



ABSTRACTS

Abstracts are arranged in programme order. Presenters with a  logo beside their name are also delivering a Bluesky presentation alongside their talk.

KEYNOTE | 1020

Long-term bird studies in the primeval Białowieża Forest: past, present and future

Marta Maziarz

Museum and Institute of Zoology PAS, Poland |

 @martamaziarz.bsky.social



Most of Europe's forests have been heavily transformed by humans over the last millennia or more, with large areas being deforested and most of the forest remnants becoming heavily modified by management. In addition to human-induced climate change, nutrient deposition and supplementary feeding, habitat fragmentation and/or transformation pose the main challenges for forest birds to adapt to novel conditions for successful survival and reproduction. Studies in the best-preserved forests, which retain some pristine features, can help us to identify the effects of habitat loss and transformation on bird communities, and to recognise shifts in bird ecology and adaptations.

Therefore, alongside observations from human-altered habitats, there is a need to study birds in the best-preserved natural habitats. This need was noticed by the late professors Ludwik Tomiałojć, Wiesław Walankiewicz and Tomasz Wesołowski, who in 1975 initiated an ornithological program in the primeval forest stands of the Białowieża National Park (BNP) in Poland.

During my talk I will give an overview of the history of ornithological research at BNP, describe the main pristine features of the primeval Białowieża Forest, and show the long-term changes of the forest habitats and the breeding bird community. I will also discuss the potential future impacts of climate change, the associated risks of biodiversity loss, and the plans for continued long-term studies at BNP.

Marta is an Associate Professor at the Museum and Institute of Zoology (Polish Academy of Sciences), interested in the ecology and behaviour of birds, their adaptations and interspecific interactions.

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KEYNOTE | 1050

Of mast, mice, predators and songbirds: ecological relationships in an unpredictable world

Gilberto Pasinelli

Swiss Ornithological Institute, Sempach, Switzerland



Temperate forests are characterized by irregularly occurring seed masts. The mass availability of tree seeds (beech nuts, acorns, etc.) in these mast years constitutes a resource pulse that has far-reaching consequences for many organisms. These include forest-dwelling rodents, their predators, and their prey. An example of such a prey species is the Wood Warbler *Phylloscopus sibilatrix*. As a long-distance migrant, the Wood Warbler faces the question every spring of where the conditions for reproduction might be most favourable. In addition to the structural properties of the habitat, this ground-nesting songbird must also consider the presence of predators, which fluctuate unpredictably due to seed masts. The talk addresses ecological relationships across trophic levels induced by intermittent seed masts in central European forests and also explores the possible consequences of changing seed mast regimes mediated by climate change for songbird population dynamics.

Gilberto is interested in how the availability of resources in space and time affects resource use, individual fitness and population dynamics of birds. This includes studies on the ecology of resource pulses and their consequences for organisms at various trophic levels. In addition, Gilberto studies how habitat specialists cope with conditions in human-altered ecosystems to increase knowledge on causes and consequences of species' declines and to contribute to our understanding on conservation and management measures needed to prevent further declines and to restore populations of endangered species.

OFFERED TALK | 1150

Coexistence conservation of rare ground nesting birds and recovering predators: diversionary feeding to decrease capercaillie predation

Jack Bamber (he/him)

University of Aberdeen, UK | [@jackantbam.bsky.social](https://bsky.app/profile/jackantbam.bsky.social)

The recovery of native predators is a conservation success story, but the return of predators into ecosystems where prey are also threatened can have negative consequences. For rare ground-nesting forest birds like Capercaillie, which are already in decline due to overarching climatic and



habitat factors, the return of predators such as Pine Marten likely contributes to their decline. This research evaluated diversionary feeding as a tool to reduce predation and increase Capercaillie productivity. Results show that this method is a suitable tool to be used to reduce unwanted predation and serves as a firm prior that this method is likely suitable to consider for multiple threatened forest bird species.

Jack is a recently completed PhD candidate at the University of Aberdeen and has started his role here as a lecturer. He is passionate about conservation and finding solutions to improve the status of native British wildlife.

