeding season of March-August.

Across the Cairngorms Connect Partnership Area, a huge range of staff, volunteers, businesses, and community groups are alert to risks of disturbance to Capercaillie and engage with visitors during the Capercaillie breeding season to build awareness of disturbance risks. The ranger services that operate in the Partnership area promote the *Lek It Be* campaign led by the Cairngorms Capercaillie Project. Messages are reinforced by seasonal signage and interpretation to encourage responsible activity by visitors.

Alongside this campaign, teams on site are also working with local communities to identify ways to encourage recreation away from key areas for Capercaillie at sensitive times of the year.

Ranger Ewan talks to members of the public at Hill to Grill, a Cairngorms Connect Partnership celebration of local forests. Credit: Catriona Parmenter Photography

**PhD researcher Jack Bamber from the University of Aberdeen's School of Biological Sciences led the study, supervised by ecologists from the universities of Aberdeen and St Andrews, and from Forestry and Land Scotland. The project was also funded by Wildland Limited and ELSP.*

Fence removal and marking

Deer fences are effective at protecting trees in areas of high deer density, but they pose a significant collision threat to Capercaillie and other birds of forests and moorlands. They are also expensive to erect and maintain; they fragment deer habitat and prevent Deer from acting as seed vectors (carrying seeds in their fur and faeces) within fenced-off areas.

Over the past 30 years, the Cairngorms Connect partners have been removing deer fences, preferring to manage the impacts of deer browsing by reducing the Deer population through a collaborative programme of Deer stalking.

In the small number of areas where fences are used to protect trees, vulnerable plant communities, or research plots, these fences are appropriately marked to minimise collision risk.

Marked fences protecting aspen at Abernethy, credit Amelie Sumpter, and fence removal at Wildland Limited, credit: Ronan Dugan

Conclusion

This non-exhaustive list covers the short- to medium- term actions the Cairngorms Connect Partnership is carrying out to restore habitats and to benefit many species, including Capercaillie. Another factor influencing the Capercaillie population is climate change . Changing weather patterns can impact the number of chicks that make it to adulthood. In the face of a changing climate, Capercaillie need more expansive and variable habitat network – enabling them to adapt their behaviour to the prevailing conditions. Our restoration work combines short-term and long-term habitat gains, at a vast scale, to build robustness to climate change impacts. As well as benefitting Capercaillie, most of the measures above make the forest and habitats more resilient to climate change (e.g. restored bog woodland holding water in drought) and help Capercaillie cope better with extremes (e.g. grazing and cutting increases invertebrates so there's more food in a cool year).

Cairngorms Connect is also contributing to actions to reduce carbon emissions from land and to increasing carbon sequestration, thereby reducing the long-term risks of climate change.

Restoring a landscape and providing a safe home to native wildlife is no small task. It takes time, proper resourcing, collaboration, and the ability to work in the long (long) term, as well as fighting short-term emergencies. It's a task that relies on hope for a brighter future. In the case of Capercaillie, that hope is fuelled by evidence that this work is paying off - despite national decline, the population of Capercaillie within the Cairngorms Connect Partnership Area has remained stable since 2011.

Camera trap footage of a mature Capercaillie brood on RSPB Scotland Abernethy Reserve, courtesy of Jack Bamber.

This restoration work has been funded by the individual partners, as well as grants from Scottish Government, other supporters and – in the case of RSPB, FLS and NatureScot – support from the Endangered Landscapes and Seascapes Programme.

This article originally appeared on cairngormsconnect.org.uk

Sydney Henderson, Sydney.Henderson@cairngormsconnect.org.uk Cairngorms, Achantoul, Aviemore, PH22 1QD, Scotland

The effect of forestry on capercaillie lekking grounds

Göran Rönning and Bengt Oldhammer

Summary

More than 50 capercaillie leks in Sweden are presented in this report with a focus on the long-term development of old lekking grounds in Svealand (north of Limes Norrlandicus) and southern Norrland. The areas have been studied even after the forest in the lekking grounds or in its vicinity has been felled and replaced by clearcuts and plantations traversed by forest roads. One of the lekking grounds has been followed for half a century and is one of the best studied in Sweden.

