Centralized Repository for Urban Biodiversity

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About

This framework was developed by a team of students from Worcester Polytechnic Institute in Massachusetts, United States in association with the Port Phillip EcoCentre in Melbourne, Australia after four months of research on Melbourne's urban biodiversity. This framework is designed to encourage communication and facilitate connections between stakeholders of urban biodiversity, highlighting some major topics in connecting people with nature, on-site management, and other challenges people have faced.

Using the information and identified connections, more stakeholders will have the information and resources they require to improve biodiversity. This structure can hopefully be used to create a website, or an extension of an existing website, where users can easily access the information they desire. Information gathered from the team's research is used for the framework's base and additional information can be supplied by others in the future. These resources include gardening examples and methods, advertisement and recruitment tips, and contact information for local experts, government environmental departments, and community groups. Some of the provided materials can be used in other forms, such as physical infographics for formal presentations, workshops, and school lectures.

The overall framework can also demonstrate to stakeholders the connectivity between each other's work and highlights the key challenges they can focus on remedying. In the future, this framework can be implemented in various ways and developed into a resource that is user friendly and easily distributed. Giving the public, community groups, or government departments the ability to add information to the resource, as innovative methods are discovered, new information becomes available, and the environment changes will allow this tool to be flexible and fluid, remaining applicable and relevant as time progresses.

Government Policies

Local

Port Phillip Westernport Catchment Management Authority

The Port Phillip and Westernport Catchment Management Authority was established under the Catchment and Land Protection Act (1994) in 2002 and is one of 10 regional Catchment Management Authorities in Victoria. They prepare a Region Catchment Strategy and coordinate its monitoring and implementation in order to forward their vision towards healthy and resilient ecosystems, catchments, and bays in the region. They work with government departments, councils, water authorities, non-government environmental organizations, community groups, and local landowners. For community groups, they work to complement the work done by the vast array of volunteer organizations in the Port Phillip and Westernport catchment. They work with paid, facilitators to organize events such as forums, meetings, and training sessions for landcare groups in the area. A focus of these events is to address skill shortages within the groups by bringing in the knowledge of environmental experts so that it can be shared with the general public; topics can range anywhere from planting methods to grant writing. The PPWCMA works hard to provide these groups with access to information, funding, and communicative resources that will help them successfully achieve their justifiable goals. More information can be found at: https://www.ppwcma.vic.gov.au/

City of Melbourne - Nature in the City Strategy

The Nature in the City Strategy was established in 2017 with the goal of improving the existing natural environments, creating more diverse greenspace, increasing the connectivity between humans and nature, and creating effective solutions for ecology conservation. This

considers the ecosystem services greenspaces can provide the urban environment. The City of Melbourne looks to map and assess the biodiversity, determine areas that can be improved, and manage the environment as necessary. This includes revegetation, increasing the diversity of street trees, planting more understorey, and adding green infrastructure to the metropolitan area. There are many facets to this project including tree maintenance, work focusing on reducing "heat island effect", biolink work, and education and awareness. The city looks to educate the public on the importance of the environment through school programs, interactive parks, and citizen science events such as the Bioblitz. With this strategy, the city will also consult local experts to provide scientific information that may assist in their conservation efforts. For more information about the Nature in the City Strategy visit the City of Melbourne's website at: https://www.melbourne.vic.gov.au/community/parks-open-spaces/urban-nature/Pages/nature-in-the-city-strategy.aspx

Victoria

DELWP

The Department of Environment, Land, Water & Planning (DELWP) is one of the main department within the Victorian government that works on environmentally focused initiatives. They aim to work smoothly with the community in order to enact legislation that is beneficial to all. They focus on creating a "liveable, inclusive and sustainable Victoria with thriving natural environments - where the community is at the centre of everything [they] do." A few noteworthy policies are the Flora and Fauna Guarantee Act of 1988 and Native Vegetation Framework which strive to conserve biodiversity on both private and public land

which is beneficial as a significant amount of the land in Melbourne is privately owned. To learn more about individual projects and policies, please visit https://www2.delwp.vic.gov.au/

Parks Victoria

Parks Victoria is a statutory authority that manages parks to create a healthy natural environment for people to enjoy. The organization focuses on connecting people with nature, preserving the natural environment, supporting communities surrounding parks, and improve on existing management practices. Parks Victoria manages "over four million hectares of parks" including national and state parks, marine sanctuaries, metropolitan parks and more. It is funded by the State Government and the Parks Charge, collected annually by DELWP, to support the management of greenspaces, trails, waterways and more. There are several pieces of legislation with the purpose of preserving and maintaining Victorian parks. For more information about this and other parts of Parks Victoria, please visit: https://parkweb.vic.gov.au/

National

The Australian Government Department of the Environment has a range of projects that they work on from research in the Antarctic, to the Protection of the Great Barrier Reef, and to the designing and implementation of Environmental Policies. A few noteworthy acts are the Environment Protection and Biodiversity Conservation (EPBC) Act of 1999 which restricts actions that work against biodiversity on public land. They allow permits for necessary work, give grants, and plan work that might impact the environment. They manage Australia's National Parks and Heritage sites as well as give advice for energy efficiency in home and businesses. To read more about their work and policies please visit https://www.environment.gov.au/.

Bush Management

Biolinks

Description and Benefits

A biolink is a corridor of habitat that connects two or more habitat patches. They have several benefits to both the plants and animals within them, and to the humans living around them. Within a biolink, the plants provide habitat that allow movement of animals between isolated populations, increasing diversity and, in turn, the ability of that population to be resistant to destruction. Biolinks also work to reduce negative human-animal interactions by allowing animals the ability to move between patches of habitat without coming onto roads or into homes and backyards. Without these corridors, car accidents can occur when animals try to cross roadways, animals will nest in houses, eat flowers and other plants in home gardens. Biolinks can be implemented on a large, even continental, scale, with corridors including large patches of forest or grassland for example. They can also occur on a small scale, taking the form of several trees, shrubs, or gardens that link habitats together. As urban development increases, habitat becomes progressively more divided and the species within become more isolated leaving them at a higher risk dying out. Therefore, biolinks must be emphasized before the habitat is destroyed permanently by development particularly in urban areas.

ECOCENTRE PRESENTS

BIOLINKS

WHY

WILDLIFE CAN MOVE SAFELY

In order to be healthy, native landscapes must remain connected so that wildlife can move safely between areas of food and shelter. A landscape that is highly fragmented can trap animals in areas that are too small for their needs. Where understorey has been cleared, small mammals and birds that forage on the ground are vulnerable to predators such as cats, and their numbers decline rapidly. Those that escape predation may suffer from inbreeding and their populations become vulnerable to diseases or sudden death due to disturbances such as pest outbreaks and high-intensity bushfires.

WHAT

CONNECTIONS OF VALUABLE HABITATS

Biolinks are areas of bush and other habitat (such as waterways and stands of paddock trees) that connect areas of valuable habitat and forage. Biolinks enable wildlife to move freely and safely and have access to the broader landscape. This is increasingly important in light of climate change, as the requirement of animals to move to more suitable areas becomes critical.

HOW

PROVIDE CONTINUOUS CONNECTION BETWEEN HABITAT PATCHES

Creating biolinks involves developing corridors of native vegetation on public and private property, and removing barriers to allow for wildlife movement. A biolink can also be created by developing patches of bushland that act like 'stepping stones' for wildlife, reducing the distances between individual habitat patches. Some actions taken to create biolinks include weeding, planting, strategic fencing to keep out stock and feral animals and the building of underpasses and overpasses at roads to enable safe passage of wildlife.

CASE STUDY

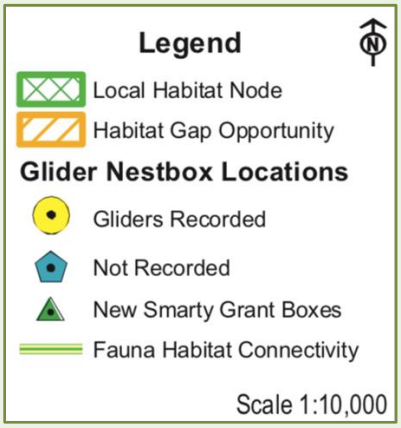
CITY OF PORT PHILLIP

Biolinks are areas of bush and other habitat (such as waterways and stands of paddock trees) that connect areas of valuable habitat and forage. Biolinks enable wildlife to move freely and safely and have access to the broader landscape. This is increasingly important in light of climate change, as the requirement of animals to move to more suitable areas becomes critical.

