

FOUR-MINUTE DIVE BY DUSKY MOORHEN

By R. T. PARROTT.

On October 14, 1963, the following behaviour of a Dusky Moorhen (*Gallinula tenebrosa*) was observed on the Onkaparinga River about four miles west of Clarendon.

The bird was seen to disappear under shrubbery overhanging the bank of the river. Upon investigation it was noted that the bird was submerged with only its head above water. A short time later my companion observed that the bird was now completely submerged, the head approximately one inch below the surface. While being observed the bird remained 3 minutes 30 seconds (timed with a watch) below the surface before rising, with only its head above water, for air. My companion reported that it submerged again about 30 seconds later. This dive was not timed and no further observations were made.

This bird thus remained below the surface of the water for approximately four minutes, allowing about 30 seconds for the time between my companion calling and my commencing timing.

The following information on some British birds was extracted from the literature by Mr. G. Clarke.

Moorhen (*Gallinula chloropus*)

A note on the diving habits from Witherby et al "*The Handbook of British Birds*."

"Will dive on occasions, e.g. when suddenly disturbed and especially in connection with display."

"Birds which have dived when startled frequently remain almost submerged, preferably under cover of bank or amongst plants or surface debris, often exposing first beak only, and sometimes little more, or gradually showing head or head and surface of back, and remaining thus till danger appears to have passed.

"The means by which this has been effected has been disputed. Some have maintained that it is incredible that the buoyant bird—whatever may be the case where submergence is only partial—could maintain itself almost completely under water without artificial aid, and it has been emphatically asserted that it does in fact hold on to the stems of water plants with its feet. J. C. Atkinson, for example, stated many

years ago that he had repeatedly seen the feet holding on to submerged weeds and flags and that he had shot birds hiding in this manner which still grasped pieces of plants in their feet when removed from the water. It seems clear, however, that the bird is capable of submerging the whole trunk without such assistance, and Dr. C. B. Ticehurst has pronounced himself satisfied that a bird which showed no more than the beak and forehead above water did not hold on to anything with its feet. It must also be remembered that the behaviour described is not confined to the Moorhen. The Little and other grebes if alarmed may remain after a dive with only the head exposed, and although this is usually in the shelter of plants the feet are ill adapted for grasping anything and there is no evidence whatever that they do so, while divers if alarmed can sink the whole body beneath the surface as they swim on completely open and deep water."

No reference is made to the length of dives made by the Moorhen, but 25 and 27 seconds are recorded as the maxima for the closely related Coot (*Fulica atra*).

Shag (*Phalacrocorax aristotelis*).

Average of 54 dives was 53 seconds, with individual dives of 70, 85 and 170 seconds. Exposure of head possible during long submergence.

Cormorant (*P. Carbo*).

Longest dive recorded, 71 seconds.

Great Crested Grebe (*Podiceps cristatus*).

Longest dive recorded, 50 seconds.

Northern Diver (*Colymbus immer*).

Usual dives 40–70 seconds. Longest recorded are 2 minutes and one of 3 minutes, which is probably the maximum.

Black-throated Diver (*C. arcticus*).

Maximum dives 95 seconds and exceptionally 2 minutes, during which the bird travelled nearly a quarter of a mile.

The Shag, Cormorant and Divers are all large and powerful birds, and the last five species all capture their food below the surface so one would expect them to be expert divers.