Some of the old lekking grounds in older forest that are reported were studied in detail by capercaillie researcher Ingemar Hjorth; known for his groundbreaking and detailed book Tjädern - en skogsfågel, which was published by the Swedish Forest Agency in 1994.

The results clearly show that the number of roosters has decreased in all large lekking grounds (8-10 roosters and up), but also in lekking grounds with fewer roosters. In several cases, intact leks (where the core area remains) have collapsed. The root causes and main reasons for the sharp population decline of capercaillie since the mid-1900s are as follows:

- The capercaillie's favourite habitat in the form of older, multi-layered and different-aged forest has been felled.
- The forest landscape has been fragmented (split up) with roads, clearcuts and younger single-layered stands where the trees have the same height and thickness. The new and younger stands have significantly poorer habitat qualities for the capercaillie in a wide range of areas compared to the forest that existed before.
- As a result of the landscape transformation of forestry, predation on capercaillie has increased.

Everyone agrees that we have a significantly lower population of capercaillie today than before. Despite this knowledge, forestry representatives like to point out that all is well and good, and that the capercaillie thrives in planted stands that are cleared, thinned and clear-felled at an increasingly young age. With this report, we can show that this is data that does not have coverage. In the absence of larger areas of older forest, there are lekking grounds in younger forests, but they usually house few roosters, depending on the surrounding landscape. The young forest lekking grounds are also temporary, which is obvious because younger forests are sooner or later clear-cut, with the result that the capercaillie disappear. In forested landscapes with young forests and clearcuts, we today have unstable occurrences of capercaillie with often only 1-2 displaying roosters - which cannot even be called lekking grounds.

A fundamental question we are seriously trying to raise with this report is why the capercaillie should be forced to adapt to clear-cutting forestry instead of the other way around. How realistic is it that the capercaillie will be able to cope with an increasingly depleted and homogenized industrial landscape with timber fields in the long term? Most evidence suggests that this will, among other things, negatively affect the genetic variation of the capercaillie. We believe that this development is unacceptable.

Since the capercaillie was much more common than today, it was something of a keystone species by providing food for many animals, owls and birds of prey, an ecological aspect that is rarely taken into account. Among other things, the capercaillie is an important food source for golden eagles, whose breeding success deteriorates when the number of forest grouse decreases.

We have studied lekking grounds in younger forests/thinning forests. Among these, we have particularly looked closer at what has been said to be one of Garpenberg's largest capercaillie lekking grounds in a younger forest (lekking ground no. 64 in part 2). This example is rewritten as an example of young forests being excellent capercaillie habitat. We have visited the area five times. The lekking ground is considered to have completely collapsed despite the forest being intact. We can learn important lessons from this.

The picture of the capercaillie and forestry that we convey in the report is supported by a very large number of research reports, inventories, articles in various books and magazines, and oral information from people with extensive experience of capercaillie. In total, this involves information from a couple of hundred people. Never before, to our knowledge, has such a comprehensive compilation been made of older sources about capercaillie in Sweden.

When Professor Lena Gustavsson at the Department of Ecology at the Swedish University of Agricultural Sciences was interviewed by the magazine Skog & framtid in 2011, she made the following thought-provoking comment (our bold): “In a number of years, approximately eight percent of our forests will consist of protected areas, where the trees will only get older and older. The rest will be more or less intensively managed forests between the ages of zero and 50−60 years.

Such a forest landscape has never before existed in Sweden".
The Swedish Forest Agency's guidance for consideration of the capercaillie states that "The capercaillie prefers areas with a high proportion of mature (at least 60−70 years old), relatively sparse pine-dominated forest." The guidance also clearly states: "avoid felling on lekking grounds". In addition, forestry must take into account the capercaillie's lekking grounds according to EU legislation.

