

Schreiber checked only two clutches from laying to hatching (floating the eggs five times), but he also floated 100 other eggs whose hatching dates were known (27 of these eggs were floated four times). Schreiber presented no data on incubation periods for individual eggs (A, B, and C), but he reported that incubation periods for completed clutches varied from 25–29 days. Because Schreiber's methods differed from ours and because it is not clear what incubation period he used for the 100 eggs of known hatching date, his results and our findings cannot be properly compared.

Hays and LeCroy (Wilson Bull. 83:425–429, 1971), using the egg immersion technique for Common Terns (*Sterna hirundo*), concluded that the stage of incubation of eggs can be estimated within approximately 2 days. The difference in their findings and ours with respect to the usefulness of the technique is probably due to: (1) small, non-representative variability in flotation measures as a result of their small sample size ($N = 2$ for each of nine categories of embryo development), (2) their use of C-eggs only, resulting in lower variability than that when all three eggs are used, and (3) possible inter-species differences.

Variability among adults with respect to time spent incubating and efficiency of heat transfer from the body to the eggs may result in differences in the rate of development of the embryo, and hence in differences in the rate of change in specific gravity. These then result in differences in rotation and flotation measures at similar stages of incubation.

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Communal harvesting of a transient food resource in the Mexican Jay.—Increased efficiency in locating and harvesting transient food resources has been implied as a possible advantage to members of communal groups (Brown, *Ann. Rev. Ecol. Syst.* 9:123–135, 1978), but descriptions of such events do not seem to have been recorded for communal species. The following incident was observed in the Chiricahua Mts., Arizona, 6 June 1979. At 09:45 a banded female Mexican Jay (*Aphelocoma ultramarina*), MOOMXO, which had been singing quietly 3 m from me, flew to a patch of sunny, bare ground and began picking up and swallowing winged reproductive ants as they emerged from their nest, paused in the sun, and flew away. She took 18 ants in about as many seconds, and flew to a tree. A few seconds later BOXR, a 1-year-old bird, flew to the spot and took 50 reproductives before I had to look away, again at about one per second. Within 2 min a total of nine jays, most of the flock of 13, arrived and rapidly consumed the ants. By 09:55 the emergence was over, and no reproductives remained at the site. In about 10 min a transient food source had been discovered and shared among nine birds.

It is not clear how the recruits learned of the presence of the food, but Mexican Jays typically watch each other when foraging and are quick to go to the site of a discovery by another jay. Soft calls are continually given by members of a foraging group, and these might have been involved. More conspicuous as signals of food, however, are the swift, direct glides to the spot. Although it is possible that all nine birds would have found this resource

without signals from other birds, the speed with which the birds assembled suggests otherwise. Even a slight delay would have meant loss of some of the food from the group.

Although it is generally acknowledged that birds in flocks profit energetically from each others' discoveries of food, the possibility of advantage to the discoverer, beyond the food it consumes, does not seem to have been considered. In this case MOOMXO probably profited in other ways too. As the oldest member of the unit (at least 11 years old) and as a member since the study began in 1970, she was probably related to others in the unit (Brown and Brown, *Science* 211:959-960, 1981). In addition, some of the recruits fed some of the winged ants to the nearby fledglings, which included those of MOOMXO together with those of two other females. MOOMXO may also have been related to these other fledglings. Thus, there is a distinct possibility that MOOMXO benefitted her indirect fitness as well as her direct fitness (Brown and Brown, *Symp. Natural Selection and Social Behavior*, Chiron Press, New York, New York, 1981) by calling the attention of her flock members to this transient resource.

I have observed similar, though less dramatic and less thoroughly documented, instances of rapid exploitation of emergences of reproductive ants in the Mexican Jay and the Grey-crowned Babbler (*Pomatostomus temporalis*).

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Effect of unlimited food availability on the breeding biology of wild Eurasian Tree Sparrows in West Malaysia.—Ward and Poh (*Ibis* 110:359-363, 1968) suggested that Eurasian Tree Sparrows (*Passer montanus*) in Singapore initiate and finish breeding and molt 2-3 months earlier than conspecifics in South China, thereby completing these energy-consuming activities before food becomes scarce for Singapore birds. They observed that tree sparrows in Singapore (1°N) breed mainly from January to mid-May. The molt of primaries barely overlaps the breeding season and terminates by late August when the testes of adult males have fully regressed. The marked decline in the number of sparrows sighted and in mean adult body weight which occurred from October to December indicate a period of low food abundance.

If the timing of breeding and molt in tree sparrows is responsive to local food availability, then a population with year-round access to high-quality food should either breed continuously, as does the Common Moorhen (*Gallinula chloropus*) (Siegfried and Frost, *Ibis* 117:102-109, 1975), or at least extend its breeding season if the necessity for gonad rehabilitation precludes continuous breeding (Lofts and Murton, pp. 1-107 in *Avian Biology*, Vol. 3, Farner and King, eds., Academic Press, New York, New York, 1973). I studied the effect of unlimited food availability on the timing of breeding and molt of tree sparrows at the Universiti Pertanian Malaysia (UPM) campus (Serdang, Selangor; W. Malaysia; 3°N) where these birds congregated at the Poultry Unit to feed freely on the enriched commercial mash (17% protein and 3.2% calcium by dry weight) provided to laying hens. The "natural" tree sparrow diet consists of grass seeds and insects which are only seasonally abundant (Nawawi and Jantan, *Science and Education Diploma Program Third Year Project Report*, Universiti Pertanian Malaysia,