



CELEBRATE
THE NATURE

“ENJOY YOUR GARDEN”.

- UNKNOWN

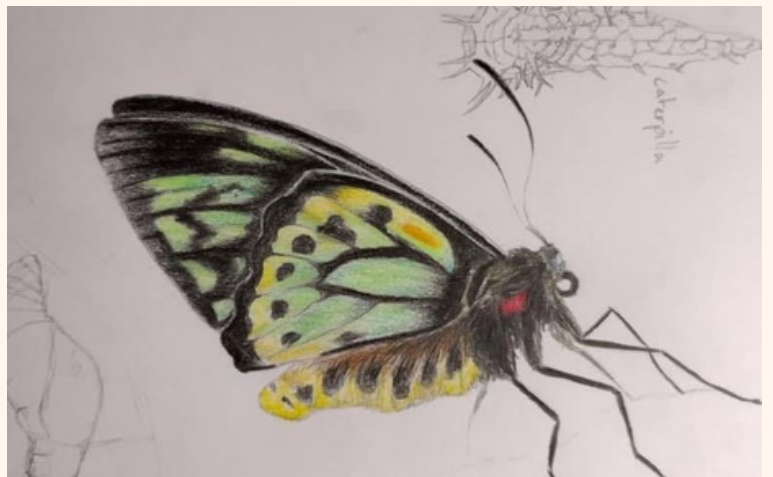
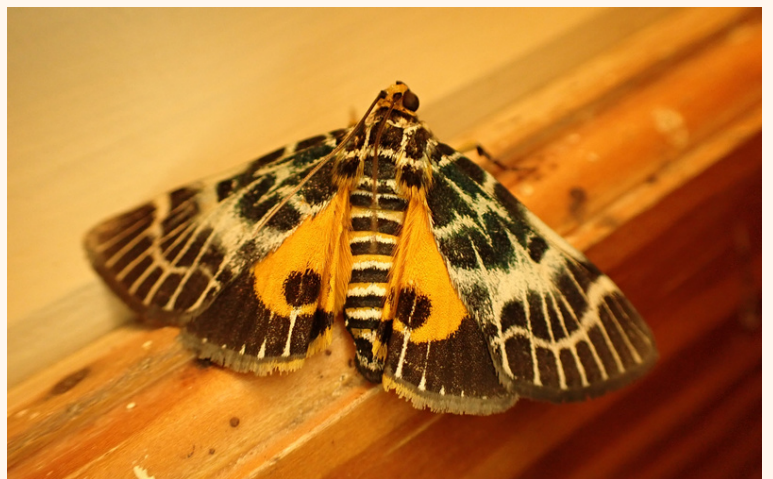
Once the main jobs have been completed ensure that you can spend some time in your garden.

Some good *slow* time.

Spending time in your garden or nature allows you to better appreciate its healing effects. Some research has suggested that merely walking through grass with bare feet has been found to improve sleep, reduce pain, and lower stress.

Creating a biodiverse backyard is a journey rather than a destination; there will never be a time when you sigh and say, ‘My work here is done’. Creating a wildlife garden will illustrate the principle and process of life-long learning. Within your garden it will be true that you learn something new every day as there will always be another plant to know and to plant. There will always be a new bee, bug, beetle, or butterfly to observe, admire and identify. There will always be a new bird to identify by sight or sound. Record your experiences through diary or journal or nature journal. Learn about your nature.

And then we would like you to share your knowledge, your achievements, and your wonder. We would like you to become an ambassador for nature and wildlife and we want you to share with your friends, neighbours, and family all that you have achieved.



Pictures - Top Photographing the flowers of your plants can become a decent hobby [ABC] - Middle - Keeping track of new insect species in my yard has become a little bit of an obsession through lockdown. This is a moth: *Cardamyla carinentalis* [K.Cross] Bottom - Dion Dior is a talented nature journalist who relates to nature via art. Here is her sketch of a male Richmond Birdwing. [D. Dior]

Please share with your neighbours what you are doing and what you have done and the reasons why. Share with your friends, either live or on social media, your backyard achievements. Before and after photos are so important. Photos of your flowering plants and the creatures that visit are equally so.. Encourage your neighbours to start similar projects and/ or co-operate with them to establish verge gardens on your street.

Grow more native plants than you need, either by seed, cuttings and / or divisions. Make a new habit of giving locally native plants as gifts, and, in doing so, spread the word.

Contact your Council to encourage more biodiversity patches, at least 50% of area, in suburban parks and on traffic islands and roundabouts. Make nature strips, literally nature strips. As you drive around search for [you will not have to look too hard] for weed species of trees and unnecessary lawn on Council land. Contact your local Councillors to insist on them helping re-establish our biodiversity.

