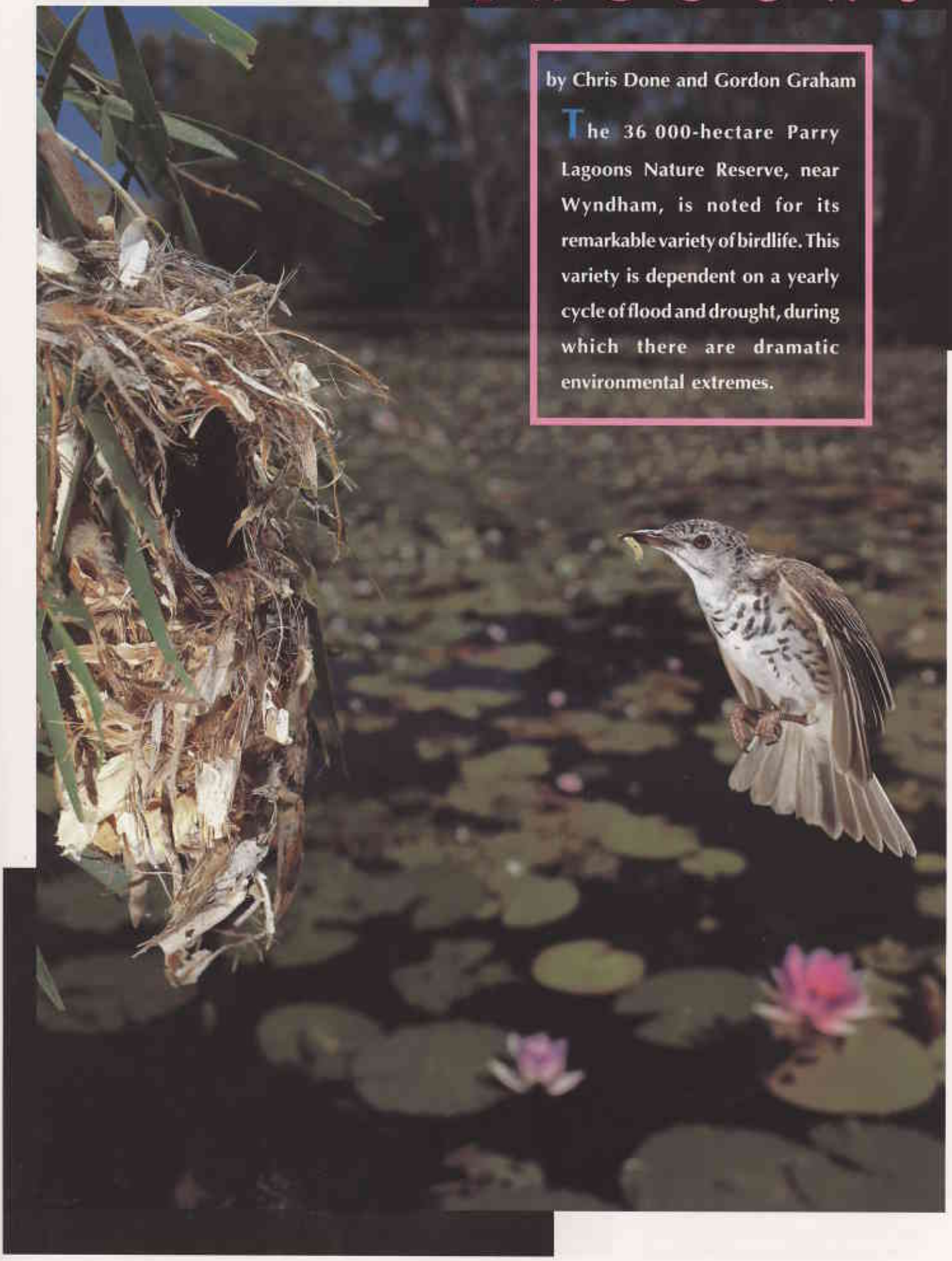
PARRY LAGOONS



by Chris Done and Gordon Graham

The 36 000-hectare Parry Lagoons Nature Reserve, near Wyndham, is noted for its remarkable variety of birdlife. This variety is dependent on a yearly cycle of flood and drought, during which there are dramatic environmental extremes.

