

Ecoconnections Annual Report 2021

Transformative Change



ecoconnect.me

every species connected



Dwarf Galaxias



ecoconnect®

Ecoconnections

Annual Report 2020-21

Transformative Change

“We are facing a global crisis. We are totally dependent upon the natural world. It supplies us with every oxygen-laden breath we take and every mouthful of food we eat. But we are currently damaging it so profoundly that many of its natural systems are now on the verge of breakdown.”

Sir David Attenborough in the foreword for the Das Gupta review of The Economics of Biodiversity.

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Release date: 1 October 2021

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ISBN 978-0-6450657-2-5

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*Figure 1 Charles Sturt University Irrigation Researcher Dr
Ketema Zeleke with efficient mobile drip irrigation
technology*





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Financial statements are removed from the web version of this report. Please make contact if you require these.

Founders Message

This annual report is a snapshot of the year for Ecoconnections and the wider world of biodiversity. The theme for this year is Transformative Change because incremental change will be insufficient. I hope this review of the 2020/2021 year is a useful strategic view for you.

A major Ecoconnections project on mobile drip irrigation was completed during the year. This is our first research publication. It shows an opportunity for 30% water efficiency and better functioning agricultural systems. Our interest in management practice information shows a new purpose for agricultural efficiency. Efficiency is important because it leaves land and water resources for other creatures. Publishing this report shows added value in ecoconnecting someone. Funds raised encourage us to do this research.

Ecoconnections was a part of the Wild Idea Incubator during 2020. Wild Idea is a start-up business mentoring program, designed to support innovators, environmentalists and entrepreneurs who are passionate about protecting our natural environment through business. It was great to work with a group of friends who believe in the power of innovative business. People filled with creativity, passion and determination, for environmental change. Entrepreneurial sprints and acceleration are important in moving Ecoconnections forward toward connecting every species. At the same time, we are with you for the long haul. Completing projects and emergent, regenerative thinking takes time.

The Coronavirus COVID19 Pandemic gripped the world this year highlighting the importance of biology. Shutdowns and curfews saw plummeting pollution levels and CO2 emissions at the beginning of the Pandemic. The 50th

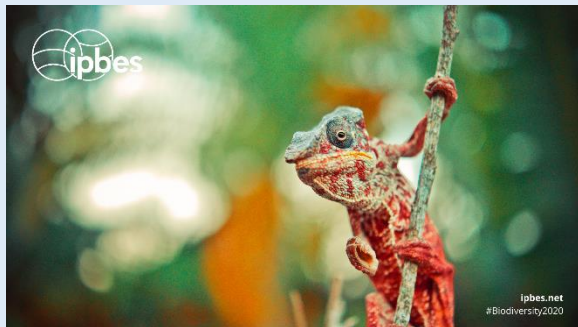
World Economic Forum meeting titled “The Great Reset” had a social and environmental agenda with Prince Charles of England a key voice for biodiversity. Diplomatic exchanges between the US and China point to environmental credentials as a basis for the legitimacy of governments. Lockdown encouraged videoconferencing. This enabled early sessions of the Convention on Biodiversity to be video streamed and accessible to a wider audience. In December 2020 IPBES and the IPCC held a joint online workshop for the first time highlighting the interconnections between Climate and Biodiversity. These are forces offering hope with accelerating attention to biodiversity preservation.

This hope is however still dwarfed by expenditures that damage biodiversity. An OECD policy guide published in April 2021 is based on work detailing the scale of public spending imbalance. Around \$75Bn is spent to preserve biodiversity where over \$500Bn is spent on initiatives that harm biodiversity. The private sector flows are worse. We must watch the balance of these things.

Your ecoconnection is important. The little piece of understanding in the back of your mind is an important orientation. It connects you to real life as we increasingly dive into the ‘metaverse’ of computer-generated realities. As we ecoconnect more people we will build opportunities for you and your species to have a voice in the future.

Duncan Farquhar

Global Developments in Biodiversity



The Convention on Biological Diversity – CBD

The CBD vision ‘Living in harmony with nature by 2050’ is worth achieving. The Post 2020 Biodiversity Framework is to set out how this is to be achieved. The 15th Conference of Parties of the Convention on Biodiversity was postponed to October 2021 due to COVID19. The framework is set to be agreed in October 2021. The International Union for the Conservation of Nature is calling for funding between 0.7 and 1% of global GDP to implement the framework. A commitment to reserve 30% of the Earth's surface is also expected.

