

TABLE 6. ADULT SOOTY TERN FORAGING RATES

Age of chick	Number of feedings	Probable number of foraging trips	Bird-hours of observation	Hours per foraging trip
1-15 days	144	113	369.42	3.27
16-27 days	20	19	84.58	4.45
Totals	164	132	454.00	3.44

ings that occurred when an adult fed a chick more than once after returning to Bush Key. This gives the probable number of foraging trips. Dividing this into the bird-hours of observation gives a rough estimate of the time an adult spent foraging, about 3.44 hours. Apparently foraging trips are about an hour longer when the chicks are older, but the sample size is small and the adults may just loaf part of the time. Note that here time is in bird-hours of observation whereas in Table 5 it is hours of observation, during each of which I watched about 15 chicks.

The two estimates are close enough to indicate that Sooty Terns at Bush Key probably forage 2 to 5 hours at a time when they are feeding their chicks. Adults seem to pass food to older chicks more rapidly on their return. Rather than standing with the chick and feeding it several times in a few hours, they seem to give it all the food they have and then leave.

Often I saw exchanges that appeared to be after foraging trips of 4 to 8 hours, but the birds may have exchanged in shorter intervals when I was not watching. Thus my records of foraging time are biased for shorter periods. Watson (1908) gives 4 to 7 hours as the interval between feedings by Dry Tortugas Sooties.

Sooty Tern chicks on Bush Key are fed more frequently than those in other colonies that have been studied. On Ascension Island and Christmas Island it appears that chicks are fed only about once a day, or even less frequently, but good information is lacking (Ashmole, 1963; Ashmole and Ashmole, 1967).

As the chicks grow, the adults become less attentive and often gather by the hundreds on the Bush Key beaches and sun much of the day. Other adults soar over the island during the hotter times of day. Perhaps adults away from their chicks spend part of their time in these groups. They must spend some of their time foraging but exactly how much is difficult to determine.

At Bush Key more adults are present and the colony is noisier in the evening than at any other time of day. Hence I think that both adults are probably in the colony at night, though both may not be with the chick at all times. Elsewhere Sooty Terns feed at night at least occasionally (Gould, 1967), but at Bush Key, with the noticeable influx of birds in the evening and exodus in the morning, I doubt that many