Atlas of Living Australia

Year in Review

2020–21

NCRIS
National Research Infrastructure for Australia
An Australian Government Initiative

CSIRO

Atlas of Living Australia
ala.org.au

Contents

Director's overview

It's a pleasure to welcome you to the ALA's Year in Review 2020–21, in which we showcase our achievements and reflect on the significant contributions made by our partners in supporting the mission of the ALA.

This year we celebrated 10 years since the formation of the ALA and recognised the criticality of the Australian Government's National Collaborative Research Infrastructure Strategy (NCRIS) program in shaping and supporting world-class national research infrastructure such as the ALA.

Impact is always a challenge to measure and communicate, but in designing this report and reflecting on the year I was impressed with the ALA's remarkable reach and the widespread awareness of the ALA. This comes through strongly when we report on the quantum and diversity of research the ALA enables (pages 8–9), the suite of data partners who depend on our infrastructure to broaden the reach of their work, and the remarkable project partnerships that collectively improve our understanding of Australia's rich biodiversity.

The bushfire crisis of 2019–20 and its impact on our ecosystems highlighted the fundamental role biodiversity plays in Australia and how it is valued. Biodiversity is something we engage with for recreation, value for its intrinsic worth, study to support our science, and rely on for fundamental ecosystem services. In parallel, we are in the midst of a technological revolution where data is an asset, and where scientists and decision-makers demand immediate access to the best available data. The ALA and our partners have adapted remarkably well to these shifts through the development and adoption of technology to better support users and improve our systems. This year in review also tells an important story of innovation, adaptation and evolution.

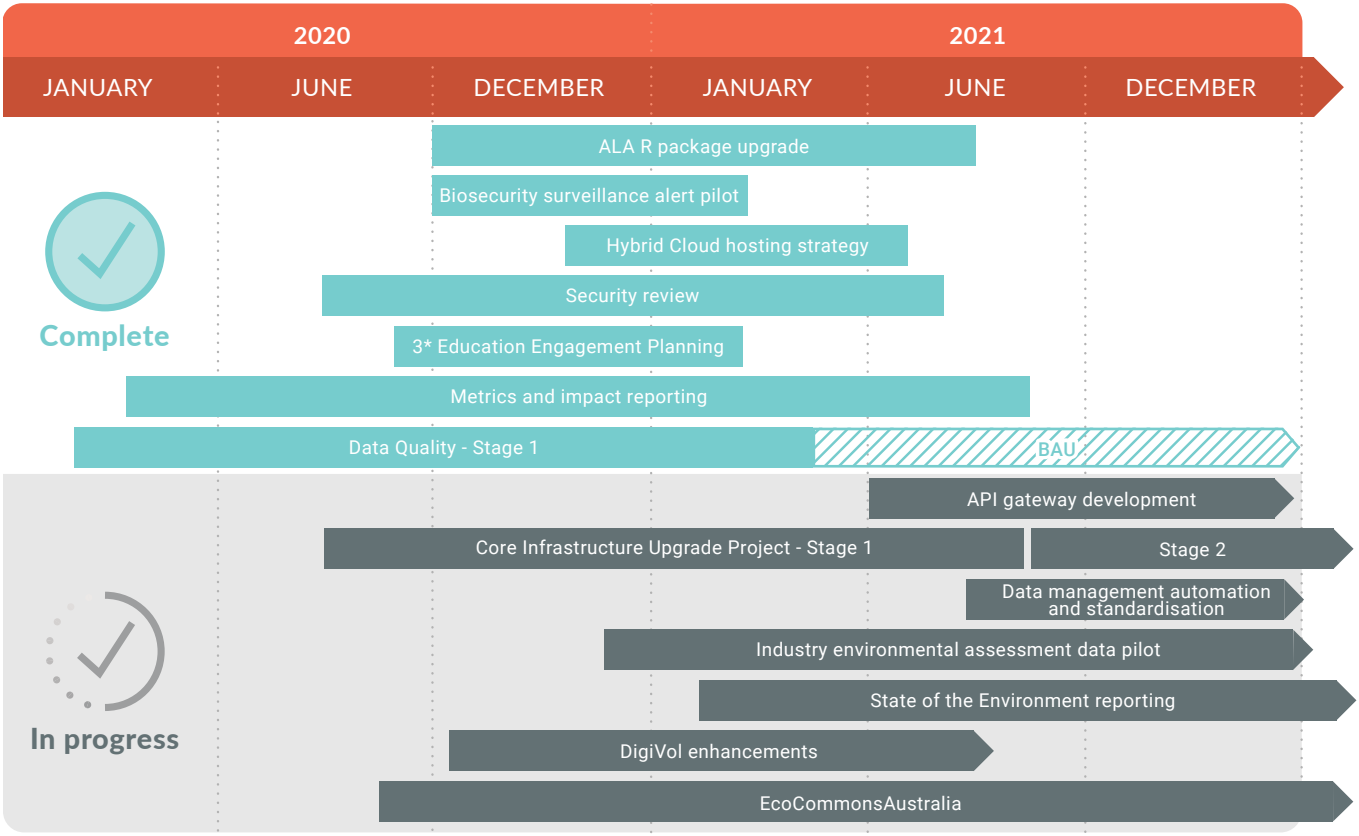
We hope you enjoy reading our 2020–21 story as much as we've enjoyed telling it.

