



iSpot NBN Conference 2020 Autumn Bioblitz + *Update on features, projects and future plans*

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iSpot Projects

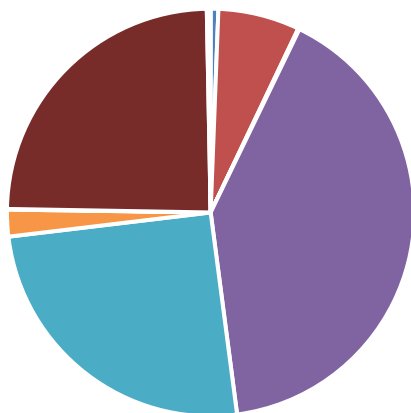
- Have a wide range of filters e.g. geographical, date, taxon related, habitat, tags, users, identified or not
- Can be set up by anyone
- Can be used for bioblitz
- iSpot users find a whole range of other uses e.g. tidying up old observations with no identifications

The screenshot displays the iSpot website interface for a specific project. At the top, the navigation bar includes 'Summary', 'Observations List', 'Observations Gallery', and 'Observations Map'. The main content area features a user profile for 'Janice A' and a photograph of a chestnut in its husk. Below the photo are buttons for 'Full size' and 'Zoom'. To the right, a sidebar contains a 'Project filter' section with options for 'Observed after', 'Observed before', and 'With tag'. Below this is a 'Project area' map showing the United Kingdom and Ireland. Further down, there is a 'Search iSpot' section with a search bar and a 'Go' button. At the bottom, a 'Latest projects' section lists other projects like 'Introduction to Ecosystems' and 'NBN conference iSpot autumn bioblitz - NBNconf20'.

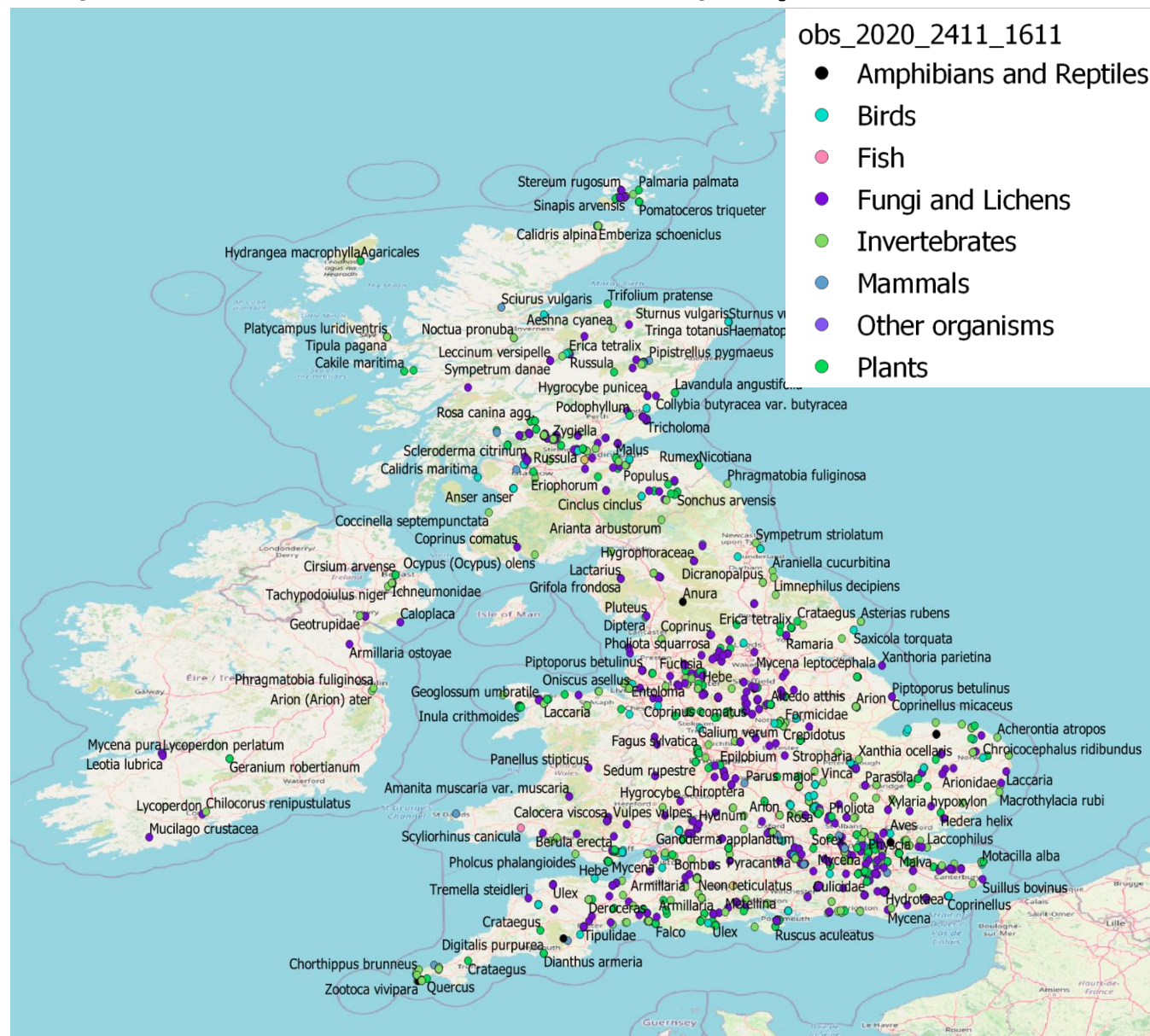
Recent iSpot observations (24/10-16/11 2020) species

