

Birds of the Nullarbor Plain.*

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THE Nullarbor Plain is a vast expanse of level territory lying inland from the Australian Bight. It stretches 400 miles from east to west and about the same distance north and south, covering approximately 100,000 square miles. The underlying strata is limestone, and this is covered with a thin layer of red sandy loam, which supports a characteristic growth of salt-bush and blue-bush, or a waving carpet of wild flowers. A special feature is offered by low depressions, which by conserving moisture, have permitted a few shrubs to gain a foothold. Apart from these only an occasional acacia or small group of weeping pittosporums relieve the otherwise featureless landscape. On the edges of the plain little groups of trees by acting as a windbreak or catchment for soil have resulted in the piling up of low, loamy ridges. Now and again the limestone comes to the surface in masses of jagged stone, like pressure ridges in an ice-field.

Perhaps the most interesting features of the plain are the "blow-holes." These are perpendicular openings in the surface, which after going down for about ten to fifteen feet, branch out into shallow caves, the sides of which often show a coral-like formation owing to the action of water on limestone. The origin of these holes was rather puzzling, but it would appear that they have been gradually dissolved out by water, for one finds pot-holes and natural wells from a few inches to several feet in depth, which I took to be blow-holes in process of formation. The word "blow-hole" arises from the fact that a current of air is usually going in or coming out; this is probably induced by the cold subterranean air coming out to join the sun-heated atmosphere.

It is rather surprising to find that this country, semi-arid in character, is teeming with wild life. In good seasons mammals, birds, reptiles and insects are in extraordinary numbers. Never in any part of Australia, except in selected breeding places, have I seen living things so numerous as they were at Rawlinna, on the western edge of the plain, last November. The song of Larks filled the air, brilliant Crimson and Orange Chats decorated the bushes, while on every hand one's attention was directed to some more or less interesting species. My notes are as follow:

* This paper should be read in conjunction with earlier *Emu* articles on Nullarbor bird-life—C. G. Gibson, IX, p. 71 (1909), S. A. White, XVIII, pp. 189-198 (1919), and F. L. Whitlock, XXI, 170-187 (1922). White gives photographs of the "blow-holes" inhabited by the Cave Owls.—EDITOR.

Little Quail (*Turnix velox*).—Frequently flushed from among white everlastings. Young were on the wing.

Australian Dotterel (*Peltodytes australis*).—Locally called "Snipe" and counted as one of the game birds. They have the characteristic habit of running a few yards and then stopping; they do not readily take wing.

Australian Bustard (*Eupodotis australis*).—Several male birds noted stalking among the blue-bush and salt-bush. On a previous occasion hen birds only were seen in the scrub near Ooldea, so it would seem that the sexes separate after mating.

Little Falcon (*Falco longipennis*).—A Little Falcon, which evidently had a nest in the vicinity, often followed us out on the plain, flying at a considerable height.

Brown Hawk (*Falco berigora*).—Very common on the plain, and frequently seen sitting on telegraph posts.

Kestrel (*Falco cenchroides*).—Kestrels were numerous. It is interesting to note that on the plain they seem to nest only in the blow-holes. Four nests were found in these situations. In one case the eggs, five in number, were on a shelf of rock ten feet from the surface. The hole was perpendicular and about four feet in diameter, and one wonders how the bird got in or out. Perhaps its hovering habits helped it to rise in the narrow space.

Cave Owl (*Tyto* sp.?).—Throughout the plain, living only in the blow-holes, are beautiful Owls, with pale-fawn-spotted backs and pure white breasts. Three were seen alive in the Perth Zoo. They are larger than *T. alba*, but did not seem so robust as *T. novæ-hollandiæ*, and the specimens show no variation.

Pink Cockatoo (*Kakatoe leadbeateri*).—Several single birds or pairs were noted from the train among the timbered sand-hills east of Ooldea.

Welcome Swallow (*Hirundo neoxena*).—Seen in numbers at practically every railway station along the line.

