



Murrai'yunggoray

SEPTEMBER - OCTOBER

Cool, getting warmer; time for major ceremony

Time of the Miwa Gawaian (*Telopea speciosissima*); gathering of the Ngoonuni (flying foxes)

As the weather warms and Miwa Gawaian (waratah) buds swell, the D'harawal people begin their major ceremonies in celebration of the new life promised by this season.

The people would have noticed gradual increases in grey-headed flying fox numbers. Rising temperatures bring the promise of plentiful blooms, producing the nectar that is Ngoonuni's staple diet. Silently winging overhead at dusk, they fly in from south-eastern Australia, where they foraged in small, segregated groups during the less bountiful cold weather. Converging on a stand of trees, possibly casuarinas, by the river's edge, they establish a summer camp, a 'city' of flying foxes. They will give birth, then suckle, nurture and educate their offspring through the hottest time of the year. When the weather cools and blossoms dwindle, they will mate and leave in smaller groups once again. The embryos go on 'hold'; they begin developing to time the births for the first part of the next year's warm season.



Gooray'murrai

NOVEMBER - DECEMBER

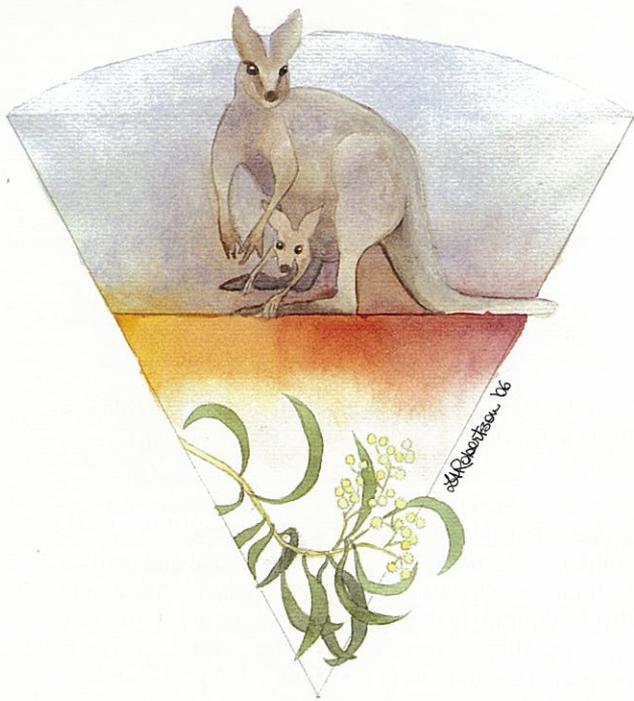
Warm and wet; do not camp near rivers

Time of the blooming of the Kai'arrewan (*Acacia binervia*); Parra'dowee the Great Eel calls his children to him

Golden yellow flowers of the Kai'arrewan colour the landscape. Thunderstorms and torrential rains arrive. Time to be wary of camping too close to the river.

Parra (freshwater eels) begin to change. Their skin darkens, their eyes enlarge and their digestive systems shut down. En masse, they make their way down the swollen rivers and out to sea. Disregarding food, they head for the deep ocean around Fiji and Vanuatu, with only one thing on their minds – a bit like an end-of-term 'booze cruise'. But for the poor old eels, it is no adolescent rite of passage before settling into responsible adulthood. More like a 'last rite', this is the one and only time in their lives when they will spawn. They die, their bodies fall to the ocean floor, and their oily eggs float slowly and hatch on their way to the ocean surface. Over the next year and a half, the young transform from leptocephali to glass eel. Parra'dowee, the Great Eel, calls the glass eels into the mouth of Sydney Harbour so they can make their way upstream in the swollen rivers, find the homes of their parents and live out their adult lives.





