



The Lab of CLEF  
dedicated to biodiversity

# LifeCLEF: Species identification and prediction challenges (9<sup>th</sup> edition)

Alexis Joly et al.



# Organizing team

## Coordination

- [Alexis Joly](#), INRIA / University of Montpellier
- [Henning Müller](#), HES-SO
- [Hervé Goëau](#), Cirad - AMAP

## BirdCLEF

- [Stefan Kahl](#), Cornell University
- [Willem-Pier Vellinga](#), Xeno-Canto foundation
- [Holger Klinck](#), Center for Conservation Bioacoustics
- [Tom Denton](#), Google LLC
- [Hervé Glotin](#), University of Toulon

## FungiCLEF

- [Lukas Pícek](#), University of West Bohemia
- [Milan Sulc](#), Rossum.ai, Czechia
- [Jiri Matas](#), The Center for Machine Perception
- [Jacob Heilmann-Clausen](#), Center for Macroecology

## GeoLifeCLEF

- [Titouan Lorieul](#), University of Montpellier, Inria, LIRMM
- [Elijah Cole](#), Caltech
- Benjamin Deneu, INRIA / University of Montpellier, LIRMM
- [Maximilien Servajean](#), LIRMM – UMPV

Thank  
you!

## PlantCLEF

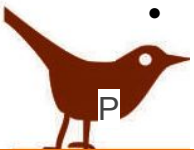
- [Hervé Goëau](#), Cirad - AMAP
- Pierre Bonnet, Cirad – AMAP

## SnakeCLEF

- [Lukas Pícek](#), Dept. of Cybernetics, FAV, University of West Bohemia,
- [Marek Hruz](#), Dept. of Cybernetics, FAV, University of West Bohemia,
- [Andrew Durso](#), Department of Biological Sciences, Florida Gulf Coast University

