ARISE target list

Onno Calf

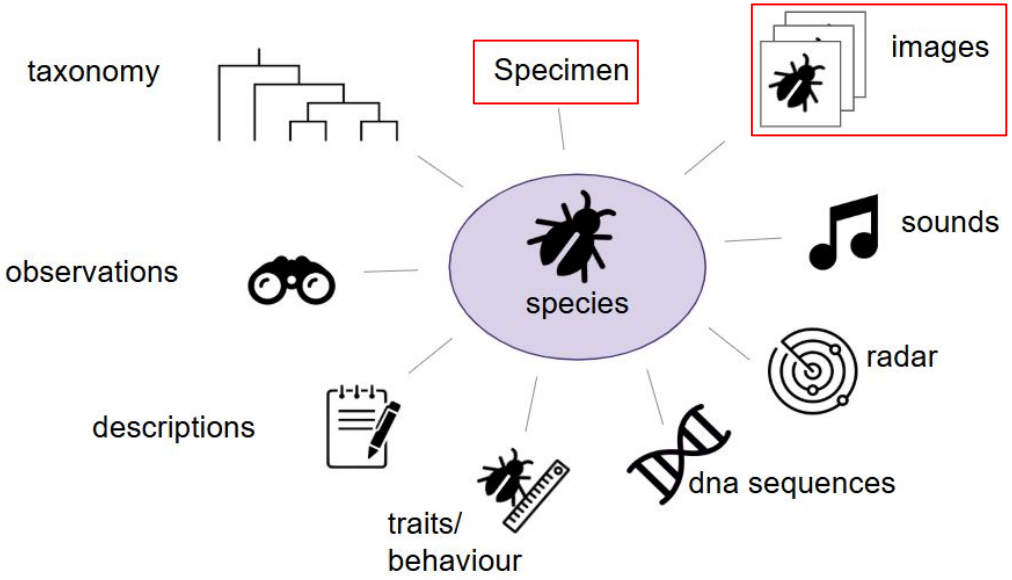
iBOL Europe July 28, 2025

ARISE
arise-biodiversity.nl

UNIVERSITEIT TWENTE. Naturalis Biodiversity Center WESTERDIJK FUNGALBIO DIVERSITY INSTITUTE UNIVERSITEIT VAN AMSTERDAM

What is ARISE?

The ARISE project builds an infrastructure that will identify and monitor all multicellular species in the Netherlands



Goal team sampling

- Obtain and image 3 validated specimens of each species in the Netherlands

Teams

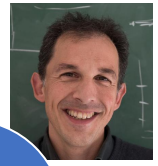
Steering Board

Programme Management

Elaine

Lotte

Emiel



Onno

Jessica

Apps

Sampling

Sample to DNA ID

Biocloud

Monitoring Demonstration Sites

Sensor to AI ID

Sequencing Lab

Sequencing Analysis

Digital Sp ID

Data & solution architecture

Victor

Kevin

Rutger

Jacob

So far, the sampling team has handled a total of

138.838

specimens!

Home

Identify all species

An overview of the availability of DNA reference barcodes for all known Dutch species published in BOLD.

This information can be used to easily identify gaps in the Dutch DNA species reference barcode database.