The Global Taxonomy Initiative (GTI) is an initiative of the Convention on Biological Diversity. Taxonomy (naming species) aids the sound management of biodiversity. It's hard to manage if you don't know it exists. Many species are disappearing faster than we can record their existence. At their December 2020 meeting, the GTI asserted the importance of taxonomy as foundational to required transformative change.

Whilst naming a species is an important step it is not the endpoint. Someone needs to use this

understanding. Ecoconnections encourage people to understand each species and aim to be a transformative social asset underpinning ‘Living in Harmony with Nature’.

Intergovernmental Panel on Biodiversity and Ecosystem Services – IPBES – Solve both or solve neither.

IPBES and the IPCC (Intergovernmental Panel on Climate Change) held a joint workshop in December 2020. The scientific output from this meeting notes that Climate and Biodiversity are interdependent with feedback between living systems and climate. The meeting built on the IPBES finding that ‘Transformative change’ is required and that incremental change will not work or be sufficient to stem the tide of species extinctions and decline in ecosystem function. Ecoconnections aims to be a force for this transformative change.

It is worth noting again here the IPBES finding that 1M species are destined for extinction (from an estimated 8.7M living species). Also, the drivers of these extinctions are (1) changes in land and sea use; (2) direct exploitation of organisms; (3) climate change; (4) pollution and (5) invasive alien species. The re-joining of the global Climate and Biodiversity agenda boosts the purpose of both.



Biodiversity finance, Organisation for Economic Cooperation and Development - OECD

Biodiversity is far from the top of the OECD agenda. OECD provides policy analysis on 27 issues. 'Environment' is one of these. One of the 21 Environmental issues is 'Biodiversity and ecosystems'. Their analysis can however be highly influential. Environmental Policy Paper number 26 (OECD, 2021) provides policy guidance for Finance, Economic and Environment Ministries to underpin transformative domestic and international action to halt and reverse biodiversity loss. Questions to encourage your governments to adopt these policies include

- Are we adapting **measures** of national performance and plans to better reflect natural capital?
- Are we leveraging fiscal policy and **economic instruments** to support the conservation and sustainable use of biodiversity, including in COVID-19 recovery packages?
- Are we embedding nature-related dependencies, **risks** and impacts into the financial sector?
- Are we improving biodiversity outcomes linked to trade, including reforming environmentally harmful and market-distorting government **support**, (currently USD 800 billion per year).

Applying this transformation agenda at the national and local level might not be the highest OECD priority but it is ours.

Headline biodiversity finance numbers from the analysis (OECD, 2020) include

- Public domestic expenditure: USD 67.8 billion per year

- International public expenditure: USD 3.9 - 9.3 billion per year
- Private expenditure on biodiversity: USD 6.6 - 13.6 billion per year.

Whilst public expenditure harmful to biodiversity is 5-6 times higher at \$500 billion per year.

The Dasgupta Review 2021

This (Dasgupta, 2021) 600-page review of the relationship between Economics and Biodiversity, commissioned by the UK Treasury, is by Cambridge Economics, Professor Partha Dasgupta. Some key take-outs and how they align with Ecoconnections are detailed below.

Human demands on nature must be curbed. Ecoconnections can help dematerialize gift-giving bringing a focus back on good relationships.

Nature's supply must be increased. By better understanding agro-ecologies they can be more productive. Ecoconnections new Mobile Drip Irrigation publication (Farquhar et al., 2021) is an example of how this can happen.

We need a new measure of economic growth. Ecoconnections are social capital that can underpin natural resource management. Increasing this stock adds to relationship wealth at multiple levels.

That means strengthening natural capital reporting. When a person is aware of the existence of their econnected species they will be more interested in reports of its wellbeing.

The global financial system needs a rethink. Every \$100 ecoconnection is a redirection of the financial system. It creates new wealth in knowledge, relationships, research, and institutional capital.

But the market can't do everything. Regulation and protected areas are a part of the solution but these need to be managed well. The ecoconnected community can support good regulation in principle, and their species can provide a window on the effectiveness of these reserved habitats in detail.

Polycentric governance systems can drive change. Knowledge and perspectives of each species are in ecoconnected people's heads. This is an institution designed to allow information flows "every which way".

Environmental education must be embraced. With an ecoconnection, a person has a purpose to their environmental education. Such an individual purpose can help develop 'grit' in an education.

A game-changer for nature? Acknowledging that mainstream economic thinking is badly flawed needs to be on the agenda of treasuries and boardrooms around the world. Ecoconnections helps with clear analysis (e.g Mobile Drip Irrigation paper) for board consideration.