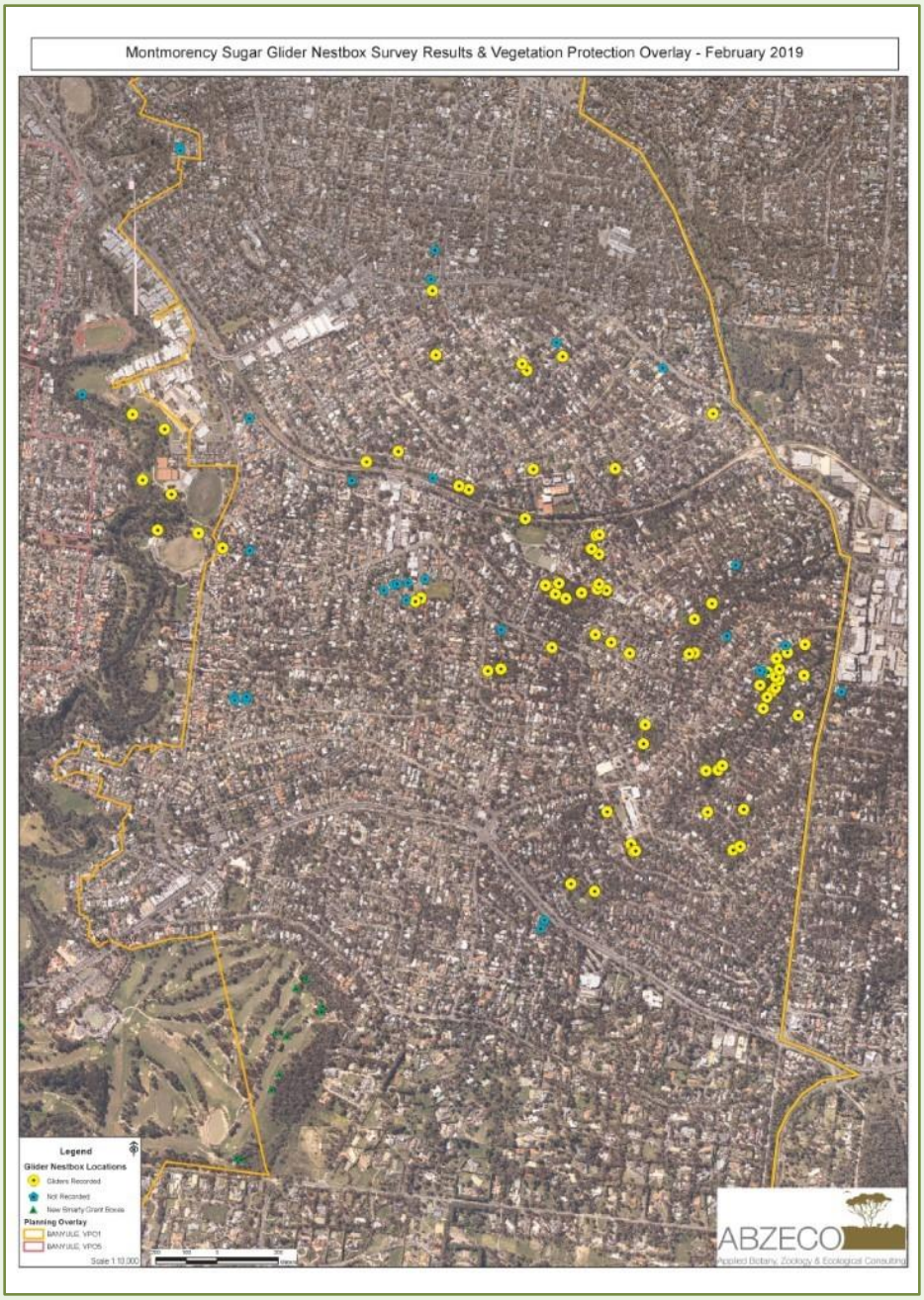
SOURCE: WWW.REALLYGREATSITE.COM

Case Studies

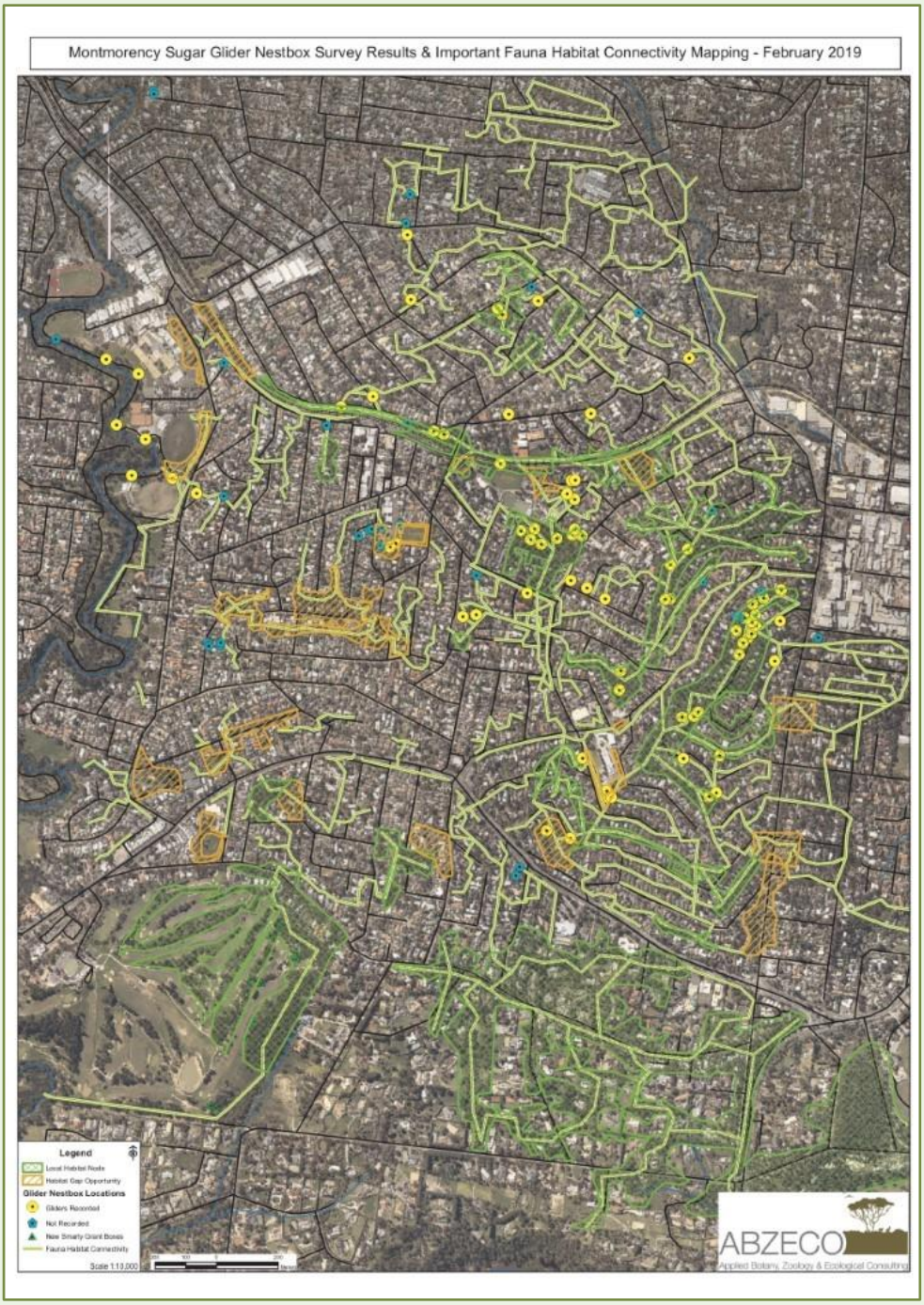
Sugar Gliders



One project that has successfully garnered public and council support uses sugar gliders as indicators for biolinks in Banyule with Montmorency Biodiversity group. Sugar gliders don't eat people's roses and are cute making it easy to draw people into the project. The community raised funds and created some nesting boxes out of plantation sourced plywood (this wood helps reduce the trees cut down on natural environments) for them and put them up right through town. Sugar gliders aren't just cute and cuddly though, they serve as an important indicator species for healthy habitat. Since gliders don't come down to the ground and must have large trees to jump to and from, they are great indicator species when looking to conserve habitat connectivity. The large trees they use as primary habitat rely on healthy soils with a presence of bacteria and fungus. In turn, these healthy soils also encourage native shrubs which then serve as habitat for a large community of birds, insects, and other organisms. This project shows that while a group can garner a large support for just one cute, easy to rally behind glider, they are actually conserving an entire ecosystem. For more information, visit http://maintenance.abzeco.com.au/index.html.