## Infrastructure support

- [Ivan Eggel](#), University of Applied Sciences Western Switzerland



# LifeCLEF 2022: Five challenges



**PlantCLEF**

8 participants / 6 WN

**934 participants**  
**30 Working Notes**



**BirdCLEF**

807 participants / 6 WN



**GeoLifeCLEF**

52 participants / 4 WN



**SnakeCLEF**

29 participants / 7 WN

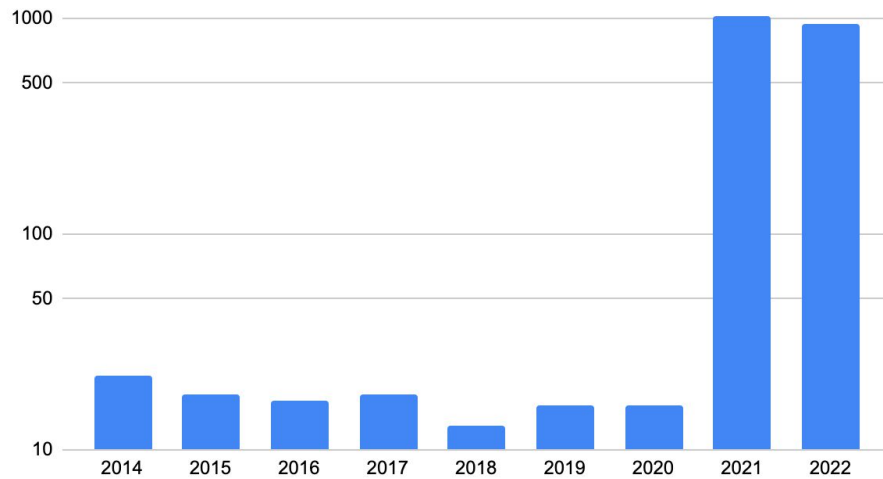


**FungiCLEF**

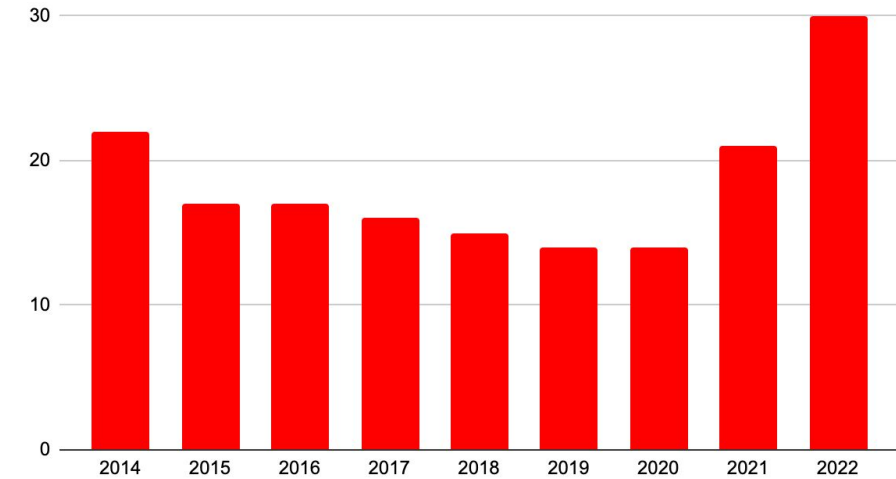
38 participants / 7 WN

# Participation evolution

Participants



Working notes



**Participation increased a lot in 2021 due to Kaggle**

- BirdCLEF in 2021, four challenges in 2022

**But quality contributions are not that numerous...**



# LifeCLEF 2023 accepted !



**PlantCLEF**

→ Additional test data



**BirdCLEF**

→ Additional test data



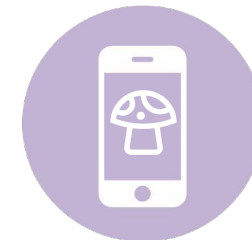
**GeoLifeCLEF**

→ New task at EU level  
(EU project MAMBO)



**SnakeCLEF**

→ Additional test data



**FungiCLEF**

→ Additional test data



# Programme

## 9:00 - 10:30 LifeCLEF session 1 - chair: Alexis Joly (Inria, PlantNet)

5' Introduction

35' Keynote talk - Diego Marcos (Wageningen University) - *Automatic plant trait annotations for plant species ID*

15' PlantCLEF overview - Hervé Goëau (CIRAD, PlantNet)

10' PlantCLEF participant - Mingle Xu (Jeonbuk National University) - *Vision Transformer-based Unsupervised Transfer Learning for Large Scale Plant Identification*

15' GeoLifeCLEF challenge overview - Titouan Lorieul (Inria, PlantNet)

10' GeoLifeCLEF participant - Benjamin Kellenberger (EPFL) - *Block Label Swap for Species Distribution Modelling - virtual*

## 11:00 - 12:30 LifeCLEF session 2 - chair: Hervé Goëau (CIRAD, PlantNet)

30' Invited talk - Tom August (CEH) - *virtual*

25' SnakeCLEF & FungiCLEF overview - Lukáš Pícek (Univ. of West Bohemia)

10' SnakeCLEF participant - Benjamin Bracke (Dortmund university) - *Combination of Object Detection, Geospatial Data, and Feature Concatenation for Snake Species ID*

10' FungiCLEF participant - Stefan Wolf (Karlsruhe Institute of Technology) - *Transformer-based Fine-Grained Fungi Classification in an Open-Set Scenario*

10' BirdCLEF overview - Stefan Kahl (Cornell, Chemnitz univ.) - *virtual*

5' BirdCLEF participant - Marcos Conde (H2O.ai, University of Würzburg) - *Few-shot Long-Tailed Bird Audio Recognition - virtual*

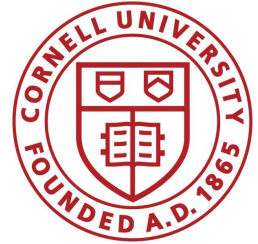


# Thank you !



UNIVERSITÉ  
DE GENÈVE

TEC | Tecnológico  
de Costa Rica



Caltech



iDigBio  
Integrated Digitized Biollections



# Two New EU projects related to biodiversity monitoring & LifeCLEF



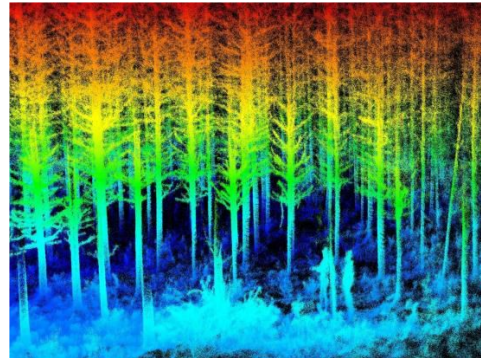
**MODERN APPROACHES TO THE  
MONITORING OF BIODIVERSITY**

4.5 M€, 10 Partners, coordinated by Aarhus univ

Multi-specimen Photo ID



LIDAR-based habitats monitoring



**safeGUARDing biodivErsity aNd  
critical ecosystem services**

4.5 M€, 16 Partners, coordinated by PI@ntNet  
(CIRAD & Inria)

New tools for conservation practitioners

