

Here: Sandbanks, a favoured haunt of basking crocodiles that line the water at the mouth of the sandstone gorge of Kakadu. Top right: red-collared lorikeet feeding on swamp bloodwood flowers. Bottom right: a source of ancient beliefs, the ochre Rainbow Serpent was scored into the stone at Ubirr. Rock many thousands of years ago

Created by the ‘boss lady’ and protected by its Aboriginal custodians, Kakadu National Park in Australia’s Northern Territory is a legendary, wildlife-filled wilderness, writes **Stella Martin**

TAKE ME THERE **KAKADU NP**



**T**he snake arcs across the cave wall, but it’s not going anywhere – this ochre image has been etched on the rock face for thousands of years. Local Aboriginal people, the traditional owners of Kakadu National Park, believe that the Rainbow Serpent painted this self-portrait as she passed through the wilderness. She then continued through the land, splitting rocks, piling up ranges, gouging chasms and digging waterholes – shaping the landscape that we see today.

The Rainbow Serpent is believed to be one of the oldest symbols anywhere in the world. Thought to be a powerful Creation Ancestor, her work is fundamental to Aboriginal beliefs across much of Australia. The ‘boss lady’ now lies sleeping; to waken her is to invite disaster, so to avoid her ire, people must respect the land and take care of it.

The Bininj/Mungguy people have been the guardians of Kakadu for tens of thousands of years. Perched at the top of the Northern Territory, and covering an area nearly the size of Wales, this UNESCO World Heritage Site has been in good hands. Much remains as the Rainbow Serpent left it: a vast wilderness area of wetlands and woodlands, rocky outcrops and crashing waterfalls. One of the largest national parks in the world, →



# LAND OF THE RAINBOW SERPENT





“ KAKADU IS A HAVEN FOR WILDLIFE, SUPPORTING 68 MAMMAL, OVER 120 REPTILE, 26 FROG AND MORE THAN 300 FISH SPECIES ”

Kakadu is also a haven for wildlife, supporting 68 mammal, over 120 reptile, 26 frog and more than 300 fish species. Its 290 bird species represent over one-third of Australia’s total. There are also more than 2,000 plant and 10,000 insect species.

The national park is bounded to the east by the Arnhem Land Plateau, a formidable sandstone platform deeply scored with a grid of chasms and gullies. At one time, about 140 million years ago, when the rest of Kakadu was covered by sea, the plateau edge formed a series of sea cliffs. Now, rearing up to 300 metres, the escarpment overlooks a lowland of freshwater lagoons and eucalypt woodlands. Providing shelter for Aboriginal people over thousands of years, the escarpment and outliers, notably Nourlangie and Ubirr, are the sites of extensive rock art galleries.