Sugar Glider Nest Box Locations (Created by ABZECO and Provided by Richard Francis)



Sugar Glider Biolink Map (Created by ABZECO and Provided by Richard Francis)

Port Phillip

Local experts Rob Youl and Peter Parrington are working to determine and establish wildlife corridors across the city of Port Phillip. They have identified a dozen different patches of greenspace, including Westgate Park and Elsternwick East, that are linked by tree-lined streets, providing potential routes for biolinks. Having mapped the greenspaces in Port Phillip and their potential biolinks, they have been communicating with other local experts whom conduct studies in different regions of Port Phillip to analyze how to revegetate areas to provide habitat for the native wildlife. The streets that they have identified for placement are very wide, which will negate concern for visibility obstructions along streets. They use local knowledge and enthusiasm for the information that they need and plan to contact neighboring LGAs in the near future to expand the biolinks outward from Port Phillip, providing more corridors for fauna to travel. The project, however, is a bit of theory and practice with the hopes of implementation coming soon.

Wildlife Corridor (Biolink Map) Created by Rob Youl and Peter Parrington

Additional Resources

Look at the links below for more information on biolinks and wildlife corridors:

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_015158.pdf

https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0206071

Common Bush Management Challenges and Solutions

Public Safety

As more groups look to increase the connectivity between biodiversity and the urban environment (potentially through biolinks), the community opinion must be considered before anything can be implemented. Increasing vegetation along pathways, nature strips, and along tramlines raises a safety concern for the population. Some of the population and government officials are hesitant to increase bush vegetation along the edges of roadways because there is the potential the bush will reduce drivers' visibility which could be hazardous to other drivers, cyclists, and pedestrians. Additionally, planting trees and maintaining mature trees in densely populated areas can hazardous because there is a danger of tree limbs falling on people, properties, and powerlines. Similarly, there is a safety concern around increasing understorey vegetation along pathways or along tramlines. Citizens use these paths often at varying times of the day while commuting or for recreation and there is a fear that the higher bush density will provide criminals a location to hide behind and potentially attack passersby.

There are methods to reducing these concerns and the potential of these issues from occurring, primarily through organizing vegetation with these concerns in mind. For example, biolinks and vegetation can be created on larger nature strips by planting taller bushes on the far inside of the nature strip and away from the road while the lower understorey bushes can be planted closer towards the edge. The vegetation can be closely trimmed so there isn't any vegetation obstructing the view of drivers. This practice can be applicable to the concerns of falling tree limbs, by removing dead, potentially hazardous trees, along pathways and by properties. Furthermore, careful vegetation management along pathways can occur to reduce the potential of people hiding in bushes.

Sports Organizations

In an urban area, there is a lot of competition for space from different organizations including private businesses, large corporations, and government entities. Sports groups are

one of the biggest competitors for open greenspaces that community groups face when trying to reserve land for wildlife. Athletics is a major factor in Australian society and gains a lot of support and funding from the community. As the city population increases, more people participate in sports and the organizations require more space for fields and facilities like changing rooms to accommodate their growing size. Open greenspaces are not ideal for promoting biodiversity as most fauna species thrive in indigenous bush vegetation which is not found in flat, grassy, sports fields. Additionally, fields often require a large amount of space that may result in existing dense vegetation to be cut down and replaced with flat grass, eliminating the habitats of many native species.

The best way to address this issue is to have in person conversations with sports organization representatives and kindly demonstrate how environmental work can complement the work of the sports groups. Connecting with these officials and illustrating the benefits of environmental conservation helps reduce the tension between these groups. Suggesting compromises for certain development plans can enable both parties to benefit from the space. Increasing overall biodiversity awareness in these organizations and the community as a whole will help boost the credibility of the community group's project. For more information about outreach programs and raising public awareness, visit Communication and Outreach.

The Dog Community

In an urban community, there are a wide range of people people, a large percentage of which own dogs and other pets. Much of this community uses public greenspaces to walk their dog, many of them off-leash. When greenspaces are reserved for wildlife, areas have restricted access to humans and pets so they require dogs to be walked on a leash. This is to reduce the amount of damage dogs have on growing vegetation and the preserved natural habitat. However, this results in conflict with the "dog community" because owners want to have the freedom to walk the dogs where they wish.

The best way to address this part of the population and gain the support of the community is increasing biodiversity awareness. Educating the general public will demonstrate to the "dog community" the importance of environmental conservation and will

help boost the credibility of the community group's project. For more information about outreach programs and raising public awareness, visit Communication and Outreach.

Fire

With recent increases in drought and bushfires in parks throughout Australia, there is greater risk and fear of fires spreading through cities and towns. Although controlled burnings can be an effective method of natural revegetation, this can be very dangerous to implement in a densely populated urban area. Some local governments within Melbourne have been successful in using this method in fenced areas, restricting human access to burning area but the movements of fire can still be very unpredictable.

The best way to address this challenge is to ensure all safety precautions and standards are met, the area is fenced off, and the public is aware of the burnings. Additionally, alternative revegetation practices could be used instead of controlled burns. For other management practices, visit Bush Management.

https://www.abc.net.au/news/image/1187828-3x2-340x227.jpg

Planting

There are a number of successful planting strategies that have been used by community groups that can be applied across like scenarios. In addition, there are several gardening resources that can be used for larger scale planting methods just as well. For larger projects that are better done by a professional, see our list of land management contractors for some highly recommended businesses.

Monitoring Practices

A step that is often skipped when it comes to land management is monitoring the environment after planting and modification of the land has been done. This step is one of the most important as it allows you to check if your goals were reached and can allow you to contribute your work to a larger body of scientific knowledge. Using verified scientific methods and resources can also increase the legitimacy of the data presented to other organization, the government, or the general public. Thanks to technology, there are now a plethora of applications that you can access with your smartphone for fast and accurate recording of scientific data. Some of these are more generalized for recording any species you come across while others are specific to a group of species that they monitor. Below we have listed some of the most useful websites and applications that you can use to record your data.

iNaturalist

iNaturalist is a free app that can be downloaded to phones and tablets and be used on computers wherever there is internet access. Created by National Geographic and California Academy of Sciences, the program allows you to start your own projects that others can join, contribute to others, and search for sightings of any plants and animals in your area. The website also features dozens of online field guides as well as some video tutorials. The platform serves as a forum for those interested in the field to converse about the species seen and, if a species is posted without a positive identification, the community can help name the species in the sighting. Datasets produced by iNaturalist are also recorded on the Global Biodiversity Information Facility, contributing further to an even larger body of science.

Visit their website to learn more: https://www.inaturalist.org/pages/about

eBird

eBird

eBird, started in 2002, is the only platform that can claim the title of "the world's largest biodiversity-related citizen science project" and has more that one hundred million sightings contributed to its database daily. Managed by the Cornell Lab of Ornithology, the website has a vast array of datasets ranging to local scales of species distributions to how the density of neotropical migrants changes throughout the seasons in the Americas. The website has many materials helping you to get started and works with various local coordinators to help facilitation on a more regional scale. Get started at: https://ebird.org/about.

Community Groups

There are a number of community groups in and around Melbourne that have had successful campaigns and projects. Below are some case studies of these groups so that they may be learned from and their methods applied elsewhere.

Westgate Park

Westgate Park is one of the largest and most successful community initiated and run projects in Greater Melbourne. It is located within Port Melbourne and lies underneath the Westgate Bridge, surrounded by suburbs and with the Yarra River on the East side. After the Westgate Bridge was constructed, Oscar Meyer generated the idea of the implementation of a park in 1970s which was later funded by the state government in 1985 (Victoria State Government, 2018). There were many uses for the park for several years, some of which contributed to the features that can now be seen today, for example, a sand mine was transformed into a saltwater lake. The Melbourne Parks and Waterways developed the idea of extending connectivity between water features by linking the park to the Yarra River to help generate a wetland. In 1999, 19-year-old Naomie Sunner thought that they park had a lot of unfulfilled potential. Wanting to get involved, she sought to volunteer at the park

but as there was no friends group, she could not. Therefore, she formed the Friends of Westgate park and began to transform the park.

Today, with the group having planted over 300,000 plants, Westgate Park is a thriving wetland, featuring diverse species of flora and fauna. They work with Bili Nursery, formally the St. Kilda Indigenous Nursery (SKINC), as well as local experts in Landscape Architecture to exhibit habitats that not only thrive on their own but form communities between species of wildlife despite the proximity to growing suburbs and busy roadways. These flourishing habitats are set out in the park in nine EVCs and in order to best adapt to the varying landscapes and environment. The group has sought and gained support from a number of private corporations including the Port of Melbourne Corporation, Parks Victoria, and their next-door neighbors, Holden. They have this information and much more regarding their vision, action plan, and how they receive funding on their website at https://westgatebiodiversity.org.au/.

