

# 2002 Year 8 Aussie Biodiversity Test (1)

Class size 29 students; 26 students first-generation Australians, 3 students born overseas.  
Students represent 19 different schools around Sydney.



## What is biodiversity ?

A – Variability among living organisms and the ecological environment of which they are a part. 25 Correct, 4 Incorrect

## How can bio-diversity be preserved ?

A – Conserve, or maintain the environment which sustains the original variability of living organisms. Keeping indigenous plants is the basis for sustaining indigenous animals. 11 Correct, 18 Incorrect

Students were then asked to identify indigenous plants from representative samples of bark, leaves, fruit, flowers, seed, or photographs. Actual species are noted in *italics*. These plant families are (or were) significant species in the Homebush-Strathfield area, prior to white settlement in 1788. These 18 species chosen are samples of our 2,000 indigenous Sydney plant species.

Tree	- Can identify a Eucalypt ? ( <i>Eucalyptus moluccana</i> )	17 Yes	12 No
Tree	- Can identify an Angophera ? ( <i>Angophera subvelutina</i> )	7 Yes	22 No
Tree	- Can identify a Turpentine Tree ? ( <i>Syncarpia glomulifera</i> )	0 Yes	29 No
Tree	- Can identify a Wattle ? ( <i>Acacia parramattensis</i> and <i>A. binervia</i> )	2 Yes	27 No
Tree	- Can identify a Paperbark ? ( <i>Melaleuca decora</i> )	2 Yes	27 No
Tree	- Can identify a She-Oak ? ( <i>Allocasuarina torulosa</i> )	0 Yes	29 No
Tree	- Can identify a Grevillea ? ( <i>Grevillea longifolia</i> )	5 Yes	24 No
Tree	- Can identify a Bottle-brush ? ( <i>Callistemon rigidus</i> )	8 Yes	21 No
Bush	- Can identify Tick bush ? ( <i>Kunzea ambigua</i> )	0 Yes	29 No
Bush	- Can identify Blackthorn ? ( <i>Bursaria spinosa</i> )	0 Yes	29 No
Bush	- Can identify Indigofera australis ? ( <i>Indigofera australis</i> )	0 Yes	29 No
Rush	- Can identify Mat-Rush ? ( <i>Lomandra longifolia</i> )	0 Yes	29 No
Rush	- Can identify Blue Flax Lily ? ( <i>Dianella revoluta</i> )	0 Yes	29 No
Creeper/flower	- Can identify False Sarsaparilla ? ( <i>Hardenbergia violacea</i> )	0 Yes	29 No
Creeper/flower	- Can identify Blue Scurvy Weed ? ( <i>Commelina cyanea</i> )	0 Yes	29 No
Fern	- Can identify Bracken ? ( <i>Pteridium esculentum</i> )	5 Yes	24 No
Grass	- Can identify Kangaroo Grass ? ( <i>Themeda australis</i> )	0 Yes	29 No
Grass	- Can identify Wallaby Grass ? ( <i>Danthonia linkii</i> )	0 Yes	29 No
		Score	46 / 522

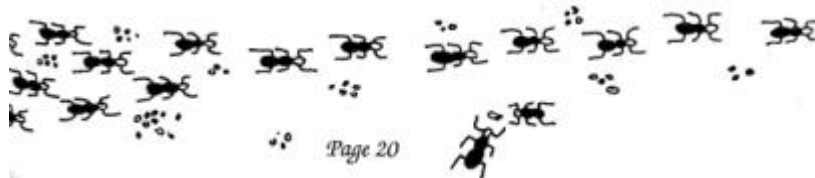
**Food** - How many plants mentioned above can provide food for humans ?

A – Acacias, Lomandra, Dianella, Commelina, Melaleuca, & Bracken 0 Correct 29 Incorrect

**Soils** - What is the soil type of the Homebush - Lidcombe area ?

A – Clay, Wianamatta Shale (soft rock formed by clays), and sandstone outcrops 1 Correct 28 Incorrect

**Worms or Ants ?** - Which animal helps propagate and promote native plant growth more, and is also indicative of a healthy native plant environment ? A – Ants ! Ants help pollinate Australian plants, and take seeds from many plants into their underground nests. After a bushfire, these underground seeds will sprout. Worms are more common in the wetter Northern Hemisphere soils, but have been cultivated here to help grow our important foreign species vegetables. 0 Correct 29 Incorrect



## 2002 Year 8 Aussie Biodiversity Test (2)

**Water** - What is the annual rainfall of the Homebush – Lidcombe area and its wettest season ?

A – About 900mm, wettest season is autumn, driest is winter. 1 Correct 28 Incorrect

**Fire** - What is the minimum fire frequency to preserve dry Eucalypt woodlands, and what other factors need to be included in the “time consideration” ? A (a) Many native plants require fire to start new growth. (b) About 25 years between bushfires, allows all plants time to grow and produce seeds. (c) The plants may take as long as 200 years to regrow to their original canopy height. (d) Depending on the size and heat of the fire, the insects, and wildlife animal populations, may also take up to 200 years to return to pre-bushfire population levels. Fires more frequent than 25 years may kill off the native vegetation (and wildlife). 0 Correct 29 Incorrect

### Foreign Species

Tree - Can identify a pine (from California, USA) ? 15 Yes 15 No

Tree - Can identify a Jacaranda (from Brazil) ? 7 Yes 22 No

Vegetable - Can identify a Tomato plant (from Central America) ? 29 Yes 0 No

### What are the names of your favourite plants ?

#### Indigenous

1x Bottle-brush

#### Foreign

1x Chinese Doll

1x Coriander

1x Chrysanthemum

1x Jasmine

1x Lavender

#### Foreign

1x Morning Glory

2x Roses

1x Tulips

1x Sunflowers

18x No answer

Score 1 / 29

### Results :

Bio-diversity x Local plant x Enthusiasm for => Future Aussie  
Understanding knowledge local plants Bio-diversity

$$\cdot \frac{25}{29} \quad \times \quad \frac{46}{522} \quad \times \quad \frac{1}{29} \quad \Rightarrow$$



### Did you know ?

- Australia is the only continent in the world where the people do not regularly eat any indigenous vegetation. Our foreign livestock species (cattle, pigs, sheep, poultry) also mainly eat foreign species grasses introduced here over the past 230 years.
- There is only one food plant grown commercially in Australia, the Macadamia nut. But the Americans were the first to grow it ! Only after this, did Australian farmers follow them.
- Aside from biodiversity issues, how many other business opportunities are we Australians missing out on, through not knowing about our native vegetation ? We hope our students may yet grow, manufacture, and export; Dianella muffins, Lomandra picnic bars, Commelina salad, Kangaroo-grass bread, Bracken roots, Exocarpos cherry dessert, and more ! We hope they may also re-establish plantations of Turpentine and Red Cedar trees, some of the best wood timbers in the world, which were consumed and wiped out by the early settlers.

