

A vibrant red and green lorikeet is perched on a large, terracotta bird feeder. The feeder is a rounded, bulbous shape with a large circular opening on the side, sitting on a wide, shallow, matching terracotta base filled with birdseed. The bird is facing right, looking towards the opening of the feeder. The background is a lush garden with a large, thick tree trunk on the left, various green plants, and a white building with a corrugated metal roof in the distance. The overall scene is bright and natural.

# BACKYARDS FOR BIODIVERSITY SEQ

FIRST EDITION

KEN CROSS & JOHN BIRBECK &  
OTHERS

**Previous page** - male King Parrot on feeder -  
Photo - Niel Wark

# BACKYARDS FOR BIODIVERSITY SEQ

KEN CROSS & JOHN BIRBECK



**Backyards for Biodiversity SEQ**  
*Nature Starts Here!* Inc

# CONTENTS

PREFACE	P1
CH 1 - INTRODUCTION	P5
CH 2 - BIODIVERSITY AND BACKYARDS	P9
CH 3 - LOCAL NATIVE PLANTS	P13
CH 4 - LOSE THE WEEDS	P35
CH 5 - LOSE THE LAWN	P41
CH 6 - BACKYARDS FOR BEES, BUTTERFLIES, BUGS AND BEETLES	P51
CH 7 - BACKYARDS FOR BIRDS	P69
CH 8 - BACKYARDS FOR FROGS	P87
CH 9 - BACKYARDS FOR BATS, RATS AND MARSUPIALS	P97
CH 10 - BACKYARDS FOR LIZARDS AND SNAKES	P109
CH 11 - EMBRACE SOME MESS	P113
CH 12 - GROW SOME FOOD	P115
CH 13 - NATIVE FOOD PLANTS	P117
CH 14 - CONTROL PETS AND PESTS / AVOID CHEMICALS	P121
CH 15 - DESIGNING A BIODIVERSE BACKYARD	P129
CH 16 - CELEBRATE THE NATURE	P135
CH 17 - THE KAUFMAN CHALLENGE	P139
CH 18 - CITIES FOR NATURE	P145
CH 19 - SEQ BACKYARDS FOR BIODIVERSITY	P153

# APPENDICES

I. PLANT NURSERIES SPECIALISING IN LOCALLY NATIVE AND /  
OR NATIVE SPECIES. P159

II. ORGANISATIONS, CLUBS RELATED P161

III. PLANT LISTS P163

IV. SELECTED BIBLIOGRAPHY P164

V. ACKNOWLEDGMENTS P165

VI. CHECKLIST FOR SEQ BACKYARDS FOR BIODIVERSITY P166



Picture: Neil Wark

# PREFACE



ROSE CROWNED FRUIT DOVE  
[KEN CROSS]

# ABOUT THE AUTHORS

**KEN CROSS** is currently convenor for Birdlife Australia on Queensland's Sunshine Coast and, as that suggests, he is keen on birding, bird conservation and encouraging others to learn about Australia's birdlife. He often leads birding walks and surveys and he loves sharing his passion for birds and all wildlife.

Ken grew up on the Sunshine Coast, Queensland, a region of sub-tropical forests with rich diversity of species. As a teenager he found great interest in snakes and other reptiles, in addition to bird keeping, however he found a new passion in Birding while studying at the University of Queensland.

Ken is a high school teacher of English, Geography, and History and between times leads birding trips around Australia and Internationally. Birding has taken him to every continent except Antarctica.

He has led birding tours within Australia and to the United States, Canada, Taiwan, Malaysia and Borneo, India, Nepal, United Kingdom, Spain, Kenya, Uganda, Tanzania, South Africa, Namibia, Costa Rica. Ken continues to lead overseas birding tours and if you would like to learn about up and coming overseas birding tours please email him at [friarbird43@bigpond.com](mailto:friarbird43@bigpond.com)



**JOHN BIRBECK** grew up in the 1950's on a poultry and small crops farm in north Brisbane's "Green Belt". This is where John discovered his love of nature. In the late 1960's, a market downturn in the poultry egg production industry resulted in John seeking employment at the original community nursery 'Save The Trees' at Zillimere, Brisbane. This nursery was an industry leader in the introduction of native plants into horticulture. John had found his calling - horticulture!