Animalia View species

Plantae View species

Fungi View species

ARISE Other organizations Shared

Search

Search taxons

Recently viewed

Piersigia intermedia species

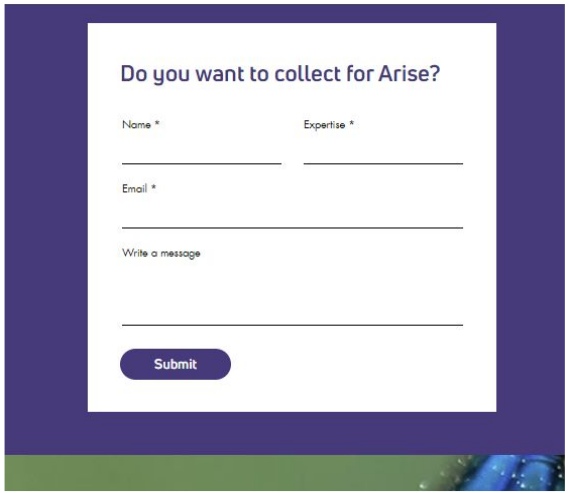
Diaphana minuta species

Apiloscatopse picea species

use.arise-biodiversity.nl/

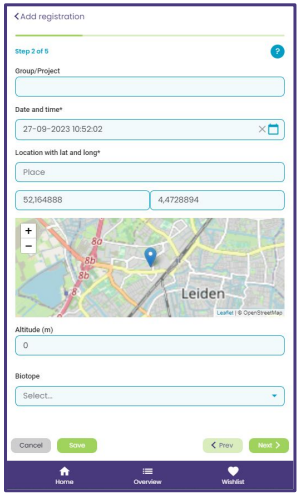
Collect Samples & Metadata

Request Sampling Kit



Collect Samples

