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**Precocious Sexual Competence in the Ground Dove.**—On Middle Torch Key, Monroe County, Florida, on 5 June 1961, I shot a female Ground Dove (*Columbina passerina passerina*). The bird had been foraging in a large clearing in the hardwood scrub forest typical of the larger Keys. The time was late afternoon, and the bird was not accompanied by another dove. When the bird was prepared as a skin specimen (KU 38875, 46.5 g, body in alcohol), it was found to be undergoing the post-juvenal molt, to be markedly immature in bony characters, and to be reproductively active.

The age of the bird could be judged fairly well by degree of ossification of the skull and by extent of the postjuvenal molt. In the skull, only the squamosals and the interorbital parts of the frontal bones showed double-layering with supporting trabeculae; doves about five months old ordinarily show more double-layering, with only the posterior part of the frontals and much of the parietals remaining single-layered. The first four remiges of each wing were freshly grown, the fifth remex of each was ensheathed, and the distal five were those of the juvenal plumage; on the body perhaps half the feathers were still of the juvenal plumage although certain areas (for example, the crown) had all fresh feathers. Individuals about five months old commonly show this stage of the postjuvenal molt. It is reasonable to consider this bird as less than or about six months old. The amount of full ossification of the skull indicates a somewhat lesser age, but it is entirely possible that the rate of ossification had been slowed, owing to the metabolic commitments of reproduction. Ground Doves about six months old in southern Florida in June must be fairly common, because the populational breeding activity of the doves is on a 12-month schedule in subtropical latitudes (Dickey and van Rossem, *Field Mus. Nat. Hist., Zool. Ser.*, 23: 1-609, 1938).

Reproductive activity was clearly evident. The ovary contained two ruptured follicles, and a shelled egg was in the terminal part of the oviduct (accounting partly for the heaviness of the bird). It may be questioned whether or not the bird was mated, but on two counts it seems likely that it was. First, and most important, doves ordinarily do not ovulate without the psychophysiological stimulation resulting from the presence of a mate, provided that the environment is otherwise favorable for breeding (Lehrman, Brody, and Wortis, *Endocrinology*, 68: 507-516, 1961). Second, the bird was foraging alone, completely without reference to other Ground Doves, pairs of which were feeding within 30 to 50 meters of this female. A mated Ground Dove either restricts its social activity to its mate, or travels alone in its absence (Nicholson, *Wils. Bull.*, 49: 101-114, 1937); an unmated bird tends to form a series of exceedingly transitory liaisons with pairs or singles, and these temporary associations are the only social activities of a bird until it forms a pair bond (Johnston, ms). The fact that the female was alone could therefore be interpreted as fair evidence that it was mated. This would presume that the male was sitting on the one egg laid previously, which is plausible, for incubation in the Ground Dove begins with the presence of the first egg, and the male usually sits from midmorning to late afternoon.

This seems to be the first recorded instance of precocious reproductive activity by Ground Doves. Moreover, for any species of dove, functional sexual behavior is unusual prior to six months of age. The Ring Dove (*Streptopelia risoria*), a species

probably subject to strong selection by man for vigorous reproductive capacity, first shows differential sexual behavior at four months of age (Craig, *J. Comp. Neurol.*, 19: 29–82, 1909) or at five months of age (Lehrman, *Behaviour*, 7: 241–286, 1955). Incidentally, the domestic fowl, clearly selected for egg production, first lays when six to 10 months old (see, for example, Hamilton and Golden, *Endocrinology*, 25: 737–748, 1939). Breeding by juveniles has been found in several passerine birds in equatorial Colombia; these include two sparrows (*Coryphospingus pileatus* and *Sporophila minuta*), a vireo (*Hylophilus flavipes*), a swallow (*Stelgidopteryx ruficollis*), and a furnariid (*Synallaxis albescens*; Miller, *Proc. XI Congr. Internat. Ornithol.*, pp. 495–503, 1955), and the Andean Sparrow (*Zonotrichia capensis*; Miller, *Proc. Nat. Acad. Sci.*, 45: 1095–1100, 1959). Breeding at temperate latitudes by juvenal birds is most uncommon but has occurred in the Red Crossbill, *Loxia curvirostra* (McCabe and McCabe, *Condor*, 35: 136–147, 1933).

Far from the equator the appearance of well-ordered environmental cycles is characteristic, and most populations of birds show one annual reproductive effort, related to the environmental cycles. Once this kind of environment and cyclic reproductive response are evident, the opportunity for young birds to breed seems to disappear. The breeding of Red Crossbills in juvenal plumage is not a contradiction to this, because the species seemingly is refractory to photostimulation and is capable of breeding in any month of the year (H. B. Tordoff, pers. comm.; McCabe and McCabe, *loc. cit.*); proximate stimuli for such reproductive activity include availability of conifer seeds, maturation of which is aperiodic at any one locality. Of the small American columbids, Inca Doves (*Columbina inca*) at University Park, New Mexico, have one annual reproductive effort, and individuals first breed when they are nine to 11 months old; such an age at first breeding would be expected of Ground Doves at high latitudes. There is no direct evidence on this, but it is known that Ground Doves characteristically breed seasonally in the north-temperate zone, as in Arizona (Bent, *Bull. U.S. Nat. Mus.*, 162: 490 pp., 1932). In any event, it would be chiefly in populations at equatorial latitudes or in subtropical lowlands that persistent annual breeding would be found. This schedule and an essentially permissive environment seemingly are necessary before juvenal birds can be added to the reproductively active part of a population.

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#### **The First Record of the King Eider, *Somateria spectabilis* (Linnaeus), and the Occurrence of Other Anseriformes in Florida.—**

Fulvous Tree Duck, *Dendrocygna bicolor* (Vieillot)

Inclusion of Florida within the range of this species in the A.O.U. *Check-list* (1957: 69) was on the basis of a sight record, despite declared intention of the committee to recognize such occurrences only when supported by specimens. During the winter 1960–1961 this duck “turned up in unprecedented numbers” in Florida (*Aud. Field Notes*, 15 (3): 322, 1961). Two specimens, shot by sportsmen, are in the University of Miami Reference Collections (UMRC). Both are adult females and were prepared as skeletons. One, weighing 731 g, was collected 26 December 1960 in Dade County, west of Miami. The second, weighing 712 g, was taken in the Indian Prairie marshes, Glades County. These are believed to be the first specimens recorded for Florida.