It may sound reassuring, but this consideration is very rare. The Swedish Forest Agency does not act to protect lekking grounds according to its own guidance (!) or according to EU requirements. Landowners do not voluntarily save lekking grounds and environmentally certified forest companies that have committed to following the Swedish Forest Agency's guidelines for capercaillie in their environmental regulations rarely do so. In other words, the development of capercaillie habitat and large roosts with many roosters continues to be negative in the forested landscape as a result of cumulative effects described in the report.

The fundamental cause of today's unacceptable situation for capercaillie and biodiversity is the hegemony of the forestry industry in the forest and in politics. In the report, we address some of the most false propaganda through concrete examples, references, quotes and footnotes. What most people do not know is that forestry employs few people, 0.3 percent of those employed in Sweden, and that its share of Sweden's GDP is only 0.7 percent. With these low percentages, there is no defense for so completely destroying the biodiversity of the forest landscape in the way that is happening. We discuss this at the end of part 1.

Göran Rönning och Bengt Oldhammer 2024. The effect of forestry on capercaillie lekking grounds. (Skogbrukets effekter på tjäderns lekplatser. Hur landskapets fragmentering minskat populationen av tjäder – en långtidsstudie.). In Swedish. ISBN Printed version: 978-91-527-3487-2 Webb-version: 978-91-531-2228-9

The full report is found at.
https://dalarna.naturskyddsforeningen.se/wp-content/uploads/sites/55/2024/11/WebbSlutversion-Skogsbrukets-effekter-pa-tjaderns-lekplatser.pdf

Göran Rönning, Gimsbärke 461, 781 95 Borlänge, 0243 126 60, goran.ronning@gmail.com
Bengt Oldhammer bengt.oldhammer@telia.com

Voluntary transition from lead to non-lead shotgun ammunition

Plumbism, or more commonly known as lead poisoning, is a widespread problem for waterfowl as well as for raptors and other scavengers that feed on unretrieved game. It is, of course, also a human health concern for those that consume wild game. In many jurisdictions, there are now restrictions on the use of lead ammunition, especially for waterfowl hunting. In some areas, there have been efforts to promote voluntary usage of non-lead ammunition for big game and upland game bird hunting. While these voluntary efforts have sometimes shown some success in reducing the availability of lead to scavengers, a recent paper by Green et al. (2025) demonstrated that these voluntary efforts are not always successful, as shown in the results of a five-year voluntary transition effort in Britain. For more information, please see the full article at: https://doi.org/10.52201/CEJ22/YYWM1722.

Red List Revisions

The Siberian grouse *Falcipennis falcipennis* and Sage-Grouse *Centrocercus urophasianus* are on the list of species to be reviewed during the next Red List evaluation period. Status, justification, and opportunity to comment are available on the links below. For those in North America, especially note that this appears to include both Greater Sage-Grouse (*C. urophasianus*) and Gunnison Sage-Grouse (*C. minimus*) collectively, despite it being 25 years since the Gunnison Sage-Grouse was recognized as a separate species. The species designation should also be included in comments to BirdLife International.

https://forums.birdlife.org/178292025-2-sage-grouse-centrocercus-urophasianus/
https://forums.birdlife.org/2025-2-siberian-grouse-falcipennis-falcipennis/

RESEARCH REPORTS

Ecology and protection of capercaillie *Tetrao urogallus L.* – a review

Siegfried Klaus

This paper is dedicated to the memory of my friend Prof. Aleksander Vladimirovich Andreev †, Magadan, leading ornithologist, ecologist and explorer of the Russian Far East

Summary

This review summarizes some basic results from international and own work (in Thuringia) dealing with habitat requirements, population biology, and reasons for decline, with a special view on predation and some limited remarks on conservation.

As the largest member of the grouse subfamily, the capercaillie is adapted to large tracts of old-growth boreal forest with gaps and a well-developed shrub layer of the preferred *Vaccinium myrtillus* and other *Ericaceae*. This habitat type is in danger by fragmentation caused by modern forestry (clear-cutting), climate change and by nitrogen input acting at the landscape level. As one result, medium-size predators are favoured, resulting in enhanced predation pressure on nests, chicks and adults. In addition, capercailies are experiencing more disturbance due to increasing tourism. As a result of climate change, newer research is concentrated on vegetation phenology and related aspects of insect and plant food for the chicks. In contrast to Central Europe, in Finland and Norway a higher flexibility of capercaillie habitat preference has been reported – new leks are found also in younger plantations (> 40 yrs.). Possible reasons for this unexpected phenomenon and other reasons for population declines will be discussed.

