

Purple-crowned Fairy-wren (*Malurus coronatus*)

Family: Maluridae (Fairy-wrens)

Class: Birds

National Status: Vulnerable (Nat.)

State Status: At Risk (WA)

Description:

Purple-crowned Fairy-wrens are small, lively, charismatic birds. Their feathers are mostly a warm brown colour above and white below with a buff wash. They have a perky soft blue vertical tail which they twitch in time to their distinctively cheerful, chirruping song. The male has a striking purple and black crown when breeding, while the female has a lovely chocolate-coloured cheek patch. Adult birds measure only about 14cm in length, with a wing span of approximately 16cm and weigh around 9-13g.



Distribution:

Purple-crowned Fairy-wrens are divided into two races: - an eastern race (*M. c. macgillivrayi*) that occurs in the sub-coastal region from the Roper River in the Northern Territory to the Flinders River in Queensland; and - a western race (*M. c. coronatus*) that occurs throughout the Kimberley region of Western Australia and the Northern Territory. The two races of Purple-crowned Fairy-wrens never mix and more than 400 km separates them geographically. Sadly, Purple-crowned Fairy-wren populations are disappearing. It is estimated that only about 12,000 breeding birds remain of the western race in the Kimberley.

Habitat:

Purple-crowned Fairy-wrens build their homes in the thick vegetation that lines the freshwater rivers and creeks (the 'riparian strip') of northern Australia. They seem to prefer streams that have a wider strip of vegetation and rarely venture more than 10 m from the creekside vegetation. They are most often associated with tall river grass and canegrass (*Cionachne sp. and Mnesithea rottboellioides*) and Pandanus stands with high stem density. The Purple-crowned Fairy-wren can travel over and through these dense thickets with ease, but the barbed leaves help to deter predators, especially at nesting times. Within the thick vegetation are tall emergent trees such as eucalypts and paperbarks which the Purple-crowned Fairy-wren uses when the riverside vegetation floods during the wet season.

Threats:

Sadly, Purple-crowned Fairy-wren populations have declined dramatically since they were first discovered 130 years ago and their battle for survival just keeps getting harder. This is largely because their search for suitable habitat is becoming more and more challenging as riparian vegetation is removed for pastoral activities, trampled by cattle, destroyed by frequent hot fires and invaded by weeds. The damage is increasing the distances between suitable patches of habitat, further isolating already vulnerable populations of Fairy-wrens. As a result of these threats, Purple-crowned Fairy-wren populations are disappearing and they are now listed by the Federal

government as vulnerable to extinction. The impact of climate change on the creeks and river systems of northern Australia is likely to worsen the plight of this beautiful bird.

General:

Fairy-wrens use song to communicate in many different ways, from romancing their mates to warning other family members of dangers like an approaching predator. Male and female fairy-wrens even sing co-ordinated duets to ward off itinerant fairy-wrens from their territory. These lively little birds feed on insects (including beetles, ants, bugs, wasps, grasshoppers, moths and flies), their larvae, and spiders, which they find in the natural compost that accumulates in the leaf-axils of Pandanus after flooding. They mostly forage for their food on the shaded ground beneath clumps of Pandanus. Individuals forage separately, hopping rapidly over the ground. They always maintain contact with group members by means of 'chet' calls. The next most used foraging site is amongst the leaves of the Pandanus itself, over and through which the birds progress remarkably quickly, using their large feet to grasp the blades of the leaves. Purple-crowned Fairy-wrens usually occur in family groups of 5 to 6 birds, comprising a socially monogamous breeding pair and their progeny from previous years. All birds help at the nest to raise the young of the dominant pair – a mating system known as cooperative breeding. Young Fairy-wrens and especially males tend to remain with their parents and help to raise their siblings after reaching maturity. Some helpers may assist their parents for up to four years or more before departing their natal territory and forming a breeding pair. Breeding activity takes place through the year but may not occur at all during very dry years. Only female Purple-crowned Fairy-wrens build the nest and incubate the clutch of 2 – 3 eggs. The male will keep her company and may even feed her while she builds. The nest itself is dome shaped, averaging about 40cm high, and is built close to the ground in thickets of pandanus, river grass or canegrass. Nests are made from rootlets, grass stems, leaves and bark. The nestlings remain in the nest for 10 days. They are barely able to fly when they first leave the nest so they remain in dense cover for about a week.