on the go
with Dan

Let’s hope that autumn welcomes us with some slightly cooler weather after the warm summer just gone by. It’s a great time of year to be out and about whether that be at bushcare, in the garden or escaping to one of the many national parks on our doorstep. In this edition we explore a new site, search for deciduous Australian natives, delve into common garden pests and learn about an elusive native bird.

Dan
Randwick City Council Bushcare Officer

Clovelly Bay Bushcare

We are excited to announce a new bushcare site located on the northern side of Clovelly Beach. The site consists of two bushland zones containing remnant and revegetated areas with a beautiful outlook over the water. The group runs on the second Friday of each month from 9am till 11am.

The meeting location is opposite 8 Eastbourne Ave, Clovelly. Some interesting natives that occur on site include Water Ayssop (*Bacopa monnieri*), Sea Primrose (*Samolus repens*) and Streaked Arrow-grass (*Triglochin striata*). Come along and join us on March 8.

Randwick City Council Nursery Open Day

The nursery is open to the public from 9am until 3pm weekdays. Four times each year the nursery also opens on a Saturday. The next nursery open day will be on Saturday 2 March. Randwick City nursery stocks a large range of indigenous and native plants perfect for our sandy soils and coastal conditions. Horticultural staff will be on hand to assist you with plant selection, provide tips on sustainable and habitat gardening practices and answer all other gardening enquiries.

WHEN: 9am to 4pm on Saturday 2 March
WHERE: 2B Barker Street, Kingsford

Discovery of Birds
(Free Workshop)

Take a tour of Randwick Environment Park and learn how to create suitable habitat for birds using plants, ponds and other elements. Ideal for anyone with an interest in learning more about ecology and how to identify and attract small birds to their garden.

Bookings essential: www.cec.edu.au/course/discoveryofbirds
WHEN: 9:30am to 1pm on Wednesday 20 March
With slightly cooler temperatures being brought on by the beginning of autumn, you might notice a lot of autumn colours starting to appear in botanic gardens and local parks that have exotic trees in them. The sight is so common in northern Europe that the Sami languages even have a word for it, ‘Ruska’. This refers to the process of leaves turning various shades of red, yellow, purple and brown in preparation for winter. So this raises the question, where are all the deciduous Australian natives?

Australia has relatively few compared with the northern hemisphere. Most deciduous trees in Australia, such as the Red Cedar (Toona ciliata), White Cedar (Melia azedarach) and Boab (Adansonia gregorii) live in tropical or subtropical regions, where they lose some or all of their leaves in preparation for the dry season. This is different to deciduous trees in temperate areas, which lose their leaves in the lead-up to the cold season.

Australia has just one true temperate deciduous native tree – the Deciduous Beech or Fagus (Nothofagus gunnii) in Tasmania, which puts on a stunning autumn display before dropping its leaves in anticipation of cold winter weather. Some Australian trees can be partly deciduous in that they may lose foliage on half or more of the tree just before flowering, while retaining it on the other half. The Illawarra Flame Tree (Brachychiton acerifolius) is the best known example of this and it can sometimes be observed on the Silky Oak (Grevillea robusta).

Plants with deciduous foliage have advantages and disadvantages compared to plants with evergreen foliage. Since deciduous plants lose their leaves to conserve water or to better survive winter weather conditions, they must regrow new foliage during the next suitable growing season. This uses resources which evergreens do not need to expend. Evergreens suffer greater water loss during the winter and they also can experience greater predation pressure, especially when small. Losing leaves in winter may reduce damage from insects, while repairing leaves and keeping them functional may sometimes be more costly than just losing and regrowing them.

In most parts of the world deciduous trees get a clear message from the environment – in the form of day length, temperature and moisture – about when to lose their leaves. But in Australia, plants have evolved in a much more variable climate. Good growing conditions can happen at any time of year – and that makes it smarter to be an evergreen ready to jump into action the minute they appear.
Spot the difference

Sometimes we come across plants with similar habits that are very difficult to tell apart. Below we delve into two common groundcovers that are often mistaken for one another. One is a delicate native and one is a fast-growing weed that can choke up understoreys and creek lines.

**Native**

*Commelina cyanea*

Scurvy Weed

A weak prostrate creeping plant with fragile blue flowers, common throughout the area in moist shady places. When not flowering it is very similar to Tradescantia but always has smaller, less crowded leaves. The young shoots can be cooked as a green vegetable.

