

In early evening, between 16:30 and 17:00, the terns gathered to circle and call northwest of Bush Key. Usually they started in a loose flock of 50 to 200 birds circling 50 to 100 feet above the water. They flew with a slow, seemingly exaggerated wing beat, often gliding between beats and drifting along in a circle 100 to 200 feet across. Eventually a few dropped low over the water and, assuming a more rapid wing beat, made a fast circuit over the edge of Bush Key and returned to the flock over the water. Gradually more circled over the island and a few started landing on the open sand beach on the north side of Bush Key. Occasionally all the birds on the beach flew rapidly and noisily back to the flock. There they circled and again started moving back toward the island. Around 18:30 the number of birds gathered on the beach increased. Fewer flew when disturbed, and they returned sooner when disturbed. All this time more terns continued to join the circling flocks and their calls grew louder.

Out over the water the flocking pattern changed slowly. At first all the terns were in one circling flock, from which they flew to the island. As more birds arrived near Bush Key, more flocks formed in a line strung out to the northwest. Presumably birds entered the farthest one first and then moved from flock to flock as they approached the island.

On 5 April at 17:30 I could see three such flocks, one about 1,000 feet north of Bush Key and the other two beyond. Between the flocks lines of birds flew with slow, exaggerated wing beats about 50 feet above the water. Beyond the last flock a line of terns, again about 50 feet above the water, was stretched out for several miles. Perhaps some birds approach Bush Key low over the water as they normally do later in the season, but most drifted in with the flocks described above. Most terns circled northwest of Bush Key but occasionally small flocks formed south of Garden Key. After sundown more terns landed and gathered on the beaches.

At sunrise no distinct flocks were present, although many terns circled and called over Bush Key or stayed on the ground. By 08:00 most birds had left the island, flying to the northwest. The exodus was not so well defined as the approach.

Flocking by Sooties is apparently a significant social activity. Although the adults apparently are spread throughout the Gulf of Mexico during the nonbreeding season, most individuals still commence breeding on Bush Key within a relatively short period of time. Even on Ascension Island where the breeding cycle is nonannual and there apparently is no selection for breeding in one given calendar month each year, the breeding cycles of most birds are still synchronized (Ashmole, 1963). Presumably highly synchronized egg-laying would reduce the time when individuals were vulnerable to predation at the nesting colony. Thus it seems possible that the flocking by terns prior to egg-laying synchronizes the reproductive cycles of individual birds.