Dr Andre Zerger,
ALA Director

How are we tracking?

Checking in with our work plan

Our annual work plan details the major projects, activities and investments planned to deliver on the strategic priorities outlined in the ALA Strategy 2020–2025. We publish the work plan on **ala.org.au/publications** to communicate our priorities and promote opportunities for collaboration.



For more details, visit **ala.org.au/publications**

Work plan highlights: two key projects delivered in 2020–21

Data Quality Project

Trusted, high-quality and well-described data are essential for our users to undertake effective research and to inform decision-making. In 2020, in response to feedback from the ALA community, we embarked on the Data Quality Project to improve how users search and access occurrence record data in the ALA.

In February 2021, we released a new functionality to enable users to pre-filter occurrence record search results. The default filter excludes lower quality records, while other filters address specific needs, such as to find records licensed for all purposes. Users can switch the pre-filters on or off and manage them as a group or individually.

Continuing into 2022, the Data Quality Project will further engage with the ALA community and enable users to search and find trusted biodiversity data that are fit for their purpose.

For more details, visit **ala.org.au/current-projects**

Core Infrastructure Upgrade Project

At the start of 2020 we commenced work on a major upgrade to our ALA systems. We are replacing the components of the ALA occurrence record system with software developed by GBIF – the Global Biodiversity Information Facility – including specific adaptations for the ALA's requirements.

The Core Infrastructure Upgrade Project will enable the ALA to adapt to changing data and user requirements heading into our next decade of operation. We are working closely with GBIF throughout the project and sharing updates with our user and stakeholder communities and the international Living Atlases community.

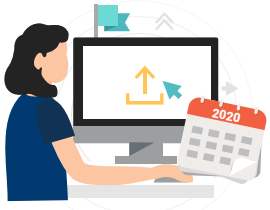
Upgrades to the ALA's species occurrence record ingestion systems (Stage 1) were released in July 2021. Updates to the ALA metadata registry (Stage 2) and replacement of the ALA user interface and web service API (Stage 3) will continue during 2021–22.

Atlas of Living Australia 2020–21: in numbers

Annual metrics

709
total publications referencing ALA in 2020 calendar year

76
datasets added in 2020–21



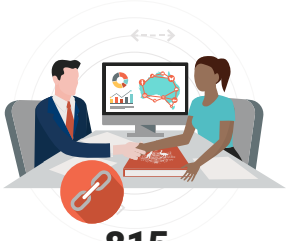
7,475,826
records first uploaded in 2020–21

21,504
download events in 2020–21

71,266
records for Australian Magpie *(Gymnorhina tibicen)* in 2020, the most recorded species for the year

Total metrics (as at 30 June 2021)

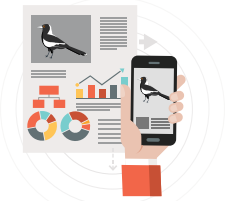
90,242
registered ALA users



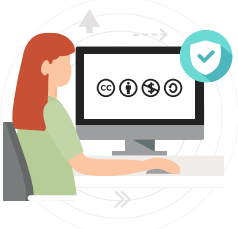
815
datasets from data partners across research, government and citizen science

95,657,382
total species occurrence records

27
countries using ALA infrastructure



1,300,025
records for Australian Magpie *(Gymnorhina tibicen)*, the most recorded species in the ALA



99.9% of data
in the ALA have Creative Commons licences

Supporting decision-making

In 2020–21, we worked on 12 biodiversity assessment, reporting and monitoring programs across national, state and local governments.

In addition to delivering data to researchers, the ALA is well integrated with government biodiversity data programs. We facilitate knowledge transfer and support best practice data analysis and utilisation for decision-makers within all levels of government.