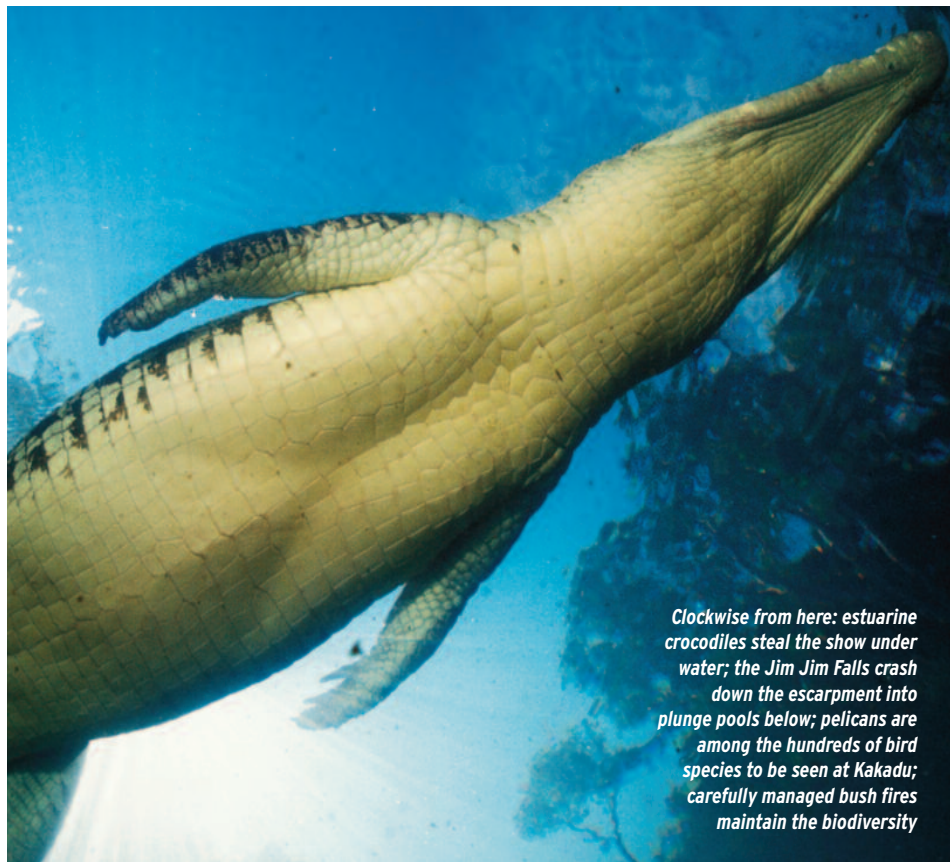
This is the stone country. Not much survives on the bony surface of the plateau, but where water, in its rush to escape, has gouged deep gorges, dense monsoon forests provide a sanctuary for life. From the shady *Allosyncarpia* trees that dominate these forests, to the skulking black wallaroos and fiery *Leichhardt’s* grasshoppers, most of

Kakadu’s near-endemic plants and animals can be found in the stone country. Giant cave geckos forage on rock walls and overhangs, avoiding *Oenpelli* pythons. Named after an Arnhem Land settlement, and living only in this sandstone country, these slender pythons can grow to well over four metres in length.

### FLIGHTS OF FANCY

Even in the busiest sections of Kakadu, attentive birders can find sought-after species. Startled chestnut-quilled rock pigeons burst out of rocky gorges with whirring, clapping wingbeats, and soft trills may betray a busy party of white-throated grasswrens, cocking their tails among tumbled boulders. Rock crevices provide stages for the rich, echoing songs of sandstone shrike-thrushes, while melodious white-lined honeyeaters sing from flowering trees and banded fruit-doves coo loudly from fruiting figs.

Sandstone cliffs are home to three marsupials with restricted distributions. The short-eared rock wallaby is more often seen than its smaller, shyer cousin, the *nabarlek*, while the more strictly nocturnal rock ringtail possum emerges from crevices only at night.



*Clockwise from here: estuarine crocodiles steal the show under water; the Jim Jim Falls crash down the escarpment into plunge pools below; pelicans are among the hundreds of bird species to be seen at Kakadu; carefully managed bush fires maintain the biodiversity*

# The six seasons of Kakadu

Life in Kakadu is dominated by the dramatic cycle of flood and drought. Non-indigenous Australians simply refer to the Wet and the Dry, but the Bininj/Munggy traditional owners recognise six seasons

### GUDJEWG (December to March)

is the true wet season. Heavy rain turns much of the landscape into a sheet of water, triggering an explosion of life. Although temperatures and humidity are uncomfortably high, this is an exciting time to visit, when visitor numbers are down and life is at its liveliest. Access is restricted, but limited tours and scenic flights are available.

**BANGGERRENG (April)** is ‘knock-em down’ season when sudden storms flatten tall grasses. However, skies clear, rivers retreat back within their banks and swamps begin to dry out. This is harvest season, when plants are fruiting and animals have young.