**Range:** NSW coast and ranges, and Queensland.

**Leaves:** soft, hairless, crisp and watery, usually folded and with wavy margins, arising from a closed sheath at the base, mostly 2-4 cm long.

**Flowers:** 3 petals 12 mm long and about 15 mm wide, fragile, rich blue, with yellow anthers, a few arising from a folded green spathe.

**Flowering time:** warmer months of the year

**Weed**

*Tradescantia fluminensis*

Tradescantia or Trad

A weak but vigorously spreading succulent creeping plant with white flowers. Widespread throughout the area in moist, sheltered places. It is very intrusive in bush gullies near habitation, often swamping native vegetation. Common in gardens. A native of South America. Can cause skin irritation in humans and animals.

**Range:** NSW coast and Blue Mountains, Victoria and South America.

**Leaves:** soft, crisp and watery, rather oblong. Glossy, succulent dark green colour occasionally with purplish stems.

**Flowers:** 3 spreading petals 7-10 mm long, white, fragile, in terminal clusters protected by broad, leafy spathes.

**Flowering time:** warmer months

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**In Summary**

- *Commelina* has blue flowers while *Trad* has white flowers.
- The leaves of *Commelina* are more sparsely spaced along the stem in comparison to *Trad*.
- The leaves of *Commelina* are slender and dull in comparison to the oblong and glossy leaves of *Trad*.
- The leaf sheath found in *Commelina* is not found on the weed *Trad*. 

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*Comparison of the leaves of Trad (Tradescantia fluminensis) on the left, and Commelina (Commelina cyanea) on the right.*

© Sheldon Navie

*Note the narrow, slightly folded and sparse leaves*

*The differences are more noticeable when we pull them apart*
A garden bursting with biodiversity is a wonderful place to be. Beneficial insects and invertebrates in the garden perform vital roles such as pollinating, composting and even keeping pests under control. A small number of insects and invertebrates cause damage to plants and below is our list of the top 10 pest offenders in the garden. Where possible, we have suggested non-chemical solutions for these pests. Where chemical solutions have been suggested, we have chosen those with the least impact on other organisms.

1. **Aphids**

Aphids are small sap-sucking insects that gather in groups on young shoots. The aphids excrete a sweet substance called honeydew which attracts ants, that protect the aphids from attack by other insects, and black sooty mould, an unsightly mould that can cover the leaves and branches.

The symptoms of aphid attack include wilting and sometimes deformity of new shoots and leaves. The presence of ants and sooty mould can indicate an attack but can also indicate attack by scale or other sap-sucking pests.

Small aphid infestations can be squashed by hand or hosed off, but larger infestations may need to be sprayed with a soap solution. Ladybirds and lacewings both predate aphids. Grow plants such as marigolds, coriander, dill and fennel to attract these beneficial insects to your garden.

2. **Borer**

Borers are generally weevil, beetle or moth larvae that tunnel into the stems, trunks and sometimes roots of a wide range of plants, including *Callistemon*, *Grevillea* and *Banksia* species.

Indications of borer attack include dieback and collections of resin and a substance called frass, the woody excreta of the borer. Where larger trees have been attacked, it is important to remove dead or damaged branches.

Borers can sometimes be killed by poking a piece of soft, flexible wire into the hole, or squirting a kerosene or soap solution into the hole. This forces the borer out, where it can be killed, however a better strategy is to maximise plant health. Borers mainly attack weak, damaged or unhealthy plants, so improving plant health through regular watering and feeding will help prevent attack.

3. **Bronze Orange Bug**

Bronze Orange Bug can cause serious damage to lemon and other citrus trees. The bugs suck sap and cause shoots to wilt and die and flowers and fruit to fall.

The young bugs, called nymphs, are pale green and appear in winter. Their colour changes to orange and then bronze as they age. The nymphs can be sprayed with a soap spray which you can make yourself or buy commercially. The adults can be knocked into a bucket of hot water but wear goggles, gloves and a long-sleeved shirt as they squirt a caustic fluid.

4. **Caterpillars**

Caterpillars are the larvae of moths, butterflies, beetles and wasps. A bad infestation can defoliate a tree or a plant. The key to minimising damage is early detection. It is useful to know what caterpillar you are dealing with so you know when it is likely to be active. The lily caterpillar, for instance, which can strip the native Swamp Lily, is more likely to occur in warm, humid weather.