Looking north from Telegraph Hill (the site of a telegraph station earlier this century), visitors to Parry Lagoons see a vast, flat grassland with thin lines of woodland following the course of billabongs. This is a major floodplain of the Ord River with the remnants of previous river courses.

Changes have occurred in this area as a result of the impact of holding cattle here prior to their slaughter at the old Wyndham meatworks and as a result of the damming of the Ord. Regardless of these, the yearly weather cycle determines which birdlife uses the area. This cycle itself varies markedly from year to year because of the vagaries of the weather pattern in the semi-arid tropics.

The main lagoon lies at the foot of Telegraph Hill. In most years this lagoon - usually referred to as Marglu by local people - retains water through the dry season and only occasionally dries out completely.

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The bar-breasted honeyeater is found in dense vegetation along watercourses.
Photo - Michael Morcombe

Above left: Yellow-billed spoonbills filter invertebrates from the water with their bills.
Photo - Michael Morcombe

Above: The Australasian grebe forages in deeper areas of the lagoon.
Photo - Michael Morcombe

Below: The brolga is a common bird of northern Australia.
Photo - Jiri Lochman

SEASONS OF CHANGE

At the end of the dry season (September-October) the lagoon is a place awaiting renewal. This is the time known to local Aboriginal people as Mawan - the build-up. Grasses are brown and the clay soils and large areas of the lagoon bed are cracked and dusty. The thin line of fringing vegetation is in places blackened by the fires that often sweep across the plains. It is a hot, humid place frequently overshadowed by the huge clouds that build up each afternoon before the onset of the wet. At this time birdlife is least noticeable.

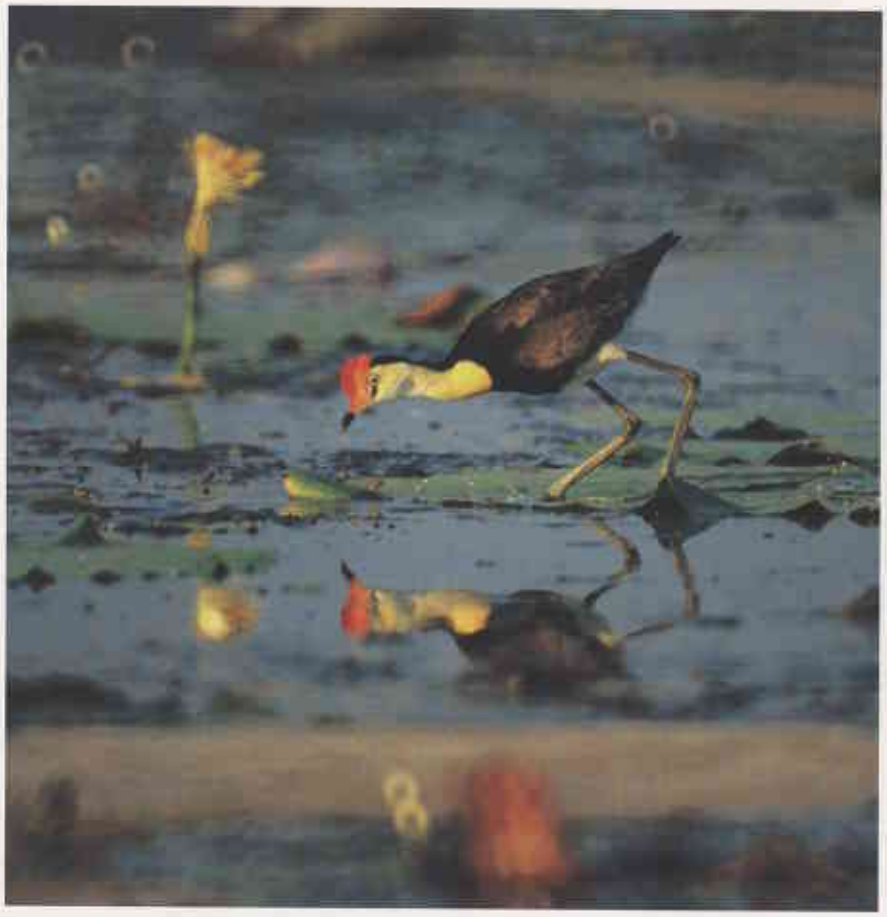
The wet, or Maiyurr (lasting from October to April), is a time of rapid change. Creeks flow, billabongs fill and the grasslands turn green as the underlying groundwater table gradually approaches the surface. In good years the floodplain becomes inundated and river, creek and billabong become indistinguishable. The most noticeable change is the greening of the countryside. The deciduous eucalypts and boabs have sprouted their maximum foliage. Bird usage gradually increases.