Friends of Gardiners Creek

The Friends of Gardiners creek is a smaller group that, despite its size, has been very successful and has established a small patch of habitat that runs through Glenburn Bend Park next to Gardiners Creek in the City of Glen Iris and bordering Boroondara and Stonnington. They have planted indigenous flora along the sloping bank of the creek as well as in several foreshore planting beds. The group utilizes both corporate and school volunteers to assist with plantings.

A few unique practices used in this park were the use of cardboard as weed control and the use of artificial hollows. When an exotic tree was zoned for removal due to its proximity to power lines, the group requested it just be cut short, down to its main trunk and base of its main limbs. Once the tree was trimmed, holes were drilled into the trunk and large limbs in order to create artificial hollows. This practice is a great solution that mitigates public hazards that are associated with natural hollows. Natural hollows form after a tree has lived its life, died, and decayed enough so that the inner wood has completely rotted away and provide habitat for many species. In addition to these taking a long time to form, there is

also a public fear associated with a dying tree falling onto people as they are walking along a nearby path or sitting underneath the tree for shade. By using a structurally sound tree instead of a naturally decaying tree, the group has provided crucial hollow habitat for a number of species in a safe and effective manner. For more information about these and other practices the Friends of Gardiners Creek use, visit this website: https://www.opengreenmap.org/greenmap/malvern-east/friends-gardiners-creek-31309


Safe and Cost Effective
Weed Prevention
Using Cardboard?
PORT PHILLIP ecocentre
What You'll Need
Cardboard
New Plants
Mulch
These are the steps
#1 Weed
#2 Cardboard
#3 Mulch
#4 Plant!
#1 Initial Weeding
Weed the area, removing as much of the pest plants as you can
#2 Lay Down Cardboard
This provides a physical barrier to prevent them from growing and inhibits them from getting the sunlight they require, killing the roots that are still in the ground
#3 Apply Mulch
Cover the area in mulch for new plants to grow in
#4 Plant!
After ~18 months, put in your plants, seeds, or saplings that you want to see grow in the area! Don't worry about removing the cardboard, it biodegrades
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WPI
VISIT ECOCENTRE.COM FOR MORE!

BERG and Mt. Martha

The Balcombe Estuary Reserves Group Mount Martha (BERG Mt Martha), an environmental Friends Group, was founded in 1997 by a resident who lived next to the estuary and loved the area. The reserves are Mount Martha's bushland heart, a precious natural asset of about 55+ hectares that forms part of a larger biolink. As well as being much used and loved by both the local community and the many visitors, the reserves are highly valued for their ecological status. Balcombe Creek is the most extensive waterway on the eastern side of Port Phillip, its estuary is the largest and most intact on the eastern side of Port Phillip Bay, and the whole system is an important part of a linking habitat corridor for indigenous flora and fauna.

BERG Mt Martha's aim is to protect and preserve the reserves and restore them as far as possible (within Mt Martha's urban context) to their original indigenous state. Over 21 years, they have worked closely with the Mornington Peninsula Shire's Natural Systems team and volunteers to remove mountains of weeds from the reserves and add indigenous tube-stock in enhancement planting. Follow-up weeding, planting and monitoring continues as ongoing work. They also work in the Waterwatch and EstuaryWatch programs for monitoring the health of the creek and estuary and also conduct flora and fauna surveys repeated every decade to monitor their progress.

Community education and awareness raising has been another important aspect of our work. To name a few, they have bimonthly newsletters, workshops and volunteer training. The group also utilizes corporate and educational volunteers to assist with on the ground efforts. They generally place more tedious work, like weeding, towards the beginning of the day before lunch when volunteers have more energy, and save more enjoyable activities, like

planting, for the afternoon in order to keep a high morale. Over the years, they have raised around $750,000 in grants. They see this success stemming from a couple factors: having a passionate and committed team, both on-ground and in the wide range of other activities needed to support the organisation, and an extensive and supportive membership. They are thus able to match grant funding in-kind with volunteer hours. They have honed our grant writing skills over the years, and have paid particular attention to ensuring they have met the requirements of each particular grant, and provided the information asked for. For more information about grant writing tips, and other helpful information, visit their website at https://www.berg.org.au/

Montmorency Biodiversity Group

Another successful project is conducted by the Montmorency Biodiversity Group (with advising by Richard Francis from ABZECO) in the Banyule shire. The project looks to increase habitat connectivity in an urban landscape, using the sugar glider as an indicator species. In the Banyule municipality, there is a vegetation protection overlay which sits atop the state's planning scheme that protects native vegetation and critical wildlife habitat. The overlay was written well in order to protect land from development when it was determined that it was critical habitat for select species. However, this area lacked sufficient native fauna data and therefore it was not accessible by council and developers were not keen on delivering the best information. A council of townspeople, now the Montmorency Biodiversity Group, contacted Richard asking for advice on how to protect the land and its creatures. He thought the best way would be to select an indicator species that everybody could rally around. He chose the sugar glider.

Sugar gliders don't eat people's roses and are cute therefore it wasn't difficult to draw people into the project. The community raised funds and created some nesting boxes out of plantation sourced plywood (not helpful if you're cutting down trees in the jungle for the boxes) for them and put them up through town. The community also held heavily staged events where they knew that sugar gliders were going to be present. They organized people and had them arrive at an appropriate time to do an introduction, got them situated and quiet, and put them in a position where it was easy to see the gliders. From there, all they had to do was get pictures of sugar gliders and kids, preferably in the same picture, and community support followed with political support close behind.

Sugar gliders aren't just cute and cuddly though, they serve as an important species for healthy habitat. Since gliders don't come down to the ground and must have large trees to jump to and from, they are great indicator species when looking to conserve large portions of habitat. The large trees they use as primary habitat rely on healthy soils with a presence of bacteria and fungus. In turn, these healthy soils also encourage native shrubs that provide habitat for a large community of birds, insects, and other organisms. Therefore, while the group garnered a large support for just one cute glider, they are also working to conserve an entire ecosystem. healthy habitat. Since gliders don't come down to the ground and must have large trees to jump to and from, they are great indicator species when looking to conserve large portions of habitat. The large trees they use as primary habitat rely on healthy soils with a presence of bacteria and fungus. In turn, these healthy soils also encourage native shrubs that provide habitat for a large community of birds, insects, and other organisms. Therefore, while the group garnered a large support for just one cute glider, they are also working to conserve an entire ecosystem.

Richard has mapped habitat connectivity for the gliders as well by getting map overlays of the area and using his local knowledge to suggest corridors of where habitat could be improved. After this was implemented and nest boxes went up, those that were inhabited tended to be located in the corridors that Richard suggested, proving his theories. There are a few drawbacks to the project that Richard mentions as well. For example, the nest boxes require constant maintenance and to work on them, volunteers need to get certified to work in heights. Therefore, there is a bit of work and obstacles one needs overcome with the help of strong community support before the project can be successful. For more information about the created biolinks visit BIOLINKS SECTION. For more information about the Montmorency Community Group, visit their website at http://www.transitionmonty.org/. For more information about ABZECO's work visit their website here: http://maintenance.abzeco.com.au/index.html.

Montmorency Sugar Glider Nestbox Survey Results & Important Fauna Habitat Connectivity Mapping - February 2019

Contractors

ABZECO

Applied Botany Zoology and Ecological Consulting (ABZECO) is a land management and consulting company based out of Eltham, Victoria. They are involved with hundreds of projects around the globe from the bases of mountain ranges in Europe to the middle of Melbourne's CBD. They offer services such as bushfire management statements, offset and net gain analysis, and monitoring and mapping of species and habitats. They have numerous successful projects, one of them involving sugar gliders in the Banyule shire. To learn and inquire for services visit http://maintenance.abzeco.com.au/contact.html.

Naturelinks

Naturelinks was formed 20 years ago with a commitment to the principles of biodiversity conservation and management and community education and involvement. They carry out work for Local Government, State Government Agencies, NGO's and the Mining sector and Community groups. They have around 60 passionate staff working from their Melbourne and Mornington depots with projects working on biodiversity sites planning and management including revegetation, weed control, direct seeding, ecological burns, friends group facilitation, grant applications, management plans, vegetation offset plans, flora and fauna surveys. Their mission is to be a financially stable business, an employer of choice, and to be the industry leader in biodiversity management. A few of their key projects include urban wetland conversion in Boroondara, net gain offset in the Langwarrin Heathy woodland, and Pakenham net gain offset and quarry rehabilitation of the Holcim Quarry. To learn more visit: https://naturelinks.com.au/

Local Native Flora

Local Native Flora Pry Ltd is managed by naturalists Lynette and Mark Adams and is a revegetation company based out of Boneo, Victoria. They have been in the Biodiversity Management industry since 1984 and has been contracted by a number of different groups such as the government, community groups, and private individuals, to develop or restore landscapes with native flora. The pieces of land they manage are generally around one to two hectares and contain anywhere from 25-30 species however they are capable of working on anywhere from 50-150 acres. They have propagated and supplied indigenous plants to restore a diverse range of plant communities from Mangrove and salt marsh communities to dry rainforests in South Eastern Australia. Many of these projects have involved follow-up maintenance largely involving weed control. They have wildlife sanctuary projects in 3 sites in New South Wales and South Australia with a total of 4000 acres. Recently they developed a smartphone application for auditing Biodiversity Management.