Caterpillars can be hand removed; wear gloves as some caterpillars have stinging or irritating spines or hairs.

Many caterpillars can be treated with pyrethrum-based sprays, which kill on contact and break down in sunlight. Other products, such as Dipel, are based on a naturally occurring bacteria that interferes with the caterpillar’s digestive system but is not harmful to bees or other beneficial insects. It is a non-contact pesticide, so the caterpillar doesn’t have to be present when you spray. The powder is mixed with water and sprayed on the plant, then the caterpillar ingests the bacteria when it eats the leaf.

5. **Curl Grub**

Curl grubs are the larvae of scarab beetles that are found in the soil and feed on the roots of a wide range of plants, including grasses. Unfortunately the first indication of curl grub is often
the death of the plant, which can occur quite quickly. Where the grub is in a pot, the pot can be submerged in a bucket of water for 24 hours. When planting or digging in the garden, if you come across curl grubs, remove these by hand. Soil drenches are available for a severe infestation in the garden.

6. Mites

Mites are in the same family as spiders and one indication of their presence is webbing on the underside of the leaf. The tiny mites are easier to see with a hand lens or microscope. The mites pierce the leaf cells and suck out the contents, leaving the top of the leaves silvery and mottled.

Mites have an extremely short life cycle and have become resistant to a wide range of miticides. They can be sprayed with a pesticide such as Natrasoap and predatory mites (available commercially) have been found to be highly effective. Ladybirds will also predate mites.

7. Psyllids

Psyllids are a small insect related to the cicada that commonly attack lilly pillies such as the Brush Cherry (*Syzygium paniculatum*) and the Weeping Lilly Pilly (*Waterhousea floribunda*). To treat psyllids you can prune off affected foliage which is often the softer, newer leaves. The best way to deal with psyllids is to grow one of the many lilly pillies that are not attacked or are highly resistant to psyllids. Lilly pillies in the genus *Acmena* and many other *Syzygium* are not attacked.

8. Thrips

Thrips appear in mid to late summer and attack the lower surface of leaves first. Signs of their presence include a silverying of the leaves and distortion of shoots and other growing points. In addition, they excrete a reddish fluid that gradually turns brown-black and can eventually cover both surfaces of the leaf.

Treat using a soap spray, spraying again after 10 days to control newly hatched ‘nymphs’. Adult thrips can be found in leaf litter so cleaning up garden waste can help control this pest. Predators include ladybirds and lacewings.

9. Scale

There are two main types of scale: soft scale and hard scale. Both scales appear as small rounded bumps on the stems or leaves of plants. The insect lays its eggs under the 'bump' and immature scale ‘crawlers’ emerge.

The hard scales do more damage and are more difficult to control. However, the soft scales excrete large quantities of honeydew, which attracts ants and unsightly sooty mould. With the soft scales, controlling the ants - applying a grease band around the trunk, for example, will allow birds and insect predators such as ladybirds to help control the pest.

In the early stages, many scales can simply be rubbed off. The best time to spray scales – hard and soft – is when the crawlers emerge, mainly mid-summer. Use horticultural oil or a soap spray.

10. Slugs and Snails

Slugs and snails can cause serious damage to young plants. Look for chewed leaves and their distinctive silvery trails.

Hand remove, preferably with a torch at night, or use a small amount of beer in a container to trap and drown slugs and snails. Alternatively, sprinkle sawdust, coffee grounds, egg shell or wood ash around plants to deter the pests.

Controlling weeds and removing places where slugs and snails can shelter such as upturned pots will help to control numbers.