Long-term fluctuations of abundance have been followed by Finnish colleagues using line transects and presently the wildlife triangle census method. Long-term work was carried out also by Per Wegge and coworkers at Varaldskogen, their well-known study area in SW Norway.

Conservation activities in Central Europe – to summarize a few examples only – concentrate on habitat improvement activities in Poland, the German Black Forest, the Thuringian Slate Mountains and Switzerland. An overview of release projects is outside the scope of this review. From all our research, we have learned that habitat management activities starting at the local forest stand have to be expanded to the landscape level, large enough to protect a viable population. Because reserves – even national parks – are usually too small (in Central Europe) to preserve viable populations, the surrounding forests must be managed in a sustainable way to favour the capercaillie and the accompanying forest biodiversity.

Schlagworte/key words: Capercaillie *Tetrao urogallus*, habitat requirements, population biology, reasons for decline, conservation.

Siegfried Klaus 2024. Ecology and protection of capercaillie *Tetrao urogallus* L. – a review. Beiträge zur Jagd- und Wildforschung, Bd. 49: 181-192. Full text available in Research Gate.

Siegfried Klaus, Lindenhöhe 5, D-07749 Jena, siegi.klaus@gmx.de

Release projects with Capercaillie *Tetrao urogallus* in Germany – a review

Ralf Siano and Siegfried Klaus

Abstract

Reintroduction and reinforcement are common tools in grouse conservation, to preserve the species and/or bring it back in the former distribution area. This review summarizes and evaluates all capercaillie (*Tetrao urogallus*) release projects in Germany since 1950.

Since 1950 about 5,800 capercaillie have been released in the course of four reintroduction and seven reinforcement projects in different parts of Germany. Nine projects have been finished and two are still in progress (Thuringia, Brandenburg/Lower Lusatia). The majority of released birds were reared in captivity (83%). In addition, translocation of wild birds (13% of all birds) was used in two projects. Four percent of birds were released using "born to be free", an alternative method which combines captive-rearing with living in the wild. Five out of the 11 release projects failed (Ebbe Mts., Harz Mts., Higher Sauerland, Odenwald, Rhoen). Success or failure could not be determined for four reinforcement projects (Northern/Central Bavarian Forest, Northern/Central Black Forest). In two ongoing projects a positive population trend can be observed (Lower Lusatia, Thuringia).

Captive-reared birds suffered from physiological and ethological deficits such as inadequate predator avoidance, reduced digestive ability, insufficient development of muscles and other organs and abnormal behaviour. Translocation of wild grouse and grouse raised with the "born to be free"-method showed much better results, but basic conditions (sufficient habitat quality and quantity) must be fulfilled as a precondition, able to support a minimum viable population of at least 100-200 individuals. The IUCN guidelines for reintroduction and other conservation translocations must be basis of any release project.

Keywords: grouse release, reintroduction, reinforcement, translocation, captive-rearing, project evaluation

Ralf Siano and Siegfried Klaus 202? Release projects with Capercaillie *Tetrao urogallus* in Germany – a review. (The paper was submitted to Ornithologischer Anzeiger (Bavaria)).

Ralf Siano, Schubertstr. 2, 01307 Dresden, Germany, ralf_siano@yahoo.de
Siegfried Klaus, Lindenhöhe 5, 07749 Jena, siegi.klaus@gmx.de

CONFERENCES

The 2025 Prairie Grouse Technical Council meeting.

I am excited to have the opportunity to host the meeting and welcome everyone to the Nebraska Sandhills this fall. Many details for the meeting will be released at a later date, but as schedules are developing I wanted to get the word out that the date and location have been set for this years meeting. The meeting will take place in **Valentine, NE on September 23-25**. Details on the venue and hotels are online at the PGTC website. If you have any questions please feel free to reach out.

