



ASC Students Hard at Work Helping the Environment



ALL SAINTS' COLLEGE – BULLCREEK WETLANDS PROJECT - YR 8

Weed Identification



- Blackberry
- Sydney Golden Wattle
- Couch Grass
- Bracken Fern
- Arum Lily

Blackberry

Rubus Fruticosus



- Blackberry is a weed and a problem in the Bullcreek Wetlands area. One berry may contain as many as 80 seeds which are easily spread by birds, mammals (especially foxes) and water. The plant can spread up to 13,000 seeds per square metre. Blackberry roots can be spread to clean areas by cultivation. This is a problem because it grows too rapidly for the native plants to survive and is hard to stop.
- Blackberry has been left to grow uncontrolled and has had quite an impact on the natural environment of the Bullcreek wetlands. Its rambling nature and prickly growth restricts access to water for native animals. It provides food and shelter for pest animals such as foxes which eat our native animals. Other impacts are increased fire hazards caused by the large amount of dead material from the blackberry. It grows very quickly and its spreading growth pattern smothers the fertile land where the indigenous plant species would normally grow.
- Blackberries are not poisonous to humans or animals but if the blackberry gets sprayed with poison to kill it and if it is eaten by humans or animals, they could get sick and die.

Hopefully our school can help make a difference by helping to slowly eliminate blackberry in our area.

BLACKBERRY



Sydney Golden Wattle

Acacia longifolia

The Sydney Golden Wattle is a tree that originally came from the Eastern States. It has been introduced to Western Australia, and because it is fast spreading and tough, it has become a weed, dominating our creek and swamp areas. The Sydney Golden wattle spreads across the bushland by seed. The birds eat the seed and deposit them through their droppings. The seeds of the wattle also spread easily by getting blown in the wind and carried along in the water. This way of germinating is extremely effective which means it causes a lot of problems by spreading quickly. The wattle is also such a nuisance because it is a very hard wearing plant and hard to kill off completely as the seed will stay in the ground for a long time. The wattle kills the native plant life by growing over the species blocking out light and sun. It also uses up valuable water resources. This can lead to the extinction of our local species.

We expect the Sydney Golden wattle arrived in the Bullcreek wetlands area through bird droppings and the wind carrying seeds from parks and gardens.



SYDNEY GOLDEN WATTLE



Couch Grass

Agropyron repens L.

- Couch grass was introduced into Australia. Couch grass is commonly used as a lawn in people's yards and as ovals in schools and public parks. We expect some of the seed and roots have come to Bull Creek from the school oval. Couch grass spreads by seeds and rhizomes. The leaves are seen as narrow, flat bluish-green leaves that are finely pointed and area hairy on the inner surface and rough at the edge. Flowering normally occurs in late June & July and seeds will drop in September. Seeds may be dormant in the ground for 2 to 3 years. The roots are long yellow-white and fibrous. Roots can grow as much as 2 metres in a single season which shows how easily it spreads.
- Couch grass is spread by animals by it getting caught in their hair, by wind, by humans walking on it and catching the seed in their shoes and birds moving the seeds. Couch grass is also eaten by cats and dogs and when they release their waste products it contains seeds which begin to grow in that area. Unless it is regularly sprayed and removed its ability to spread in so many different ways makes it a huge problem.
- The roots of the plant are said to release a substance which inhibits the growth of other plants. This also helps it to exist and spread. It has tough roots which makes couch grass difficult to control.



Its spreading nature allows it to quickly cover the banks of creeks and this stops turtles and rainbow bee eater birds being able to dig and lay their eggs in the area. If we don't do something about the couch eventually they will find somewhere else to go. We need to control this weed so it doesn't affect our natural environment as this affects the native plants animals. If we work together to control common weeds we will enjoy the growth of the natural environments and the return of native plants and animals.

COUCH GRASS



Bracken Fern

Pteridium esculentum

Bracken Fern originally came from Tasmania and is now a major weed problem in bush land, along creeks and in paddocks in Western Australia. As it looks like a garden fern this maybe how it came to be in our state. It spreads by rhizomes sending out new shoots and by spores which are found on the back of the fronds. In summer, dead bracken fern is highly flammable and could fuel a fire which would damage the habitat of many native animals killing or maiming them also. Its leaves cover a large portion of the ground, not allowing plants underneath it to receive much sunlight. It is therefore a threat to plants native to the area.