After gaining qualifications in horticulture, John progressed into nursery management, park and recreation management, and ultimately environmental protection. He was appointed the first Environmental Officer at Ipswich City Council. John was later employed by the Caloundra City Council as the first Environment Officer/Supervisor. Currently, John works at the Sunshine Coast Council as a Principal Environment and Landscape officer. During his time with Council, he was responsible for securing hundreds of parks, ecological reserves and conservation covenants, and has promoted the use of numerous environmental initiatives such as nest boxes, fauna fencing and underpasses. He has been involved in the creation of Council Planning Schemes, codes and policies.

Outside of his working life, John enjoys collecting, propagating and cultivating native and exotic plants. He is a keen fauna and bird watcher. John is a long term supporter of the Australian Wildlife Conservancy (AWC) and was instrumental in securing the AWC Curramore Sanctuary. John is a member of Birdlife Australia, Native Plants Queensland and the Butterfly and Other Invertebrates Club.



“PROGRESS IS IMPOSSIBLE WITHOUT CHANGE, AND THOSE WHO CANNOT CHANGE THEIR MINDS CANNOT CHANGE ANYTHING.”

—GEORGE BERNARD SHAW

Nature has been a positive part of my life since childhood. Since then, I have been obsessed with animals of all sizes and the fascinating variety of plants that are integral to their survival. An interest in nature has taken me to many places around our planet and filled my life with countless memorable experiences. Like most naturalists these experiences began in my own home, within my backyard. Today my biodiverse backyard is still a source of endless interest and wonderment.

I would like to encourage all people to rediscover their childhood fascination with insects, birds, and lizards and remind them that these experiences are classic: they do not date. I would love people to reconnect with the nature of our land through the beautiful plants and animals that evolved only on our island continent.



I would especially love to encourage many people to experience the pleasures of backyard biodiversity and natural history and to recognise the potential of their own backyard. I want to encourage these experiences, not only to enrich lives, but also because our planet desperately needs environmentally informed citizens.

The next century or so will have continued ecological challenges and it will be the ecologically informed who must play the critical role in finding solutions.

Sadly, much of our planet's life is perilously at risk. Climate change, massive habitat loss and endangered species, are clear and present symptoms of this risk that only politicians can choose to ignore. The rest of us must heed these warnings and demand that these wrongs be righted!

**'Think globally, Act locally'** was a more widely known call among conservationists when I was a teen. I spent a long time thinking globally and it only frustrated me. Acting locally, save protesting, was confusing. I was unsure of what to do.

Now, much later, I know what to do. A lot of little positive things. Plant trees, bushes, shrubs, and vines; to manage my land for maximum biodiversity and encourage others to do the same. Action, indeed, is the best antidote to despair.

Please make your backyard a backyard full of biodiversity. Join Backyards for Biodiversity SEQ\* and help save the planet!

**Ken Cross**



“THE ENVIRONMENTAL MOVEMENT UP TILL NOW HAS NECESSARILY BEEN REACTIVE. WE HAVE BEEN CLEAR ABOUT WHAT WE DON’T LIKE. BUT WE ALSO NEED TO SAY WHAT WE WOULD LIKE. WE NEED TO SHOW WHERE HOPE LIES. ECOLOGICAL RESTORATION IS A WORK OF HOPE.”

— GEORGE MONBIOT.

Nature has been part of my life since I planted pansies at age three with my mother. My childhood was spent on a mixed poultry and small crop farm within the old greenbelt of northern Brisbane.

There were many days there running barefoot through long grass and bush, of tadpole catching, of keeping and caring for a menagerie of pets; freshwater turtles, Blue-tongue Lizards, budgies, fish, mice, horses, dogs, pigeons, ducks, sheep, and a cow! There were days enjoying the abundance of life; clouds of Silvereyes and lorikeets attended by both Australian Kestrels and goshawks, frogs, lizards, and snakes and under evening lights blizzards of moths! There were no toads back then.

Being blindly fascinated by all living things led straight to a career in horticulture, park management, and environment protection. From my vantage point I can clearly see that today we live with mere shadows of nature, a depauperate environment; so much of our bush these days is empty compared to mere decades ago.