If you have a business premise, please consider using local plants there as well. And advise your clientele what you are doing and why.

Similarly encourage, perhaps through the P & C, your child's school to add local native plants to their school's ground and have the teachers inform their students about the importance of such a project to their future.



Pictures this page by Canva.com



Start a blog [or contact us to contribute to ours] that monthly details the plants and creatures observed and photographed in and around your garden. These pictures, rather than just words, may encourage a range of other people to 'come aboard'. Sadly, there does not seem to be a great number of Australian Wildlife Gardening Blogs. There are, however, quite a few British models. Check out '[Dinchope Diary - Life in a Wildlife Garden](#)'. [Another example of a British naturalist's blog can be seen here;](#) . We cannot be too loud with this message.



Read about our not-for-profit - SEQ Backyards for Biodiversity - on the following pages. Please consider joining us at our website and on our social media pages and share your comments, suggestions, questions, and pictures. If you have found this booklet at all useful, please leave a comment to that effect or a donation to assist us with our work.

A
PARADIGM SHIFT
IS
COMING

PAST → FUTURE
pollinator friendly yards on facebook



THE
KAUFMAN
CHALLENGE

TAWNY FROGMOUTH
KEN CROSS

"I really love the idea of the Kaufman's Challenge. I started photographing and researching animals/plants in 2012 when I was going through a very difficult time and the newfound connection with nature through photography really helped me get through that period. I joined an online Citizen Science project and I haven't stopped photographing since! I truly think that this sort of project is one of the best ways for people to connect with our environment, and to become inspired to actively protect it"

Shanna Bignell -

The Kaufman Challenge is a fun project that encourages participants to engage in their local environments and learn to recognise, identify, and appreciate indigenous fauna and flora.

The Challenge is named after Kenn Kaufman, a well-known American naturalist, birder, author, and conservationist, whose series of North American Field Guides were designed to encourage his fellow citizens to learn about nature.

Kaufman said, in 2007, "My wish is that every person might learn to recognize fifty species of plants and animals native to his or her own region. That may not sound like much, but I'm convinced that it would profoundly change each person's sense of values, each person's sense of responsibility to the ecosystems that support all of our fellow creatures. That basic level of natural history could revolutionize our view of humanity's place in the world. Maybe I'm just a dreamer, but I'm going to go on trying to communicate that basic appreciation of nature to everyone."

All images by S. Bignell. From top -- S. Bignell, Dragonfly species, Common Tree Snake.





Here in Australia, we must too, realise these basic facts; to conserve nature, or anything for that matter, it must first be known and recognised before it has value placed upon it. And only when it is valued will people begin to strive for its protection. Too many Aussies know too little about our nature. The Kaufman Challenge encourages all to claim this knowledge.

The Challenge is in two parts. And it sounds simple.

Part 1 concentrates on flora. The task is to use your camera or phone, with appropriate reference material and the help of knowledgeable friends, to photograph and identify 25 local native species of plant growing in [or near] your yard. If you have not got 25 native species growing in your garden or verge garden your job is to plant them! Although the rules are not so strict that you cannot take advantage of local parks and bushland. The idea is, of course for you to teach yourself the names and identity of 25 plant species. This is the base onto which your plant knowledge can grow.

The good thing about taking pictures of your plants is that they do not fly or run away; from that perspective there is little frustration. You do not need fancy lenses - any smart phone will do the job. You may need to know, though, which parts of the plant are important for identification. Obviously in some species the size and shape of the leaf, the colour of the foliage, the colour and structure of the flower [or their numbers] are important. In some trees it is the texture and colour of the bark. In others it is the seed pods. My point is that you may need one or two or three images from a particular plant to 'prove' an identification.



All images by S. Bignell. From top - Australian Figbird, Pheasant Coucal, Longicorn Beetle, Noisy Miner.

After you have your 25 species photographed and identified you should display them such that others can learn from your efforts.

Please post them on our special Facebook group [you will need to be a member of Facebook] in one large post. If you are uncomfortable of mentioning exactly where your residence is, simply identify the suburb or nearest town. Caption each photo correctly. If you would like to include any information to a picture, so much the better. The Facebook group is called Kaufman Challenge SEQ - Plants.

Part 2, you probably have guessed it is to photograph and identify 25 animals, again, within your yard. We have made two separate Facebook groups. One for Vertebrates - Mammals, birds, reptiles, amphibians,. And another for Invertebrates - insects, arachnids. Identify them, research them and display them!