Gadalung Marool

JANUARY-FEBRUARY

Hot and dry; eat only fruit and seeds

Time of the blooming of the Weetjellan (*Acacia implexa*); Burra (kangaroos) start having their babies

As the hot, dry weather peaks and Weet'jellan is in full bloom, Burra (eastern grey kangaroo) gives birth. With kangaroo meat as a dietary staple, the D'harawal people had a vested interest in monitoring kangaroo mobs. They may have noticed a female absent herself from the mob to clean her pouch and genital area. The newborn, tiny, blind and pink, already has a highly developed sense of smell. Guided by the scent of her milk, and with only buds for back feet, it claws with its front paws through the hairs on the mother's belly to the nipple in the safety of her pouch. It is so fragile and delicate, the mother is powerless to give any assistance for fear of damaging it.

The birth is timed to anticipate Murr'ai'yunggoray. As the mob flees bushfires and predators, fragile pouch young hitch a safe ride, suckling and growing slowly, insulated from heat then cold as the year progresses. As the days again lengthen and new, lush, green shoots appear in Murr'ai'yunggoray, they tentatively nip grass from the safety of the pouch as mum bends down to feed, then venture out on their own for short spells, responding quickly when she calls them to return to safety.

During this hot, dry season of Gadalung Marool, the D'harawal people call a truce on kangaroo meat and eat only fruit and seeds. This is a practical health measure inspired by how quickly meat spoils in the heat. Spring flowers have now produced seed and fruit ready to be gathered and enjoyed first thing in the morning ('Widaburra'), before the birds wake. Prolonged daylight gives the women time to prepare the seeds. Some need roasting and grinding or special leeching to remove toxins.



Bana'murrai'yung

MARCH-MAY

Wet, getting cooler; time to make cloaks and start the journey to the coast

Time of the ripening of lillipilli fruit (*Syzygium* spp); Marrai'gang, the tiger quoll, seeks her mate

Days shorten, lillipilli fruits ripen and the rainforest rings with the yowls of Marrai'gang (spotted-tailed quoll). She has developed a temporary pouch and a firm padding of fat around her neck, selected a nursery burrow site and is now calling to the males. Quolls are secretive and elusive nocturnal animals, preferring to communicate with one another via communal latrine sites, usually located on an exposed rocky ledge. A breeding couple, however, will share the same burrow and feed the young together. The female carries the babies in her pouch, then on her back, and then leaves them in a safe burrow during colder months. As the bounties of young birds, new lizards, baby rodents and a variety of insect life emerge in Murr'ai'yunggoray, the young are ready to venture forth and learn to hunt at heel.

As the weather cools, lillipilli berries provide a take-away feast for the D'harawal people as they travel from the mountains around Mt. Annan to the coast. They spend winter in the more temperate areas around Appin and the Illawarra escarpment. It is time to check warm cloaks, to mend and make additions, ready for the coming cold.



Tugarah tuli

JUNE-JULY

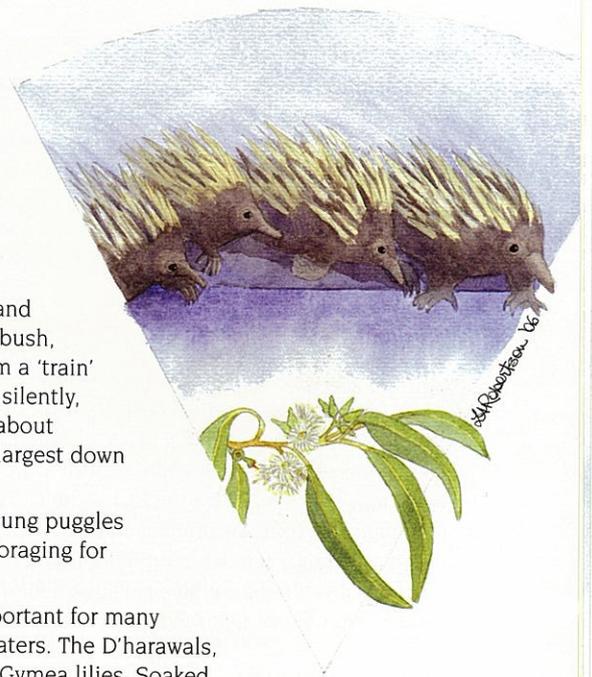
Cold; time to gather the nectar for ceremony

