

'Birds of a Feather'

VOL. 45]

OCTOBER, 1945

[PART 2

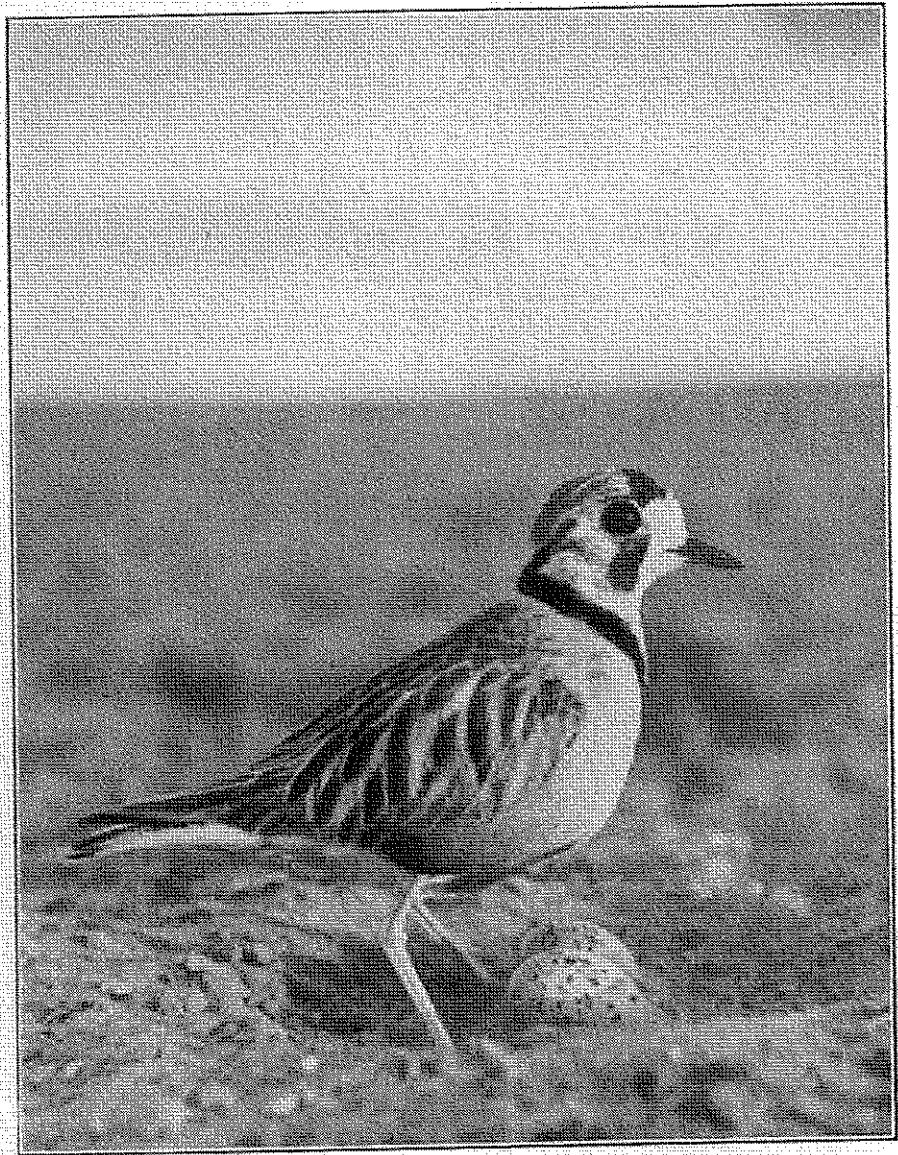
## **Some Random Observations regarding Incubation**

By R. T. LITTLEJOHNS, Melbourne, Vic.

Let it be understood that these notes are not the result of any form of scientific observation, but have been suggested by a review of the writer's experience with photographic subjects that have been incubating eggs. They refer particularly to those species the young of which are able to leave the nest immediately on hatching, and it is suggested that the conduct of the adults of such birds during incubation is influenced to a remarkable degree by climatic conditions.

Naturally there are several factors which affect the attitude of a sitting bird, or pair of birds, towards the task of incubation. One factor is the stage reached in incubation, as eggs freshly laid may with safety be left unattended for periods which, later, would be fatal to successful hatching. Then, in the presence of an observer or when any other disturbing circumstance is present, there is often either a characteristic fearlessness or timidity of the species. This attribute may be modified in isolated cases by the unusual disposition of an individual bird. In the cases of birds which are builders of normal nests and the young of which are hatched in a helpless state, the three foregoing factors cover practically the whole field. Such birds, apparently because of the greater frailty of the contents of the egg and its generally thinner shell, must sit fairly consistently in any weather.