At the start of the dry season, or Bandenyirrin (in May), as temperatures drop, this area becomes a mecca for bird and birdwatcher alike. Surveys in May 1986 and May 1988 counted 27 000 and 18 900 waterbirds respectively, with 55 species at the lagoon and its immediate surrounds. The total birdlist for the reserve currently stands at 109 species.

During the dry at Marglu Lagoon any casual observer is rewarded with the constant movement and display of the birdlife using the bountiful resources of the lagoon. The lagoon is usually quite shallow and this, associated with warm temperatures, encourages a highly productive ecosystem.

Migratory waterbirds such as sandpipers, stints and curlews can be found at the lagoons. More sedentary waterbirds such as magpie geese, ibis, whistling ducks, brolga and jabiru are the more common waterbird species. In the morning and evening, flocks of bushland and grassland birds, including varieties of finches, doves and parrots, move into the area.

Following a good wet, large open water areas can be seen. As the water



Comb-crested jacanas appear to walk on water, as their long toes help them balance on the leaves of water lilies.
Photo - Jiri Lochman

Woodward's rock rat is found in the sandstone country in the south part of the lagoon.
Photo - Jiri Lochman

becomes more shallow, these areas gradually overgrow with aquatic flora such as the giant water lily. Upon these the jacana deftly runs and walks, probing the vegetation for food. The annual sesbania pea grows into the shallower areas, providing refuge for the more secretive waterbirds. The bantam-like black-tailed native-hen can be seen foraging on the flats near the sesbania, rushing for refuge at the first sign of danger.

BOABS AND SCREW PALMS

Any impression that the vegetation of the area lacks variety is soon dispelled on closer examination. The watercourses, the clay soils and the sandstone country each have their own vegetation associations.

A narrow strip of bush, and low trees such as paperbarks and freshwater mangroves, fringe the wetlands. Other wet areas of the reserve support populations of the screw palm. Good stands of thick-trunked boabs and a variety of eucalypt species grow in the higher country. Large numbers of white-necked ibis and corellas roost in the fringing vegetation. Boabs often support the nests of a variety of raptor species.

Birds of particular note found in the reserve include the comparatively rare radjah shelduck, the threatened freckled duck and the long-toed stint, which is given special protection. The reserve is considered to be the most important site in Australia for the wood sandpiper and plays an important role in waterbird breeding. The flat ground near the lagoon is often dotted with large numbers of brolgas. At times, freshwater crocodiles are found in the watercourses, and saltwater crocodiles are seen regularly in Marglu Lagoon.

The mammal fauna of the area has not been well studied. However, the northern nailtail wallaby, agile wallaby, long-haired rat and Woodward's rock-rat have been seen near the lagoon. These mammal species have been found in the sandstone country near the southern end of the reserve. Further studies are required for the rest of the area, particularly in the wetlands.

MANAGING PEOPLE

People's interest in and appreciation of the area brings problems, mainly associated with access. During the dry months vehicle tracks proliferate across the flats and around various waterholes. As the water recedes in the Marglu Lagoon, vehicles are driven around the banks, leading to the loss of covering grasses. As a result, large dusty areas of bare ground can be seen. This may disturb wildlife, compact soil and cause erosion. The level of illegal shooting is another concern. So are the large fires that occur at times and the potential for spread of weeds.

The Department of Conservation and Land Management (CALM) is attempting to address some of these more obvious problems and will be placing information boards, partly funded by *Australian Geographic*, on the main lookout at Telegraph Hill. Ways of controlling vehicle access will be addressed, by constructing better quality tracks and carparks. Eventually it is hoped that these carparks will link with walktrails leading to bird observation points. This process will involve input from the local community, which is very interested in promoting the area for tourism.

The Parry Lagoons Nature Reserve now sits at the southern end of a line of conservation reserves that run down to the Ord River and take in the east and west banks of this river, considered to be, amongst other things, an important saltwater crocodile habitat. Further north, the recent declaration of the False

Mouths of the Ord as a nature reserve adds important mangrove and estuarine mudflat habitats to the conservation estate.