Collect Metadata



ada.arise-biodiversity.nl

COLLECT

PREPARE

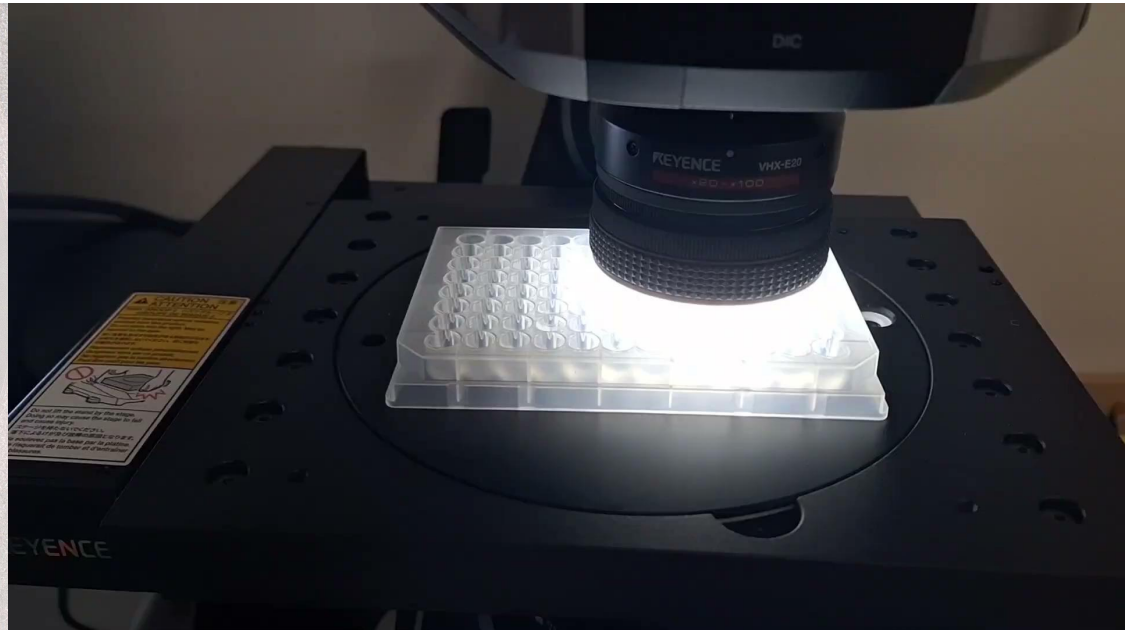
SEQUENCE

ANALYSE

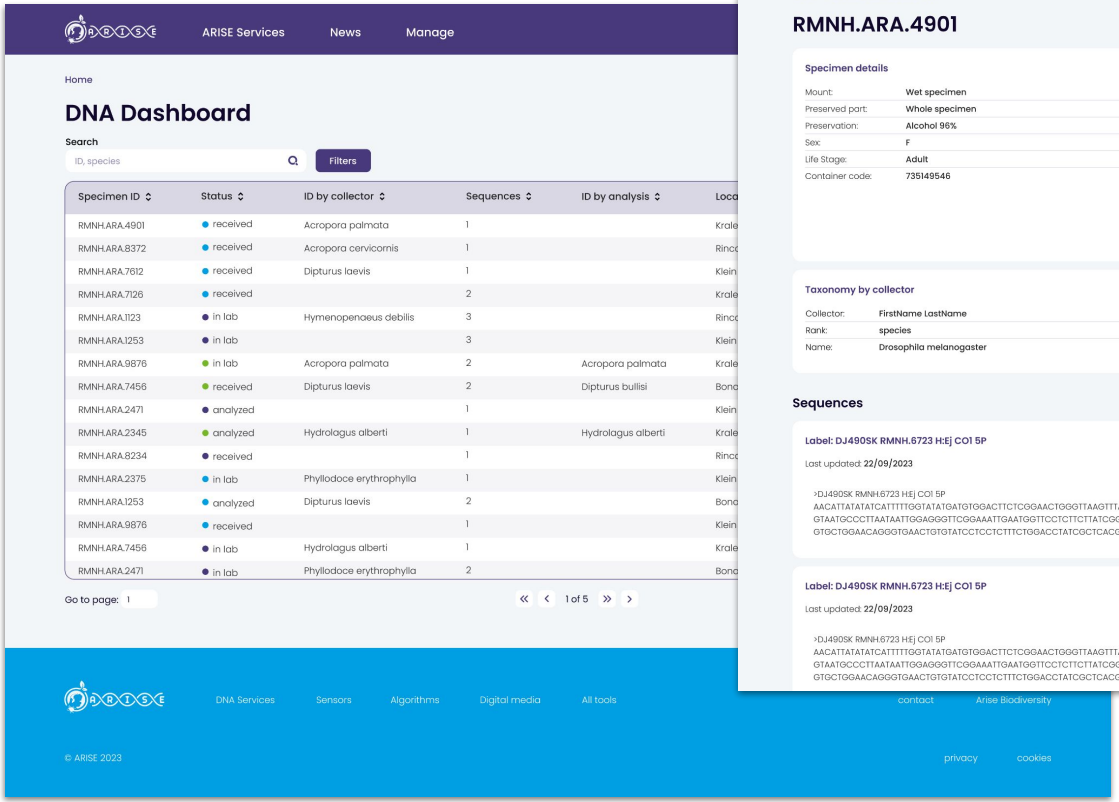
UPDATE

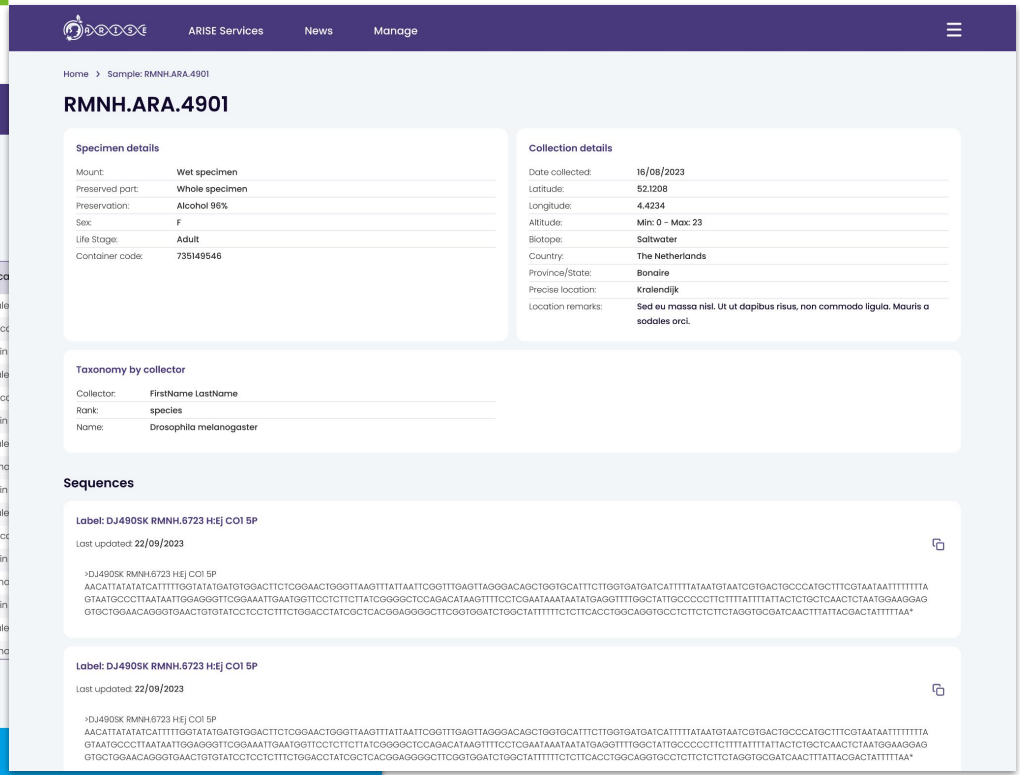
PUBLISH

Automate processes in the lab



DNA dashboard





dna.arise-biodiversity.nl

Target List

Status July 10, 2025

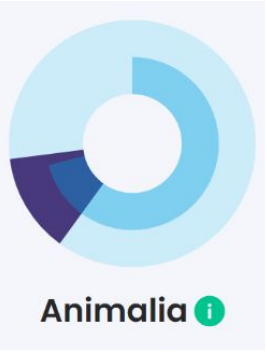
50.194 species in Dutch species register