Time of the flowering of the Burringoa (*Eucalyptus tereticornis*); Barrugin, the echidna, begin their gatherings

In the short days and cool air, Burringoa blossoms and the normally crepuscular and solitary Barrugin (short-beaked echidna) appear in daytime. Moving through the bush, the D'harawals would have noticed the males congregating around a female to form a 'train' behind her and vie for the privilege of mating. She accepts only the first in line so, silently, with only the scrabbling of feet in the dirt and the clack of quills, the hopefuls set about pushing and jostling one another. The result is a line of echidnas graduating from largest down to smallest, like a family out for a Sunday stroll.

Echidnas have a relatively low body temperature and shun the summer heat. As young puggles develop, they are secreted away in insulated nursery burrows until ready to begin foraging for themselves in the cool of Bana'murrai'yung.

In the Australian bush, a continuous supply of nectar, in the form of flowers, is important for many small creatures such as gliders, pygmy possums, flying foxes, lorikeets and honeyeaters. The D'harawals, too, collect nectar from winter flowers such as banksias, gums and early-blooming Gynea lilies. Soaked in a wooden bowl filled with water and covered with a flat rock, they ferment until the ceremonies begin. Eucalyptus leaves help combat winter sniffles and chest complaints.



Tugarah gunya'marri

AUGUST

Cold and windy: build shelters to face the rising sun; time to begin the journey to the highlands along the rivers; plenty of fish

Time of the flowering of the Marrai'uo (*Acacia floribunda*); Boo'gul, the marsupial mouse, mates and dies; Wiritjiribin, the lyrebird, builds his mounds when season ends

When the bush is green and gold with flowering wattles, especially Marrai'uo, and the days lengthen again, the little Boo'gul, like the eels, get their one chance in a lifetime to mate. This is a frenzied, stressful climax to life as a fierce, carnivorous hunter relying on quickness and agility. After two glorious weeks, he is spent and dies, as his immune system packs up. In the balance of nature, he has made way for the female to hunt and forage without competition during the hardest time of late winter as she 'eats for two' or, rather, 22. In Murrai'yunggoray, she gives birth to many more rice-grain-sized young than her 12 nipples can accommodate. In a competitive bid for survival, they cling to her nipples as she moves about. She only leaves them in a nursery after about five weeks, when each one is half her size. In the more humid weather and plethora of small insects signifying Goray Murrai, the young learn to hunt at heel.

Wiritjiribin, the superb lyrebird, also anticipates the start of a new year in Murrai'yunggoray. Wiritjiribin has mated and produced a single chick. Now males set about building display mounds: circular clearings on the forest floor about two metres across, often placed to catch a sunny 'spotlight' and in sight of the female busy attending to the demands of her young in the nest. He makes up to 12 mounds in preparation for courting, which peaks during Tugarah Tuli. On these mounds, he practises his song-and-dance routine all year, teaching his repertoire to the next generation of male lyrebirds.

In the Dreamtime, Wiritjiribin taught the D'harawal people to dance. The lyrebird's repertoire includes a 'kronk kronk', described by L.H. Smith on his *Song of the Lyrebird* CD, which sounds for all the world like the tapping of clap sticks. The accompanying action is a rocking motion reminiscent of stamping. Because of this association, Wiritjiribin had nothing to fear from the D'harawals as he went about his business. Fresh clearings and mound renovations would have been monitored by the D'harawal people as they travelled through the rainforests of what is now the Royal National Park and Bulli Escarpment to their summer homes in the highlands beyond Campbelltown, ready to welcome the New Year with ceremonies and celebrations.

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