Most of the recent 1978 observations are of fungi

species group



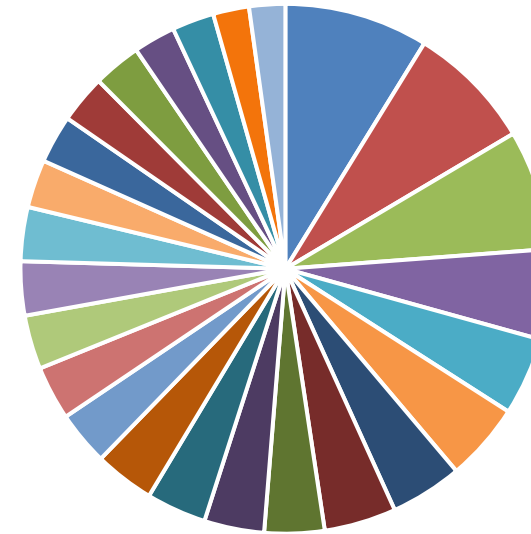
- Amphibians and Reptiles
- Birds
- Fish
- Fungi and Lichens
- Invertebrates
- Mammals
- Other organisms
- Plants
- (blank)



Recent iSpot observations (24/10-16/11 2020) species 2

- 23 of the top 25 species recorded were fungi
- *Hypholoma fasciculare* (Sulphur tuft) was the most frequently recorded species during this period.
- The usual garden birds were not commonly recorded at this time.