**YEGGE (May and June)** is cooler. Mornings are misty



over plains and water lilies cover wetlands. Seed-eating birds move south. Darwin woollybutt blossoms indicate time to start burning, to ‘clean the country’.

**WURRGENG (mid-June to mid-August)** is the

cold-weather time. Although daytime temperatures reach 30 °C, humidity is lower and nights chilly. Burning continues but fires are extinguished by dew at night. Permanent billabongs become crowded with water-dependent wildlife.

This is peak visitor season. Roads are passable again and popular spots are busy.

**GURRUNG (August to October)** is hot, dry weather. Temperatures increase and wild fires become fiercer. Thunder clouds begin to build and migratory birds start to appear; koels and channel-billed cuckoos call for mates, and waders, escaping the northern hemisphere winter, arrive for their summer break.

**GUNUMELENG (mid-October to December)** is the pre-monsoon storm season. Heat and humidity build to insufferable levels and humans ‘go troppo’. Life picks up momentum. Barramundi move to salt water to breed and dramatic electrical storms herald the arrival of Gudjewg.

Much of Kakadu’s fresh water comes from the Arnhem Land Plateau, crashing down the escarpment in a series of dramatic cascades (*Jim Jim*, *Twin*, *Gunlom*, *Majuk*) into picturesque plunge pools. Although estuarine crocodiles can reach these pools (and may be removed by park staff) freshwater crocs are more at home here, nesting in the sandy banks in the late dry season. *Mertens’* water monitors sun themselves on rocks or branches, dropping into the water when disturbed. These large lizards, growing up to a metre in length, walk on the bottom, eyes open and tongues flicking in search of prey.

While most bird species in the lowland swamps and billabongs can also be found elsewhere, they more than make up for their lack of rarity with sheer numbers and variety. At the water’s edge, magpie geese crowd together by the thousand alongside dense clusters of whistling ducks. In deeper water, green pygmy geese cruise through the water lilies and comb-crested jacanas nimbly stroll past, balancing on floating leaves with long-toed feet; these birds are also known as lily-trotters or *Jesus* birds.

One of the most rewarding ways to explore the wildlife of the wetlands is to take a cruise on Yellow Water. Estuarine crocodiles are a major draw but,







above the water, birds steal the show. Egrets and herons patiently stare into the depths, waiting to spear prey, spoonbills sieve the shallows and ibises forage for insects on drier land. Every waterway has its complement of cormorants and darters; the darter is also known as the snakebird for its habit of swimming with just its S-shaped neck showing above the water.

Brolgas, which are large cranes more than a metre tall, may be seen bouncing, bowing and spreading their wings in ritual dances.

Australia’s only stork, the black-necked stork – commonly called the jabiru – stalks its prey in the wetlands or stands on its nest, an enormous, untidy pile of sticks in a tree top.

Flood-proof paperbark and pandanus trees fringe the waterways, providing perches for extraordinary numbers of white-bellied sea-eagles and several species of kingfisher. Nectar-rich bottlebrush blossoms, and associated insects, attract honeyeaters, flycatchers and cuckoos. Less welcome are feral water buffaloes, horses and pigs, which damage the fragile wetlands.

**WATER WORLD**

Below the water’s surface, a silvery flash may be a fleeing barramundi or a saratoga, a fish with an ancient lineage. Fish feature prominently in Kakadu rock art, as do northern long-necked turtles. These ambush predators strike out swiftly with snake-like necks longer than their carapaces. They survive the dry season by burying into damp soil, which bakes hard around them, and remain there until rain softens the mud and wakes them from their torpor. Aboriginal people search for telltale breathing holes and prod the mud until a turtle is located, it’s dug up, cooked and eaten. Baggy skinned, non-venomous Arafura file snakes, aquatic fish-hunters, are also eaten by Aboriginal people, who feel for them with their feet.