Next issue: The top 10 weeds
## Working Bee Calendar

### bushcare

<table>
<thead>
<tr>
<th>GROUP</th>
<th>LOCATION</th>
<th>DAY</th>
<th>TIME</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clovelly Bay</td>
<td>Designated car parking spaces opposite 8 Eastbourne Ave, Clovelly</td>
<td>Friday</td>
<td>9.00am – 11.00am</td>
<td>8</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Fred Hollows Reserve</td>
<td>Bligh Place entrance, Randwick</td>
<td>Wednesday</td>
<td>9.00am – 1.00pm</td>
<td>13</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Gordons Bay</td>
<td>Access via UNSW Cliffbrook Campus Grounds, 45 Beach Street, Coogee</td>
<td>Sunday</td>
<td>9.00am – 1.00pm</td>
<td>10</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Grant Reserve</td>
<td>Vehicular entry to Coogee Surf Life Saving Club</td>
<td>Wednesday</td>
<td>8.00am – 10.00am</td>
<td>20</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Ladies Pool</td>
<td>McIvers Rock Baths, Grant Reserve, Coogee</td>
<td>Sunday &amp; Thursday</td>
<td>8.00am – 10:00am</td>
<td>3 and 21</td>
<td>7 and 18</td>
<td>5 and 18</td>
</tr>
<tr>
<td>Lake Malabar</td>
<td>End of Manwaring Avenue, Maroubra</td>
<td>Wednesday</td>
<td>12.00pm – 3.00pm</td>
<td>20</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Long Bay Foreshore</td>
<td>Corner of Howe Street and Bay Parade, Malabar</td>
<td>Saturday</td>
<td>9.00am – 1.00pm</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Marouba Dunes</td>
<td>South Maroubra SLSC car park</td>
<td>Thursday</td>
<td>9.00am – 1.00pm</td>
<td>7</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Prince Henry</td>
<td>Alternate between opposite 2 Millard Drive &amp; the corner of Jennifer and Harvey Streets, Little Bay</td>
<td>Saturday</td>
<td>9.00am – 1:00pm</td>
<td>9</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Randwick Environment Park</td>
<td>Corner of Dooligah Avenue and Burragulung Street, Randwick</td>
<td>Wednesday &amp; Saturday</td>
<td>9.00am – 12 noon</td>
<td>5 and 15</td>
<td>3 only</td>
<td>1 and 18</td>
</tr>
<tr>
<td>Wylies Baths</td>
<td>At the picnic tables above Wylies Baths, Neptune Street, Coogee</td>
<td>Tuesday</td>
<td>9.30am – 11.30pm</td>
<td>12 and 26</td>
<td>9 and 23</td>
<td>14 and 28</td>
</tr>
<tr>
<td>* Little Bay Landcare</td>
<td>Between 119 and 121 Bilga Cresent, Malabar. Contact Kerry Gordon on (02) 9311 7647 for more information.</td>
<td>Saturday</td>
<td>8.00am – 12 noon</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

* Magic Point (Malabar Headland) | Contact Claire Bettington on (02) 9344 8589 for the meeting place. | Thursday | 9.00am – 1.00pm | 14, 21, 28 | 11, 18, 25 | 9, 16, 23, 30 |

* Malabar Headland West | Contact Don Kerr on (02) 9311 2665 for the meeting place. | Sunday    | 9.00am – 1.00pm  | 3, 10, 17, 24, 31 | 7, 14, 21, 28 | 5, 12, 19, 26 |

* Denotes non-council-run groups. Please contact organisers directly.

### parkcare

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<tbody>
<tr>
<td>Alison Road</td>
<td>Corner of Alison Road and Beach Street, Coogee</td>
<td>Wednesday</td>
<td>8.00am–10.00am</td>
<td>27</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>Clyde Street</td>
<td>Clyde Street Reserve, Randwick</td>
<td>Saturday</td>
<td>1.00pm–3.00pm</td>
<td>16</td>
<td>Easter</td>
<td>18</td>
</tr>
<tr>
<td>Old Tramline</td>
<td>Dudley Street entrance, Randwick</td>
<td>Thursday</td>
<td>8.00am–10.00am</td>
<td>14</td>
<td>11</td>
<td>9</td>
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Buff-Banded Rail
(*Gallirallus philippensis*)

**Description**
The Buff-Banded Rail is a medium-sized stout rail with short legs. It has a distinctive grey eyebrow and an orange-brown band on its streaked breast. The lores (region between eyes and nostrils), cheek and hind neck are a rich chestnut colour. The thin chin and throat are grey, the upper parts streaked brown and the under parts barred black and white. The eye is red. Young birds are much paler to white underneath, with indistinct bars and only a faint orange-brown tint on the breast. Young chicks are fluffy black. This rail walks slowly, with tail raised and flicking constantly.

**Distribution**
Widespread in mainland Australia, particularly along the eastern coast and islands, including Norfolk and Lord Howe Islands. It also occurs in Southeast Asia, New Guinea and New Zealand.