OFFERED TALK | 1210

Climate and habitat quality affect the national distribution of a threatened woodland specialist

Paul Bellamy

Royal Society for the Protection of Birds (RSPB), UK

Co-authors: Robert Hawkes (RSPB), Simon Wotton (RSPB)

Habitat and climate are important drivers of woodland bird distributions; however, the former is often explored at coarse scales with basic habitat compositional measures. Fine-scale information on habitat quality is often omitted from national-level assessments, yet understanding its role alongside climate could uncover useful applied conservation insights. A recent, first national survey of Willow Tit (*Poecile montanus kleinschmidti*) allows us to assess the effects of habitat structure, habitat composition, competitors, and meso-climate on the distribution and abundance of this threatened woodland specialist. Through occupancy and abundances models that account for imperfect detection, our results demonstrate that several a priori measures of Willow Tit habitat quality – specifically woodland structure, soil wetness, and topography – are strongly correlated with occupancy and abundance, alongside temperature and rainfall. These models are extended to predict fine-grain (2km-level) Willow Tit distribution across England, which holds 75% of the UK population, providing a useful tool for conservation targeting.

Paul is a senior conservation scientist at RSPB. He is an ecologist specialising in woodland birds with projects including single species research to identify causes of population declines and testing interventions. Other projects look at community impacts of woodland management, tree diseases and woodland creation aimed at underpinning forestry policies.

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OFFERED TALK | 1230

Lesser Spotted Woodpeckers: how citizen science is contributing to our understanding of this enigmatic species

Ken Smith

Woodpecker Network, UK 

In Britain the Lesser Spotted Woodpecker *Dryobates minor* is one of the most rapidly declining woodland species and was recently assessed as endangered in the UK against IUCN criteria. Although some of the drivers of the decline are known, our limited understanding of the ecology of the species means that practical conservation measures are still some way off. Occurring in low numbers and often going undetected, it is an extremely challenging species to study but over the last decade a targeted citizen science project (woodpecker-network) has made significant progress. In this talk I will outline our current understanding of the resource needs of the species and some new developments that will help take things forward.

Ken, together with his wife Linda, set up the Woodpecker Network in 2015, with the express purpose of promoting the study of Lesser Spotted Woodpeckers and collecting important data on their nesting success. Ken worked for the RSPB for almost 30 years, working on a wide range of species and habitats and contributing to many conservation initiatives.

OFFERED TALK | 1410

Home tweet home: investigating drivers of nest box breeding success in a woodland migratory passerine

Danielle Hinchcliffe (she/her)

Liverpool John Moores University, UK |  @dannihinchy

Developing conservation policies for declining migrant species amid global change is challenging. Understanding factors influencing breeding success is crucial for the conservation of migratory passerines. Nest box monitoring schemes can provide standardised, long-term data on breeding success and population trends in hole-nesting species and provide insight into how environmental factors influence reproductive outcomes. We use a 10-year nest box monitoring dataset on Pied Flycatchers to investigate nest box choice and variation in reproductive traits, and their association with microhabitat differences. The nest box scheme is effective in bolstering numbers of Pied Flycatchers, but we do not find any significant association between box choice and reproductive success with any of the abiotic factors studied. We suggest that biotic factors, mainly inter-species competition, are more likely drivers of variation in performance. We emphasise the need to move



away from species-targeted conservation efforts towards community and habitat-level strategies.

Danni is a Lecturer in Conservation Biology and Ecology. She is a Senior Teaching Fellow and MSc Wildlife Conservation programme leader. Her research focuses on understanding individual and population-level responses to environmental stress using a suite of behavioural, physiological and genetic tools, and applying this information to conservation.

OFFERED TALK | 1430

Species interactions during community assembly: influence of a recolonising nest predator, the Pine Marten (*Martes martes*), on cavity nesting Tawny Owl (*Strix aluco*) reproductive success

Anna Kellner (she/her)

University of Aberdeen, UK | [@annakellner.bsky.social](#)

Co-author: Xavier Lambin (University of Aberdeen)

The recovery of the Pine Marten (*Martes martes*) in the UK presents an opportunity to examine its ecological interactions with the Tawny Owl (*Strix aluco*), a cavity-nesting raptor with which it has co-evolved. In much of Europe, these species coexist, but in the UK, Tawny Owl populations are artificially supported through nest boxes, potentially increasing vulnerability to recolonising predators. Using 30 years of breeding data (1993–2023), we examined the influence of Pine Marten occupancy and vole abundance on nest failure. Generalised Linear Mixed Models showed that clutch size, used as a proxy for vole abundance, was the strongest predictor of failure risk, with the highest risk occurring when early-season vole abundance declined. Pine Marten presence was also associated with increased failure, though to a lesser extent, offering partial support for the Alternative Prey Hypothesis. These findings highlight the importance of prey dynamics and suggest that recovering predators may increasingly shape reproductive success in artificially supported raptor populations.

