

Short Communication

Submissive display in young helmeted guineafowl

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The submissive display of guineafowl chicks to their parents or guardians is described.

Die onderdanige gedrag van tarentaalkuikens teenoor hulle ouers en voogde word beskryf.

Helmeted guineafowl (*Numida meleagris*) are gregarious and are mostly found in social flocks of about 10–20 birds. The breeding cycle starts in October in the Transvaal, when pair-formation becomes significant and then prevails until about February of each year. Guineafowl are monogamous and form permanent bonds. Most chick (about 8 per brood) are observed during January.

This note describes field observations of the submissive behaviour of guineafowl made on a small flock of individually identifiable birds in the Krugersdorp Game Reserve (26°05'S/27°46'E) from April 1982 to March 1984.

Submissive displays were observed mainly between a parent/guardian (senior flock members) and offspring. These activities are seen throughout the year, but appear to peak just after the fledging of chicks, i.e. when they are about 8 to 12 weeks old. At this stage of development, juvenile guineafowl forage further away from their guardians (from 1 m previously to 20 m), and also forage in sparse cover. Under these more independent circumstances, chicks become more vulnerable to clashes with other guineafowl and predators.

The juvenile's first usual reaction when confronted by predators, strange noises and objects (e.g. motor vehicles) is to retreat back towards the parent/guardian. On arrival, it exhibits submissive display, the function of which appears to be the re-establishment of the close relationship (brooding and foraging side-by-side) that had existed during the first 10 weeks of the chick's life. A juvenile in submissive display runs to the guardian and, when about 2 to 5 m away, opens and raises its wings completely (Figure 1a), sometimes jumps into the air as if its foot had been stung, and then normally circles 3 to 4 times with open wings around the parent/guardian. During the circling the juvenile may touch the ground surface with one open wing, possibly for support. When the juvenile eventually stops displaying, it often tries to peck the guardian lightly on the breast and to crawl under the guardian (Figure 1b). The reaction of the guardian is often aggressive e.g. pecking, trampling and dart chases; but these do not deter the chick. Submissive display may also be given after the guardian or a senior member has threatened the

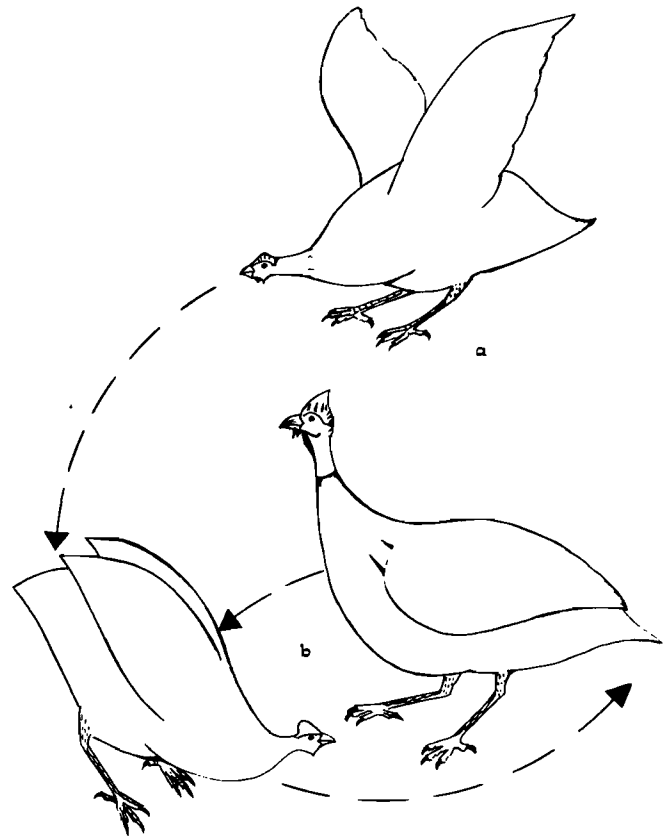


Figure 1 Submissive displays of young helmeted guineafowl.

juvenile for coming too close or for interrupting its scratching.

Forbearance with inferiority and the punishment of young guineafowl are partly comparable to the behaviour observed by Goodwin (1958) in red-legged partridge, *Alectoris rufa*. Goodwin explains, among other things, that submissive displays are a conflict between tendencies to remain and to escape. In other words, the displaying partridge may have felt inferior to the senior but still attracted. Goodwin's observations however, were based on studies of pairing behaviour by adults. Figure 2 illustrates a high intensity submissive display of a red-legged partridge. The raised head and drooping breast are similar to the posture assumed by the young guineafowl (Figure 1b). Young guineafowl however bend their legs more and were not observed to raise the wing and upper tail feathers significantly.

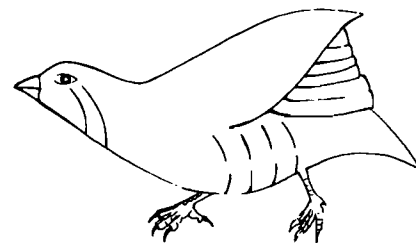


Figure 2 High intensity submissive display of red-legged partridge (after Goodwin 1958).

Reference

- GOODWIN, D. 1958. Further notes on pairing and submissive behaviour of the red-legged partridge *Alectoris rufa*. *Ibis* 100: 59–66.