Linking fragmented habitat with Pollinator Links

Linking Mt Gravatt Conservation Reserve with Bulimba Creek

Matrix of roads, houses and fences creates barriers to movement of wildlife

- Reduced diversity of birds in backyards – less Fairy Wrens and more Crows
- Less butterflies and bees in backyards
- Increased species loss in isolated patches of bushland – predation, fire, etc

Mt Gravatt Environment Group

My garden is part of a Pollinator Link

Bulimba Creek Catchment Coordinating Committee

Pollinator Links

Linking fragmented urban habitats with backyards.

Objectives

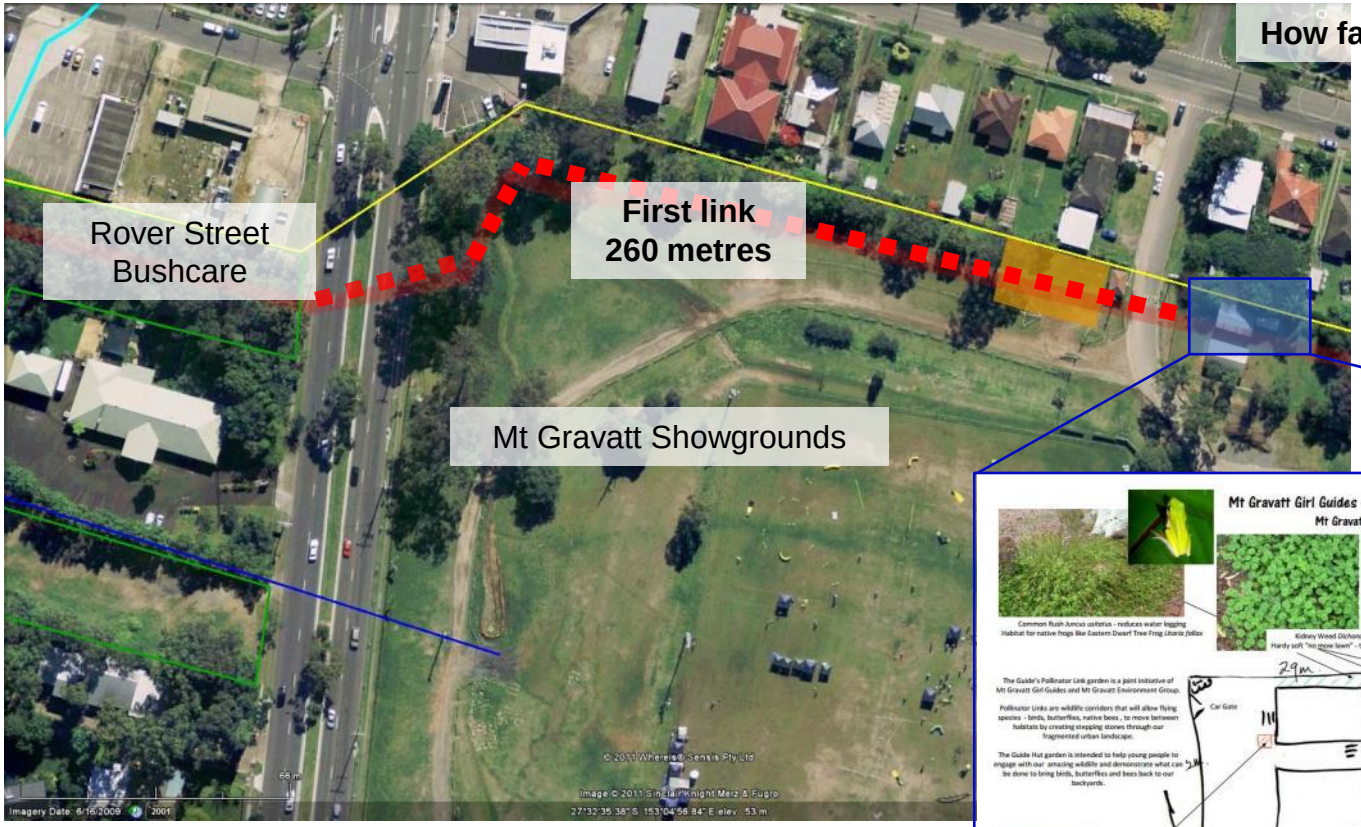
- Empower urban restoration groups to link habitats for a wider range of species.
- Engage a wider base of community members – birds, butterflies and bees in backyards.
- Educate community members about complexity and interdependence of flora - fauna relationships.