Anna is a final-year PhD candidate at the University of Aberdeen investigating how community assembly in commercial plantations influences predator-prey dynamics. She also serves as project lead on the Green Health Routes social prescribing initiative, integrating forest ecology with public health and social science perspectives.

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OFFERED TALK | 1450

Geographic trends in the song of tits and chickadees: a comparison between Europe and North America

Dieter Thomas Tietze

 @dieterthomastietze

Tits and chickadees (Paridae) are widespread passerines and extraordinarily smart. They originate from the East Asian mountains (Sino-Himalayas) and also colonised North America and Europe. Distributions observed there today are the result of the settlement after the last glaciation. The latter and the retreat from southward expanding glaciers before occurred rather unhampered in North America, because the main mountain chains run from North to South. In contrast, the European high mountains constitute barriers from West to East for North-South moving organisms. These differing frameworks impacted intraspecific structures, too. I am considering here the variability in parid songs along the two axes – separately for the two continents. Territorial songs in parids are quite short and simple. I am asking, 1) if the song parameters duration, frequency and complexity vary within species rather latitudinally or longitudinally and 2) if this variability is more pronounced in Europe, which could be less easily recolonised.

Dieter has studied the ecology and evolution of birds as an investigation of biodiversity in space and time for over 20 years. Dieter tries to inform large-scale biogeography with phylogenetic and bioacoustic approaches and mostly focusses on woodland birds such as titmice, leaf-warblers and treecreepers in the Holarctic.

OFFERED TALK | 1540

Birds' nests as bioindicators of plastic pollution

Mark Mainwaring

Bangor University, UK

A wide range of bird species various incorporate anthropogenic materials, including plastic, into their nests, particularly in heavily modified urban landscapes and marine environments. However, less is known about the prevalence of anthropogenic materials in the nests of woodland birds. Here, I outline the prevalence of anthropogenic materials in the nests of Blue Tits (*Cyanistes caeruleus*), Great Tits (*Parus major*) and Pied Flycatchers (*Ficedula hypoleuca*) breeding inside rural woodlands in northern England. The presence of such materials within nests suggests that anthropogenic materials in nests may be effective bioindicators of plastic pollution in woodland habitats, yet for this to be true, birds must not show any selectivity for anthropogenic materials in terms of, for example, their

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colour or length. To examine this possibility, I describe experiments in which nest-building birds in rural woodlands were presented with natural or anthropogenic nest materials, and with anthropogenic materials of different characteristics including their colour and length. These experiments showed that birds breeding in rural woodlands showed high levels of selectivity when collecting anthropogenic nest materials from the environment, preferring certain materials over others. This, in turn, means that anthropogenic nest materials found within bird's nests are not reliable bioindicators of plastic within the wider environment. Nonetheless, our study does increase our understanding of the selection of anthropogenic materials by nest building passerine birds in rural woodland environments.

Mark is a lecturer in the School of Environmental & Natural Sciences, Bangor University.

OFFERED TALK | 1600

Morphological shifts in Blue Tit eggs reveal urbanization effects over time

Liviu Razvan Pripon (he/him)

Independent researcher, Romania

Co-authors: Caroline Isaksson (Lund University), Maria Mostadius (Lund University Biological Museum), Zsofia Toth (Lund University)

Museum collections hold untapped potential for tracking avian morphological long-term change. In this study, we explore how Blue Tit egg morphology has shifted over the past century and how modern urban environments may contribute to these patterns. Egg measurements from 108 historical specimens were compared with 172 eggs belonging to birds from urban and rural present populations. We divided the data into four temporal and spatial categories and we found a slight but significant decrease in egg volume over time (approximately 10% in present urban eggs), with the smallest and narrowest eggs observed in modern urban populations. Contemporary rural eggs have maintained closer resemblance to historical eggs, with a slight increase in length. These findings suggest that urban pressures may drive the shifts in reproductive investment, possibly through reduced resource availability or increased energetic trade-offs. They also demonstrate how natural history collections can provide valuable source for understanding phenotypic changes.

Liviu is an interdisciplinary researcher (Ornithology, Museum studies, Aesthetics) based in Romania with a Bachelor degree in Biology and a PhD in Philosophy. He worked at the Brukenthal National Museum as the Ornithological Collection Curator and is currently conducting several independent research projects in collaboration with different institutions.