**Habitat**
Seen singly or in pairs in dense reeds and vegetation bordering many types of wetlands or crops. It makes widespread use of artificial wetlands like sewage ponds and drainage channels.

**Feeding**
The Buff-Banded Rail feeds on crustaceans, molluscs, insects, seeds, fruit, frogs, carrion and refuse. It mostly feeds early in the morning and the evening.

**Breeding**
Mating habits are poorly known, but they usually nest in long grass, tussocks, rushes or crops. It makes an unlined cup-shaped nest of grasses or reeds. Both parents incubate and the young will leave the nest within 24 hours. Both parents remain with the young, which usually feed themselves, though the female may feed them as well. Two broods may be raised in some seasons.

**Behaviour**
These birds are secretive but not shy, darting into cover when disturbed. If the adults give an alarm call the young will scurry into cover. Their call is a loud creaky squeak when breeding but usually silent.

- Average size: 31 cm
- Average weight: 130 g
- Breeding season: September to February
- Clutch size: 5–8 eggs
- Incubation: 19 days
- Nestling period: 1 day

Information sourced from www.birdsinbackyards.net

Stinkhorns

Stinkhorns come in a variety of forms; however, all emerge from an egg-like structure. Spores are borne in a foul-smelling and slimy substance. Flies and other insects are attracted to this and act as spore dispersal agents.

Starfish Fungus (*Aseroë rubra*)

*Aseroë rubra*, usually known as Starfish Fungus or Anemone Stinkhorn, is a common native that is very easily recognised by its bright red colour, foul odour and strange form, which consists of 4–9 radiating pairs of arms which taper toward the tips and are often twisted. It grows to around 10–15 cm and its surface is coated in a brown, foul-smelling slime that surrounds the central hole into the stem. The smell of the slime attracts flies and other insects, which in turn, spread the spores as they feed. Starfish Fungus is often found in gardens, parks, lawns and in the bush, where it prefers a substrate of woodchips or rich organic soil. They appear singly or in groups from late spring to early winter. This was the first fungus officially recorded for Australia, on 1 May 1792, from Recherche Bay in Tasmania, just south of Hobart.

Information sourced from a guide to the common fungi of coastal New South Wales by the Department of Primary Industries
Native plant of the moment

Lance-leaf Crowea (Crowea saligna)

A small, erect shrub usually less than 1 m high, found in dry, sandy forest under the shade of taller shrubs. Moderately common around Sydney. Crowea belongs to the Citrus family, Rutaceae, which means they have interesting scented foliage that compliments their striking autumn and winter floral displays. Croweas have beautiful waxy star-like flowers that last particularly well on the plant as the petals hang on long after the flower has been pollinated.

Range: confined to the Sydney area

Leaves: shiny, on very angular branches. 3-6 cm long by 4-13 mm wide

Flowers: rich rose-pink, axillary, solitary, petals 12-15 mm long

Flowering time: January to June

Nature’s Temples – The complex world of old-growth forests by Joan Maloof

An evocative and accessible exploration that offers an introduction to the importance and wonder of old-growth forests.

An old-growth forest is one that has formed naturally over a long period of time with little or no disturbance from humankind. They are increasingly rare and largely misunderstood. In Nature’s Temples, Joan Maloof, the director of the Old-Growth Forest Network, makes a heartfelt and passionate case for their importance. This evocative and accessible narrative defines old-growth and provides a brief history of forests. It offers a rare view into how the life forms in an ancient, undisturbed forest — including not only its majestic trees but also its insects, plant life, fungi and mammals — differ from the life forms in a forest manipulated by humans. What emerges is a portrait of a beautiful, intricate and fragile ecosystem that now exists only in scattered fragments. Black and white illustrations by Andrew Joslin help clarify scientific concepts and capture the beauty of ancient trees.

Information sourced from CSIRO publishing

Key app features:

Downloadable maps
• Download a park before you go, then navigational GPS functionality allows you to view information and maps even without internet access.
• Use the map to locate parks, trails, things to do and places to stay.

Discover things to do
• Explore activities and attractions like a local.
• Find things to do that are close to your current location.
• Plan ahead using information about distances, accessibility and facilities.

Find places to stay
• Locate campgrounds, caravan sites, cabins, homesteads and cottages in national parks.

Find parks nearby
• Use your location to find national parks closest to you.
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