All images by S. Bignell. Clockwise from top - **Cattle Egret, Red necked Wallabies, Lace Monitor, Green Catbird.**



KAUFMANN CHALLENGE

Once the photos are taken, they need to be identified. This is the second step. Luckily in Australia we have some excellent guide-books and hopefully they can be found in school and local libraries. See the list at the end of this book for some of the best of the basic books. Use iNaturalist.

The third step is to find out and tell a story. Each Kaufman challenge photo needs a label - the species' name and where and when it was photographed. It would be preferred though that each 'Kaufmann' species is provided with a story, a piece of its natural history - why is it what it is? What does it eat? What eats it? Where or how did you find it? What is it good for? Why is it special? Superlatives? Is it fast? Colourful? Dangerous? Small? Big? Each participant should recognise that they are both student and teacher. The final part of the Challenge is to display your first 25 pictures of your chosen 25 animal species. Don't keep them hidden - the Challenge will work best if it continues to encourage others.

So we have the Facebook group: [Kaufman Challenge SEQ - Fauna - Vertebrates.](#)

And another Facebook group - [Kaufman Challenge SEQ - Fauna - Invertebrates](#)



Kenn Kaufman [Facebook]



Here is a 'one-stop' resource that will help you complete the Kaufman Challenge.

Next level Kaufman Challenge is to use the Facebook groups above and repeat the process with different groups. After 25 animals overall you could try to concentrate on 25 bird species or 25 butterflies or 25 'Herps' [Reptiles and Amphibians] or 25 Beetles or Moths. These challenges - especially given the amazing invertebrate diversity that we have could last several lifetimes.

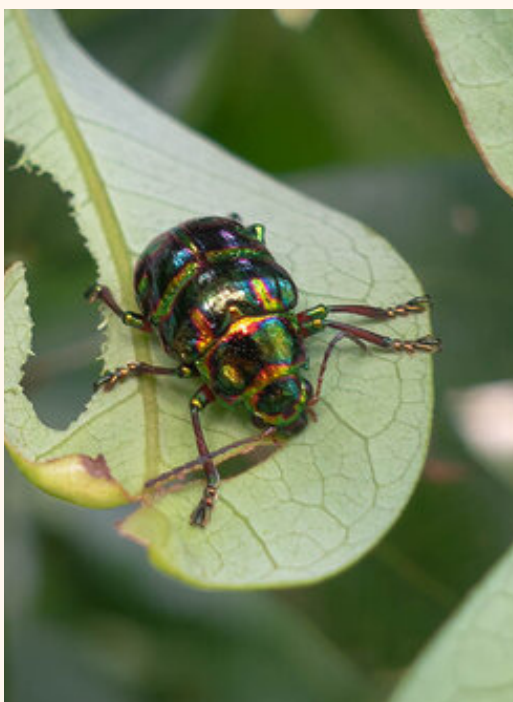


For Next Level plants you could use taxonomy or better still Regional Ecosystem: 25 plant species from a Heath Habitat or 25 plant species from a Eucalypt Forest. Google Vegetation Management Act 1999 and, if you have a naturally vegetated block, request a property report and a local map. This is an informative process as you will discover the local natural plant communities for your property and in your surrounding neighbourhood.



Join a walk with the Native Plant Society and you will be learning local plants in no time!

All images by S. Bignell. Clockwise from top - **Yellow billed Spoonbill, Pacific Baza, juvenile Sacred Kingfisher.** metallic beetle, *Spilopyra sumptuosa*,



A photograph of a Sulphur-crested Cockatoo perched on a tree branch. The bird is white with a prominent yellow crest. Another cockatoo is visible in the background, perched on a higher branch. The background is a soft-focus green and blue, suggesting a natural, outdoor setting.

CITIES FOR NATURE

SULPHUR-CRESTED COCKATOO
LEON CRANG

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If we are going to protect our remaining biodiversity and significantly restore some then we will need a community wide response.

And this includes individuals, government agencies and institutions, and businesses. In this small booklet there are a few ideas for individuals, hopefully acting within their communities, to change the face of their backyards and verges for the benefit of themselves and biodiversity. We also need government to make changes so they can meaningfully contribute. We should applaud government when they get it right but equally demand better when they fail.

Having green cities and urban spaces has obvious benefits. Nature's services that are encouraged by establishing 'green policies' include recreation and aesthetic inspiration, sequestering carbon dioxide, absorbing excess rainfall, filtering pollution from air and water, producing healthy soil, nurturing pollinators, and keeping pests under control. And by increasing biodiversity.