Acknowledge <https://www.greenbiz.com/article/9-key-takeaways-600-page-dasgupta-review-economics-biodiversity>

The Great Reset – World Economic Forum

The World Economic Forum mission is "improving the state of the world by engaging business, political, academic, and other leaders of society to shape global, regional, and industry agendas". The 50th annual meeting in Davos, themed 'The Great Reset', painted a picture of rebuilding the economy and society in a sustainable way after COVID19. The great reset has three core components:

- creating conditions for a "stakeholder economy"

- building in a more "resilient, equitable, and sustainable" way—based on environmental, social, and governance (ESG) metrics which would incorporate more green public infrastructure projects
- to "harness the innovations of the Fourth Industrial Revolution" for public good.

Every other species is a 'stakeholder' in the future. This powerful consensus group is looking for stakeholder input. By being ecoconnected you are a part of this stakeholder economy. We give opportunities for other species to have a voice. You are 'Philosopher Kings' in this new world order.



Developing the crime of Ecocide

Ecocide means “killing one’s home”. There is a growing legal movement to change the rules so those responsible for large scale ecological damage are held to account.

In June 2021 the Stop Ecocide Foundation established a definition for ecocide as ‘unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.’ This movement aims to have Ecocide added to the Rome statute of the International Criminal Court. The mere prospect of this development has moral power signalling that there is no corporate immunity for wanton ecological damage.



US : China statesmanship

The US and China are in a tussle where statesmanship will determine many things. Trade tensions and military brinkmanship at national levels escalated as the Trump presidency ended. Among the comparisons are those of constitutional systems. American liberalism and Authoritarian communism can be compared on growth rates, strategic effectiveness, innovation and interestingly this year environmental credentials. In October 2020 the Chinese Ministry of Foreign Affairs

issued a ‘Fact Sheet on Environmental Damage by the US’ in response to the September 2020 US State Department ‘China’s Environmental Abuses Fact Sheet’.

The change of tone is where the legitimacy of governments is based on environmental credentials rather than the ‘will of the people’, God-given authority or economic performance. This is an important change in tone for the global constitutional project. Whilst these statements are lists of environmental abuses China is advancing through a revolution focused communism toward something more future-focused. The Silicon Valley US innovation engine is also refocusing on environmental challenges. This tone shift is perhaps less Thuycidides and SunTzu militarism to a more cooperative (some may argue feminine) force.

Working toward the Convention on Biodiversity goal of ‘Living in Harmony with Nature by 2050’ happens within a constitutional context. Constitutions need to be able to deliver what is required. The OECD questions above help governments refocus to ensure institutions are up to the task. Statesmanship is a tender art with big sticks. Institutional change often needs some force whilst we stay focused on harmony.

The Environmental ‘shots across the bow’ can be read here

[Fact Sheet on Environmental Damage by the US \(fmprc.gov.cn\)](https://fmprc.gov.cn)

usembassy.gov/chinas-environmental-abuses-fact-sheet/

You can decide who wins this round. (Contact ecoconnections for copies if these links fail). How will institutions like nations and governments affect your species?

Science of Wisdom and Emotion Summit

Emotional Well-Being is an important part of our relationship with nature at every level. It helps to know what mindfulness is and how to cultivate it to be mindful of other species and their needs.

An online summit held on 2-5th May 2021 was produced by The Awake Network and Mind Life Institute.

I engaged with this summit because an ecoconnected member Philippa Rowland pointed me toward it. Philippa is President of the South Australian Multifaith Association of South Australia. She is an expert in communicating science at the community and senior policy levels. As a compassionate and energetic person, Philippa actively seeks Community-led solutions to Climate Change.

Daniel Goleman was the speaker that sparked my interest because he is the author of the

influential 'Emotional Intelligence – why it can matter more than intelligence'. The Mind Life Institute seeks to spark global transformation by focusing on three areas:

- Nurturing personal well-being
- Building compassionate communities
- Strengthening the human-earth connection

The Awake Network curated the Online Event.

IPBES notes that transformative change is required. Incremental change will be insufficient. This is likely to involve changes in the way we feel, think and relate. Ecoconnections has an interest in these changes. Personal disciplines of prayer, meditation and mindfulness, caring for one another's well-being can give us all richer more effective lives. As you read this, as you go about your year take heart that your thoughts and emotional responses are valued and important.