In supporting the earlier statement that the conduct of birds having young that are fully developed at hatching (precocial birds) is governed mainly by climatic and weather conditions, it is proposed simply to refer to three or four experiences which are typical of a great number spread over many years. Two of these experiences refer to birds of the Mallee areas, where the importance of the



Australian Dotterel about to brood.

Photo. by R. T. Littlejohns.

weather factor is more apparent than in southern Victoria. In the latter area there are comparatively few days when the air is not at least cool, though there are days when the heat of the sun is fierce. It became apparent in the Mallee that those birds the eggs of which lay in the open, found it unnecessary to sit to any extent in the daytime. When quite undisturbed, these birds did sit during part of the day, possibly because it is natural for a bird with eggs to sit on them. But when any influence was present which discouraged sitting, the eggs were left unattended for long periods without harmful effect.

In September, 1942, Mr. C. E. Bryant and the writer, whilst spending a fortnight at Manya near Pinnaroo, discovered a nest of the Australian Dotterel (*Peltohyas australis*). The adult birds were not seen at all on the day the eggs were discovered, nor on the day following when a rough hide was erected thirty feet away. From within the hide the birds were watched for considerable periods on subsequent days, but only when the weather was cold was there anything approaching consistent sitting. On normal days, sitting was confined to early morning and late evening, and almost all attempts to obtain pictures were made in those periods. Often the evening session of sitting was delayed so long that the sun had almost set before photographs could be taken. The picture reproduced was the result of a race between the return of the Dotterel and the setting of the sun. The shadow thrown across the eggs by the edge of the nest depression indicates just how close to the horizon the sun had sunk. In passing it may be mentioned that during two or three days the eggs were found to have been covered almost completely with earth amongst which short pieces of dry grass stems had been incorporated, apparently to provide the necessary ventilation.

Exactly similar difficulties were encountered at the nest of a pair of Black-breasted Plovers (*Zonifer tricolor*) in the same locality. Quite soon after sunrise the birds would leave the nesting area and then paid little attention to the eggs during the hours of daylight. The frequency of their visits was checked on suitable days by smoothing the surface of the sand surrounding the eggs and by examining, some hours later, the footprints which recorded the visits that had been made in the interval. On cold or wet days the birds returned soon after being disturbed and showed all the interest in the eggs which one had been accustomed to expect. The progress of the eggs towards incubation appeared to cause no alteration in the indifference shown on mild days.

A recent experience of the nesting of the Little Grebe at a swamp near Frankston provided further evidence of

indifference during mild days. The nest contained eggs during February 1945, during which month the weather was extremely mild. On most days the birds would not visit the nest for more than a few seconds at a time, unless they had been deceived into a belief that the photographer had left the locality entirely. The presence of the camera did not appear to cause any anxiety. If the photographer, however, retired directly to his hiding place, over a retaining bank and out of sight, the birds were not convinced and would spend hours watching the nest from a little distance, only very occasionally visiting it to lift and replace the weeds with which the eggs were covered, and then to depart. When, however, the writer walked away in full view for a considerable distance and afterwards crept back on all fours to a prepared hiding place, the birds were reassured and resumed normal sitting without delay.

On the one cold day during which the nest was under observation, the conduct of the birds was changed entirely and the reasonably close presence of the photographer was disregarded. Similarly, on one very hot day the birds maintained a close interest in the welfare of the eggs. On this occasion, however, they did not sit, but visited the nest often to fuss with the weeds which covered the eggs and on one occasion to stand vibrating the wings rapidly, obviously with the idea of ensuring proper ventilation in order to keep the eggs cool.

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**Black Cockatoos with Red Crests.**—The following paragraph occurs in Mrs. Felton Mathew's Journal, in the *Royal Historical Society Journal and Proceedings* (XXIX, II, p. 107,) under the date May 11, 1833. The locality is the Macdonald River, a tributary of the Hawkesbury:

—we startled a number of black Cockatoos perched in some Oaks overhanging the water, one we shot, and the others hovered round a long time making the most hideous screaming, but too wary to venture within shot; they are very handsome particularly in flight, as they then extend the feathers of the tail, displaying the scarlet bars, which form a lively contrast to the rest of their plumage, a dusky black; some few have a scarlet crest too, resembling the yellow crest of the White Cockatoo, but these are rare.

The above is of considerable interest, especially in view of the statement by the ranger in charge of Flinders Chase, the reserve at the western end of Kangaroo Island, that he had secured, a few years ago, a black cockatoo with a *red crest* which had been caught in a falling tree, and had placed it in a cage. From this, with the aid of its mate, it managed to escape. The ranger and the members of his family stoutly maintain that it had a red crest.—J. B. CLELAND, Adelaide, S.A., 30/7/45.

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