Number of observations

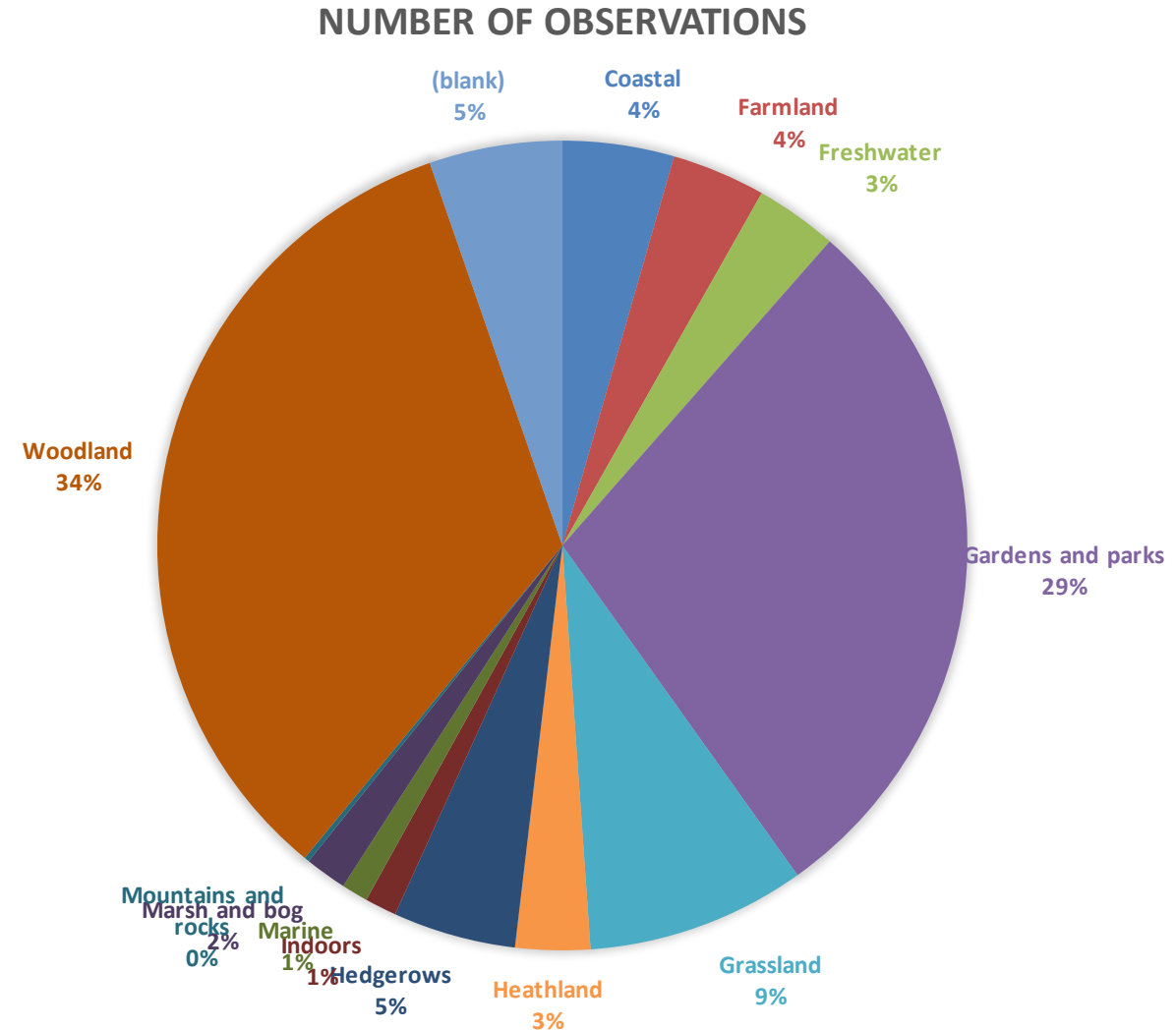


■ *Mycena*
■ *Armillaria mellea*
■ *Coprinellus micaceus*
■ *Stereum hirsutum*
■ *Armillaria*
■ *Psathyrella*
■ *Hedera helix*
■ *Hypholoma*
■ *Coprinopsis picacea*

■ *Hypholoma fasciculare* var. *fasciculare*
■ *Araneus diadematus*
■ *Piptoporus betulinus*
■ *Trametes versicolor*
■ *Entoloma*
■ *Russula*
■ *Hygrocybe conica*
■ *Lepista nuda*
■ *Amanita muscaria*
■ *Coprinus comatus*
■ *Clitocybe nebularis*
■ *Xylaria hypoxylon*
■ *Hygrocybe*
■ *Ganoderma*
■ *Pholiota squarrosa*
■ *Clitocybe geotropa*

