

## The Genus Pardalotus.

BY A. G. CAMPBELL, POMONAL, VICTORIA.

(Read before the Bird Observers' Club, 17th March, 1909.)

### KEY TO THE GENUS.

Crown uniform black (or greyish in youth).

Rump dark brown; throat and chest yellow (2, 3, 7).

*P. melanocephalus*.

Rump yellowish; throat yellow; chest white (1, 3, 8).

*P. uropygialis*.

Crown black spotted with white (or yellow in youth).

Lores scarlet; primaries edged rufous (1, 2, 3, 7, 8).

*P. rubricatus*.\*

Lores white; primaries black except tips (white).

Rump mostly chestnut (2, 3, 4, 5, 6, 7, 9). *P. punctatus*.

Rump all yellow (6, 7, 9). *P. xanthopygius*.

Crown black, streaked white (grey in youth); always a few yellow or red feathers at base of primaries.

Nearly all primaries edged white, making a conspicuous white patch (2, 3, 4, 6, 7, 9). *P. ornatus*.

Third or third and fourth primaries only edged white.

Small yellow patch on wing; third primary edged white (4, 5). *P. affinis*.

Small red patch on wing; third primary and sometimes fourth edged white (2, 3, 4, 6, 7). *P. assimilis*.

Crown mottled olive, like back; no colour on wing, but each feather tipped white (5). *P. quadragintus*.

*Habitats* (after Hall).—1, Northern Territory; 2, North Queensland; 3, South Queensland and New South Wales (north-east coast); 4, South-east Australia; 5, Tasmania; 6, South Australia and north-west Victoria; 7, Central Australia; 8, North-west Australia; 9, Western Australia.

### NESTING-PLACES OF PARDALOTES.

In Victoria there are four species of Pardalotes, perhaps five. Two belong to the section having crown of head streaked with white. These are—*P. ornatus*, in northern Victoria, and *P. assimilis*, in southern Victoria. They have also a small bright-coloured patch (speculum) on the wing, while the other two are the more beautiful spotted birds, *P. punctatus* and *P. xanthopygius*. Now, the latter invariably build their nests in the ground. *P. xanthopygius* is found only in the north-western Mallee, and selects the protection of a tussock or some upturned bush in which to tunnel into the sandy soil. *P. punctatus* is found throughout the whole of Victoria, excepting the north-

\* Including *P. pallida* (see *Emu*, viii., p. 142).—A. G. C.

west; the nearest point to the habitat of the Mallee species to which it ventures probably being the Grampians, 50 miles away. This species will select the bank of a creek, side of a hill, quarry, ditch, rabbit burrow, or even plough furrow, where it will tunnel in a distance of about a foot, and then scoop out a cavity 4 inches in diameter in which to make its bulky domed nest of soft shreds of bark. No instances are on record of spotted Pardalotes nesting in any place but the ground.

The streak-headed Pardalotes usually nest in trees. Old red gum trees in the outskirts of Melbourne still give shelter to colonies of *P. assimilis*, which share with *Petrochelidon nigricans* (Tree-Martin) the numerous small holes the trees have to offer as ideal nesting-places. The other species, *P. ornatus*, is found north of the Divide and ranges right into the north-west, where in timber (stringybark) belts, and in red gums which mark ancient lakes or watercourses, it is abundant. The nesting practice is usually to build in holes of trees, but many cases have come under my notice showing the species will nest freely in holes in the ground. Along the banks of the River Murray, near Corowa, I have watched the birds at work. Although innumerable nesting-holes are to be found in the red gums thereabout (and I have no doubt many birds did nest in the trees), yet at places where the river's bank had been broken away by flood, though in summer high and dry, several pairs of Pardalotes were to be found nesting. The tunnel, about  $2\frac{1}{2}$  inches in diameter, was drilled in an upward direction into the hard silt, and at a distance of 9 inches or a foot in the nest-chamber was hollowed out. The nest of this species is always built of fine grass. The roof of the chamber may be but scantily lined, but the fact of grass being used at once distinguishes this species from *P. punctatus*. I have seen nests of *P. ornatus* some miles away from the river, drilled into the side of a ditch.

With *P. assimilis* the practice of building in the ground is not nearly so common. One spot, however, there used to be by the River Yarra, near Heidelberg, where a small party of this southern and larger variety regularly nested. It was a high silt bank, a replica of the Murray banks just described, and at least three pairs nested there. The burrow and grass-made nest were very similar to those of *P. ornatus*, but, together with the eggs, were of slightly larger size.

I mentioned that there were perhaps five species of Pardalotes in Victoria. I refer to a single specimen which I shot while in company with Mr. Geo. Shepherd at Somerville. It had a bright yellow speculum, and therefore answered to the description of *P. affinis* of Tasmania, where no red speculum birds are known. At that gentleman's home I was shown a hole in a chimney stack where a pair of *P. assimilis* had successfully reared a brood.