1. MERIT (Monitoring, evaluation, reporting and improvement tool) for Australian Government Department of Agriculture, Water and the Environment (DAWE)
2. Weeds Australia portal for the Centre for Invasive Species Solutions
3 & 4. Index of Biodiversity Surveys for Assessments (IBSA) and Index of Marine Surveys for Assessments (IMSA) for Western Australian Government
5. Collaborative Species Distribution Modelling (CSDM) project for Griffith University
6. Biosecurity Monitoring Through ALA Network for DAWE
7. EcoAssets supporting data needs for State of the Environment reporting for the Australian Government
8. Sensitive Species Data Pathways collaborative project including all state and territory governments
9. Citizen Science Bushfire Project Finder for CSIRO
10. Data service supporting the National Environmental Science Program (NESP)
11. MDBA (Murray-Darling Basin Authority) hub
12. Biodiversity data collection, storage and management for Brisbane City Council

Partnering for impact

Through our association with iNaturalist Australia and many other citizen science platforms and applications, we support and value the efforts of many different community groups and individuals across Australia.

14,058 observations,
2446 species,
399 citizen scientists/people
as a result of the University of New South Wales' Environment Recovery Project on iNaturalist Australia

35 projects
on the Citizen Science Bushfire Recovery Project Finder supported by the ALA, CSIRO and the Australian Citizen Science Association

Atlas of Living Australia 2020–21: in numbers (continued)

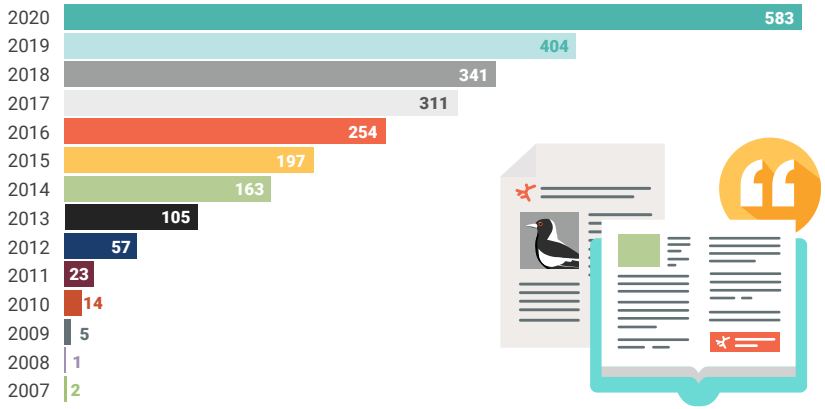
Research and publications metrics

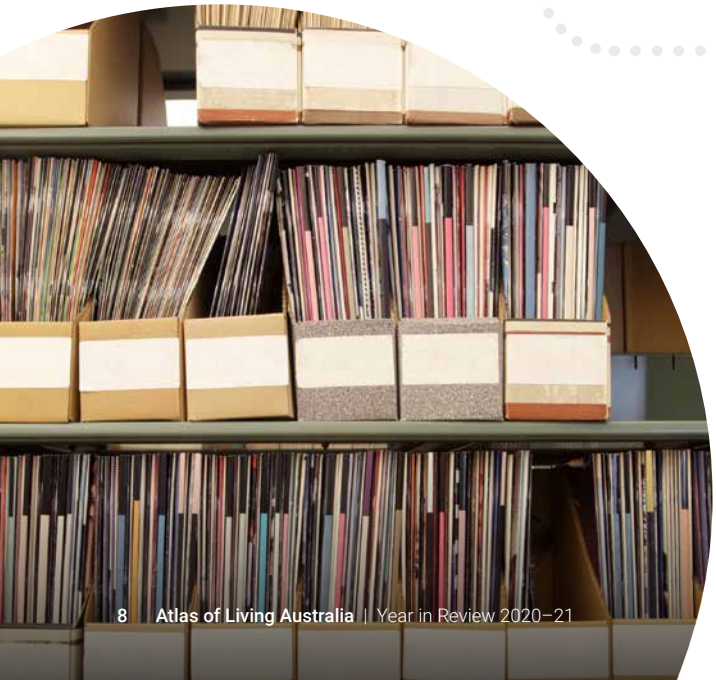
In 2020, we released a new online bibliography. It lists known journal articles, books, websites etc that cite data in the ALA or ALA infrastructure.

You can browse or search the publication list and also let us know how you have used the ALA.
ala.org.au/ala-cited-publications

Annual number of journal articles citing the ALA

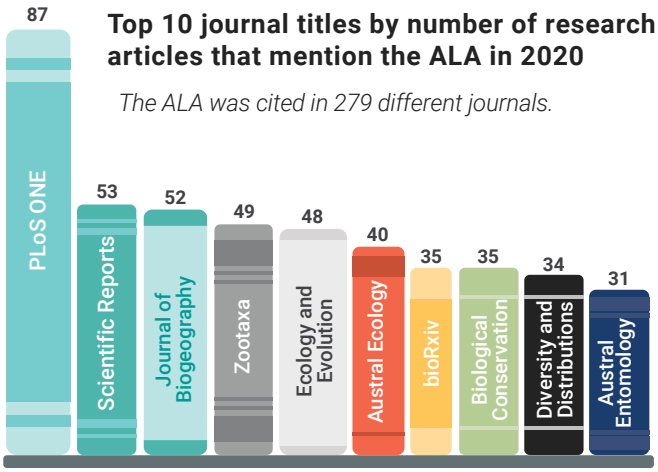
We saw a dramatic increase in the number of publications in 2020. ALA citations may be higher due to the introduction of DOI (digital object identifiers) for data downloads, and increased awareness of research infrastructure, and willingness to cite it, in the research community.