Summary of global developments

Whilst these developments appear inspirational the world has a habit of underachievement for biodiversity. For example, the 1992 Earth Summit opened the Convention on Biodiversity for signature. None of the 2020 Aichi targets under this convention were met. Biodiversity tends to lose when these global sentiments hit the ground for an individual landowner. You might like to reflect on the sentiments of the global consensus and how this might play out for your species.



Ecoconnections communication opportunities

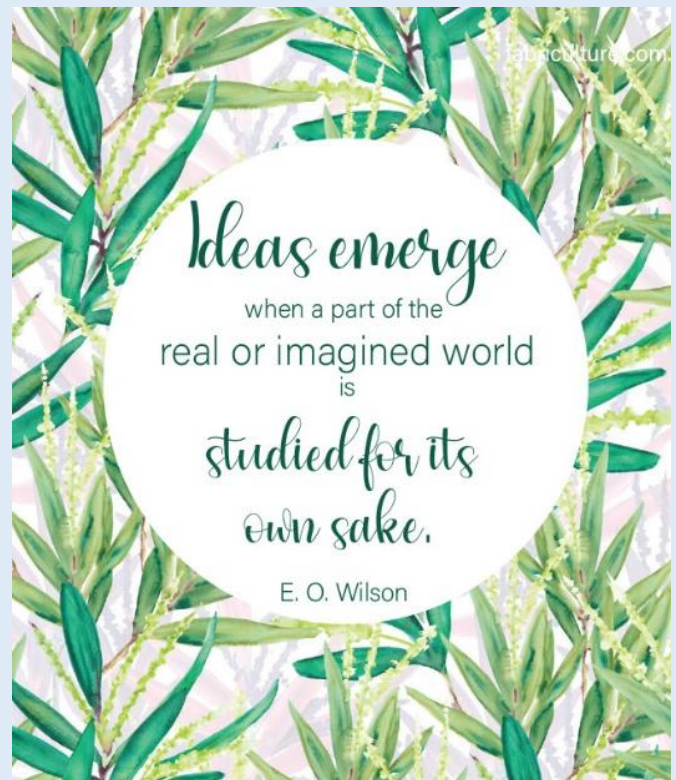
Ecoconnected people are at the centre of the Ecoconnections institution. We aim to make your ecological life easier, more focused, connected, and efficient. None of this is compulsory, just opportunity. This is a list of opportunities for you:

- The annual report is a high-level overview of a year. Read in detail, scan a year or use it as a reference. In the long run, it aims to track and review global progress with biodiversity for you from the perspective of all species.
- Taxonomy daily is a daily newspaper that searches the world for biodiversity news. It is circulated on our Twitter feed, Facebook page, LinkedIn page or you can subscribe if you want a daily email. This is too much for most people. An occasional scan of these articles can inspire or give you a new direction with your ecoconnection.
- Our Facebook and LinkedIn groups are established but have not yet been used much. They are an option for discussing ideas, your species and developing projects with us.
- The publications portal ecoconnect.me/publications allows the download of publications. Where possible these are available for free to enable wide use. Commenting on these on the social media pages will help develop the ideas so they can make a difference.
- Email us directly at info@ecoconnect.me if you would like to develop a project or we can help you in another way.

- We would especially love to hear any reflections you might have on your species. Either directly or on social media. We use #ecoconnect and love to see people share the website ecoconnect.me

As an ecoconnected person, you are important to us, and to global ecological understanding. We celebrate you and every thought you have for your species, even if you don't engage in the ways above.

In last year's annual report, we encouraged you to tell 7 people about your species. This is a great way to help us and to build your understanding.



Ecoconnections developments

Wild Idea

Ecoconnections was a part of the Wild Idea Incubator during 2020. Wild Idea is a start-up business mentoring program, designed to support innovators, environmentalists and entrepreneurs who are passionate about protecting our natural environment through business. Some friends from the program are detailed below

- Penny Gale is an artist and interior designer with business Fabriculture (www.fabriculture.com.au). Her passion is creating beautiful and inspirational art about Australian wildlife. Ecoconnections developed with quotes with Penny for our Christmas campaign.
- Camille GoldStone-Henry founded Xylo systems (xylosystems.org). This is an online system for tracking, connecting and managing stakeholders in conservation projects. This promises to turbocharge conservation.
- Kate Torgersen and David Flood from Environmental Golf Solutions Australia (envirogolf.com.au) provide specialized advice and services to golf courses looking to enhance their environmental management systems

Incubating, accelerating and developing an environment focused business is extra challenging. Business models are often untried because most founders are looking at problems in unique ways. Market testing and traction mapping see many ideas fall by the wayside. This is how startups are selected as successful business solutions to societies problems. This

program is a great place to test an idea within a supportive environment.

