

Linking biodiversity scientists, students and their research across ANU, CSIRO and UC



Australian National University



UNIVERSITY OF CANBERRA

Centre for Biodiversity Analysis

The Centre for Biodiversity Analysis operates as a highly collaborative, cross-institutional partnership jointly funded by the ANU, CSIRO and University of Canberra.

Mission statement: Through collaborative science and training, with a focus on cutting-edge applications of genomics and environmental analysis, to improve the understanding, protection and resilience of Australia's unique biodiversity and ecosystems in the face of accelerating environmental change.

Promote collaborative biodiversity science across partner institutions to develop and demonstrate novel approaches and tools for biodiversity discovery, understanding and analysis.

Build capacity through training of graduate and postdoctoral scholars.

Incorporate new knowledge and tools into the conservation policy and management of Australia's biodiversity.

Connect



- Collaborative research
 - » Ignition Grants
 - » Synthesis Groups
- Seminars, symposia & conferences
- Visiting scientists
- Working groups

Build



- ECR advanced training workshops
- Joint ECR research & student projects
- Co-supervision across institutions
- Industry/Gov internships

Apply

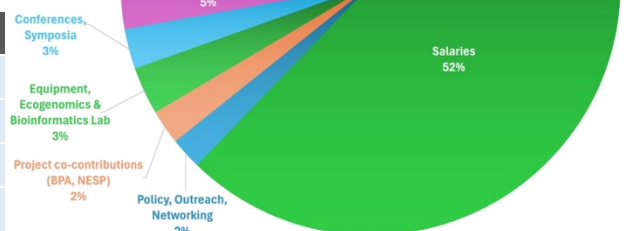


- Knowledge exchange between science, policy & management
 - » Synthesis Groups
 - » Workshops & symposia
 - » Knowledge Broker

The CBA was established in 2012 on the arrival of Director Craig Moritz at ANU and is administered from ANU's Research School of Biology via an Umbrella Agreement.

Supported by a Coordinator, Knowledge Broker and Ecogenomics & Bioinformatics Lab Manager, the CBA is governed via a Liaison Committee composed of representatives from all funding partner institutions.

Centre for Biodiversity Analysis (2012-2025)	Budget
CBA V1 (2012-17) ANU + CSIRO	\$1,000,000
CBA V2 (2017-20) + University of Canberra	\$1,200,000
CBA V3 (2020-25) + Ecogenomics & Bioinformatics Lab	\$2,700,000
Total	\$4,900,000



Collaborations enabled by CBA seed funding and network creation across ANU, CSIRO and University of Canberra have leveraged over \$28M in external funding opportunities (2013-23).



Science and Industry
Endowment Fund **\$10M**



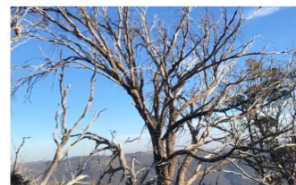
ARC Industrial
Transformation Training
Centre **\$5M**



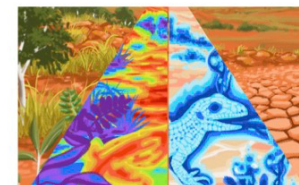
CSIRO Environomics FSP
\$4.5M



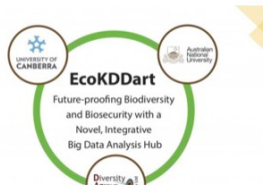
Bioplatforms Australia
Initiatives **\$2.1M**



ARC Linkage **\$1.58M**



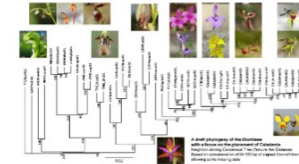
ARC Discovery **\$1.56M**



ACT Gov Priority
Investment Program **\$1.2M**



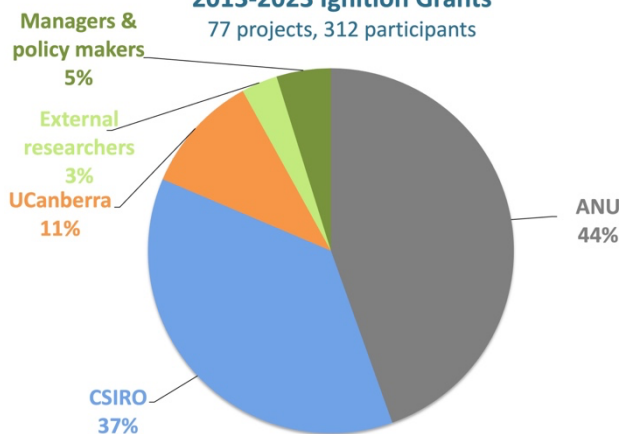
AMRF
AUSTRALIAN MOUNTAIN
ARC Linkage
Infrastructure, Equipment
& Facilities **\$1.12M**