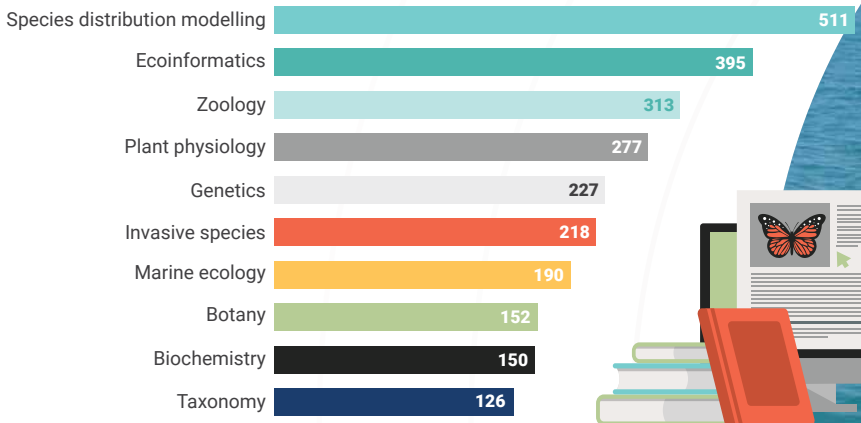
Top 10 journal titles by number of research articles that mention the ALA in 2020

The ALA was cited in 279 different journals.



Main research domains by number of publications citing the ALA

The ALA is used by researchers across many different research domains from ecoinformatics and taxonomy as well as education, social science and the arts.



Providing analysis tools for the research community

In early 2021, we launched `galah`, our new **#rstats** package to further support researchers by providing a set of tools to use within R, the programming language and software environment for statistical computing.

CSIRO scientist Katrina West collecting eDNA samples on the Kimberley coast, WA. The ALA is exploring possibilities for incorporating new data types such as eDNA records.

Delivering data: from our data partners to your desktop

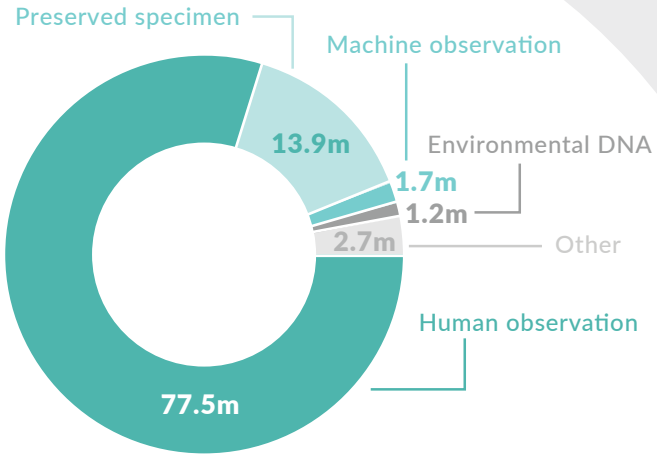
We harmonise over 800 datasets from many different data providers across museums, collections and herbaria, universities, science organisations, government departments, Indigenous communities, industry and community groups.

Data in the ALA

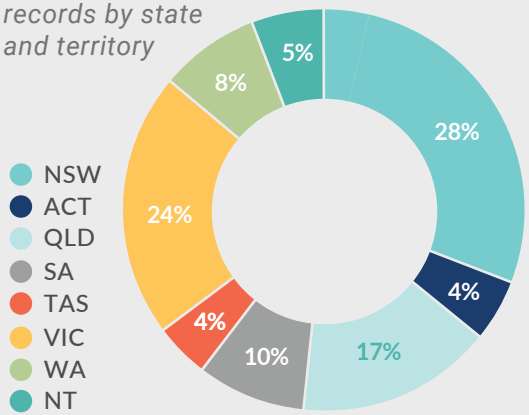
Top data providers by occurrence record count

- eBird Australia **21.6m**
- Bird Life Australia **15.1m**
- NSW Dept of Planning, Industry and Environment **12.1m**
- Victorian Biodiversity Atlas **8.8m**
- Australasian Virtual Herbarium **5.8m**
- Online Zoological Collections of Australian Museums (OZCAM) **5.3m**
- Ocean Biodiversity Information System (OBIS) **4.3m**

Basis of record



Occurrence records by state and territory



Observation of Flannel Flower *(Actinotus helianthi)* in the Blue Mountains, NSW, uploaded to iNaturalist Australia.