Close encounters with crocodiles

*Above top: a pair of corella chatter while hanging upside down. Above: brushtail possum can be found feeding in the trees of the savannah woodlands at night. Below: snappy predators, crocs cruise through the waters*

Ever since *Crocodile Dundee* hit cinema screens in 1986, Kakadu National Park, one of the film’s locations, has been synonymous with crocs

Two croc species can be found in Kakadu. Freshwater crocodiles (‘freshies’) are smaller, with long skinny snouts, and feed largely on fishes and other aquatic animals. They never eat people but can bite in self-defence or by mistake. Endemic to northern Australia, they prefer to stay safely upstream from their

predatory cousins, notably in pools at the foot of the escarpment, such as Maguk and Jarrangbarnmi.

The stars of the Kakadu show are the estuarine crocs. Growing to five metres and more, they are the biggest reptiles in the world. They are sometimes called saltwater crocodiles, or ‘salties’, because they frequent marine habitats, but this is a little misleading because they dwell happily in freshwater billabongs and rivers many kilometres from the ocean, sometimes reaching Jim Jim Falls, at the base of the escarpment.

Every visitor to Kakadu wants a close encounter with a croc but must remember that these are very dangerous animals. Never swim in

a billabong or river and keep well away from the water’s edge. The safest way to get up close, if not personal, is a cruise on Yellow Water. The boat is able to edge close to several, sunning themselves on the bank or cruising through the water lilies with just the tips of their snouts and eyes showing above the surface. Good sightings may also be had at Cahills Crossing where, for about four weeks at the end of the dry season and the start of the breeding season, large numbers line up above the causeway at high tide to catch fish moving upstream. But do not join the foolhardy locals standing on the crossing – at least one person has been taken there. Large numbers can also be seen at Shady Camp.





Where fresh water meets the sea, 39 species of mangrove line the waterways supporting a new suite of birds and sheltering a wide variety of fishes and estuarine crocodiles, with sea snakes, marine turtles and dugongs visiting from the ocean. Pockets of monsoon forest host colonies of black and little red flying-foxes, which spread out to feed on woodland blossoms at night. Rainbow pittas and orange-footed scrubfowl frequent the forest floor; the latter incubate their eggs in rotting vegetation raked up into enormous mounds. In the canopy fruit doves, figbirds, orioles and pied imperial pigeons feed on figs and fruit.

## INSIDE STORY

More than 80 per cent of Kakadu is occupied with savannah woodlands, which support the greatest variety of life in the park. Eucalypts, in many forms, dominate. Well spaced, these wiry trees with wizened, crevassed barks and tough names like ironwood, stringybark and bloodwood are well-adapted to survive the prolonged droughts, fires and infertile soils shared with cycads, grass trees, shrubs and grasses. Termite mounds, some over six metres high, stud the lowlands; their busy inhabitants are keen recyclers of vegetable matter.

Agile wallabies and the larger antilopine wallaroos are social macropods which, in the late afternoon, gather to graze in large numbers. Most other mammals are more strictly nocturnal but, with a spotlight, it is possible to find brushtail possums and sugar gliders feeding in the trees and, with luck, a black-footed tree rat, a brush-tailed phascogale, or fawn antechinus. The last might be glimpsed during the August mating season when, →

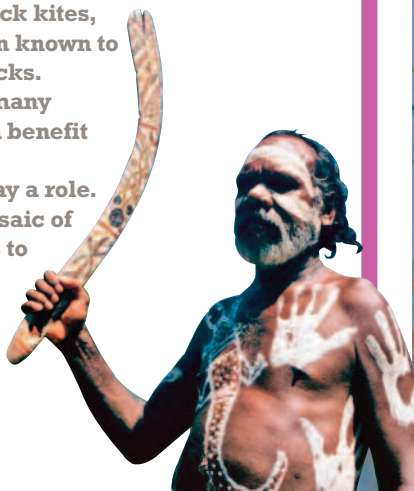
## FIRE STARTER

Fires, whether started by lightning or people, are an integral part of the cycle of life in Kakadu. Aboriginal people have been using them to ‘clean the country’ and manage food resources for thousands of years. Indeed, if Australia’s many fire-prone habitats remain unburned for too long, biodiversity is reduced.