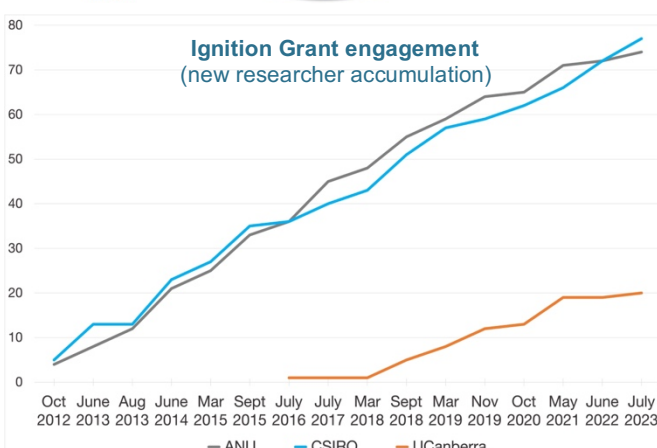
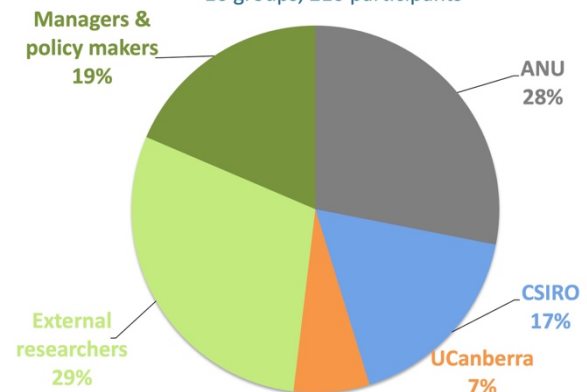
Other grants (ABRS, NESP,
Hermon Slade) **\$479K**

The strong support and engagement of the CBA community across the three partner institutions has ensured continuous funding of the Centre for 13 years (2012-25).

2013-2023 Ignition Grants
77 projects, 312 participants



2018-2023 Synthesis Groups
16 groups, 210 participants



Over 80 research groups from across ANU, University of Canberra and CSIRO have participated in CBA Ignition Grant, Synthesis Groups, Visiting Scientist and Training Support funding programs.

The Ignition Grant scheme continues to engage new collaborators from across its partner institutions every round.



10 symposia & conferences



17 visiting scientists



45 seminars



40 technical training workshops



24 co-supervised HDR students



15 policy & management events

"CBA is a great venture, and it is important to keep the collaborations with the other institutes in Canberra." [Assoc Prof, ANU, 2023](#)

"The Ignition Grants are a very effective scheme to kick-start novel ANU-CSIRO collaborative research. The seed funding provided was crucial in developing a more substantial research proposal." [Research Scientist, CSIRO, 2016](#)

"I've always found CBA to be useful and interesting, a great way of meeting fellow researchers." [HDR Student, ANU, 2023](#)

"The Ignition Grant I received allowed me to see my honours year as much more than a university assessment. It gave me an incredible opportunity and working with CSIRO encouraged me to think about the potential consequences and applications of my research. It also helped fund conference attendance and I feel attributed to the beginning of an exciting science career for me." [Hons student, ANU, 2016](#)

"Overall it was a great opportunity to have this shared CBA grant together with outstanding collaborators. It was a great pleasure to work together and to build new networks. This was especially important as an EMCR. This grant really helped in establishing new directions for my new research group. In short, the impact of this small grant can hardly be overstated." [ANU EMCR, 2019](#)

"The Synthesis Group funding was an excellent way to start relationships with some CSIRO employees and to expand the potential pool for funding (through known links). It is a great scheme and it would be great if it could continue. Networking mingles could be really beneficial to foster new relationships and collaborations". [Assoc Prof, ANU, 2023](#)

"The support and resources provided by the CBA community have served as a pivotal launching pad for my career as an Early Career Researcher (ECR). In the absence of the CBA's platform, I would not have had the opportunities to build valuable professional relationships, particularly during challenging periods such as my tenure as an international student during the COVID-19 pandemic (i.e. when conferences and networking were difficult). Furthermore, the CBA's offerings—including ignition grants, attending workshops and leading workshops—have equipped me with a skill set that is sought-after as an ECR. The CBA community has created these valuable opportunities for me, but we need to strongly urge PhD students to take full advantage of them, as they are instrumental in cultivating the skill sets required for success". [Post doc, University of Canberra, 2023](#)

"This (Ignition Grant) is the best grant scheme of its type I have come across in my life so far. Keep it up! Little chunks of money for pilot experiments is exactly what ECRs need. Expand the scheme if you can!" [Postdoc, ANU, 2016](#)

"CBA's workshops provide excellent opportunities to learn from and network and interact with presenters that may not otherwise come to Canberra." [CSIRO Research Scientist, 2016](#)

