

years old or younger (Austin and Austin, 1956). Thus a cohort of Common Terns is probably past its peak in the breeding population before the equivalent cohort of Sooty Terns begins to breed. Deferred maturity occurs in many other seabirds, including many Larids (Lack, 1968). Robertson (1969) suggests that the transatlantic migration by juvenile Sooties from Bush Key, a colony relatively stable in numbers, keeps them from competing with older and presumably more efficient breeders for several years. The 3-year-old birds that visit Bush Key late in the breeding season have little chance of finding a suitable nest site and breeding successfully. By returning to the colony earlier in successive years, eventually they should be able to arrive early enough to find a suitable nest site and breed successfully. Thus deferred maturity keeps younger birds from competing with older, established breeders for nest sites, and also keeps the younger birds from undergoing the rigors of reproduction until they have a fairly high probability of success. The Fishers (1969) note a staggered arrival of age groups of Laysan Albatrosses, with the young birds not breeding for several years.

For deferred maturity to persist, individuals with such maturity must raise more offspring in the long run than if they first bred when younger. As one 32-year-old Sooty Tern is known to have bred on Bush Key (Robertson, pers. comm.), the adults there clearly have many breeding opportunities. Still Sooty Terns, by delaying breeding for several years and then by raising at most a single young per breeding season, have a lower maximum natality than other similar terns that feed close to their colony.

Lack (1968) proposes that birds raise as many offspring as possible with the usual clutch size being that that results in the most breeding adults in the next generation. Sooty Terns with a clutch size of one cannot raise more than one young per breeding season. Presumably the limiting factor is their distant and sometimes unreliable food supply.

Certainly the hypothesis fits the information from Ascension Island where an apparent failure of the food supply one season resulted in few chicks surviving (Ashmole, 1963). This and the long spells that Ascension adults spend foraging suggest that at most a pair could raise one chick. Other colonies that have been studied have not had such failures.

Except for the cats on Ascension Island, adult Sooty Terns suffer little predation and have a low annual adult mortality, perhaps around 12 to 18 percent at Bush Key (Austin, pers. comm.) versus 25 percent in adult Common Terns (Austin and Austin, 1956). The Austins' figures may have been influenced by band loss, as Grosskopf (1964) reports adult mortality in European *hirundo* as about 19 percent. Although the food supply may limit the number of young they can raise and hence determine the usual clutch size of Sooty Terns, perhaps deferred maturity is a function of the low predation on and high survivorship of the adults. High survivorship of adults could result in many birds competing for a limited