Most fires are lit early in the dry season. They burn relatively small patches, until they are safely extinguished by evening dews. This strategy reduces wet season growth, which would otherwise dry out to produce volatile fuel that could carry sweeping wildfires.

Savannah trees have evolved thick bark to withstand fires while many plants, such as banksias, grass trees and acacias, when burned, are stimulated to flower or their seeds to germinate. Low-impact fires fail to reach the canopy, but some animals inevitably perish – although canny raptors patrolling the fire perimeters are the beneficiaries; black kites, known locally as fire hawks, are even known to spread fires by dropping burning sticks. Nonetheless, patch-burning allows many animals to find shelter and they soon benefit from fresh growth and seeds.

Some late, dry season fires also play a role. The ideal fire regime produces a mosaic of vegetation, burned at different times to promote the greatest biodiversity.



“ MORE THAN 80 PER CENT OF KAKADU IS SAVANNAH WOODLANDS, WHICH SUPPORT THE GREATEST VARIETY OF LIFE IN THE PARK ”



*Clockwise from here: the savannah woodlands stretch as far as the eye can see; legend has it that the Leichhardt's grasshoppers are the children of 'Lightning Man', a powerful ancestral figure; the frilled lizard hides in treetops; a female black-necked stork, chasing prey in Yellow Water; Kakadu is cared for by its Aboriginal custodians*



## TOP 5 ICONIC CREATURES OF KAKADU

### 1 Black wallaroo

Although locally common, these solitary, nocturnal macropods live only in the sandstone escarpment and plateaus of west Arnhem Land. Early risers are likely to see these stocky kangaroos at Nourlangie Rock, bounding like dark shadows across the slopes, or lurking under overhangs. Males are black and females grey.

### 2 Magpie goose

Kakadu wetlands, notably Mamukala and Anbangbang Billabong, support the world's largest concentration of magpie geese. In the dry season, thousands of these large, black and white waterfowl shuffle through the mud using hooked beaks to dig up tubers. In the wet season, they switch to wild rice.

### 3 Frilled lizard

When confronted, this charismatic character can erect the frill around its neck, rather like opening an umbrella. It can be as big as a dinner plate. During the dry season it hides in the tree tops, in a state of torpor, descending with the first rains to the woodland floor.

### 4 Barramundi

A large, silvery flash in the billabong may be one of Australia's tastiest fish. Adult barramundi must move to estuaries and coastal waters to spawn, juveniles swimming back upstream during the wet season. This prize catch is a transsexual: males become females when they reach about 80cm in length.

### 5 Leichhardt's grasshopper

Just before the wet season, Leichhardt's grasshopper nymphs become bright orange and blue adults. Considered to be children of Namarrgon, the Lightning Man, they urge their father to bring the storms. These rare insects are restricted to the stone country, where they feed on the sticky leaves of *Pityrodia jamesii*, a local shrub.



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“ THE BININJ/MUNGGUY PEOPLE HAVE BEEN THE GUARDIANS OF KAKADU FOR TENS OF THOUSANDS OF YEARS ”

after a frenzied two weeks of obsessive copulation, all the males die. Northern brown bandicoots are often seen lolloping around camp grounds, using elongated snouts to search for food in ground holes.

WOODLAND WANDERERS

By day, birds dominate. Whistling and black kites are ever present in the skies above Kakadu, huge numbers gathering to pounce on animals fleeing from fires. Parrots, lorikeets and cockatoos add colour and noise; raucous flocks of red-tailed black cockatoos, sometimes hundreds strong, flap lazily over the woodlands. Other seed-eating birds include pigeons, doves, quails and finches; the gorgeous Gouldian finch, whose numbers have been slashed by trapping and disease, can still be found in parts of southern and eastern Kakadu. Kingfishers of the woodlands – many Australian kingfishers feed away from water – include blue-winged kookaburras, whose maniacal screeching has earned them another name: howling jackass.