Pollinator Link – wildlife corridors for urban habitats

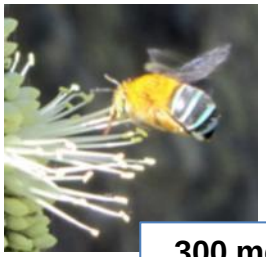
- Pollinator friendly habitat within flight range – Blue-banded Bee - 300 metres
- One in ten properties (10%) will create an effective Pollinator Link
- Pollinator Link gardens – backyards, unit balconies, parks, schools, community groups, businesses
- Certified Pollinator Link garden
    - Food – nectar rich flowers, fruits, seeds and insects, spiders, lizards
    - Breeding – nest-boxes, bee blocks
    - Water – bird bath, frog pond, local creek

Linking fragmented habitat with Pollinator Links

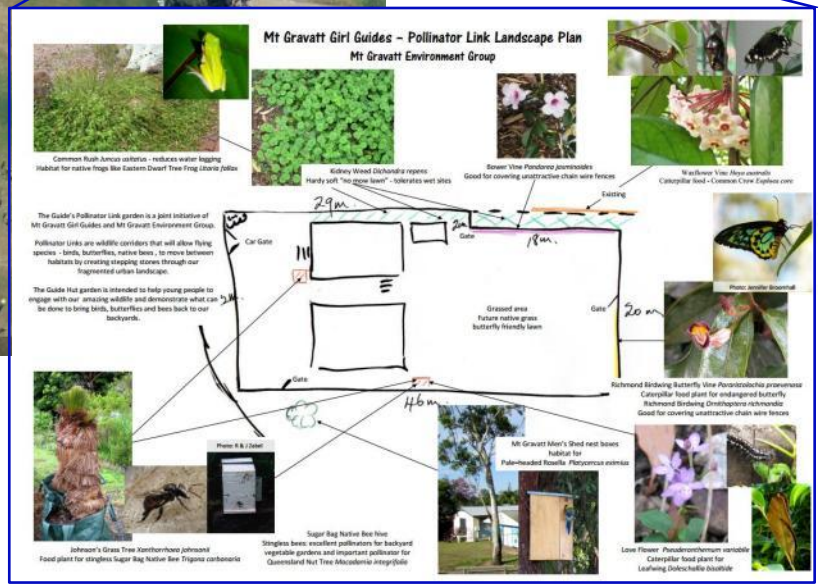
Step 1 - Linking Mt Gravatt Conservation Reserve with Bulimba Creek



How far can a Blue-banded Bee fly?



300 metres



Pollinator Link gardens create wildlife corridors with:

- Food – nectar rich flowers, fruits, seeds
- Breeding – nest-boxes, bee blocks
- Water – birdbath, frog pond, local creek