Data partner spotlight

Australasian Virtual Herbarium

The creation and delivery of Australasian herbarium collections data and its aggregation and sharing through ALA and AVH has been a massive collaborative effort that now allows the efficient discovery and analysis of vouchered botanical data for the region. It has helped to revolutionise the curation and management of specimens and their information, and is an invaluable resource for scientists and society.

– Shelley James, Chair of Managers of Australasian Herbarium Collections (MAHC)

NSW Department of Planning, Industry and Environment

The ALA is actively working with the NSW government and other partners to improve the flow of data between data repositories. In effect enabling an environmental data ecosystem that aggregates data from many sources and makes it available for research and decision-making.

There is growing need to organise and mobilise biodiversity data to support the monitoring and prediction of environmental change, improve understanding of commutative impacts on the environment, and to ultimately place a value on biodiversity ('natural capital') ensuring nature's value is considered at the heart of economic decisions. Everyone benefits from effective data management.

– Ron Avery, Senior Team Leader, Biodiversity Information Systems, NSW Office of Environment and Heritage

University of New South Wales

There are many citizen science projects that contribute high-quality data to the ALA. Citizen science data is a valuable component of our biodiversity infrastructure and is used by researchers, decision-makers and community groups to better manage our biodiversity and environment.

The ALA, as the host of the iNaturalist node in Australia, has been integral in ensuring the data collected from our project is open, discoverable and accessible. The data is such an important resource for researchers, decision-makers and communities to better understand how the environment recovers from fire. We're looking forward to growing our collaboration with the ALA in the coming years as we engage more deeply in the citizen science space.

– Casey Kirchhoff, Environment Recovery Project Lead, University of New South Wales

Biodiversity Heritage Library (BHL) Australia volunteers, Jim Healey and Sue Halliwell, scanning a book from Museums Victoria's Collection.

Our data partners: highlights for 2020–21

Biodiversity Heritage Library

BHL Australia is a national project working to digitise Australia's biodiversity heritage literature and make it freely available and discoverable online. It is funded by, and operates as a co-investment between, Museums Victoria and the ALA.

- **37** contributing organisations across Australia (8 new in 2020–21)
- **391,792** pages of Australia's biodiversity literature openly accessible online (58,045 added in 2020–21)
- **229,515** page views (73,586 in 2020–21)
- **88,360** individual users (27,470 in 2020–21)

DigiVol

Digivol enables volunteers to capture data and digitise collections held within museums, libraries, archives and herbaria. It is managed by the Australian Museum and powered by the ALA.

- **9657** volunteers
- **7,723,197** transcriptions
- **198%** increase in transcriptions from the year before

iNaturalist Australia

The ALA manages the Australian node of iNaturalist – the world's leading social network for biodiversity. iNaturalist Australia uses community expertise and image recognition to help users identify species and share observations.

- **33,936** observers
- **2,304,820** observations
- **39,831** identified species

As at 1 July 2021

Observations made in Australia using the iNaturalist mobile app are harvested regularly to the ALA.

International Living Atlases

Software code originally developed by our Australian team is now in use by countries around the world to help manage their national biodiversity databases. The network of biodiversity data infrastructures is called the Living Atlases community.

- **27** live instances including ALA
- **3** instances in development
- **7** instances in discussion

Australasian Virtual Herbarium

AVH

The AVH provides access to collection data for plant, algae and fungi specimens held in Australian and New Zealand herbaria. It is powered by the ALA.

- **24** herbaria that provide data
- **6,870,260** records
- **56,600** species

MERIT

Australian Government
Department of Agriculture, Water and the Environment

MERIT is the Department of Agriculture, Water and the Environment's online reporting tool and is powered by the ALA. It is used to collect and store planning, monitoring and reporting data associated with natural resource management grants projects funded by the Australian Government.

- **3800** projects
- **14** programs
- **Over 70** subprograms

Dr Julia Ryeland used the ALA to explore how Emus *(Dromaius novaehollandia)* have adapted to environmental changes in Australia.

1 Delivering trusted data for research

The ALA is big data for biodiversity science. It provides access to over 90 million species occurrence records and other reference data such as climate, habitat, and other spatial data to enable efficient data analysis and visualisation. The map-based tools allow researchers to explore relationships between species, location, and environment.

