


 ERGA


 iBOL EUROPE

Connections

2. Meet iBOL Europe and ERGA

The European Reference Genome Atlas (ERGA) and the European node of the International Barcode of Life (iBOL Europe), two international communities of scientists brought together under the Biodiversity Genomics Europe Project, are joining forces for a series of blog posts that explore the fascinating world of Biodiversity Genomics and the intersection of their communities.



**Biodiversity
Genomics
Europe**

BiodiversityGenomics.eu



Co-funded by
the European Union



UK Research
and Innovation



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Meet iBOL Europe and ERGA

BY CHIARA BORTOLUZZI, KASIA FANTONI, CHRISTIAN DE GUTTRY AND LUISA MARINS

Hello again! In our first post, we learned that DNA is like a big book filled with all the instructions that make living things, plants, animals, fungi, and even tiny microbes, unique. Today, we will look at two groups of scientists who are using these “DNA books” in different ways, all to protect the incredibly wide variety of life on Earth.



AN EUROPEAN PEACOCK BUTTERFLY. PHOTO BY MANFREDXY

**DNA
Barcoding**


iBOL EUROPE

**Reference
Genomes**


EUROPEAN REFERENCE GENOME ATLAS

The first group is called **iBOL Europe** and works on **DNA barcoding**. To understand what DNA barcoding is, imagine you are at the grocery store: each product has a barcode you can scan to see what it is. DNA barcoding works in a similar way! A short piece of DNA tells us which species we are looking at, making it quick and easy to identify animals, plants, or other organisms. With over 500 members from 173 places in Europe, iBOL Europe is building a big team to help keep track of all kinds of living things, finding out where they live, whether they move around, and when new species pop up.

DNA Barcoding

The use of short DNA segments to identify species accurately allows us to:



Detect & monitor biodiversity



Understand ecosystem dynamics



Discover new species



Click to learn more
about iBOL

The second group is **ERGA**, which stands for European Reference Genome Atlas. While iBOL Europe reads a few pages of the “DNA book” to know which species it is, ERGA wants to read every single page, cover to cover! By putting together these entire books (or **reference genomes**), ERGA helps us learn much more about each species, like how they survive and adapt, and helps us understand how to protect them! ERGA is also part of a global project that aims to read the full DNA “books” of every species on planet Earth.



Reference Genomes

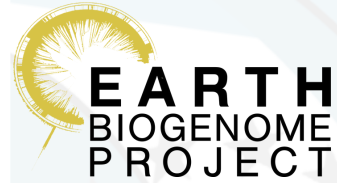
The complete genomic “blueprint” of a species provides the basis to study its:



Evolutionary history

Genes and their functions

Adaptative potential



[Click to learn more about the EBP](#)

Even though iBOL Europe and ERGA do different things, barcoding versus making full reference genomes, they both share the same important goal: to **help us understand and protect Earth's biodiversity.**

In our next post, we will show you more about how these two approaches work together to keep our planet's living library safe. We hope you enjoyed this second chapter of our DNA adventure and can't wait to share more exciting discoveries soon!



ARCTIC HARE - GREENLAND. PHOTO BY ADRIAN WOJCIK.



All content on this leaflet is published under the Creative Commons Attribution License ([CC BY 4.0](#))