Bryan O'Connor, Upland Game Program Manager, Nebraska Game and Parks Commission, 50379 Hwy 22 Wolbach, NE, 68882 308-293-0102, bryan.oconnor@nebraska.gov.

16th International Grouse Symposium in Norway 2026

Maria Hörnell Willebrand has confirmed that the 16th International Grouse Symposium in 2026 will be in Norway and will be organised by the University of Inland. More details will be provided at a later time.

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RESEARCHERS AND THEIR BEST FRIEND ASSISTANTS

A Modification of Distance Sampling for Northern Bobwhite Using Dogs

Dwayne Elmore

I am constantly amazed at the creativity of game bird researchers and have benefited tremendously from cross pollination of ideas and constructive criticism. While the species we work on may vary as much as the places we study, I find that I share much in common with nearly all. One of the things that often is shared is a passion for hunting game birds with dogs and using those same dogs to better understand our target species (Dahlgren et al. 2020). This blending of professional and personal endeavors has certainly enriched my life as I am certain it has for many others over the many decades of game bird research. One of our wildlife research icons said it best, "*My dog, by the way, thinks I have much to learn about partridges*" …. Aldo Leopold.

Recently when faced with a conundrum of how to effectively and efficiently estimate fall populations of the northern bobwhite (*Colinus virginianus*, hereafter bobwhite), I borrowed an idea that involved pointing dogs from a friend and fellow grouse researcher. Bobwhite, similar to many game birds, are secretive and cryptic making them difficult to reliable count during much of the year. Bobwhite managers use fall population abundance as a both a measure of management success as well as helping to establish sustainable harvest recommendations. Therefore, having accurate estimates is important. However, these estimates come at a cost of a precious resource – time.

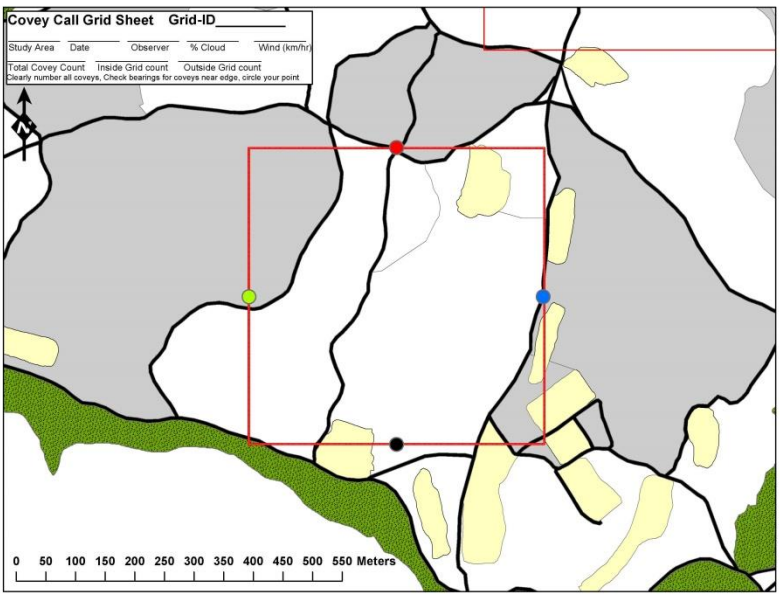

Figure 1: Grid counts have been shown to provide reasonable fall bobwhite estimates using assembly/location covey calls. However, they are labor intensive and can only be conducted at dawn during a brief few weeks each fall. This method requires four observers each stationed at one of the colored dots. They listen and record the locations of calling bobwhite within the square boundary and help correct each other post hoc.