- Bracken Fern is poisonous to many animals.
- It is still only a minor problem in the area we are rehabilitating and with constant removal we will manage to eradicate it entirely.



BRACKEN FERN



Arum Lily

Zantedeschia aethiopica



- The Arum lily is one of many weeds that have been identified in the Bull Creek. The Arum lily is a member of the Araceae family. The Arum Lily is found in bushlands and creeks all over Western Australia. It is only considered a pest in Western Australia and not in other states.
- Arum Lily is a robust, dark green, succulent plant. The leaf stem is long and smooth, the leaf blades are long and fleshy and the flower is white and tubular. Flowering takes place in spring.
- The Arum Lily was first introduced to Western Australia from South Africa, where it was a garden plant. It was introduced into Western Australia and has now become a weed. Although still being sold as a garden or pot plant, it is now one of the most widespread noxious weeds.
- The Arum Lily is rapidly decreasing the growing area for our native plants, choking them out, and is using up water supply. This causes extinction of native plants making the takeover of Arum Lilies a major impact on our natural environment.
- The Arum Lily is quite harmful as it has been proven that it causes eczema to humans. It is also toxic to animals which is good reason for it to be pulled from all creeks in W.A.
- The Arum Lily is spread by the seed dropping and birds collecting them and spreading them. It can also be spread by bulbs multiplying and spreading.

ARUM LILY

Zantedeschis Aethiopica



The Management strategy to control identified weed(s)

- Identify the weeds from the endemic plants
- Break the area into small, workable plots working from the top end of the creek down
- Use roundup to spray weeds on the outer area, eg blackberry and couch as this is an accepted herbicide
- Dig out bracken fern, blackberry, couch, arum lilies always trying to get the roots or bulbs
- Put them in bags to be taken away for burning
- Cut down the Sydney Golden wattle and put through the wood chipper to make mulch for use later to further suppress weeds. Paint the stumps with roundup to stop regrowth
- Continue to revisit the weeded areas to pull out regenerating seedlings. Paint or spray with roundup specific weeds that can't be pulled out
- Replant with local endemic species with seed collected from the area as soon as possible to reduce erosion and stop weeds growing
- Ask for physical help and advice from the community
- Conduct regular busy bees
- Educate the community to care for the area and to control garden plants that are in danger of becoming weeds
- Most importantly DON'T GIVE IN – perseverance will make a difference



The Merits of Our designed weed management strategy

- Digging up plants where possible instead of spraying or burning or using heavy machinery will reduce damage to the area and eradicate the weeds
- Using roundup is the safest herbicide spray
- Using a wand or paint poisoning specific weeds will prevent killing or damaging nearby plants and waterways
- Continuously returning to already weeded areas to reweed will stop outbreaks of weeds in the future
- Replanting with indigenous plants will suppress weeds and help bring back the natural environment
- Once the weeds have been eliminated the indigenous plants of the area will have more chance of germinating and growing naturally
- Replanting sedges along the creek will improve water quality, encourage water creatures to live in the water and allow us to replace the natural freshwater crustaceans
- Native animals will return to the area
- The Rainbow Bee Eater will be able to return to nest in the sand once the couch is removed
- Turtles will be able to live in the area and nest in the sand
- Schools will be able to visit the area and study the natural environment
- By including the community to assist us we will be educating them to care for the area
- We will have learned to care for and love our natural environment

STUDENTS AT WORK









Students
preparing
pots for
seed
planting.



Planting the
seed in
small pots.





Fertilising, naming
and watering the
seeds.



BIBLIOGRAPHY

- Hussey, Keighery, Cousens, Dodd & Lloyd, 1997, Western weeds: a guide to the weeds of Western Australia, The Plant Protection Society of Western Australia, Victoria Park.
- Hussey, BMJ & Wallace, KJ, 1993,2003, Managing your bushland, Department of Conservation and Land Management, Kensington.
- Brown, Kate & Brooks, Kris, 2002, Bushland Weeds: a practical guide to their management, Environmental Weeds Action Network (Inc), Greenwood.
- Pyers, Greg, 2001, Australia's introduced plants and animals: alligator weed to donkey, Reed International Books, Victoria.
- Dept. of Agriculture Western Australia, www.agric.wa.gov.au
- Weeds CRC, www.weeds.crc.org.au
- Department of Conservation and Land Management, www.calm.wa.gov.au
- Weeds Australia, www.weeds.org.au