Indigenous/Native Gardens

Local Nurseries

Bili Nurseries and Landcare

Bili Nurseries and Landcare is a part of the Westgate Biodiversity Project. The nursery is located at 525 Williamstown Road Port Melbourne and the Landcare center is located at Westgate Park. The nursery has a number of indigenous and native plants for sale and can be contacted if they are out of stock of any species you are looking for. They also run various events ranging from a native terrarium workshop to another focusing on weaving with local native fibres. You can make an appointment Monday-Thursday and it is open to the public on Friday. https://westgatebiodiversity.org.au/

Bayside Community Plant Nursery

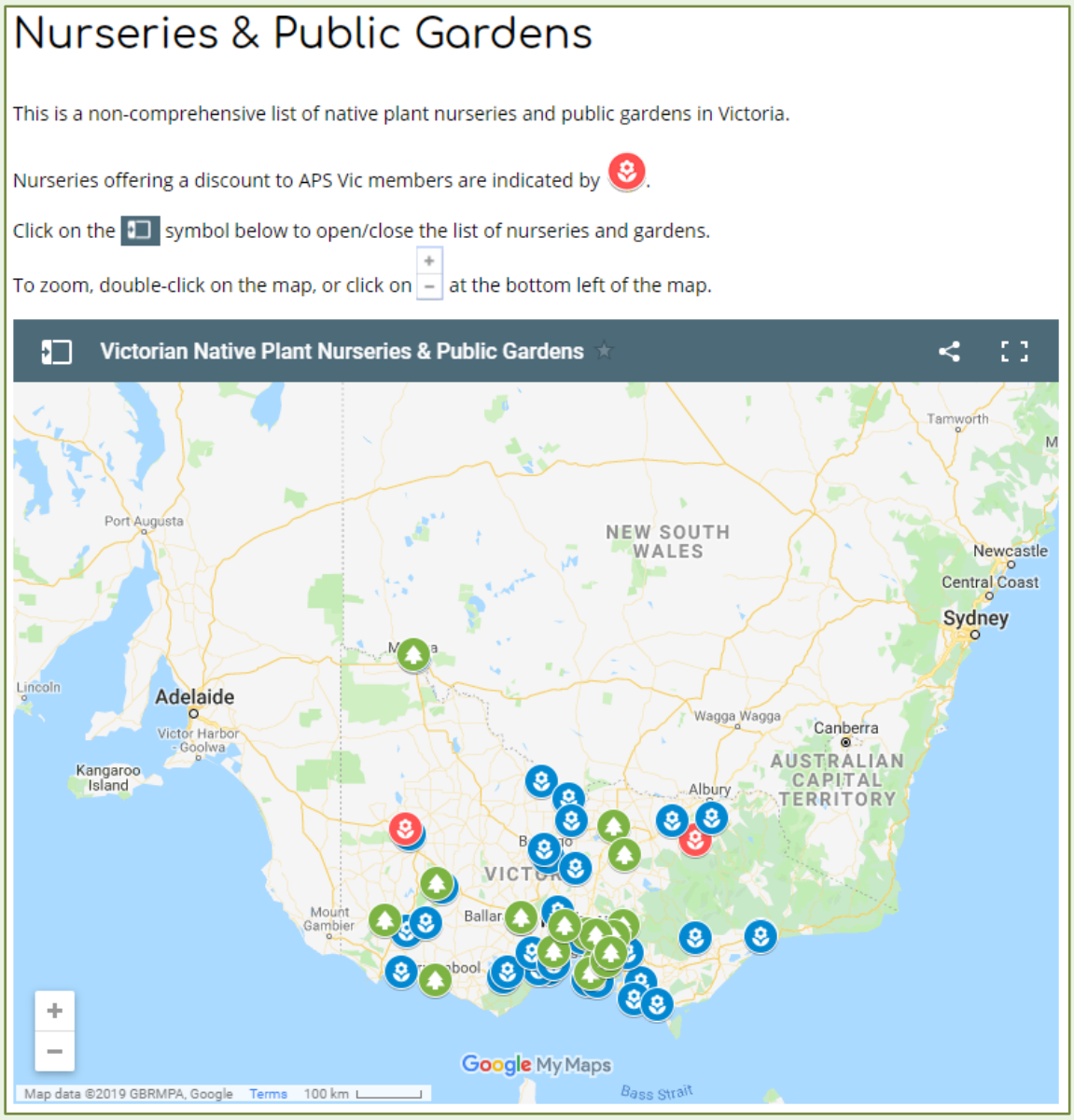
The Bayside Community Plant Nursery grows indigenous plants for the city's parks and greenspaces and is also available for public use. Find out more at: https://www.bayside.vic.gov.au/community-nursery

Shire Nursery

The Shire Nursery is located on the Frankston Mornington Peninsula and grows an extensive range of both native and indigenous plants. They are located near The Briars Wildlife Sanctuary and they welcome volunteers to help with propagation, seed cleaning and sorting, planting, potting, and weeding. They hold an annual free tree giveaway for residents of the peninsula and have many revegetation guides organized by the 7 geographic ranges of the peninsula on their website: https://www.mornpen.vic.gov.au/Activities/The-Briars/Shire-Nursery

Other Nurseries

APS Victoria has a map containing all of the native and indigenous nurseries that they are involved with. It can be found at https://apsvic.org.au/nurseries-and-public-gardens/.



Map of the recorded Nurseries and Public Gardens in Victoria, Australia (https://apsvic.org.au/nurseries-and-public-gardens/)

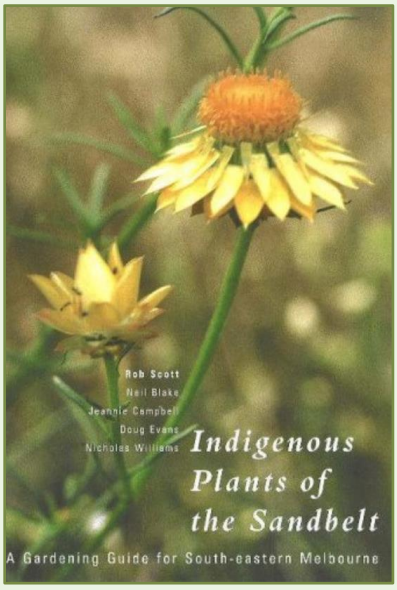
Helpful Resources

Weeds Australia

If you're having difficulty establishing what is and what is not a weed in your garden, look no further than Weeds Australia. This website was launched by the Australian Weeds Committee and is maintained by the Invasive Plants and Animals Committee. On their website, along with helpful identification materials, you will be able to find key weed policies, regulations, current issues, national initiatives, research, extension, training and personnel. Check them out at: https://weeds.ala.org.au/about.html

The Indigenous Plants of the Sandbelt

The Indigenous Plants of the Sandbelt is a book written by Rob Scott, Neil Blake, Jeannie Campbell, Doug Evans, and Nicholas Williams. The Indigenous Plants of the Sandbelt is a practical guide to using the local native plants of the area of Melbourne known as the 'Sandbelt.' The guide also serves as a useful starting point for revegetation and landscape projects. The resource is a wealth of knowledge accumulated by local naturalists and has been useful to many people in starting their own residential gardens. Copies of the book can be bought at the EcoCentre.



Other Guides

Below are just a few other guides that may be helpful when gardening at home or when deciding which plants to use at your local park!

- Water-wise Gardening in North-east Victoria by Australian Plants Society
- Sustainable living in Banyule: A guide for your garden by Banyule City Council
- Live Local Plant Local: A guide to Planting in Nillumbik by Nillumbik The Green Wedge Shire
- Native Plants of Melbourne and Adjoining Areas by David and Barbara Jones
- Flora of Melbourne: A Guide to the Indigenous Plants of the Greater Melbourne Area by Society for Growing Australian Plants
- Melbourne's Wildlife: A Field Guide to the Fauna of Greater Melbourne, Museum Victoria
- Region-specific:
    - Bayside
        - Live Bayside Plant Bayside: Indigenous Plant Guide for Bayside Gardens by Bayside City Council

- Monash
  - Monash Gardens for Wildlife by City of Monash

How To

While professional advice is helpful to any gardening plan, we have compiled a list of basic steps that you can take in order to create your own indigenous garden.

