# **SPI-Birds Newsletter**



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In this newsletter, we are excited to announce that

- (1) we received funding to develop SPI-Birds into a hub of FAIR and connected research outputs (data, code, publications)
- (2) we are building a library of peer-reviewed code for formatting and analysing data Your input is crucial; details below!
- (3) we welcomed new members to our growing team, and
- (4) the next Hole-Nesting Birds Conference, HNB2025, will take place in Olomouc, Czechia, 10<sup>th</sup> 12<sup>th</sup> September 2025.

## 1 Successful project funding

Obtaining funding for research projects and to grow SPI-Birds was a key priority of last year. We are pleased to announce that two projects have been funded, both aiming at developing SPI-Birds into a FAIR (findable, accessible, interoperable, reusable) and transparent research landscape of datasets, code, and publications that are connected by digital identifiers and rich metadata.

Note, this will not affect how SPI-Birds data is being used: Data submitted to SPI-Birds cannot be accessed or used without permission of the data custodians. SPI-Birds does not claim custody of data hosted at the SPI-Birds Database and will not distribute any data without the explicit, project-by-project consultation and agreement of the data custodian.

### Connecting Open Research outputs in the Ecology of Birds (CoreBirds)

Congratulations to Marcel Visser, Antica Culina, Stefan Vriend, and Joey Burant from NIOO-KNAW, Wageningen, for securing funding from the Dutch Research Council (NWO Open Science call), facilitating the development of a broader research landscape of connected outputs resulting from long-term studies of wild bird populations. A main goal of the project is to create a library of code for processing and analysis of SPI-Birds data, and to implement a code review process. You can find the full CoreBirds proposal here.

#### FAIR Bird Research Data and Software (FAIRBIRDS)

Congratulations to a large international team for successfully securing funding to transform SPI-Birds into a resource hub adhering to FAIR principles, i.e., improving the findability, accessibility, interoperability, and reusability of data, code, and other research outputs. Funding was received through the CHIST-ERA 2022 call "Open & Re-usable Research Data & Software".

The main objectives of the project are three-fold: First, SPI-Birds teams up with IT specialists (Wojtek Sylwestrzak and Łukasz Dumiszewski, University of Warsaw, Poland) to develop the database into a FAIR repository including standardised data that is integrated with rich metadata. Second, together with Leonardo

Lopes (Universidad e Federal de Viçosa, Brazil), we will grow the SPI-Birds' network and database to include currently underrepresented regions and species. Third, we will create a software library to link data processing and analysis tools to be linked to data and resulting publications.

This project is a real team effort! SPI-Birds members involved in this project include Erik Matthysen, Aina Garcia Raventós, and Vincent Sluytdts from the University of Antwerp, Belgium, Céline Teplitsky, Anne Charmantier, and Alexandre Granier from the CEFE-CNRS in Montpellier, France, a NIOO-KNAW-affiliated team from Wageningen, The Netherlands: Marcel Visser, Antica Culina, Stefan Vriend, Joey Burant, and Freddy Hillemann, and Szymon Drobniak from the Jagiellonian University in Kraków, Poland.

Additional IT and research staff will be hired soon; job advertisements will be shared via our mailing list.

### Kick-off meeting

To coordinate the start of the two recently funded projects, affiliated members will meet in Antwerp on March 18<sup>th</sup> and 19<sup>th</sup>, 2024 to discuss progress, timelines, potential challenges, and milestones.

## 2 Establishing a peer-reviewed code library – Please get involved!

In conjunction with the two recently funded projects, CoreBirds and FAIRBiRDS, we are in the process of developing the infrastructure for a peer-reviewed code library, where you can find and deposit codes for processing and analysing SPI-Birds data. Sharing code that was produced as part of a research project increases transparency and reproducibility, and facilitates collaborative research by encouraging others to validate findings and build upon them. Code review is essential for quality assurance, and is a great way to promote best practices, collaboration, and knowledge sharing among team members.

Our goal is to implement an accessible, effective, and sustainable code review process, that will be a service to our members: Code authors will benefit from the improved reusability of their citeable code, and users will benefit from being able to build on quality-approved FAIR code. Key features of our proposed code review infrastructure include clear guidelines for both code submissions and reviews to ensure consistency and efficiency, and automated tools to assist in the review process where possible. In addition, we will provide training and support to ensure that all contributors are comfortable with the new code review process and tools.