**All is not lost though.**

Think of what ordinary people have achieved in recovering the Richmond Birdwing Butterfly by simply planting the Birdwing Vines or the thousands of property owners participating in the Land for Wildlife programmes throughout south-east Queensland.

Think of what thousands of people can do for biodiversity in their patch, their backyard, frontyard, courtyard or balcony!

**Nature needs our help now!**

We can bring nature back. We can rewild our backyards, public spaces, and cities. We can once again hear a raucous dawn chorus, regularly see frogs and skinks, rejoice in colourful clouds of butterflies, and quietly enjoy the nightly throng of insects simply doing their thing.

An abundance of life is normal. We can restore our world by beginning with our backyards, suburbs, and cities.

**We have to.**

**John Birbeck**



# INTRODUCTION



CASTIARINA SEXGUTTATA  
[TONY EALES]

# “ENVIRONMENTALLY, OUR PLANET HAS SEEN BETTER DAYS.

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Humans have negatively impacted natural environments, and continue to do so, due to one or all of the following: population, technology, and the values of greed and overconsumption. Ever since humans had the technologies of fire and basic weapons the natural environment has endured many negative changes, for example, the extinction of megafauna. The birth of agriculture led to an upswing of our population and encouraged land clearing of great swathes of forest. The vast technological changes, including the first large scale use of fossil fuels, introduced by the industrial revolution, caused, not only pollution, but a process which has led to quantifiable climate change and extreme weather events. Our biota has suffered badly through human population growth and increased consumption and consumerism. Enormous natural areas have been ploughed under for farms, factories, and urban areas. Our oceans, too, have been illtreated – used as a dumping ground and suffering the collapse of fisheries. Too many species have been lost completely or are currently threatened with extinction. Perhaps as serious, many, many species have suffered reduced populations, moving from abundant to vulnerable or from vulnerable to endangered. The damage to nature has, for most people, been impossible to ignore.

And as every year passes the problems worsen and the damage we inflict on nature will, sadly, impact humans and our communities more and more. We must remember that while we can affect our natural systems, we are not above them. We rely on nature to provide us with a range of services, fresh air, clean water, constant climate and weather, food and mental, perhaps spiritual, health. Every human needs these services and nature provides them for free. Continuing biodiversity loss will negatively affect millions, perhaps billions, of human lives.

Here in Australia, despite a relatively small population, our environment has not been immune. We sadly lead the world in mammal extinctions – a clear indicator that our overall environmental health has been compromised.





Other taxa have been affected, too. In Australia our biodiversity has been affected by a series of factors that can be remembered easily using the acronym, HIPPO, coined by the American scientist EO Wilson. HIPPO stands for

**H – Habitat destruction and modification**

**I – Introduced Species**

**P – Pollution, including the increases of carbon in our atmosphere**

**P – Human population growth and all of the implications of that growth, and**

**O – Over-exploitation of natural resources.**

All of these factors are affecting our unique biodiversity, and all are clearly occurring, or have occurred, in south-east Queensland. Here the natural vegetation, and the populations of the creatures that inhabit them, is suffering a death of a thousand cuts, caused by all of the factors above. With each year that passes, more and more land is lost to the ‘progress’ of ever-expanding suburbs, and the network of roads and businesses to support them.

The good news is that with appropriate effort and will, we can not only stop the above, but we can begin, in some circumstances, to re-build some of what we have lost. How amazing would it be that in south-east Queensland we could create more nature than we lose over a decade long period?