"Our synthesis workshop also helped dynamize Canberra's quantitative genetic community which now holds a monthly meeting to discuss journal articles and new research projects with participants from RSB, CSIRO and UC." [EMCR, ANU, 2018](#)

"This funding was integral to my PhD project, and development as an early-career scientist, facilitating networks with CSIRO." [PhD student, ANU, 2019](#)

"All CBA events are amazing. Love to join more frequently and if there is more opportunity for co-supervising students that would be great!" [Post doc, CSIRO, 2023](#)

"I have appreciated where CBA has supported initiatives/projects that I have been involved in." [Technical manager, ACT Gov, 2023](#)

"The activities offered by the CBA have been very important during my PhD project, especially the workshops." [PhD student, ANU 2016](#)

"Our synthesis funds were very successful in establishing a large number of collaborations and interactions with researchers outside the ANU. In addition, the synthesis funds have been instrumental in training students both in comparative and meta-analysis about each other's fields and the challenges and approaches in each." [EMCR, ANU, 2019](#)

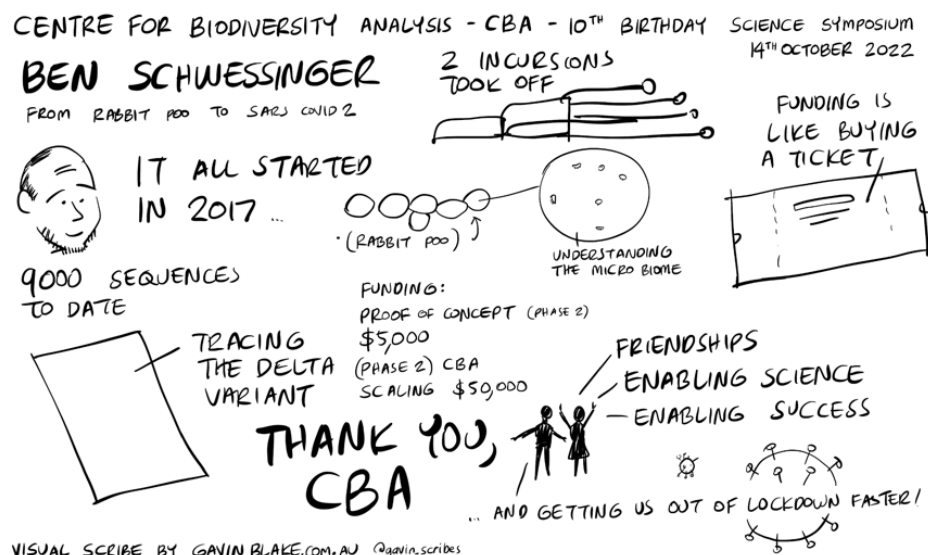
"I truly hope CBA is successful in your re-funding bid as I think CBA is really important for researchers, particularly EMCRs, to establish collaborations and to generate important initial data that serves as baseline from which to attract larger research funds." [EMCR, CSIRO, 2019](#)



48 publications from CBA project, Synthesis Group and workshop funding (2014-23)

The CBA has demonstrated that new methods developed for fundamental research can be rapidly deployed to solve urgent real-world problems.

Ignition Project team takes on rapid COVID-19 sequencing



This collaboration, kicked off by a 2017 Ignition Project, connected CSIRO's viral expertise via Robyn Hall (Health & Biosecurity) with ANU's advanced genomic sequencing know-how through Benjamin Schwessinger's lab (Research School of Biology). In mid 2021, as the country was plunged into lockdown, Robyn and Benjamin, along with Ashley Jones and Emma Crean (ANU), stepped up as the primary team sequencing ACT COVID-19 samples and comparing genomes from the Australian database to assist with contact tracing across Canberra, sequencing 15-30 genomes a day for ACT Health.

cba.anu.edu.au/news-events/news/ignition-project-team-takes-rapid-covid-19-sequencing

Genetic assessment of bushfire-impacted vertebrate species

The 2019-2020 Australian bushfires had devastating effects on many animal species, significantly impacting their populations and habitats. In response, the Department of Agriculture, Water and the Environment devised a draft framework to urgently assess and prioritise conservation efforts for these species. However, genetic evaluations revealed inaccuracies in the existing taxonomic classifications, leading to mis-prioritisation and potential loss of cryptic species diversity. Recognising the limitations of traditional morphological taxonomy, the Centre of Biodiversity Analysis conducted an expert assessment which confirmed this. Consequently, a project supported by the NESP Threatened Species Hub and the CBA was launched to gather and analyse genetic data, which would refine the understanding of species diversity and aid in the accurate reassessment of conservation priorities. The project's final report provides crucial landscape genetic information for about 50 priority species helping to inform State conservation strategies. It underscores the importance of integrating genetic insights into conservation planning and maintaining continuous collaboration between geneticists, policy makers, and conservation managers.



cba.anu.edu.au/news-events/news/genetic-assessment-bushfire-impacted-vertebrate-species