

King, Am. Zool. 13:1259) and think that future tests should use smaller eggs, as Laskey (Wilson Bull., op. cit., 1950) did, our results do provide a systematic experimental test of, and are consistent with, the widely held conclusion that the activity of the host is important in determining which nests female cowbirds select to parasitize.

We thank Miami University for permission to work on the Bachelor Estate and Val Nolan Jr., Michael W. Monahan, and David R. Osborne, who also provided the quail eggs, for reading a draft of this note.—CHARLES F. THOMPSON AND BRADLEY M. GOTTFRIED, Dept. of Zoology, Miami Univ., Oxford, OH 45056. (Present address CFT: Dept. of Biology, State Univ. College, Geneseo, NY 14454). Accepted 8 Dec. 1975.

White-throated Swifts following farm machinery.—On 15 December 1973 between 1435 and 1445 in the Avra Valley, 25 km northwest of Tucson, Pima Co., Arizona we observed approximately 50 White-throated Swifts (*Aeronautes saxatalis*) following a harvester. The harvester was first observed traveling north to south in a quarter section field of sorghum. A large cloud of dust was carried 200 m from the machine by a westerly wind. The swifts, flying in a counterclockwise elliptical circuit on the leeward side of the machine, entered the dust cloud ca. 3 m from the harvester then turned downwind and flew 100–150 m before circling back upwind. This behavior continued until the harvester reached the southern edge of the field where it slowed to turn about. During this pause the dust cloud dissipated and the swifts ceased circling, quickly rose to an altitude of 150–200 m, and dispersed over a broad area. When the harvester began cutting again, the swifts rapidly congregated and resumed their counterclockwise circuit in the new dust cloud. Although we were not close enough to observe prey capture, we presume the swifts were taking insects disturbed by the harvester. Several species of birds are known to benefit from the disturbance created by agricultural machinery, however we could find no records for swifts.—STEPHEN M. ALDEN AND G. SCOTT MILLS, Dept. of Ecology and Evolutionary Biology, Univ. of Arizona, Tucson, Arizona 85721. Accepted 17 Dec. 1975.

Common Terns feed on mole crabs.—I camped on Ocracoke Island, Hyde Co., North Carolina on 21–23 July 1973. On my first visit to the ocean beach I noted Common Terns (*Sterna hirundo*) flying over the wave-washed sand, picking up and eating small prey. Observations from a distance of 10 m or less with a 10 × 40 binocular revealed that the birds were capturing and eating small mole crabs (*Emerita talpoida*). These crabs were frequently exposed momentarily by a wave breaking on the sand after which they rapidly burrowed back into the sand. An inspection of the wave-washed zone of the beach revealed that the mole crab population was several orders of magnitude greater than I have observed on any Carolina beach in my 7 years of regular visits to the coast. A handful of sand randomly taken from the appropriate zone of the beach usually yielded at least 1 crab, sometimes 3 or 4. The crabs were all quite small, ranging approximately 1.5–2.5 cm long. I scanned up and down the beach and estimated that about 70 terns were hunting for crabs in about 1 km of beach. No Common Tern was observed over the water and no other species of tern was observed hunting for crabs. Least Terns (*Sterna albifrons*) were observed catching fish 5–100 m offshore, Gull-billed Terns (*Gelochelidon nilotica*) were seen catching insects in the interior of the island, and Royal Terns (*Thalasseus maximus*) and one Sandwich Tern (*Thalasseus sandvicensis*) were seen flying over the area.

I visited the beach at least 10 times during 3 days and saw Common Terns catching crabs each time. On all visits I saw only 2 Common Terns over the water; neither was seen diving.

I spent 3 to 5 August 1973 on Bogue Bank, Carteret Co., North Carolina, and again observed Common Terns catching mole crabs on all of 7 visits to the beach. A few Common Terns were observed over the water, and one was seen plunging into the water, but most birds were hunting crabs. The crabs were almost as abundant as on Ocracoke Island.

I have visited the Carolina coast frequently in the past 7 years, and in the last 4 years 2 of my graduate students have been studying tern behavior. These observations of Common Terns capturing mole crabs are remarkable because we have not seen the behavior before, and because almost all Common Terns seen were catching crabs. Common Terns are known to feed on *Emerita* (Palmer, Proc. Bost. Soc. Nat. Hist. 42:1-119, 1941), but my observations appear to be unique because apparently most if not all Common Terns were feeding largely if not entirely on mole crabs over a wide area and for a period of at least 2 weeks.

Common Terns usually feed on fish, and heavy predation on crustaceans has been correlated with low availability of fish (Langham, Ph.D. thesis, Univ. Durham, 1968). I saw Least Terns feeding on fish while Common Terns were feeding exclusively on mole crabs. I suggest that the unusual abundance of relatively small mole crabs provided an easily obtained and sufficient diet for the terns. Mole crabs are relatively easy to capture but it seems unlikely that searching for crabs at normal population levels would result in sufficient captures to justify the effort. Fully grown mole crabs are probably too large for easy handling by Common Terns. My observations suggest that Common Terns can shift normal feeding behavior to exploit an unusual food source. The switch from a normal, essentially exclusive, fish diet to mole crabs is consonant with L. Tinbergen's specific searching image hypothesis (Arch. Neerl. Zool. 13:265-343, 1960).—HELMUT C. MUELLER, Dept. of Zoology and Curriculum in Ecology, Univ. of North Carolina, Chapel Hill 27514. Accepted 6 Nov. 1974.

REQUEST FOR ASSISTANCE

Owl bibliography.—"A working bibliography on the Order Strigiformes (Aves) from the world literature" is the title of a bibliography currently being compiled by R. J. Clark, D. G. Smith and L. H. Kelso. Particularly sought are articles appearing in local journals and sportsmen publications. Faunal lists, however, will not be included. The bibliography attempts to cover the world literature and distribution of it will also be worldwide. *All* reprints received prior to 1 July 1977 and dealing with owls *will* appear in the bibliography. No guarantee for reprints received after this date can be made. To insure inclusion of your work please send 2 reprints of each article to:

Owl Bibliography, c/o Richard J. Clark, Department of Biology, York College of Pennsylvania, York, Pennsylvania 17405.