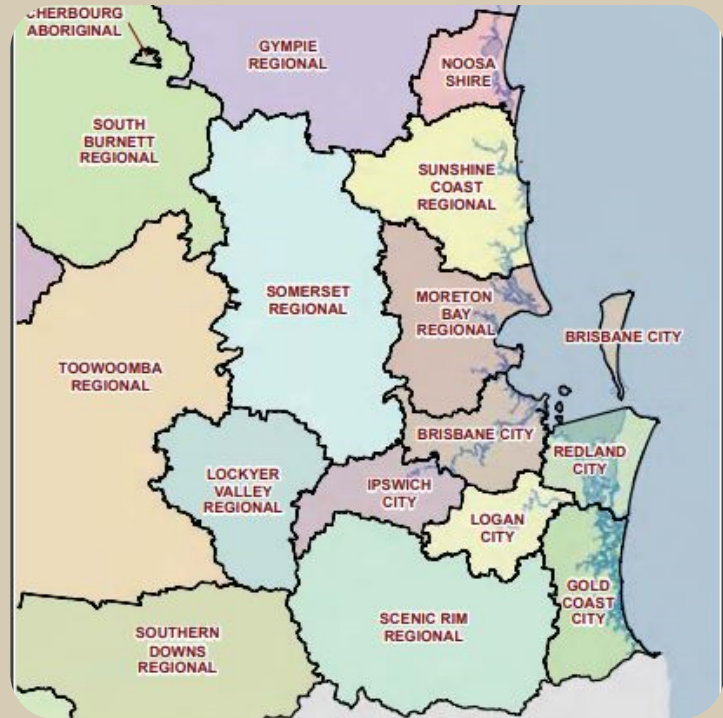
Every person has some responsibility in these efforts. Every person receives, for free, the necessities of life from our planet: fresh air, water, food, space, and access to nature. Currently our economic systems fail to recognise any value of these services provided by nature, but, surely, all can see that we owe it to both our planet and our future generations.

**So, what can we do?**

All of us can advocate for the preservation of remaining natural areas of habitat. More specifically we can advocate to every level of government the need for environmental planning that leads to the protection, and restoration, of more and more land of biodiversity value. Further we can encourage the development of better environmental laws and protections that cannot be extinguished on a politician’s whim.

We encourage all to financially support organisations such as the Australian Wildlife Conservancy and Bush Heritage who are both committed to enlarging our conservation estates. Simply put, the greater the area of well managed protected natural vegetation, the greater the population size of each plant and animal species. The American scientist, EO Wilson argues, convincingly, for a global effort to protect 50% of our planet's land and waterways to ensure the continued survival of earth's biodiversity in his book, **Half-Earth: Our Planet's Fight for Life**. You can [read more on the project here](#).

Secondly, we can encourage schemes for biodiversity protection and embellishment on medium to large sized land holdings in private hands. We can learn about and encourage conservation strategies for land holders such as Vegetation Protection Covenants and the Land for Wildlife Program. In a similar vein, we can learn about and encourage Regenerative Agriculture - a relatively new way of farming that urges farmers to work with nature rather than against it. Regenerative farming, among other things, creates soil, locks up carbon, restores soil biodiversity and water holding capacity making properties more drought tolerant. Thirdly we can consider our choices regarding land in our urban areas. We can recognise that our land, and the adjoining land of our neighbours' and businesses', could have greater value for biodiversity than it does at present. **This idea, that our backyards can become significantly more biodiverse, is the main reason that this booklet is being written and presented.** By working to improve our backyard biodiversity we are increasing the numbers of creatures as well as bringing nature into our lives. The latter will be a constant source of joy and satisfaction plus an antidote to the pressures and stresses of modern life.



Please note, both Bundaberg and Fraser Coast Council areas are located north of the map area shown.

Lastly, we can learn about our native plants and animals. We have astonishing life forms here, many that are found no-where else in the universe, that have infinite potential to interest, educate and amaze. Simply by putting a name to many of these species we begin a journey of caring; after all we cannot love and protect that we do not yet know. And after we learn, we can share and teach...and protect. If a good number of our citizens can commit to these ideas, and bring nature into their backyards, we will improve and enhance both our lives and all life in SEQ.\*

\*SEQ, by our definition illustrated in part by the map on the right, covers the areas of the following local government areas: Bundaberg, Fraser Coast Regional, Gympie Regional, Noosa, Sunshine Coast Regional, Moreton Bay Regional, Brisbane City, Ipswich City, Redland City, Logan City, Gold Coast City, Scenic Rim Regional, Lockyer Valley Regional, Toowoomba Regional, Southern Downs Regional, Somerset Regional, South Burnett Regional, North Burnett Regional, and Cherbourg Aboriginal Shire Council.



# BIODIVERSITY AND BACKYARDS

[NIEL WARK]

# SO, WHAT IS BIODIVERSITY?



Biodiversity's simplest definition is the diversity of life. However, it **must** be thought of in a number of ways. The diversity of life can be thought of as the number of species of plant, fungi, and animal. It should also be thought of as the number of biomes, or habitats. And lastly the genetic diversity within each species.

