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# Biodiversity Genomics Europe

Using genomics to protect and restore biodiversity

One in four species are threatened with extinction worldwide due to large-scale environmental change. Scaling up the application of genomics in biodiversity research would help us tackle this threat.

A new pan-European consortium – Biodiversity Genomics Europe – is leading the way.



[biodiversitygenomics.eu](http://biodiversitygenomics.eu)





# Building shared capacity at the European level

The global challenges of biodiversity loss and climate change demand a scientific approach that transcends national boundaries. The BGE programme is building essential foundations for shared capacity at the European level. This will accelerate the generation of biodiversity-genomic data, underpinning key tools for effective biomonitoring, habitat protection and species recovery.

The drivers of BGE's systemic and scientific impact are the two Europe-wide networks that the project is developing: iBOL Europe, for the European DNA-barcoding community, and the European Reference Genome Atlas (ERGA), focused on full-genome sequencing. They will become the European nodes of the global organisations International Barcode of Life (iBOL) and Earth Biogenome Project (EBP), respectively.



# Scientific impact

Discovery, identification, dynamics and monitoring

BGE aims to integrate two, traditionally distinct, strands of biodiversity genomic science: DNA barcoding and full-genome sequencing, providing economies of scale and enabling the scientific community to work together, drawing on the full pool of genomics knowledge to accelerate biodiversity research.

The resulting increase in genomic data generated by BGE partners across terrestrial, freshwater and marine ecosystems will dramatically improve our ability to characterise and identify species, study their interactions, and monitor changes in European biodiversity. This growing body of scientific knowledge will inform and underpin action to address biodiversity loss.

# European genomics

Building a European genomics network

BGE aims to overcome the current limitations of biodiversity genomics investment in Europe by bringing national initiatives together to connect people, data, and infrastructures at the European level.

Ultimately, the goal is to build an efficient Europe-wide system of genomic data production, that is embedded in European science policy, to effectively tackle the biodiversity crisis.