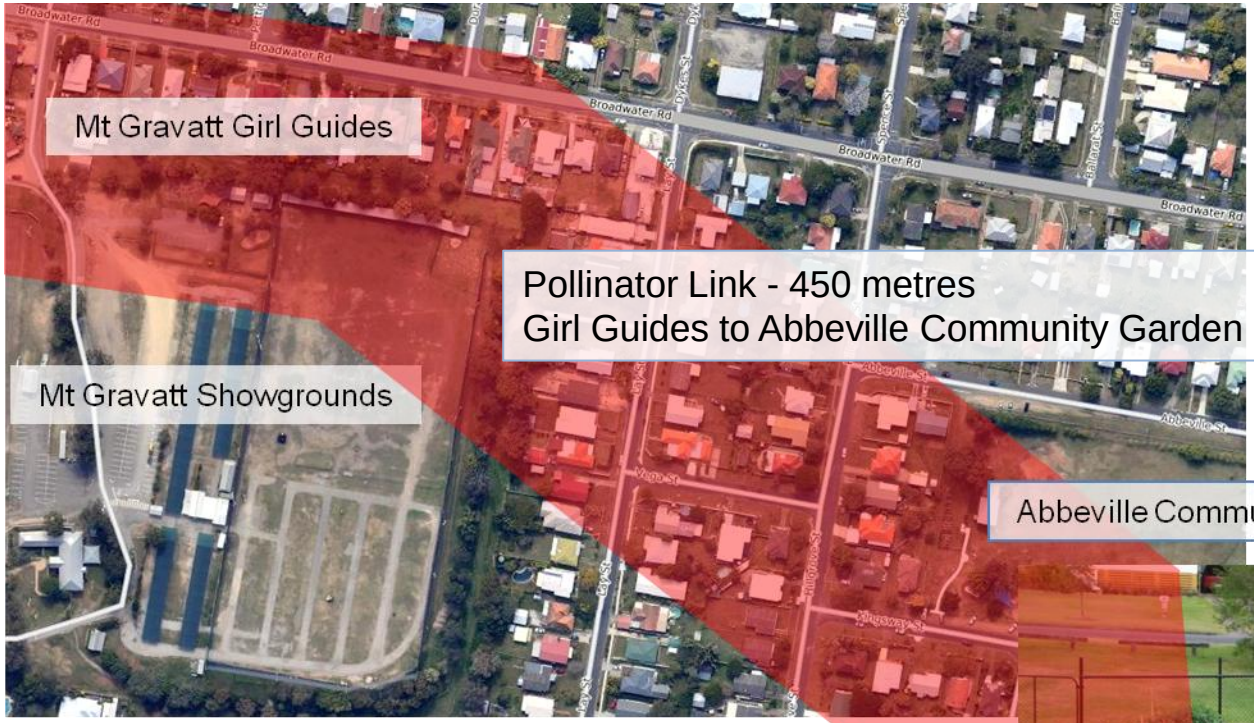
Mt Gravatt Environment Group

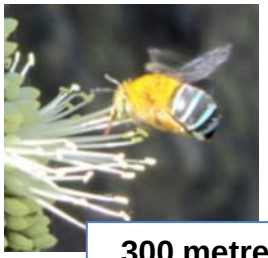
My garden is part of a Pollinator Link

Bulimba Creek Catchment Coordinating Committee

Linking fragmented habitat with Pollinator Links

Linking Mt Gravatt Conservation Reserve with Bulimba Creek





300 metres

Blue-banded Bees provide valuable buzz-pollination of backyard vegetable crops like tomatoes, capsicums and eggplants.
European honey bees cannot buzz-pollinate.

Mt Gravatt Environment Group

My garden is part of a Pollinator Link

Bulimba Creek Catchment Coordinating Committee

Certified Pollinator Link Gardens

Food - What does urban food look like?

Empower community members to take action.

Birds – nectar rich flowers, fruits, seeds and insects, spiders, lizards

Australian King-Parrot
Alisterus scapularis

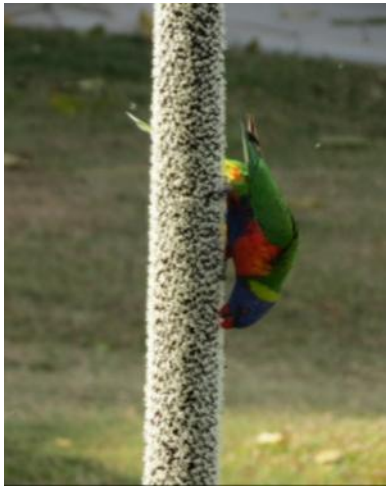
Forages on Acacia seeds like Brisbane Fringed Wattle *Acacia fimbriata*

Black-faced Monarch
Monarcha melanopsis

Forages for insects among foliage, or catches flying insects on the wing.

Photo: A Kittila

Rainbow Lorikeet
Trichoglossus haematodus



Forages on the flowers of shrubs or trees to harvest nectar and pollen, but also eats fruits, seeds and some insects.

Spotted Pardalote
Pardalotus punctatus

Forages for insects among foliage, especially psyllids, and sugary exudates from leaves and psyllids..

Psyllids – tiny sap sucking insects that attack Lillypillys.

Photo: A Kittila

Mt Gravatt Environment Group

My garden is part of a Pollinator Link

Bulimba Creek Catchment Coordinating Committee

Certified Pollinator Link Gardens

Food - What does urban food look like?

Empower community members to take action.

Butterflies – nectar rich flowers

Prickly Pine
Bursaria spinosa

Indigenous to Mt Gravatt Conservation Reserve. Attracts a range of butterflies.

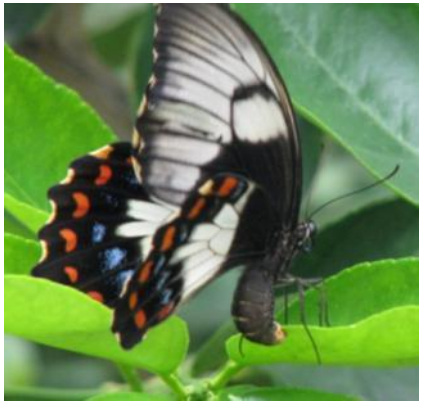
Pink Tongues
Rostellularia adscendens

Small herb indigenous to Mt Gravatt Conservation Reserve.
Orange-streaked Ringlet

Butterfly caterpillars – plant leaves

Orchard Swallowtail
Papilio aegeus

Female Orchard Swallowtail laying eggs on a Lemon tree.
The caterpillars do little damage and the reward is amazing.



Australian Leafwing caterpillar
Doleschallia bisaltide

Feeding on Love Flower *Pseuderanthemum variable* the only food plant for this butterfly.