Growing to 1.4m in length, Gould’s goannas forage confidently on the ground but, if frightened, can scamper up trees or sprint away with such speed they have been nicknamed ‘racehorse goannas’. Skinks of many types rustle as they rush to hide in the



leaf litter, but the slow-moving, 30cm-long northern blue-tongue, if confronted, will open its pink mouth and stick out its blue tongue. Frilled lizards can be common on the ground after the first rains.

Snakes obviously inhabit the woodlands, but most are harmless to humans. One of the most frequently seen is the diurnal common tree snake. Individuals in Kakadu are golden yellow with grey heads. Once spotted, they magically vanish. Perhaps the Rainbow Serpent is not sleeping after all but discreetly inspecting her handiwork and checking up on its custodians. **WY**

WILD TRAVEL READER OFFER

Order a copy of Stella Martin's book, **Australian Wildlife**, published by Bradt, at [www.bradtguides.com](http://www.bradtguides.com) and use the coupon code **WTRAV30** to enjoy a **30% discount off the retail price of £14.99** (p&p is free to UK addresses). This offer is valid until 31 December 2012.

*Top: a sunset panorama at Waterfall Creek, Gunlom. Above: agile wallabies are one of the few mammals that can be seen by day in Kakadu, gathering in groups to graze*

TOUR OPERATORS:

■ AUDLEY TRAVEL, Tel: 01993 838 000; [www.audleytravel.com](http://www.audleytravel.com)

■ AVIAN ADVENTURES, Tel: 01384 372 013; [www.avianadventures.co.uk](http://www.avianadventures.co.uk)

■ WILDERNESS CHALLENGE, Tel: + 61 (0)74035 4488; [www.wilderness-challenge.com.au](http://www.wilderness-challenge.com.au)

■ EXPERIENCE THE WILD, Tel: +61 (0)88932 7011; [www.experiencethewild.com.au](http://www.experiencethewild.com.au)

■ INTREPID CONNECTIONS, Tel: 0800 781 1660; [www.intrepidconnections.com](http://www.intrepidconnections.com)

TRIP ADVISER

**COST RATING:** ★★★★★  
**SAMPLE PACKAGE TOUR:** Audley Travel offers 11 days in Darwin, Arnhem Land and Kakadu, Nitmiluk and Litchfield national parks starting at £3,145pp. Price includes international flights, car hire, accommodation and touring. [www.audleytravel.com](http://www.audleytravel.com)  
**GETTING THERE:** Kakadu park boundary is about 150km east of Darwin via the Arnhem Highway. Driving time is about 90 minutes (260km and two and a half hours to Jabiru town). It can also be approached from the south via Pine Creek, which is 60km from the boundary.  
**VISA REQUIREMENTS FROM THE UK:** British passport holders can apply online for free, three-month tourist visas: [www.immi.gov.au/e\\_visa/visitor.htm](http://www.immi.gov.au/e_visa/visitor.htm)  
**TIPS & WARNINGS:** Check road conditions and accessibility with the Park Manager before travelling:  
Tel: +61 8 8938 1120; [www.environment.gov.au/parks/kakadu](http://www.environment.gov.au/parks/kakadu)  
Park entry fees apply and special permits are required for some sites. On arrival, pay a visit to Bowali Visitor Centre and Warradjan Aboriginal Culture Centre, where you can find details of free guided walks and talks taking place from May to October. Wear a hat, high SPF sunscreen and good footwear. Carry insect repellent and plenty of water. Remember that all water bodies may contain crocodiles.

**WHEN TO GO:** The weather is more comfortable, and access best, from June to September but the park is generally very busy. Seek out less popular walking tracks. During other months visitor numbers drop, but access is limited and the weather is hot, humid and very wet.

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