Recent iSpot observations (24/10-16/11) habitats

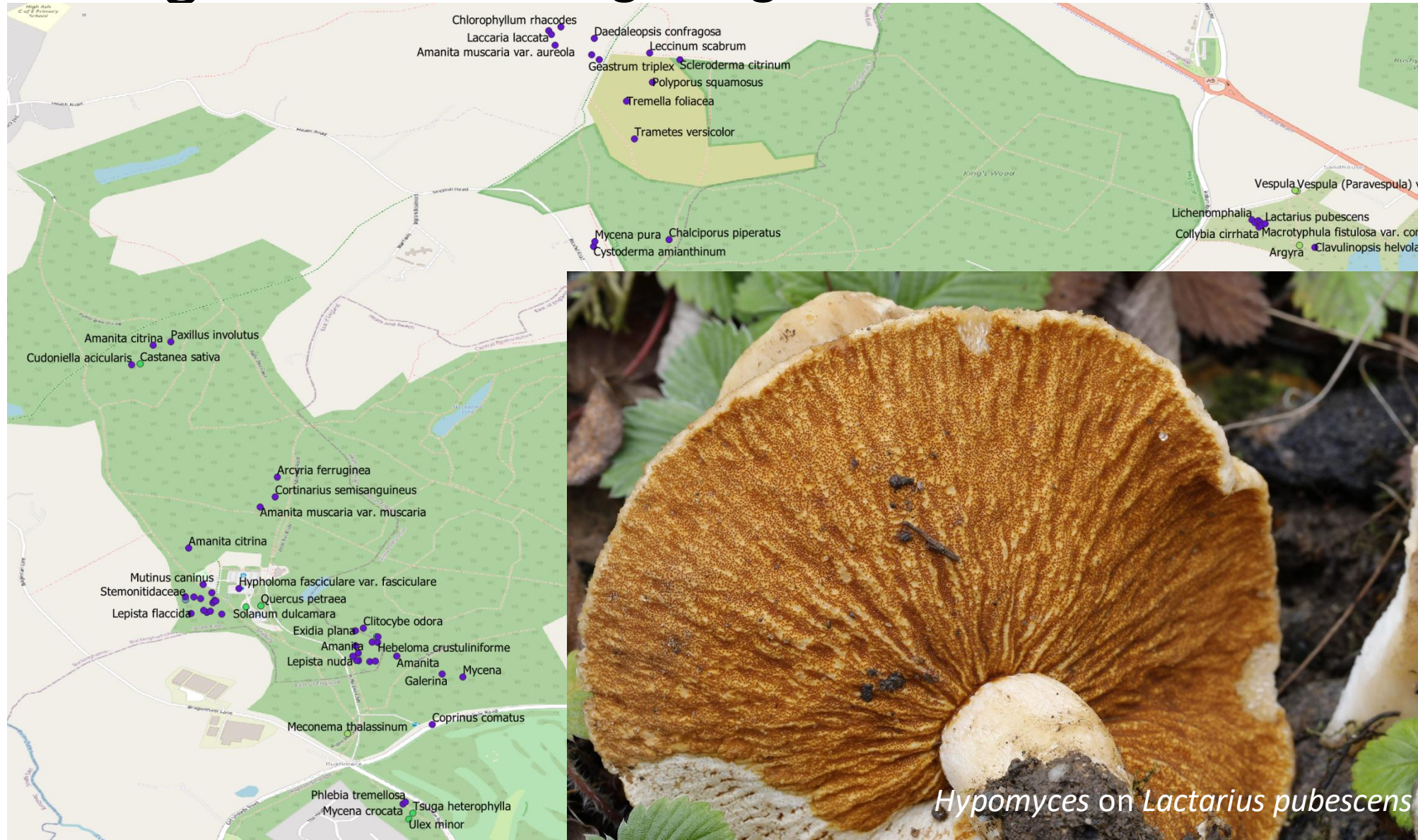
- Most of the recent observations are in woodland or gardens and parks. Possible reasons for this include:
- Looking for fungi at this time of year and so searching woodland (although fungi actually occur in all habitats)
- Possible effect of covid19 with a relatively high proportion of observations from gardens and parks rather than the wider countryside.
- By comparison in 2019 for the same period the woodland figure was 27% and gardens and parks 23% whereas coastal was 8% and grassland 14%.