Mt Gravatt Environment Group

My garden is part of a Pollinator Link

Bulimba Creek Catchment Coordinating Committee

Certified Pollinator Link Gardens

Breeding – simple actions can make a huge difference

Birds

Men's Shed nest-boxes

Pale-headed Rosella
Platycercus adscitus

Hollow breeding birds need man-made substitute homes if we want them to live in our backyards.

Shrubs for safety

Noisy Miner
Manorina melanocephala

Nests often built in shrubbery for safety.

Extra males help feed Noisy Miner chicks.

Bees – bee blocks

Leafcutter Bee
genus Megachile

Solitary female bees nest in holes 5-9mm diameter 150 mm deep

Blue-banded Bee
genus Amegilla

Solitary bees nesting in holes in earth banks.

Bee home by Les Dollin
www.aussiebee.com.au

Mt Gravatt Environment Group

My garden is part of a Pollinator Link

Bulimba Creek Catchment Coordinating Committee

Certified Pollinator Link Gardens

Water - more vital than food

Bird-baths

Rainbow Lorikeet
Trichoglossus haematodus

Shallow water supply safe from cats will be used by all bird species, possums, butterflies and bees.

Local creeks

Blue Triangle
Graphium sarpedon

Butterflies use damp surfaces like rocks and gravel in local storm water drains and creeks to access water.
Blue Triangle on damp driveway.

Natural springs

Indian Rubber Tree – Sept 2012

Permanent spring restored – Feb 2012

Mt Gravatt Environment Group

My garden is part of a Pollinator Link

Bulimba Creek Catchment Coordinating Committee

Building Pollinator Links

Where to from here?

Presentations

- Mt Gravatt Library – Pollinator Link display (September) and workshop (13 September)
- Social media – Pollinator Link blog, Twitter, Facebook
- Newspaper articles

Research/Resources

- Pollinator Link brochure (BCC Environment Grant)
- Research network – Dr K. Hogendoorn, Adelaide Uni
- Database of potential Pollinator Links
    - Habitat groups/contacts/location

Funding

- Grant funding
- Certified Pollinator Link garden scheme
    - Online self-certification
    - Purchase numbered fence sign

2013 Pollinator Link Week

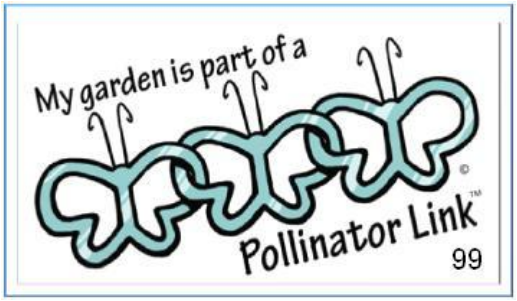
- August – Australia wide

Linking backyard to bush

By Michael Fox
Mt Gravatt Environment Group
www.megoutlook.wordpress.com

The Blue-banded Bee Amegilla cingulata has a limited foraging range of about 300 metres. Historically these bees were native to the whole Bulimba Creek catchment. However, habitat fragmentation caused by urban development means that they are common only in isolated pockets like Mt Gravatt Conservation Reserve.
A native bee, the Blue-banded Bee also provides valuable pollination services for a range of important vegetable crops, including tomatoes, capsicums and eggplants. These crops benefit from buzz-pollination - bees hold onto the flower and vibrate to shake the pollen out, a service that the more commonly known European honey bee Apis mellifera cannot provide.
A high-value species with a limited range, the Blue-banded Bee is a good example of species we need to encourage through establishing Pollinator Links – wildlife corridors for urban spaces. Pollinators including birds, butterflies and bees have some capacity to cross man-made barriers such as roads and fences, so pollinator corridors can be created with backyards and parks forming the links by providing:
food – nectar rich flowers, fruits and seeds;
breeding sites – nest-boxes, bee blocks;
water – birdbath, frog pond, local creek.
We started our first Pollinator Link by landscaping the Mt Gravatt Girl Guide Hut, 260 metres as the bee flies from the Rover Street Bushcare site. The iconic native Grass Tree Xanthorrhoea johnsonii, popular with Blue-banded Bees, is already attracting butterflies. Love Flower Pseuderanthemum variable, a pretty native herb pollinated by Blue-banded Bees, will provide caterpillar food for Leafwing and Varied Eggfly butterflies.
We can hugely increase species habitat by similar selective plantings within our own backyards, creating links for airborne species and as a result our backyard vegetables and flowers will benefit from increased pollination.
Can your backyard become part of a Pollinator Link?

Southside Sport and Community Club www.southsidesportsclub.com.au Issue 1 Sept – Oct '12



Mt Gravatt Environment Group

My garden is part of a Pollinator Link

Bulimba Creek Catchment Coordinating Committee