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To protect biodiversity therefore we must protect as many species with viable populations as possible and all of the different habitats that support the species within. Lastly, we must strive to protect as large a population of each species as possible to ensure genetic diversity. South-east Queensland is the fastest growing area of Queensland and certainly one of the fastest growing in all of Australia. For every farm, non-native forest, every factory, every flat, house and high-rise, every highway and road and lane we have lost part of this area's biodiversity. Some of that biodiversity, sadly, is never coming back. Two frogs for instance, that were endemic to SEQ, are now extinct. The Southern Day Frog and the Gastric brooding Frog will never be seen nor heard again. The latter was one of the more amazing animals ever, the female having the ability to 'turn-off' her stomach's digestive function which allowed her to swallow her fertilised eggs without harm to them. The tadpoles then developed within the stomach before being vomited into the world as froglets. Too many of our native species have declined in numbers and it is imperative that we do more to protect and grow our nature.

**Photos left by Hans Erkin, Niel Wark, Marie Tarrant.**

“I WILL ARGUE THAT EVERY SCRAP OF BIOLOGICAL DIVERSITY IS PRICELESS. TO BE LEARNED AND CHERISHED, AND NEVER TO BE SURRENDERED WITHOUT A STRUGGLE.”

— E.O. WILSON.



Photo - NY Times

Protecting biodiversity though is more important than just saving species because they are beautiful or charismatic or have a fascinating life history or they are an important species ecologically. We must protect biodiversity because of our human lives depend on a finely functioning natural system and a loss of a species is merely a red light indicating that something is going wrong.

Part of the solution is to recognise the potential in all of our backyards for the growth of biodiversity. We can bring nature back, right outside our doors.

The strategies for bringing nature to our homes and backyards are generally straightforward.

They include

- **Grow local native plants**
- **Provide flowering & fruiting plants, preferably native**
- **Provide clean water**
- **Provide species specific shelter - mulch, rocks and logs, nesting boxes**
- **Control weed plant species and remove or limit lawn**
- **Grow some food, and some native food, for your family!**
- **Embrace some mess**
- **Enclose pets and control pests**
- **Avoid use of chemicals when controlling pests or other uses**
- **Learn about and celebrate nature!**



Image source: ABC Gardening

These ten ideas can be applied pretty much to every sized garden and property.

We need to accept, at the onset, that gardening for wildlife will not bring every species back however it will make positive contributions to our local biodiversity, and it will enrich our lives!

Every wildlife garden will create an island of habitat that will provide linkages between genuine bushland remnants - encouraging the movement of fauna through suburbs. Imagine an archipelago of these habitats across each suburb! As you read this book consider every plant, insect, bird and reptile, pictured with few exceptions could find a home in your garden.



## “HOW SHOULD WE MEASURE SUCCESS?”

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We will see success. Like a truly committed dieter we should take before, during and after pictures. Our progress will then be plain to see.

We will see more native plants; a great variety of native plants - flowers and ground covers, shrubs, and trees, all covering different layers from ground level up. It will be an image of growing diversity in itself. Not in the pictures perhaps but in life we should see growing numbers of insects. For a growing ecology to be realised we need to increase the numbers of critters that eat the plants.



- Mallotus Harlequin Bugs [Paul Russell]

Many of these are invertebrates and many of the invertebrates are insects. Growing numbers of insects will, in turn, grow the numbers of insect eating birds and bats. And when we see more insects, we **must not** reach for the insecticide!

To face the global problems of climate change and biodiversity loss throughout this century and beyond, an understanding and appreciation of ecology within our ever-growing urban populations must develop. Urban dwellers must have the opportunity to have a relationship with nature; to maximise, experience, and enjoy, urban biodiversity. We need to truly appreciate that nature is not just 'out there', it is everywhere. If people can co-exist with a nature in their city parks and road verges and nature strips and their front and back yards and place value on it; then there is a better chance that they will support the preservation of nature elsewhere.

We need as many people as possible to make their backyard one for biodiversity. We need them to be passionate advocates as well. To tell their neighbours, friends, families and foes about their projects and successes. We need communities engaged in our local ecologies and projects to increase our biota. And we want our governments, businesses, services to be engaged as well.