Hooded Robin (*Melanodryas cucullata*).—These Robins were very plentiful, and from the number of immature specimens about, it was evident that they had finished nesting.

Crested Bell-Bird (*Oreoica gutturalis*).—A clear, high-pitched song often denoted the presence of the Crested Bell-Bird, but its habit of staying quite still in a bush made it difficult to locate.

Nullarbor Quail-Thrush (*Cinclosoma alisteri*).—Every few hundred yards one would be sure of seeing these birds dodging away among the bushes. Sometimes they would dart under cover and remain hidden, but if startled they would rise and fly fifty yards or so over the plain at a fair height from the ground. Young were on the wing, and their colour harmonized perfectly with the reddish soil.

White-browed Babbler (*Pomotostomus superciliosus*).—Tame and curiosity characterized the Babblers, flocks of which were often met with in the drongas.

Crimson Chat (*Epthianura tricolor*).—These crimson gems, sitting on the grey bushes, were quite a feature of the plain. They were very numerous. I journeyed ten miles to the north and seventeen miles south of the line, and they were evenly distributed all the way. Young were on the wing.

Orange Chat (*Epthianura aurifrons*).—Only a few of this species were noted. They were quiet and inconspicuous compared with the last-named.



CRIMSON CHAT (♂) ABOUT TO FEED YOUNG.
Photo. by O. Webb.

Eastern Whiteface (*Aphelocephala leucopsis*).—The dumpy, round-headed Whitefaces seemed to be in nearly every shrub. They were in groups of four or five, and had just finished nesting.

Redthroat (*Pyrrholaemus brunneus*).—A pleasing trill drew attention to the Redthroat, which was seen in the low bushes; it had somewhat the appearance and actions of a Wren.

Rufous Field-Wren (*Calamanthus campestris*).—Not uncommon, but very wary. On being disturbed they would quickly get out of sight in the undergrowth or fly swiftly away, and they could not be flushed again.

Brown Song-Lark (*Cinchorhampus cruralis*).—One was seldom out of sight or hearing of Song-Larks, though they were very wary, and seldom allowed an approach within fifty yards. The song, which is uttered while flying slowly at about a hundred feet from the ground, is not so loud nor so sustained as that of the eastern form. If alarmed they fly swiftly away, and often perch in bushes.

Blue-and-white Wren (*Malurus cyanotus*).—Not uncommon. Only two males were seen, but several groups of females. In no case did I see the two sexes together. The male when disturbed went straight away in a long flight, and was a most conspicuous object; the females, however, were not at all timid. I followed bands of uncoloured birds for some time in the hope that they would be joined by males, but the latter were never in their vicinity.

Masked Wood-Swallow (*Artamus personatus*).—Practically every dronga had its complement of Masked Wood-Swallows, and there must have been many thousands in the vicinity of Rawlinna.

White-fronted Honeyeater (*Gliciphila albifrons*).—One only seen and obtained for identification.

*Singing Honeyeater (*Meliphaga virescens*).—It was rather strange to find Honeyeaters in fair numbers where there were no honey-bearing flowers. This species, like many of its family, had an irregular, jerky flight.

Pipit (*Anthus australis*).—It apparently would not be easy to find open country in Australia where Pipits are not in evidence. Their little brown forms are common enough on the Nullarbor Plain.

Zebra Finch (*Taniopygia castanotis*).—As far as I could ascertain, these were the only birds that found it necessary to come into the station regularly for water. Scattered flocks, consisting mostly of immature birds, were noted in the drongas.

Raven (*Corvus coronoides*).—Large flocks of Ravens were often noticed.

Naturalists generally will regret the illness of Mr. Harry Burrell, R.A.O.U., C.M.Z.Z., who was stricken down early in December while doing research work on the platypus in the Namoi River, N.S.W. At present (December 27), Mr. Burrell is recovering steadily in Famenoth Private Hospital, Randwick, Sydney.