Big bird, big data

In 2021, Dr Julia Ryeland used data in the ALA to model the distribution of Emus across Australia over the last 6000 years. They found that Emus have extended their range northward and away from the east coast as conditions there have become more favourable (lower precipitation seasonality). The researchers used the ALA to access over 80,000 occurrence records for Emus from across Australia.

Using the open, aggregated and sizable data of Emu occurrences via the ALA meant we could generate species distributions with more accuracy, with a dataset greater than any one researcher could collect alone.

– Dr Julia Ryeland,
Western Sydney University

To read full publication visit
doi.org/10.1038/s41598-020-79551-0

2

Songs of the Regent Honeyeater

Ross Crates, from ANU's Difficult Bird Research Group, used recorded bird songs from the ALA to find out why Regent Honeyeaters are changing their songs and what it means for their future.

Ross analysed Regent Honeyeater survey data and BirdLife Australia sightings to assess distribution and density of wild populations. The research team recorded bird songs in the wild and in captivity, and used the ALA to find historical song recordings of wild males from 1986 to 2011.

The ALA provides access to over 5200 sound files of bird songs. This was incredibly useful for us as we could make comparisons and work out how Regent Honeyeater songs have changed over time.

– Ross Crates, Australian National University

Ross and his team found rare evidence showing that a severe decline in population size and density is associated with the loss of vocal culture in a wild animal population.

By researching the endangered Regent Honeyeater and their changing songbook, Ross found that the birds are changing their songs to learn songs of more abundant species, and this may be a precursor to extinction in already declining populations.

To read full publication visit **doi.org/10.1098/rspb.2021.0225**

Ross Crates in the field with an endangered Regent Honeyeater *(Anthochaera (Xanthomyza) phrygia)*.

Supporting decision-making

By harmonising biodiversity data from many data partners across research, industry, state and local governments, and community groups, the ALA is well positioned to support national biodiversity and environment programs.

National biosecurity alert system

The Atlas of Living Australia and its large network of biodiversity data providers are helping our national Environmental Biosecurity Office (EBO) in the Department of Agriculture, Water and the Environment (DAWE) to protect Australia's flora and fauna from exotic biosecurity threats.

In 2021, we worked with Australia's EBO to set up an alert system. An alert is now sent to the EBO team when observations of target pest species are uploaded to the ALA.

To read more visit **ala.org.au/blogs-news/ala-helps-to-stop-pests-in-their-tracks**

> ***The ALA alert system is simple and is proving to be an important asset to our operational capability. It is a layer of defence we haven't had before and has excellent potential for further development and expansion to deliver a low-cost environmental biosecurity surveillance and monitoring capability.***
>
> – Andrew Pearce, DAWE's Environmental Biosecurity Office

The Asian shore crab *(Hemigrapsus sanguineus)* is considered a biosecurity threat to Australia.

An ALA report identifying the Asian shore crab demonstrated that the detection and reporting of environmental pests by citizen scientists can provide biosecurity authorities with early warning of biosecurity pests in Australia.

Dan Marges (centre) with visitors in the Red Centre Garden at the Australian National Botanic Gardens, Canberra.

Managing a live collection at the Australian National Botanic Gardens

As Australia's national biodiversity database, the ALA provides access to occurrence records as well as species descriptions, images, names and classification information. In addition to our research and government users, the ALA is used by many people in their everyday working life, from environmental consultants to classroom teachers, natural resource managers and landowners.

We spoke with horticulturalist Dan Marges to find out how he uses the ALA.

> ***I use the ALA at work to access the plant location occurrence records maps. It's useful to find out where different plants grow and how widespread their distribution is. This information enables me to place particular plant species in the relevant thematic sections in the gardens.***
>
> ***The ALA is a great one-stop-shop that combines relevant information from multiple websites that I would normally use. This makes research more efficient and saves me time.***
>
> ***Having quick access to plant IDs, photos and accurate scientific descriptions as well as regularly updated information on plant species locations is fantastic.***
>
> – Dan Marges, Horticulturalist, Australian National Botanic Gardens

4 Partnering with communities for impact

Citizen science response to the Australian bushfires 2019–20

The ALA provides access to Australia's largest collection of biodiversity information via open infrastructure and tools at **ala.org.au**. In addition to supporting research and government programs, ALA data and tools help support citizen science activities.

Following the 2019–20 bushfires, many people contacted us wanting to know how they could help the scientific response. In February 2020, we hosted a national forum to help coordinate a national citizen science response to the disaster. In addition, together with the Australian Citizen Science Association we delivered a Bushfire Project Finder tool to help people discover projects to contribute to.

As Australia's national biodiversity data infrastructure, we recognise the value of citizen science contributions to biodiversity research and conservation. We are committed to making it easier for citizen scientists to contribute research-ready data to help inform disaster research, response and recovery.