Historically, point counts have been widely used during the fall to count calling bobwhite. Bobwhite, being a social quail, often use assembly calls to locate each other. This call is typically referred to as a 'covey call'. Calling is most reliable during the fall when breeding has ceased, bobwhite have assembled into groups called coveys, and when photoperiod signals the change in seasons leading into winter. Calling rates typically peak in October or November in the first few minutes of daylight each morning. During this time, calling bobwhite can be counted to estimate the number of coveys in a given area (Stoddard 1931). However, there are several inherent biases (imperfect detection) associated with this point sampling that researchers have attempted to measure and account for (e.g. Applegate et al. 2011, Rusk et al. 2006, and Wellendorf et al. 2024). These include variation in calling based on weather and bobwhite density; variation in observer ability/hearing; influence of topoedaphic

features on audibility; and discernment of multiple calling birds within the same covey group among others.

A modification of the fall covey count method, called plot sampling is often used to attempt to better estimate covey numbers. This method uses not one, but four observers that listen from predetermined locations in close proximity (Figure 1). They record all calling bobwhite within a set square area of 24.3 ha. The rational is that in such a small area, all observers should be able to hear most of the birds and that the group can correct each other on birds not heard, double counted, or where the distance was miscalculated. After the count is finished, a subsample of the coveys can be flushed to provide an estimate of average covey size. The detected coveys along with the average bobwhite per covey can be extrapolated to determine an estimate of quail per hectare within the plot. While this method has been demonstrated to provide more reliable density estimates, it has several major drawbacks. First, similar to standard fall covey counts, there is a brief window each season and each morning that bobwhite reliably call limiting how many samples can be conducted. Second, grid counts take 4 people so labor demand is high.

At the research station where I work, we use grid counts to estimate the fall population. This requires our entire team to be available every morning for several consecutive weeks if the weather is suitable. But importantly, most of our stakeholders do not have the labor force needed to replicate this method nor can we reach all of them during the brief window of reliable calling. Recently, more robust methods such as spatial capture recapture have been shown to provide reliable estimates (Nolan et al. 2023). For research purposes and on intensively managed and monitored properties, this may be the gold standard. However, this method also is labor intensive and not practical for many properties managed for bobwhite. With all this in mind, we thought there must be another way that provides estimates that are 'good enough' with limited effort, and that perhaps a bird dog could provide the answer.

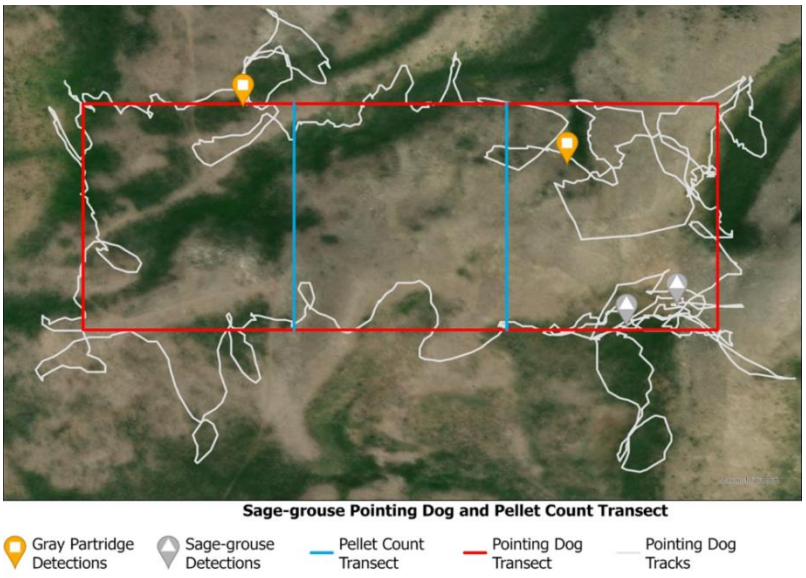

Figure 2: Grouse researchers have previously used a grid transect to sample both greater sage-grouse and gray partridge. In this example the researcher walks the entirety of the transect line and the dog (with its path highlighted here) courses along the transect. Detections are recorded so that a perpendicular distance can be determined from the transect. This distance is needed for density estimation.