Planning: First, you should consider the remnant vegetation that already exists and whether it is indigenous, which can recruit new plants through natural regeneration. Fencing patches can protect plants from other animals, wild or domesticated. You should select the indigenous plants after considering which species are the most appropriate for your site and why you are planting them.

Site Preparation: Second, you need to consider methods of controlling weed before planting using practices such as pre-planting mulching. Remember that if you are bringing in soil into your site, always use locally obtained soils if possible.

Planting: Prepare the planting hole and give your plants a thorough pre-soaking. Prepare the plants and then the remove the plant from the pot. Lastly, place the plant into the hole and remember to water the plant in well.

For more information, please refer to the book Live Local Plant Local by Nillumbik Shire Council: http://www.hamton.com.au/prospecthill/images/downloads/livelocalplantlocalbooklet2005-1.pdf.

Organizations

State Gardening Organizations

Australian Plant Society Victoria

The Australian Plant Society was established 1957 but Arthur Swaby and has since grown to be Australia's largest horticultural society. There are now 29 district groups across Australia organized into 8 member societies, one being located in each state. There are also 18 study groups composed of those who are dedicated to the study of a particular genus of plant. The closest group is APS Victoria, their goals are to:

- Promote growing Australian plants in home gardens and public places
- Encourage the nursery industry to propagate and supply Australian plants
- Improve Australian plants as garden subjects
- Encourage the recognition and development of distinctive landscape styles and forms using Australian plants
- Encourage and facilitate the conservation and study of Australian plants and their habitats
- Monitor and encourage the strengthening of the laws for preservation of flora

Learn more at: https://apsvic.org.au/about-aps-victoria/

Gardens for Wildlife Victoria

Gardens for Wildlife Victoria was started in 2016 and is a "network of community groups and councils in townships and urban areas supporting each other to involve local residents, schools, and businesses to join us in caring for the native plants and animals of our communities." They serve to promote communication between local governments, community groups, and individuals to share resources, successes, and problems related to their

environmental objectives. They have participants in municipalities across Victoria and are supported by Victoria Department of Environment, Land, Water and Planning Port Phillip and Westernport Catchment Management Authority Andrews Foundation. More information can be found at: https://gardensforwildlifevictoria.com/

National Gardening Organizations

If you are interested in seeing what gardeners are doing across Australia, there are a number of national organizations dedicated to the propagation and cultivation of native and indigenous plants. Check out their links below!

Australian Native Plant Society

The Australian Native Plant Society was established 1957 but Arthur Swaby and has since grown to be Australia's largest horticultural society. There are now 29 district groups across Australia organized into 8 member societies, one being located in each state. There are also 18 study groups composed of those who are dedicated to the study of a particular genus of plant. The main objectives are:

- Encouraging the growing and use of Australian native plants in home gardens, public places and for revegetation projects and rural planting.
- Supporting the nursery industry in the development of better forms of Australian native plants as garden subjects.
- Promoting and supporting the study, cultivation and appreciation of Australian native plants.
- Communicating knowledge about Australian plants through wildflower festivals, publishing, websites, periodicals, CDs, meetings and seminars.
- Protecting Australian native plants in their natural habitats and encouraging the cultivation of endangered species in botanical gardens and other reserves.
- Taking part in decision making by Government departments.

Learn more at: http://anpsa.org.au/info.html

Sustainable Gardening Australia (SGA)

SGA is a national organization that grew from Environs Australia and members of the retail industry and it was officially established on 27 February 2003. It then grew into an incorporated non-profit and was entered into the Register of Environmental Organisations in October 2005, giving it Deductible Gift Recipient status. Their vision is a "healthy biodiverse planet and vibrant sustainable communities." They enact to forward this vision through engagement with community and gardeners, acting according to their own values, and creativity when it comes to gardening practices. They release a free brochure every month and have a very detailed website. More information can be found at: www.sgaonline.org.au

Local Gardening Organizations

Port Phillip EcoCentre

Here at the EcoCentre, we serve as a hub for community engagement in indigenous and sustainable gardening. See this link to our community gardening page to learn more!

https://ecocentre.com/garden

Gardens for Wildlife Melbourne (Bili Nursery)

Gardens for Wildlife Melbourne is a part of Gardens for Wildlife Victoria and works in partnership with Bili Nursery and Landcare to promote the planting of native plant species in order to create habitat for native animals. They are currently seeking community involvement to build this pilot program into the future. An example of their gardening techniques can be found at the Knox Gardens in their Gardens for Wildlife Program. You can get involved by volunteering or following their steps on how to create a wildlife friendly garden. They offer this information and gardening advice at:
https://www.melbourne.vic.gov.au/community/parks-open-spaces/urban-nature/Pages/gardens-for-wildlife.aspx

Bili Nursery also holds a number of workshops that range from native terrarium workshops to another focusing on weaving with local native fibres. Find more at https://westgatebiodiversity.org.au/.

Case Studies

Gill Upton

Gill Upton is a resident of Port Phillip, a teacher of local history, and volunteers frequently at the EcoCentre, having worked with Neil Blake in revegetating the foreshore and other properties. Although Gill used to have a garden with more resemblance to those in the UK, she began using native plants instead, partially because the non-native plants required a lot of water. Now her garden is entirely made of indigenous plants and she does not overly maintain it as she wants it to develop naturally. Apart from a mainstream landscape design course, she does not have much experience in land management but rather gathered the information from the Indigenous Plants of the Sandbelt by Neil Blake, Rob Scott, and others. Gill's main planting strategies, as far as location, considers light exposure, the soil, orientation, and aesthetic. Her plants don't require too much special attention, but she looks at different places to put water for different bird species. There are some tricks she uses occasionally such as giving them diluted seaweed, mulching in the summer and ensuring she plants at the right time of year.

POTENTIALLY

If you would like to contact Gill Upton for more information about residential garden management, please email/call her at the following address/number:

Tamasin Ramsay

Tamasin Ramsay is a resident of Port Phillip and has a significant background in environmental policies having worked for an NGO in the UN, was involved in climate change negotiations, and currently works in the Parliament House as a research and policy advisor. She has volunteered at the EcoCentre several times and provided the team with insight into the management of a residential garden. Her primary source of information in creating the

garden was the Indigenous Plants of the Sandbelt, co-authored by Neil Blake, Rob Scott, and other local environmentalists. Tamasin stated that the book provided all the information that she needed about what plants thrive in her area, what is required to maintain them, and how to structure the garden to enhance the biodiversity of the area in an easy way. She said “I am not a botanist… I am just a person who cares about the environment,” making this book perfect for her work. Tamasin says she uses indigenous garden centers and nurseries such as the Westgate Biodiversity: Bili Nursery. She is trying to have her garden exhibit more habitats requiring some “experimentation to create different areas to establish a bit of an ecosystem.” Bird boxes are not found in Tamasin’s garden with the thought that if the area is built well in a natural way, then wildlife will be attracted to the area.

POTENTIALLY

If you would like to contact Tamasin Ramsay for more information about residential garden management, please email/call her at the following address/number:

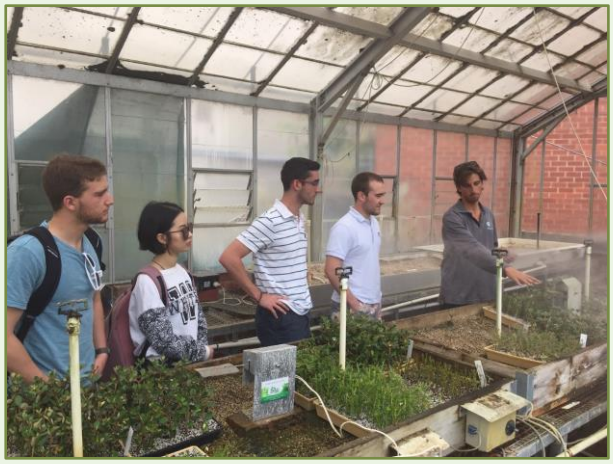
Communication and Outreach

Common Challenges

Community Groups Communication Challenges

Communications with the Public

Many community groups have difficulties reaching out to the public. Often, community groups very small and do not have a large presence in society as it is. Even still, larger groups have difficulties as well. There is a general lack of knowledge of biodiversity amongst the population so people are not aware of the importance of conservation and are unlikely to contribute. Some community groups have been trying to recruit the younger generations as most of the environmental volunteer community are retiring and these experts' knowledge needs to be passed down. However, much of today's society is technologically oriented and lots of people are set in their ways, not looking to change their lifestyle. There are many groups who have had difficulty extending educational programs to local schools due to the strict curriculum. Often, connections with schools are primarily through individual teachers. Sadly, these faculty members can sometimes move, change districts, or retire, making this channel inconsistent for communicating with children. Community groups also face the challenge of obtaining a strong social media and web presence because generally, they do not have the staff members to maintain a constant stream of social media posts and other online advertisements. As previously stated, most volunteers are of the older generation so they tend to be less technologically inclined than younger people. These communication challenges has cause the public, the government, and even other volunteer groups to have no idea that community and Friends groups exist.



