

adult walks around the scrape or to the edge of its territory and stands. Occasionally a bird leaves its egg to spar briefly with another tern, either a neighbor or one that has come too close. Generally Sooty Terns are much less bellicose during incubation than they are at other times in the nesting cycle. Perhaps home ground is permanently established and recognized, and the absence of chicks to intrude on others' territories enhances stability.

Adult Sooties commonly defecate near their egg. They walk to the edge of their territory and turn to face the egg before defecating. Sometimes the bird stretches both wings vertically above the body, leans forward with head outstretched, and defecates, thus stretching and defecating in almost the same motion.

Another activity of adults during incubation is suddenly flying away leaving the egg unattended. On some occasions the birds fly away when panicked and return almost immediately. Other times their absence seems to be associated with the aerial activity called dipping, described below.

ATTENTIVENESS

Sooty Terns are closely attentive during incubation. The percentage of time adults spend incubating or shading differs only slightly between sexes. Females spend a little more of their time incubating and males a little more shading, but with incubating and shading combined, the total attentiveness, analyzed by hour, differs by less than 1.2 percent between sexes. In all, the adult caring for the egg spends over 95 percent of the daylight hours either incubating or shading and only about 4.5 percent in a variety of other activities (Table 1). These other activities are commonest from 07:00 to 10:00 and from 17:00 to 18:00, the times when birds shift between incubating and shading (Figure 5). Presumably at these times egg and air temperatures are much the same, and care by the adult is not so critical. Sooties are most attentive from 12:00 to 15:00 and spend over 98 percent of their time directly caring for the egg, mostly by shading. This is certainly the time when the environmental temperatures are highest, and presumably when adult care is vital to the embryo's survival.

DIPPING

An activity of Sooty Terns at Bush Key that is especially noticeable during hot midday hours, but occurs occasionally throughout the day, entails their flying rapidly from the island, briefly dipping their bill, feet, or breast feathers into the water, and returning to the island. When only the bill is skimmed along the water's surface, it seems obvious that the birds are drinking, but dipping the breast feathers requires another explanation.

Usually each tern flies directly and rapidly from the colony at a height of about 10 feet. It then drops down, dips the bill in the water,