Borrowing from work that Dr. Dave Dahlgren and his team have conducted on greater sage grouse (*Centrocercus urophasianus*), we have begun an evaluation of a modification of distance sampling approach using trained pointing dogs. This method will be overlaid on the existing areas where we have an estimate from out plot auditory counts each season. During the same period (October-November) that our plot counts are conducted, we will sample each grid 2-3 times using a dog handler and a pointing dog. The dog handler will walk the outer boundary of the grid starting and ending at the same random corner alternating direction with each repeated sample on subsequent days. Transects will not be sampled on the same days that plot auditory counts are conducted to minimize disturbance bias. With this sampling approach, the boundary of the plot count area becomes the sampled transect. The dog will search back and forth along the transect line and becomes an extension of the handler increasing detection probability (Figure 2, courtesy of Ruger Carter, Utah State University). Once a bobwhite is detected by any means (pointed, flushed wild, bumped by dog), that location is recorded using GPS. The perpendicular distance from this detection and the transect line (boundary of plot count area) will be needed for analysis using distance sampling. We will be able to compare these estimates to those provided from the plot counts each year for each property.

It should be noted that using transects to survey bobwhite is not at all novel, but few previous attempts have used dogs (Notable exceptions include total area searches [Kellogg et al. 1982] and random searches using distance sampling [Guthery and Mecozzi 2010]). There have been attempts to survey fixed transects using only a researcher. However, detection probability is extremely low as bobwhite's primary strategy is to allow the perceived threat to pass by and even with high bobwhite density we do not consider this a viable method. Related, an assumption with distance sampling is that any bobwhite actually on the transect will be detected, but this may be an unrealistic assumption as some birds will simply step aside or hold tight and let the researcher pass. But bird dogs don't rely on seeing or hearing the bobwhite move which at least partially accounts for this bias. Helicopter surveys along established survey transects have also been used with great success in open landscapes in parts of the bobwhite's distribution (DeMaso et al. 2010 and Montalvo et al. 2022) The noise and rotor wash of a helicopter certainly increase detection probability. However, in forested landscapes that occur in many areas managed for bobwhite, this is not an option as the helicopter cannot fly at the low altitude recommended (7-10 m).

This brings us back to the bird dogs which despite what we may want to believe, are not perfect either. First, there are differences in individual dogs that must be accounted for. Also, weather and bobwhite movement are known to affect detection probability. For these reasons, repeated sampling with various dogs under various weather conditions may be needed. Understanding how many repeated samples are required for reliable estimates is important as this method becomes less desirable as effort approaches existing methodology labor requirements. Despite potential limitations, dogs will allow us to sample more locations per day with fewer people and hopefully derive reasonable estimates that are similar to grid count estimates. Early results from the first year are promising across 2 study sites and we plan to continue refining our methods to determine the feasibility of this method. Regardless, at a minimum this endeavor provides me with an excuse to spend more time with my dog who could not be a better research partner (Figure 3).

Figure 3: A well trained researcher, Hank, has located another elusive bobwhite covey which would have let the human walk past undetected.

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Dwayne Elmore, Tall Timbers, 13093 Henry Beadel Dr. Tallahassee, FL 32312,
delmore@talltimbers.org.

SNIPPETS

Grouse News index of issue 15-24

In issue 67 we presented the indexes of issue 1-4. In this issue of Grouse News we continue presenting indexes from issue 15 to 24. You will find all the old issues of Grouse News at https://galliformes.org/ or https://digitalcommons.unl.edu/galliformes/.

Issue 15 June 1998

Issue 16 December 1998

Issue 17 June 1999

Issue 18 December 1999

Issue 19 Summer 2000

Issue 20 Winter 2000

Issue 21 Summer 2001

Issue 22 Winter 2001

Grouse News

Newsletter of the Grouse Group of the IUCN-SSC Galliformes Specialist Group

What is Grouse News

Grouse News is a biannual newsletter of Grouse Group (GG) of the IUCN-SSC Galliformes Specialist Group (GSG) which is one of many specialist groups within Species Survival Commission (SSC) in IUCN. The primary function of this newsletter is to publish short papers and under way reports from research projects and conservation news. This will not prevent you from publishing in international review journals. Also short notes telling who you are and what you are doing is of interest. Information of upcoming conferences dealing with any grouse species and review of new books may be published. Also news from GSG and GG is published.

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