Newsletter Nr. 4



A service to measure and improve biodiversity using satellite data for monitoring, evaluation and optimization of CAP greening initiatives



































As 2024 rapidly draws to a close, we start this newsletter with a summary of our activities.

Most of our activities revolved around setting up a habitat modelling framework. building the BirdWatch platform as well as collecting and preparing input for the optimisation. This newsletter will give you a short rundown.

Additionally, we would like to give you a peek into some of our highlights this year.

Even if BirdWatch has very technical, scientific ambitions, the social part of the project plays a big role. And thus, highlights usually consisted of meeting project partners or making new acquaintances and friends along the way,

2025 will be a crucial year for BirdWatch, since we will go into a testing and evaluation phase.

What this means, will be summarised in the last part of this newsletter.

Please don't hesitate to get in touch! Contact details are at the end of the newsletter.



















WHAT DID WE DO IN 2024

We established our first habitat models for the farmland birds in Flanders, Belgium.

This consisted of an elaborate review and preprocessing of the available bird observation data of our ten target species.

In parallel, the climate and environmental data. for the habitat modelling were collected, processed and fed into the species distribution framework, set up for Bird-Watch.

Combining bird observations, climate paramesatellite ters. imagery and geospatial informaon farmland, we derived our first, speciesspecific habitat suitability maps (Fig. 1).

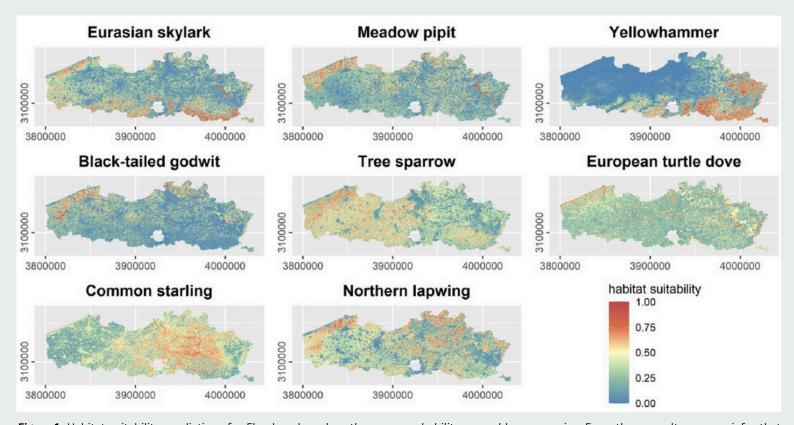


Figure 1: Habitat suitability predictions for Flanders, based on the mean probability ensemble per species. From these results, we can infer that especially the Black-tailed godwit, the Eurasian skylark and the Yellowhammer have difficulties to find suitable habitat. Please check out our Deliverable D4.2 available on the website for more information!



















WHAT DID WE DO IN 2024

Apart from establishing a habitat suitability monitoring framework, we also develop optimisation models for exploring potential pathways improve the farmland habitat suitability for the birds in four test regions.

By reviewing the status of our target bird species in each test region and exploring the existing policies together with funding available agri-environmental measures, we came up with a work plan for the optimisation of habitat suitability.

Fig. 2 shows the areas in each of our test regions, for which we have, so far,

established scenarios for habitat improvement. will These guide the development of the optimisation models.



Figure 2: The target areas in which we have developed the scenarios for establishing optimisation models. Please check out our <u>Deliverable D5.2</u> available on the website for more information!



















WHAT DID WE DO IN 2024

Finally, to provide access to our habitat suitability monitoring and optimisation services. we implemented first the Birditeration of our Watch platform.

This initial version was finalised in July and provides basic visualisation functionalities to start exploring habitat suitability in 2D.

Since then, we added new data to the backend database which will

serve as the heart of the platform. New visualisation options are currently being implemented and platform is made ready for first internal tests.



Figure 3: Screenshots of the first protoype of the web-based BirdWatch platform by the end of July 2024. Please check out our <u>Deliverable D6.2</u> available on the website for more information!



















HIGHLIGHTS OF 2024

This year, BirdWatch was also a lot on the road.

As a consortium, we finally got back together again for the first time since October last year. Fittingly, the place to reconvene was the Headquarters of EUSPA, the EU Agency for the Space Programe.

EUSPA, the project funding agency which sup-BirdWatch. ports invited the project con-



Figure 4: Happy faces after a successful midterm review.



Figure 5: The question here remains who explored whom....

-sortium to Prague, for our midterm review meeting (Fig. 4).

This was of course also used to explore the local cuisine (and yes, this includes Czech beer) as well as the local wildlife (Fig. 5)!



















HIGHLIGHTS OF 2024



Figure 6: Colleagues from LUP enjoy wonderful hospitality and some new insights into sustainable farming in Brandenburg...

Apart from learning what factors guide decisionmaking in farming and in selecting agri-environmental schemes, we also had the chance to go on an off-road trip and visit some of the in-habitants of the farm.

Also in the fall. NPA won the attention of Estonian farmers when presenting BirdWatch at the Grain-Forum 2024: can bring BirdWatch to Estonia in the near future?

This fall, LUP visited a farm Brandenburg, in just outside Berlin.

So far, much of our work has been grounded in ideas, theory and science. Clearly, we also need a reality check, Thanks to our partner Bioland, we got in touch with a wonderful farmer, whose property is situated right next to the wildlife reserve Doeberitzer Heide.



Figure 7: ...and learn how popular a (full) red bucket can be



















WHAT'S NEXT IN 2025

Next year, BirdWatch faces some reality checks and preparations for this are already ongoing.

We are preparing habitat optimisation models, which will eventually become services for monitoring and planning, accessible via a web-based platform and made available in our test regions, i.e., in Flanders, Germany, Lithuania and South Tyrol.

Model output, data visualisation. quality and value of the information or platform usability will all have to be tested together with real users.

This will be done as part of demonstration activities with representatives of different potential stakeholders, such as farmers, farming organisations, local or national paying agencies and policymakers.



Image source: Susanne Seidel, Rémy Schaepman

This also includes further refinement of the goals and constraints for the aforementioned optimisation, especially in collaboration with stakeholders.

Apart from dipping our toes into the "real world", we are planning on participating in further conferences, in 2025. For example, we will present BirdWatch at ESA's BioSpace25 conference in February 2025!

Of course, we are open for collaborations. This also won't change

in 2025. In case you are leaning towards working on a project proposal, testing out our data products, extending the BirdWatch service to new places or you're simply interested in exploring ideas together with us, please get in touch!

Interested in digging a bit deeper into the habitat models, our optimisation approach or platform development? Visit our website, where vou can access the relevant deliverables:

https://birdwatcheurope.org/publications/



















LAST BUT DEFINITELY NOT LEAST

BirdWatch has its own short film.

Please check it out on our website and see what farmer Maurice is doing to help birds:

https://birdwatch-europe.org/

THE BIRDWATCH CONSORTIUM WISHES YOU AN ENJOYABLE HOLIDAY AND A GOOD START INTO 2025

Farmer Maurice definitely loves birds! Image source: Susanne Seidel, Rémy Schaepman





CONTACT & INFO



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National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania https://www.nma.lt



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