For Ecoconnections we are just building out the business model to include research investment and publishing. As the model becomes clearer the value propositions for our research management services and people to ecoconnect will become clearer. This could mean a longer runway for the model to take off. Project final reports will enable people to better see the full cycle.



A new publications capability - Mobile Drip Irrigation

Our first project final report is on Mobile Drip Irrigation was published at the end of the year (Farquhar et al., 2021). It is available through the publication portal at the website (ecoconnect.me/publications). This demonstrates that Ecoconnections can generate good land management information from R&D projects.



Figure 2 Mobile Drip Irrigation versus sprinkler emitters on a Centre Pivot Irrigator

Agricultural efficiency can allow more land and water to be available for biodiversity. Mobile drip irrigation technology has the potential to save 1 000 000 ML across Australia and more across the world. Practical advice and world benchmarks are provided from experience in Australia growing potatoes, corn and cotton.

The report is a formal publication with an assigned book number. Ecoconnected people may wish to publish something using our publications system. Contact us if you have something relevant.

Book Reviews

Two book reviews are now available on the ecoconnections website. If you have read a great book related to ecoconnections you might like to contribute a book review.

- The [Songlines](#) review shows how aboriginal peoples constituted their relationship with the landscape and ecosystems with song and art
- The [Reed Warbler](#) review shows a framework for regenerating landscape function and an emergent way of thinking about regeneration.

These books present important foundational ideas. Ecoconnected members can share the links to have richer discussions about these things.

Indigenous Ecoconnect

A new method of ecoconnecting has been established in collaboration with the Martuwarra or Fitzroy River peoples. By ecoconnecting with Indigenous Ecoconnect, you get assigned a species for which there is an Indigenous name. Dr Anne Poelina is our contact and partner in this development.

Ecoconnections was founded on the scientific idea that it would be helpful if people engaged in the detail of each species. This idea is similar to Indigenous totems which have widespread and ancient roots. In establishing [Indigenous Ecoconnect](#) this new conduit to ecoconnecting we are exploring the prospect that these connections can transform our relationship with nature.

IPBES recognise that Indigenous people “are often better placed than scientists to provide detailed information on local biodiversity and environmental change, and are important contributors to the governance of biodiversity from local to global levels.”¹ The peoples of the Martuwarra are amongst the oldest continuous cultures in the world.

We are happy to explore relationships with other Aboriginal peoples anywhere in the world to celebrate their language and raise funds for relevant projects in this way.

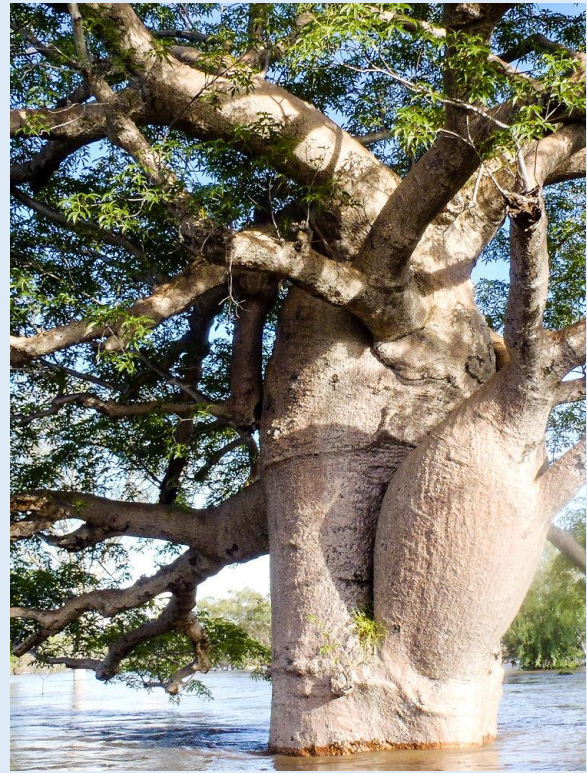


Figure 3 Boab tree (Adansonia gregorii) in Martuwarra, the Fitzroy River

¹ <https://ipbes.net/indigenous-local-knowledge>

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Pink Fingers (Caladenia camea) spring orchid from Livingstone National Park.

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*Figure 4 Pastel Flower (Pseuderanthemum variabile)
Murramarang National Park.*