We will soon start a pilot phase to test the effectiveness of the proposed infrastructure.

Please get involved! We are calling on everyone to contribute ideas or share concerns, which will help us refine the code review process. If you have got code waiting for review, seize the opportunity to participate in our pilot phase! Crucially, we are actively seeking dedicated members to join our code review team. To contact us, please email spibirds@nioo.knaw.nl.

## 3 The SPI-Birds team is growing

With the recent launch of the CoreBirds and FAIRBIRDS projects, the SPI-Birds team has been expanding and eagerly anticipates welcoming new contributors to fill various roles. These roles range from developing data-standardisation pipelines, to participating in code reviews, and using SPI-Birds data for research projects. We are currently updating our website to reflect these changes. Additionally, we are delighted

to announce the recent addition of two new members, Aina and Freddy, who have joined us in research support roles – welcome to both! Further opportunities for research and technical support roles will be advertised through our mailing list and via SPI-Birds social media channels.

#### Aina Garcia Raventós

I am an evolutionary ecologist interested in how animals respond to environmental changes through life-history decisions to reduce maladaptation and facilitate population persistence. During my PhD, I used long-term data of ringed and pedigreed jackdaw (Corvus monedula) populations to investigate the importance of plasticity and microevolution in explaining adaptive responses of breeding phenology to global warming.

Currently, my role within the FAIRBiRDS project involves contributing to the development of the SPI-Birds Platform. This entails combining available datasets with external environmental data while expanding the network among research groups en-



(c) Aina Garcia Raventós.

gaged in long-term studies of wild populations of multiple avian species. I am eager to promote a collaborative network for future projects, essential for exploring broader ecological and evolutionary patterns and processes across species ranges.

#### Friederike [freddy; she/her] Hillemann

I joined the Department of Animal Ecology at NIOO-KNAW, Wageningen in support of the SPI-Birds developers' team in February 2024. My main tasks include setting up an effective GitHub-implemented code review process, extending the (meta)data library for SPI-Birds studies and writing datastandardising pipelines, and organising workshops on the use of SPI-Birds' data and code libraries.

I gained first-hand experience in collecting and managing data on individually-marked birds; as part of my doctoral studies, I tracked social information use in foraging mixed-species flocks of tits to understand how socioecological factors shape mixed-species groups. For my postdoctoral research, I turned to human behavioural ecology and have been studying foraging and (c) Freddy Hillemann. food sharing networks among Inuit in the Canadian Arctic.



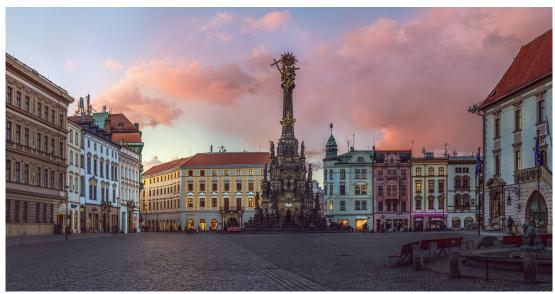
My comparative work generally focuses on how individuals' decisions, driven by social, economic, and ecological factors, affect social structures and transmission processes (food sharing, social information use), and how, in turn, those social processes affect the way individuals navigate their environments (e.g., risk taking). You can read more about my research and other activities on my website, fhillemann.github.io.

## HNB2025: 10<sup>th</sup> Hole-Nesting Birds Conference

We would like to bring to your attention that the next Hole-Nesting Birds Conference will take place in Olomouc, Czechia, from September 10<sup>th</sup> to 12<sup>th</sup>, 2025. Many thanks to Miloš Krist and his local team for organising the meeting.

While the SPI-Birds Network and Database has been expanding to encompass a wide range of bird species, it was originally focused on studies of hole-breeding passerines. Therefore, the meeting is sure to be of great interest to many SPI-Birds members!

The organisers hope to bring together a diverse group of participants for a scientifically enriching meeting in the ancient city of Olomouc, which is conveniently situated in the heart of Europe. Experience the city's charm in this video and get a glimpse of Olomouc's wealth of historical landmarks, including the Holy Trinity Column, a UNESCO World Heritage monument.



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## 5 Contact and Contributions

If you are aware of any grants and funding calls that we could apply for to support our activities, please get in touch. Also, if you published any preprints or articles using data hosted at SPI-Birds, let us know so we can add them to the SPI-Birds website. To contact us, email spibirds@nioo.knaw.nl.