Local recording – still interesting things to find in lockdown

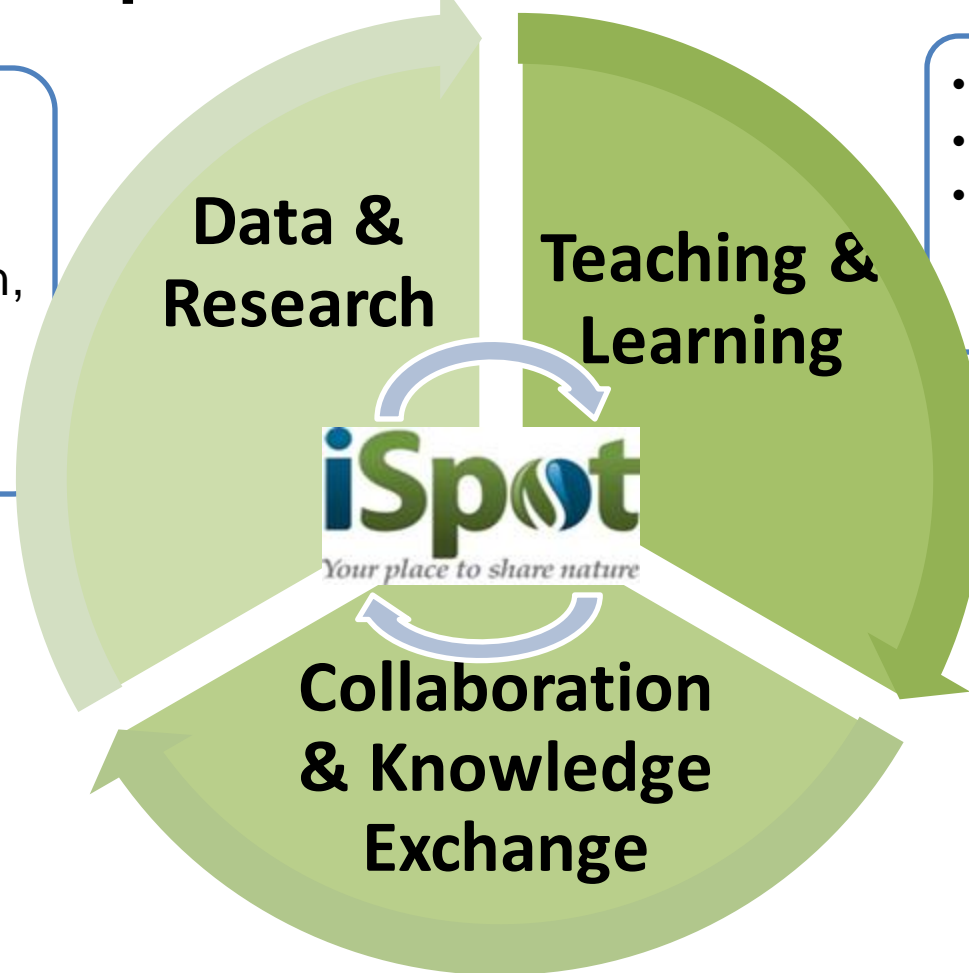
Analysis of iSpot data suggested that many observers recorded close to home this year.

One of the interesting species was this fungus eating fungus of which there are very few, if any, records on NBN.



iSpot for the future

- Species ID / Biological recording
- New innovation i.e. AI
- Data classification collection, analysis & sharing
- Species dictionaries



- Interactive social network
- Technology: tools & features
- iSpot use in teaching and learning (formal & informal)

- Collaborations, partnerships (e.g NBN) & new funding opportunities
- National / International policy & reports e.g. UK State of Nature
- iSpot's model for citizen science, teaching and learning
- Public engagement, communications, outreach

Cos4Cloud: technologies for citizen observatories

Project name: Co-designed Citizen Observatories Services for the European Open Science Cloud

Timeline: Nov 2019 – April 2023, Funder Horizon 2020, EU

The issue / challenge:

Cos4Cloud addresses one of the biggest **challenges of citizen science**: the **quantity** and **quality of data**, as well as **maintaining the citizen observatories** used to collect this data. COs provide monitoring systems to observe the environment using applications that focus on scale of activities over a long timeline.