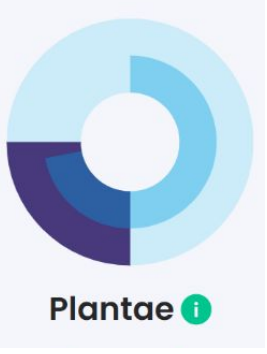
- Updates required

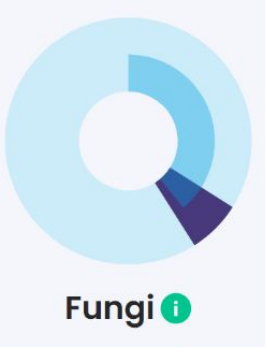
43.092 species considered established

37.948 est. species **WANTED**

- **14.815** est. species without worldwide references (Prio1)
- **4.514** est. species <3 worldwide references (Prio2)
- **18.619** est. species with <3 Dutch references (Prio3)







So far, the sampling team has handled a total of

138.838

specimens!

We need expertise!

- **138.838** specimens collected
- **48.288** already have a barcode
- **~17.600** identified to **6.403** species
- **~121.250** specimens yet unidentified from bulk samples (BLAST-assisted identification)
- We need experts (YOU?) to collect, identify AND validate!
- Still **14.815** MOST WANTED species

  (Established species without ANY published barcodes)

Group	MOST WANTED	Experts
Hymenoptera	1729	29
Arachnida	1261	6
Diptera	1135	44
Agaricomycetes	1107	16
Nematoda	661	2
Coleoptera	469	22
Trombidiformes	403	2
Rotifera	359	1
Hemiptera	327	6

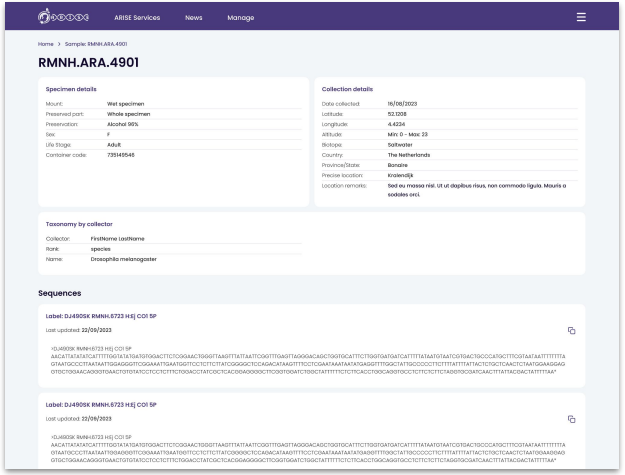
Filling the targetlist

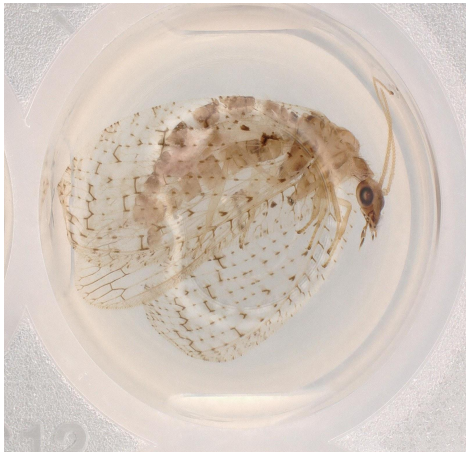
- **Collecting specimens from the field**
- **Collection mining**
- **Identifying bulk specimens**
- **Validate generated barcodes**

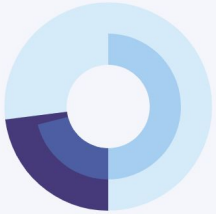
Please reach out to us with recommendations or anything else you want to share…

info@arise-biodiversity.nl

Feedback





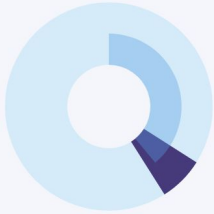


Animalia

View species

Plantae

View species



Fungi

View species