The challenge for the future is to continue to study these reserves in order to better understand how they can be managed and what processes affect them. It is hoped that this can be achieved through formal study and the participation of local community members and other organisations. ▣

Above: Boab trees often support nests of a variety of raptor species.
Photo - Carolyn Thomson

Below left: The azure kingfisher can be seen flying fast and low over water.
Photo - Michael Morcombe

Below: The male great bowerbird decorates his courtship bower to attract a mate.
Photo - Michael Morcombe

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CALM volunteer Estelle Leyland helped to compile information on the reserve.

MARGLU: A PLACE OF CHANGE

The Ord River (known as Gananurang in the Miruwug language) once flowed unchecked to the waters of Cambridge Gulf. Massive wet season floods raised the river level ten metres or more, flooding the low lying plains, recharging the ground water and filling the billabongs. What looked like devastation was in fact enriching and recharging the system, allowing the rich biological resources of the area to ready themselves for the long, dry season ahead.

Marglu (the residue or left-overs) referred to the series of billabongs left after the floodwaters receded, but in 1883 explorer W J O'Donnell named the creek running through the area after E Parry, one of his syndicate supporters. O'Donnell was looking for promising pastoral country for the Cambridge Downs Pastoral Company and was very impressed with what he saw. The area was surveyed some three years later and the name Parry Lagoons was given to the billabongs. This was the first and probably the most innocuous of the changes that were to come.

Large herbivores (mainly cattle, but also donkeys, horses, buffalo and camels) were introduced late last century and sought out preferred grasses. This, along with a change in the burning regime, is believed to have altered the vegetation patterns. Some two million cattle passed through this place en route to Wyndham abattoir between 1919 and 1962 (most cattle went by truck after that time). Billabongs became silted and shallow as cattle drank from them and ate the succulent water plants. As a result, many billabongs that had previously been permanent became seasonal.

Upstream, the rich floodplains and copious supplies of water of the Ord Valley took the eye of visionaries and politicians. The area lent itself to the establishment of a huge, irrigated, tropical agricultural scheme, but the natural river flow during the dry season could not support the scheme, so the waters of the Ord were checked, by the Diversion Dam at Bandicoot Bar, for the first time in 1963. Lake Kununurra, the reservoir formed by the Diversion Dam, can only hold a small fraction of the total flow of the river.

Above: *The main lagoon, Marglu, at the end of the dry season.*
Photo - Carolyn Thomson

More or less 'normal' flows and floods continued until the massive Lake Argyle was formed in 1973 by the construction of the Ord River Dam at Carlton Gorge. Such is the capacity of Lake Argyle (it holds the equivalent of nine times the volume of Sydney Harbour) that it can restrain most of the annual flooding. Water is released in a regulated fashion allowing a steady flow down the river, some of which is used to irrigate the dry season crops. Massive and frequent flooding of Marglu from the Ord is a thing of the past - only in periods of intense rainfall does Parry Creek flood the entire system. Lines of riverine tree species well back from the current billabong margins indicate where more normal water levels would have been.

Left: *Brolgas, magpie geese and pelicans congregate at the lagoons in the dry season.*
Photo - Jiri Lochman

LANDSCOPE

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'Where there's fire there's smoke'. We look at one of the lesser known and misunderstood products of bushfires on page 10.

The disappearance of the Zuytdorp remained a mystery for many years. The story of its rediscovery and the formation of the Zuytdorp Nature Reserve is on page 42.

Banksias and blackboys are normally associated with the sandplains of the coast and wheatbelt rather than the Great Victoria Desert. See page 22.

The mountains of the Stirling Range are a refuge harbouring many ancient species of spiders. Spider expert Barbara York Main shows us some of them on page 28.

A new book, Perth Outdoors, aims to encourage people to get outdoors and enjoy nature and to learn more about Perth's unique natural communities. See page 35.

FEATURES

REGULARS

COVER

*The palisade spider (*Neohomogona stirlingi*) is endemic to the Stirling and Porongurup Ranges. It builds a shallow burrow with an open entrance surrounded by a palisade, or collar of leaves and twigs, which may project several centimetres above the ground or litter.*

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