Communications with Other Community Groups

Some groups have found difficulties communicating with other community, volunteer organizations. Often, these organizations only conduct their work on a certain park, reserve or other greenspace, and stay within the LGA borders. For some local cities, there are very few Friends groups within their LGA and they do not have access to contacts and information from other Friends groups. Therefore, useful tips, such as planting strategies, public outreach methods, and monitoring practices, are not shared within the community. This lack of communication can lead to difficulties when groups advocate for conservation projects to the government.

Communications with Local Governments

Community groups tend to face challenges when fighting for an environmentally focused project from the government. One major challenge is that city councilors do not have biodiversity as the primary focus of their agenda and therefore do not see the importance of the projects. Some are also unaware that community groups conduct work in the city. This means that some city councilors do not consult Friends groups and similar organizations on any environmental projects they may undertake. Sometimes, community groups are unable to contact the appropriate representative in the government because of the complex hierarchy within the government system. Community groups have found that their small size sometimes causes the government to be unwilling to invest in their project as they are looking for more support. This is challenging because as stated previously, community groups hardly collaborate on a project. Governments often rely on scientific data supporting the project when deciding to invest in a project. Therefore, when community groups do not communicate and share monitoring practices, the city councils will not see the disorganized data as support. Additionally, public support has a strong influence on governmental decisions and if community groups are lacking in public outreach and education, this can lead to difficulties with approaching the government with a project.

Government Communication Challenges

Government to Public

(http://togetherscience.eu/content/1-events/160-bioblitz-phase-2_ngctl/bioblitzflowerlogo-3-675x385.jpg)

There have been several government initiatives towards increasing public awareness of biodiversity and there have been challenges as well. For example, some city council websites have content pertaining to environmental protection but most visitors of the site are looking for other information to address an unrelated problem. While signage in public spaces can be beneficial, many ignore them or do not act on what was presented to them.

Government to Community Group

Interactions between the government and community groups can be difficult at times. Some government bodies look to consult community groups on management practices and look to biodiversity data the group collected over the years. However, some officials have found that some organizations either do not collect data or organize data in a format in which they can use. They cannot use the spare scraps of paper on which smaller organizations have haphazardly recorded fauna data. When they do receive organized data, the format often differs from that of other organizations they have consulted. Thus, it is difficult for government organizations to consult and use the information community groups provide as they must decipher and reorganize the data.

Government to Government

(http://www.waterquality.gov.au/PublishingImages/fb-share-img.jpg)

Although local governments are sometimes aware of biodiversity strategies created in other LGAs, many do not consult one another on environmental protection projects and other related works. In some cases, there is a large gap between the times local governments enacted a biodiversity strategy. Each LGA has its own priorities and landscapes to consider however there is little to no communication about common elements between these areas. This lack of communication is sometimes still the case for projects in greenspaces that border several LGAs. Furthermore, governments do not share useful information or contacts with one another such as successful management practices, helpful community group contacts, or other experts who may help with biodiversity protection.

Residential Gardener Communication Challenges

Communication is just as important to individuals as it is to larger organizations and other people in the biodiversity field. But for individuals with minimal ecological background or for people just starting to build a garden of their own, there can be challenges finding helpful resources and optimizing their space for biodiversity. A lot of people find it hard to discover other people who share similar interests and this is the same for gardeners. Most people, except for the occasional neighbor, are unaware other people are developing biodiversity gardens as they are usually on their private property. Often, the only way gardeners can connect are through gardening groups that bring these kinds of people together. Gardeners often visit nurseries for purchasing plants but are not always aware of similar community groups where they can gain gardening knowledge in a social atmosphere. Sometimes, individuals simply don't know where to look for citizen science and volunteer groups apart from learning by word of mouth.

Effective Solutions

Government Communication Solutions

Government to Public

(http://togetherscience.eu/content/1-events/160-bioblitz-phase-2_ngctl/bioblitzflowerlogo-3-675x385.jpg)

A successful method of raising biodiversity awareness and engaging the public is through big citizen science events. These events such as the Bioblitz and HollowBlitz have people search around the environment, looking for different species, having them directly engaged with the environment. Adding some competition into these programs also attracts people of all ages to join. Teaching people about biodiversity when they are young tends to result in them valuing nature later in life as well. Pushing for more environmental education and related field trips in primary school curriculum will result in more children being inspired to protect the environment in the future. Overall, more advocacy for conservation projects and conducting work in a environmentally friendly way, such as planning more native vegetation or using natural wetlands for stormwater management, will set an example for the public to follow.

Government to Community Group

It is important for the environmentally focussed government departments to be made available for the public to contact. Community groups are already looking for the appropriate department to contact about conservation projects. By prominently sharing the contact information for the correct representative, community groups will easily be able have discussions with the government about projects and share helpful management practice information. Making robust, personal connections with organizations is important as it will help maintain a lasting bond with the group. Consulting known community groups on

conservation projects and using the existing connections to contact similar volunteer groups will provide the government with many channels through which they can receive expert advice. Furthermore, using all these connections, the government can try to assemble all of the Friends groups to collaborate on projects and share information such as monitoring practices. With the government facilitating these connections, there will be fewer discrepancies between citizen science data collections, making the data easier for the government to use for future works.

Government to Government

(http://www.waterquality.gov.au/PublishingImages/fb-share-img.jpg)

Wildlife does not see or care about LGA borders. Therefore, in order to best promote biodiversity and nature within the urban area, local governments must interact with one another. Many local governments have successful biodiversity strategies and implementation plans and while some aspects are specific to land features in the LGA, other parts can be applicable to the entire Greater Melbourne Area. Generalized methods such as raising public awareness, key habitats to promote, and wildlife corridors, can be used in other parts of the city. Having related or equivalent departments from different LGAs in direct contact with each other will optimize the communication efficiency and allow more new ideas to be shared and developed.

Community/Volunteer Group Communication solutions

Communications with the Public

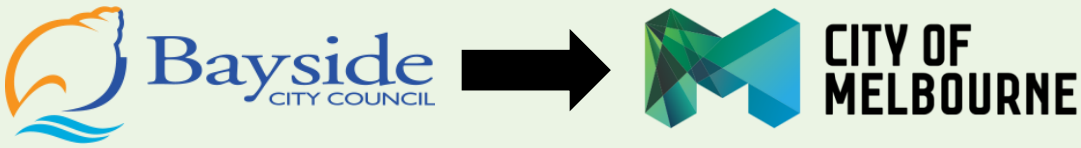
(https://www.berg.org.au/galleries/#bwg1/20)

There have been several successful ways of contacting other similar community groups including social media groups, making personal connections with volunteers, and A great way to reach the public is through social media. With technology very prominent in today's society, it is key to reaching the younger generation. Also, technology makes it very easy to share information or event invitations with a vast number of people and consistently reminds people of events they may be interested in. It is also very beneficial to have the information and workshops as part of primary school education as it incorporates this information into their usual school schedule. The outreach can be geared towards school faculty and administrators so the curriculum can be modified to incorporate biodiversity education and, potentially, on-site field trips. A successful way of keeping people interested in biodiversity is providing them with a hands on, enjoyable experience in nature. These workshops get people out in nature and often have in person conversations with biodiversity experts. Incorporating some competition into the workshops is also effective in capturing the interest of children and adults too. Adding a social aspect to these workshops encourages people to return and interact with other that have similar interests. These workshops can also be geared toward corporations so large companies can have "corporate volunteering" excursions doing environmental work which will attract yet another demographic.

Communications with Other Community Groups

other kinds of forums. For example, the Bayside Environmental Friends Network is a social hub for connecting Friends groups within the City of Bayside and they contributed a lot to the biodiversity changes within Bayside. This network is effective in communicating with a large group of people of similar interests quickly. Some Friends groups use email aliases as well which has proved effective thus far. Additionally, collaboration on projects that are bordering or close to other LGAs helps spread information as well. For example, the Elsternwick Park Nature Reserve project involved work on a greenspace that resided in Bayside but is very close to the City of Port Phillip and Glen Eira which is why the Port Phillip EcoCentre was consulted for this project. This opened a new avenue for communications between Friends groups of different LGAs. These connections allow groups to share information resources and management strategy tips such as monitoring practices.