Image of bushfire-affected species in Wingello, NSW, uploaded to Environment Recovery Project on iNaturalist Australia.

Gail Yorkshire harvesting, then holding, bardi she has removed from a tree to eat.

Linking Indigenous ecological knowledge and Western science

Language is powerful. It is one way that we, as humans, share knowledge, stories and what matters to us. In partnership with Aboriginal and Torres Strait Islander People, we have been linking language and ancestral, Indigenous ecological knowledge to Western science in our biodiversity data infrastructure.

The ALA Noongar-Wudjari project in Western Australia is one example. It began in 2020 and is co-led by the Noongar Boodjar Language Centre and supported through the Australian Government's Indigenous Languages and Arts program.

According to **Denise Smith-Ali**, Senior Linguist and Founder of the Noongar Boodjar Language Centre, the main aim of the project is to record, collect, protect and promote the Noongar-Wudjari language and ancestral ecological knowledge.

We want to document as much as we can about the plants, animals and places and to save our language. The Elders asked us to do this a few years ago and the ALA is the perfect platform for us to work together with other scientists to do this work ...

The partnership with the ALA and CSIRO is strong because it's about working together and having respect for and learning from each other to get this work done ...

I have seen a change in the ALA and university scientists who have seen how we work. They now have a greater respect for our knowledge and how equipped we are to do what we do. There's a shared professional respect among partners.

– Denise Smith-Ali, Senior Linguist and Founder of the Noongar Boodjar Language Centre

For full story visit **ecos.csiro.au/linking-indigenous-ecological-knowledge-and-western-science**

People highlights

Spotlight on the ALA's help desk

In 2019, we launched a new help desk hosted by ARDC's Nectar Research Cloud and Tim Hicks, our first Application Support Analyst, joined the team. Before then, ALA's support queue was managed collectively by our systems team. Now, with Tim on board, our users receive consistent support from someone dedicated to the role and our developers have more time to code. With a background in IT support, and ever-expanding expertise across all ALA products, apps and tools, Tim answers a wide range of queries about how to search the ALA, find species information, analyse occurrence records – and, very occasionally, questions about Echidna poo or Bandicoot teeth.

Over the past year, Tim has resolved an average of 100–120 support tickets per month. He also manages our library of more than 200 support articles.

Our science team: Changing of the guard

At the end of 2020–21, we farewelled Lee Belbin into retirement. Lee was with the ALA from the very beginning and developed many of the ALA's mapping and analytical tools, in particular the Spatial Portal.

This year, we welcomed Dr Martin Westgate into the role of Science Advisor and lead of the newly formed Science and Decision Support team. Martin is an ecologist with a research focus on how scientific information can be used to understand and mitigate human impacts on the environment, via a combination of empirical ecology and evidence synthesis. His team comprises scientific software developers and data analysts. They provide analysis products for internal and external stakeholders, including the recently launched R package, `galah`.

One of the ALA's founding team members, Lee Belbin.

Our Science and Decision Support team. L to R: Dax Kellie, Shawan Choudhury, Jenna Wraith, Matilda Stevenson, Martin Westgate, Jéssica Fenker.

The Australian Museum's DigiVol platform enables volunteers to digitise museum collections, and is powered by the ALA **volunteer.ala.org.au**.

Impact of COVID-19

The COVID-19 pandemic had an enormous effect on the way we lived and worked in 2020 and 2021. The crisis also heightened the need for quality online data.

The ALA's open-access e-research infrastructure was well placed to meet this need.

Our partner DigiVol saw a huge increase in demand from users.

In the period between February 2020 and February 2021, DigiVol volunteers almost doubled in number, from 5233 to 9050 (173% increase), compared to the same period one year earlier. Transcriptions on DigiVol blew out from 2.41 million to 6.33 million (262% increase).

Celebrating our 10th birthday

In 2020 we marked 10 years of the ALA. Due to social distancing measures in place across the country, our in-person celebrations were replaced with a 10-week communications campaign targeting a broad audience via traditional media and our social channels (Twitter, Facebook, LinkedIn and YouTube).

We delivered two science webinars, two radio interviews and, 59 social media posts, and hosted a CSIRO and ALA team event.

We reached over 225,000 people and had substantial outreach via CSIRO as well as promotion via our fellow NCRIS facilities and our data partners. Here's to our next 10 years!

Atlas of Living Australia
ala.org.au

Acknowledgements

We thank each and every organisation, community and individual for your contributions and support. The ALA would not be possible without you. However, with more than 800 data partners it is a difficult task to acknowledge everyone, so please forgive any omissions.