Observational challenges:

We need more data: everywhere at all times

Advanced technologies



*Potential
observational
solutions*



Citizen observatories



Cos4Cloud includes a network of **9 citizen observatories**:

Four of the largest citizen biodiversity observatories in Europe:

1. Artportalen (Swedish Species Observation System): www.artportalen.se
2. iSpotnature: www.iSpotnature.org
3. Natusfera: <https://natusfera.gbif.es>
5. Pl@ntnet: <https://plantnet.org>

Five environmental monitoring services in

1. Water Freshwater Watch: <https://freshwaterwatch.thewaterhub.org> and
2. KdUINO: <http://kduino.weebly.com>
3. Air: odours Odour Collect: <https://odourcollect>.
4. Particular matter CanAir.io: <https://canair.io>
5. Aerosols: iSPEX: <https://ispex.nl/en>

GLOBAL DATA REPOSITORIES



Cos4Cloud Aim:

Cos4Cloud is addressing these challenges by developing [ten technological services](#) to improve. citizen observatories to help them **boost the quantity and the quality of observations** and, finally, to help ensure their long-term viability increasing the quantity and the quality of observation.



Co-designed with key stakeholders



Standardised data-models to **increase interoperability capabilities**



Modular software ecosystem around **citizen-science knowledge representation**



Focus on the **final user** and the potential **impact** of the citizen science



Artificial intelligence, data quality and reputation-assessment



Personalised notification systems



Data-use notification and user experience maximisation



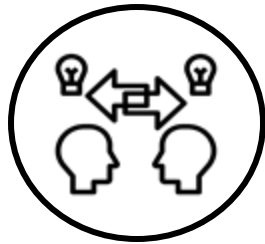
Integration of data from **biodiversity and environmental quality**



Knowledge transfer and linguistic tools

Get involved: Be part of our Cos4Cloud community

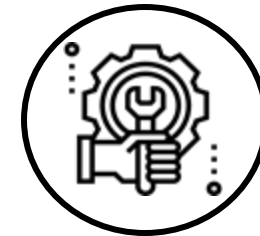
Join our groups and contribute to create the new generation of services for citizen observatories



Co-designing
Create



Panels
Advice



Testing
Use

Fill this form to join us:
bit.ly/Cos4Cloud_community

www.cos4cloud-eosc.eu/



DECIDE:

Delivering Enhanced Biodiversity Information with Adaptive Citizen Science and Intelligent Digital Engagements

The issue / challenge:

- Need more records and better and more accessible information. To meet this need, we must move from basing decisions on species records alone to using comprehensive models that show how species distribution and habitat quality are linked.

Aim:

Improve biodiversity models for decision-making by putting Recorders' motivations at the heart of the process.

- Focus initially on butterflies, moths and grasshoppers
- map 1000 new species at fine-resolution and to improve these models through the records submitted by Recorders.
- improve the quality of biodiversity models (i.e. for Data-users.
- Combine species data with large-scale earth observation data such as land use and weather.