Improving biodiversity in a local park, for example, will directly benefit the local community with improved access to nature, exercise, fresher air, cooler temperatures, and associated health gains; both physical and mental. Imagine: the sounds of mowers and brushcutters being replaced with bird song!

Green areas could be expanded through initiatives such as ecosystem protection and restoration, green architecture and rooftops, sustainable urban drainage systems (SUDS) and community garden allotments - in turn increasing the city's biota, reducing flood risk, increasing food security and harnessing fresh water. SUD's are schemes, based on principles from natural catchments, to allow less water to run off and more to infiltrate, evaporate or transpire from plants.



From top to bottom - An imagined green city of the future, An artist's impression of a green city featuring green roofs, An urban forest tower proposed for Brisbane.

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Many of our Councils are moving in the right direction, thanks in part to committed individuals who saw environmental damage and began raising their voices. The likes of David Fleay, Judith Wright, Kathleen McArthur, Dr Arthur Harrold, John Sinclair, WPS [Wildlife Preservation Society] and SCEC [Sunshine Coast Environment Council] and many others spearheading the protection of Fraser Island, Cooloola, Noosa, Mooloolah, Conondale and Bribie Island National Park.

Their actions through the 70's, 80's and more recently and, no doubt, the number of people who supported them, led to positive changes in Local Government, for example the introduction of Planning Schemes that recognised the importance of the natural environment and the setting of special rates: for Environment Levies.

These levies, most significantly, allowed for the acquisition of ecologically important and / or at risk native habitats. The acquisition of land and the protection of all existing bushland should be at the forefront of all council's thinking in regards to protecting biodiversity going forward. Local government and planning really evolved during the 1990's; fencing reserves, turfing to road verges and lots, vegetation retention, revegetation [including street tree schemes], responsive estate design to vegetation protection, road frontage to parks, protection of waterways and flood areas, establishment of Bushland and Drainage Reserves that were protected from development.

Other improvements included the conditioning of Vegetation Protection Covenants, Drainage Easements and the requirement for nesting boxes, fauna crossings (culverts, vegetated bridges, arboreal ropes and rope ladders and glider poles) and even protection of native bees and butterfly foraging plants.



How did the native Australian animal cross the road? [Not a joke!] Pictures above - top to bottom - Gliding poles to encourage the movement of glider species over roads, Wildlife habitat bridge constructed for a variety of animal species to cross while improving safety for drivers. Rope bridges built for arboreal mammals to safely cross roads.

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Major changes have also included the Land for Wildlife programme, support for community groups and conservation volunteers and environment grants.

Not all recent changes in urban development, however, have led to mid or long term environmental gains. The constantly spreading suburbs with narrow roads but smaller and smaller blocks combined with larger and larger homes means that the backyard for wildlife to be restored hardly exists... How will the people living in these estates establish contact with and thus knowledge and respect of nature?

Other future challenges to the urban environment remain. We need to manage population growth while retaining, restoring and linking wildlife habitat and green space. We have the growing threat of climate change.

In the meantime, though, we must do what we can do. Garden for wildlife. Question our representatives and encourage politicians of all stripes to protect and restore our fauna and flora and to destroy weeds, plant trees and remove lawn!

Part of our strategy at Backyards for Biodiversity SEQ is to continue and expand this tradition of environmental protection by advising and lobbying governments and politicians to become a true voice for biodiversity and nature.

Habitat Restoration - Pictures from top to bottom - Re-vegetation, poles with nesting boxes attached in place of non-existent hollows, a multi-layered native garden in a suburban backyard.



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As a resident interested in biodiversity protection you can question local council decisions and advise them regarding improvements for biodiversity if necessary. Here are some ways you can ensure that new urban developments (subdivisions) achieve adequate biodiversity (and livability) outcomes.

You should insist that:

1. **existing remnant stands of bushland**, occurring within a development, **are permanently protected** as Bushland Reserves, Drainage Reserves, Esplanade Reserves, Drainage Easements and/or Vegetation Protection Covenants.

2. **existing stands of bushland are ecologically restored** (i.e. removal of declared and environmental weeds, reintroduction of "ground habitat" in the form of hollow logs, stacked logs and rocks/boulders, recovery of "live" (naturally occurring to the site) topsoil and the planting of native trees, shrubs, groundcover and grasses etc. which naturally occur in the area.

3. **remnant stands of bushland are provided with "homes" for wildlife** in the form of wildlife nesting boxes of mixed sizes/shapes (for different animals and birds) and are constructed of materials that have a long life, say around 30 year durability.

4. **bushland is linked across the landscape** - i.e. along waterways and ridges and links between the two!