Communications with Local Governments



It is important to demonstrate to governments the importance of the biodiversity protection which can be done through on-site demonstrations and through scientific data. It is also important to gain as much support as possible, both scientific and public support. This illustrates to the government the gravity of the situation and shows the projects are worth investing in. This means providing organized, concise data that is consistent across many sources therefore standard monitoring practices and communication with other volunteer groups is very important. For more information about monitoring practices, visit Monitoring Practices. It is also important to know which departments to contact for desired information and resources. Visit About

This framework was developed by a team of students from Worcester Polytechnic Institute in Massachusetts, United States in association with the Port Phillip EcoCentre in Melbourne, Australia after four months of research on Melbourne's urban biodiversity. This framework is designed to encourage communication and facilitate connections between stakeholders of urban biodiversity, highlighting some major topics in connecting people with nature, on-site management, and other challenges people have faced.

Using the information and identified connections, more stakeholders will have the information and resources they require to improve biodiversity. This structure can hopefully be used to create a website, or an extension of an existing website, where users can easily access the information they desire. Information gathered from the team's research is used for the framework's base and additional information can be supplied by others in the future. These resources include gardening examples and methods, advertisement and recruitment tips, and contact information for local experts, government environmental departments, and community groups. Some of the provided materials can be used in other forms, such as physical infographics for formal presentations, workshops, and school lectures.

The overall framework can also demonstrate to stakeholders the connectivity between each other's work and highlights the key challenges they can focus on remedying. In the future, this framework can be implemented in various ways and developed into a resource that is user friendly and easily distributed. Giving the public, community groups, or government departments the ability to add information to the resource, as innovative methods are discovered, new information becomes available, and the environment changes

will allow this tool to be flexible and fluid, remaining applicable and relevant as time progresses.

Government Policies for government departments that may help you with your initiatives.

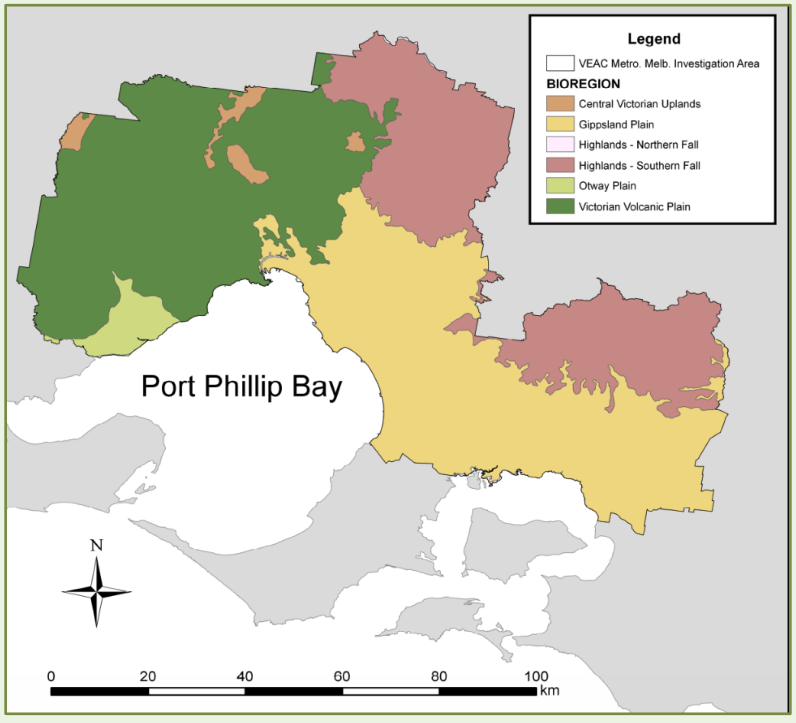
Residential Gardener Communication Solutions

Communication is just as important for the residential gardener as it is for the larger community groups. Talking to other gardeners can be crucial to learning about common problems and their solutions, along with sharing other resources that can aid in planting and species selection. See our list of organizations that you can join and other resources related to residential gardening.

Educational

Biodiversity

Australia is divided into different bio-regions which share common physical and biological features that are used as a broad framework for conservation planning and management. The State of Victoria holds 28 of these regions and Melbourne lies at the confluence of 6 of them, as shown in Figure 1. Most of Melbourne's terrain is flat with mountains to the east, the Dandenong Range, as well as several coastal ecosystems surrounding Port Phillip Bay. In addition, the Yarra River extends through the northeast and many tributaries flow into it from the north (Hahs et al., 2009). As a result, the area now supports 1,864 indigenous plant species and 520 indigenous fauna species, of which 178 and 136 are considered threatened, respectively. This high biodiversity is also resultant of past land practices that "inadvertently favoured many plants and animals" (Ives et al., 2013). For example, land reserved for freeways that has not been used currently hosts a large amount of native species (Ives et al., 2013).



Biolinks

Visit Description and Benefits for information and resources on biolinks.

Funding

Problems

It is difficult starting a community group because there is not very much public awareness of the organization and therefore funding can come from limited sources. Once the organization has some volunteers and workers, projects often have difficulty being funded before it can get off the ground. The amount of funding that is needed drastically depends on what project you are trying to get off the ground. Large scale revegetation projects, that are common to many community and Friends groups, need much more funding than residential gardens or smaller maintenance projects. Therefore, larger projects require more formal types of funding, usually in the form of grants. It is also challenging to convince the public, government, and other funding sources, that the project is worth investing in, particularly if the source is not environmentally focused.

Effective Solutions

While acquiring funding for a particular project can be a rather daunting task, there are a few steps you can take to heighten your chances of success. The most successful sources of funding generally come from grants and corporate volunteers. Below are some strategies that best outline how to interact with these two sources

Grant Writing

A majority of grants have fast turnaround times from announcement to the deadline, therefore it is imperative that a general project write up and references are lined up before looking for grants to applied to. Once the grant is announced, the proposal can be modified to fit the specific requirements and language used in the grant announcement. Generally, you should try to align your goals with that of the organization that is giving the grant. Once the grant is announced, only small edits need to be made before it can be sent in. These tweaks to the application should keep the target audience in mind using keywords that are likely to attract attention or those that are used within the announcement itself. There are a number of organizations that run forums on grant writing and they can be found below. Another way to boost eligibility is to stress the importance of volunteers and how any dollar given to your organization will be multiplied tenfold in the work of volunteers. Accepted applications also tend to be strong, robust, and inclusive of multiple groups. A number of organizations run grant writing forums such as PPWCMA along with other independent groups. You can sign up to receive monthly updates regarding grant from the PPWCMA at https://www.ppwcma.vic.gov.au/what-we-do/grants/.

Applying for Grants

$$$

Grants can be fundamental in raising money for your projects and initiatives.

KEYS TO SUCCESS

Have your project largely written up

Get multiple agencies involved

Involve both the private and public sectors

How to be "Grant Ready"

You can't wait for the grant, you need to be prepared for it. Many grants have short application timelines, so it's important to be prepared to present your project at any time

Get other organizations to advocate for your project and have letters of support ready ahead of time.

Combine a community organization with a governmental or non-governmental organization and involve both public and private land

PORT PHILLIP ecocentre

WPI

VISIT ECOCENTRE.COM FOR MORE!

Corporate Volunteers

Another great source of funding can come from corporate volunteers as some of the most successful groups and strategies receive a majority of their funding from this source. When working with these corporate volunteers, it is helpful to make the opportunity rewarding for your group as well as the volunteers. If the volunteers enjoy themselves while working, there is a much better chance that they return on their own time and volunteer again, independently of their company. Several groups who have been successful in corporate volunteering include the Port Phillip EcoCentre, BERG, and Friends of Westgate Park. For more information about increasing outreach to the public and corporations visit the Communication and Outreach. For more information on how community groups attracted corporate volunteers, contact the groups directly using the following contact information:

Charity

Donations from other outside organizations and the general public is great way to increase funding for startup companies and nonprofit organizations. In order to receive donations, organizations need to increase public awareness of their group and of the work they do. A great way of rallying community support is providing a specific cause for the public to campaign about such as “Save the Penguins!”, “Protect the Cute Sugar Gliders!” or “Save the Sacred Tree!”. People are more likely to contribute to a movement if they know that it will directly affect their lives, they share an emotional connection with the cause, or it has a large presence in in the community. For more information on attracting public participation and contributions, visit link to ABZECO or https://www.acnc.gov.au/for-charities.