DECIDE: Partnership

<https://www.ceh.ac.uk/our-science/projects/decide>

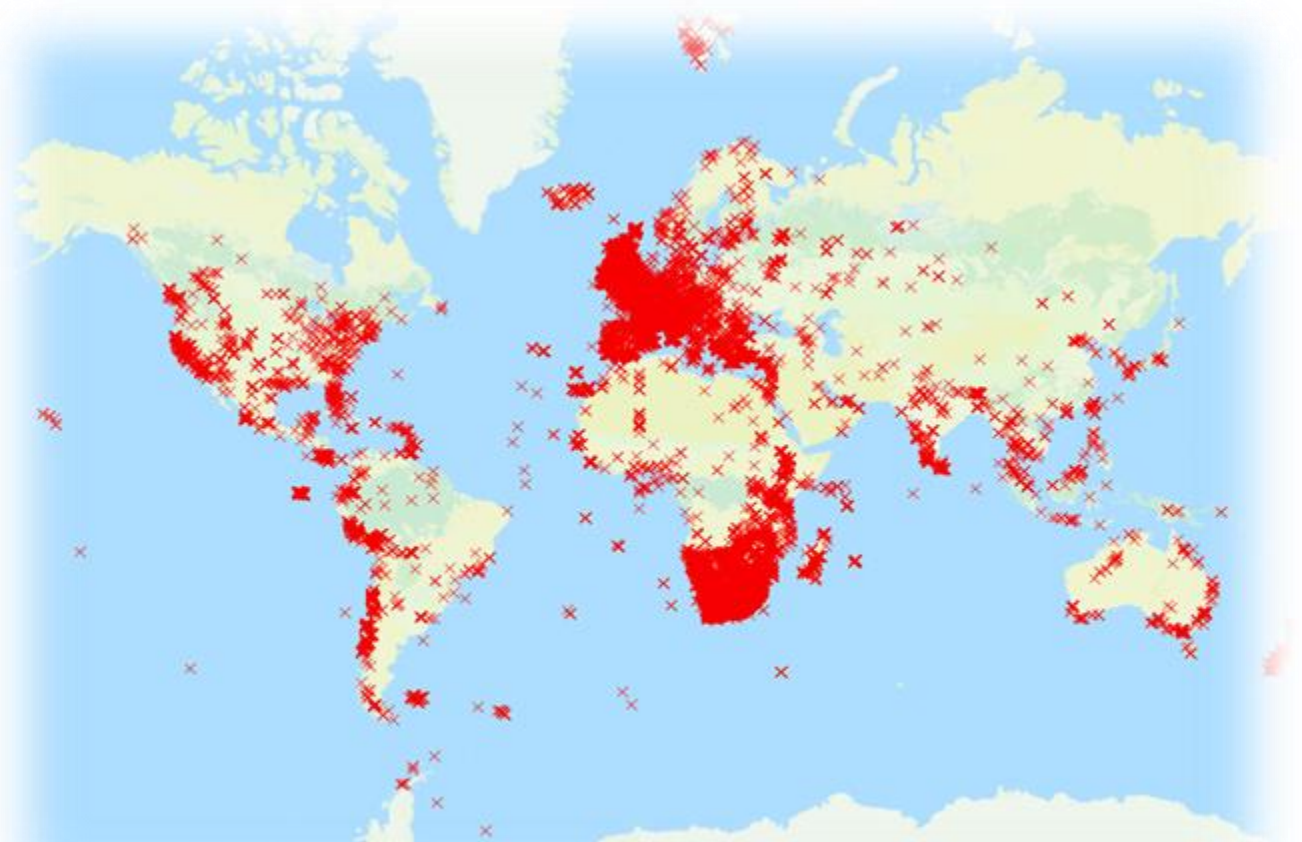
Partners

- DECIDE is run by a multidisciplinary team: ecology, data science, computer science, social science, and data communication.
- UK Centre for Ecology & Hydrology: [Michael Pocock](#), [Tom August](#), [Susan Jarvis](#), Rich Burkmar
- University of York ([Stockholm Environment Institute](#)): [Alison Dyke](#), [Sarah West](#) and [Rachel Pateman](#)
- Open University: [Advaith Siddharthan](#), [Janice Ansine](#) and Mike Dodd
- University of Warwick ([Centre for Interdisciplinary Methodologies](#)): [Greg McNerny](#) and [Cagatay Turkay](#)
- [JNCC](#)
- [Butterfly Conservation](#)
- [North & East Yorkshire Environmental Records Centre](#)
- [Greenspace Information for Greater London](#)

Funder:

- Natural Environment Research Council

Thank you! Questions?



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Help us build and maintain iSpot:

- >75,000 registered users (participants)
- >789,000 observations posted
- >953,000 determinations
- >2 million ID agreements
- 4.6m user sessions / 3.54m page views
- >1.54 million images
- >43,000 species observed
 - 180 countries
- >180,000 engagement
- 200 expert organisations