Advisory Board (2020–21)

- Professor David Cantrill, Royal Botanic Gardens Victoria
- Dr Bek Christensen, Queensland University of Technology
- Chair: Dr Diana Day, Environmental Strategist
- Lyndall Ley, Australian Institute of Aboriginal and Torres Strait Islander Studies
- Professor Melodie McGeoch, La Trobe University
- Mr Matthew Miles, South Australian Department for Environment and Water
- Ms Toni Moate, CSIRO
- Mr Brant Smith, Department of Agriculture, Water and the Environment

Partners

- Council of Heads of Australasian Herbaria (CHAH) – Australasian Virtual Herbarium
- Museums Victoria – Biodiversity Heritage Library
- Australian Museum – DigiVol
- Australian Biological Resources Study (ABRS) – Flora of Australia
- Global Biodiversity Information Facility
- iNaturalist
- Council of Heads of Australian Faunal Collections (CHAFC) – Online Zoological Collections of Australian Museums (OZCAM)

Collaboration partners

National Research Infrastructure Strategy (NCRIS) facilities

- Australian Research Data Commons (ARDC)
- Australian Urban Research Infrastructure Network (AURIN)
- Bioplatforms Australia
- Integrated Marine Observing System (IMOS)
- National Computing Infrastructure (NCI)
- Terrestrial Ecosystem Research Network (TERN)
- National Imaging Facility (NIF)

International collaboration partners

- International Living Atlases
- iDigBio

Australian collaborative projects

- EcoCommons
- Collaborative Species Distribution Modelling

Australian Department of Agriculture, Water and the Environment (DAWE)

- Monitoring, evaluation, reporting and improvement tool (MERIT)
- Murray–Darling Basin Authority hub
- Biosecurity Monitoring Through ALA Network
- National Environmental Science Program
- Citizen Science Bushfire Recovery Project Finder
- Collaborative Species Distribution Modelling
- EcoAssets for State of the Environment reporting

Western Australian Government

- Index of Biodiversity Surveys for Assessments (IBSA)
- Index of Marine Surveys for Assessments (IMSA)

Centre for Invasive Species Solutions

- Weeds Australia

Indigenous ecological knowledge groups

- Kamilaroi, Ngukurr, Noongar-Wudjari, Olkola and Warriyangga people, communities and Country

Peak bodies

- Australian Citizen Science Association
- Environmental Consultants Association Western Australia
- National Academy of Sciences
- Taxonomy Australia

Universities and research organisations

- Australian National University
- Charles Darwin University
- Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Macquarie University
- Monash University
- University of Adelaide
- University of Canberra
- University of Melbourne
- University of New South Wales
- University of Western Australia
- University of Queensland
- University of Sydney

The ALA is made possible by contributions from its partners, is supported by NCRIS, hosted by CSIRO and is the Australian node of GBIF.

- Western Australian Biodiversity Science Institute (WABSI)
- Plant Health Australia
- Australian Institute of Marine Science (AIMS)

Data partners

Authoritative and reference data

- Australian Biological Resources Study (ABRS)
- Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)
- Geoscience Australia
- Australian Faunal Directory (AFD)
- Australian Plant Names Index (APNI)
- Australian Plant Census
- AusFungi
- AusMoss

Natural science collections, museums, herbaria, galleries and libraries

- All state and territory natural history collections
- Council of Australasian Museum Directors (CAMD)
- Council of Heads of Australian Faunal Collections (CHAFC)
- Council of Heads of Australasian Herbaria (CHAH)
- National Research Collections Australia (CSIRO)
- National Library of Australia (Trove)
- University herbaria and natural science collections

International science agencies

- New Zealand Organisms Register

Australian Government

- Department of Agriculture, Water and the Environment
- Department of Education, Skills and Employment
- Department of Industry, Science and Resources

State, Territory and Local Governments

- ACT Government
- Brisbane City Council
- New South Wales Government Department of Planning, Industry and Environment
- Northern Territory Government Department of Environment and Natural Resources; Central Land Council
- Queensland Government Department of Environment and Science
- South Australia Department for Environment and Water
- Tasmanian Government Department of Primary Industries, Parks, Water and Environment
- Victorian Government Department of Environment, Land, Water and Planning; Office of the Lead Scientist
- Western Australian Government Department of Environment and Energy; Environmental Protection Agency

Non-government organisations, community groups and conservation groups

- BirdLife Australia
- ClimateWatch
- Earthwatch
- eBird
- Greening Australia
- Landcare
- MangroveWatch

Citizen science apps and projects

- Birdata
- Butterflies Australia
- eBird
- Echidna CSI
- FrogID
- iNaturalist Australia
- NatureMapr
- QuestaGame
- and many more

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Contact us
support@ala.org.au

Atlas of Living Australia
ala.org.au