5. **bushland reserves are provided with dog proof fencing and/or fauna exclusion fencing** particularly where they adjoin private property or busy roads.



Above - top to bottom: Brisbane Koala Bushland [BCC], Adding nest boxes to remnant bushland, Predator exclusion fence Zealandia, Wellington NZ.

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6. **fauna is provided with "safe passage"** across the landscape in the form of land bridges over highways, arboreal rope bridges, glider landing posts, fauna under passes (under roads usually associated with drainage culverts and bridges), traffic calming in the form of speed bumps, roundabouts and traffic chicanes

7. **urban parks share with nature by providing at least 50% for biodiversity** i.e. urban parks need to provide kick and throw space, playgrounds, shelters, picnic tables, seating and sometimes toilet blocks; these facilities can easily/generously be provided in around 2000 to 3000 m² leaving all balance areas ready to be ecologically restored. Parks that only contain shade trees and hectares of lawn are dead boring, an insult to caring humans, wildlife and the wellbeing of the planet!!

8. **street trees are selected from native species occurring in the area and suitable to the existing soils and terrain***.

[*Having said this native plants planted along highways and busy roads are "death traps" for wildlife particularly birds and flying foxes, so there is a case for non native plants in these areas].

9. **erosion and sediment control, stormwater treatment measures are in place to protect our waterways;** and finally

10. don't forget the little ones, the night flying insects (moths) . **We must have less lighting and moth friendly yellow/orange lighting and recover any native bee hives when trees are cleared.**

Sometimes clearing is unavoidable, in these cases insist fauna management plans are prepared and enacted upon, fauna spotters are present and the cleared vegetation is "offset" by replacement plantings within the development or ex situ.

Remember the actions listed here are presently applied in some Councils, let's make it all Councils.



Habitat Restoration - Pictures from top to bottom- Pictures one and two - fauna underpass and fauna bridge. [faunacrossings.com.au], street tree planting, Brisbane [Facebook]

CITIES FOR NATURE

Another idea to consider as we talk to our local Councils and Councillors about biodiversity is the recent United Nations target. Titled 30 x 30, it suggests that the minimum target of protected areas for nature for the world should be 30 percent by the year 2030.

Australia is behind this target with less than 20% protected and Queensland is one of the worst performing states. We should be encouraging all government levels to meet this target! Or better it!

For example - Within the Sunshine Coast Council area All Urban (categories) and Rural Residential Zoned Areas cover a combined area of approximately 20,000 hectares. Therefore the United Nations target of 30% equals 6000 hectares. So let's [listen to EO Wilson and] set a target of 50% of all urban parks plus all of those "left over bits". You see these turfed areas everywhere - adjacent to beaches, roads, playing fields, within urban parks, along rivers, creeks, drains and canals, carparks, utilities, school grounds and utilities and many more. Just look at the amount of grass that no one uses, we just pay for labour and fuel out of our rates adding to greenhouse gasses!!

Think of the biodiversity benefits/outcomes if these areas were ecologically restored. Consider the increase of insects, birds and other fauna!

Now look at our streets, insist on the planting of local native trees (those native to your area, your soil, aspect and drainage), remember shady streets reduce the "heat island effect" of cities; and finally remember to consider converting 50% of your yard to biodiversity.

While Australia supports the global 30x30 target, we haven't committed to protecting 30% of land at home.



From top to bottom -

CITIES FOR NATURE

Greener Cities - More ideas...

30 by 30 is a guiding principle for protecting biodiversity globally. There are a couple of catchy number based ideas to try to assist planners and residents achieve green urban spaces. So it might be worth introducing two of them here.

One 'rule' is Frank Santamour's 10-20-30 rule for ensuring species diversity in urban areas. The rule states that no tree species should make up more than 10% of a city's urban forest, no genus should have a share larger than 20%, and no single family should make up more than 30% of the urban forest. While we could debate about the specifics of this it seems to me a good general guide to ensure diversity within city areas.

Another 'rule' is the 3-30-300 Rule for Greener Cities By Cecil Konijnendijk described in the May 2022 edition of the journal *Biophilic Cities*. The number three refers to the minimum number of mature trees visible from every residence. Seeing native greenery from our windows is important for connection to nature and mental health. Thirty percent refers to canopy cover as a minimum percentage in each neighbourhood. Recent studies have shown an association between urban forest canopy and cooling, better microclimates, mental and physical health and possibly also reducing air pollution and noise. Finally, the three hundred is the distance - as in metres - one should need to walk to access 'genuine' green space.

Both of the above clearly emphasise the importance of green space for our urban areas and both are relatively simple to measure. Does your suburb measure up?

