The question arises as to how the terns pick up a number of fish. Dunn, in three years of studying fishing success in terns, has only once seen a bird dive with a fish already in its bill. This was a Sandwich Tern in Sierra Leone, January 1970. The regular arrangement of fish in the bills of birds noted on Great Gull Island suggests that the terns may pick them up rapidly from a school of fish at the surface when the fish are all heading in the same direction. Whether this is done by rapid diving or rapid dipping, or some other way remains to be seen.

We would like to thank Grace Donaldson, Lauren LeCroy, and Roger Pasquier, all of whom noted multiple fish, as well as others who participated in the watch, making complete coverage possible at the nests on Great Gull Island. We would also like to thank Lavett Smith for identifying fish collected on Great Gull Island, and the Department of Photography at The American Museum of Natural History, for reproducing the photograph.—HELEN HAYS, *Great Gull Island Project, The American Museum of Natural History, Central Park West at 79th Street, New York, New York 10024,* EUAN DUNN, *Department of Zoology, Durham University, South Road, Durham, England, (Present address: Department of Zoology, Edward Grey Institute of Field Ornithology, South Parks Road, Oxford, England.) and* ALAN POOLE, *Bellwood Farm, Geneva, New York 14456, 31 July 1972.*

Encrusted wings causing flightlessness in young terns.—While banding young Common Terns (*Sterna hirundo*) at West End Beach, Jones Beach State Park, New York, as part of a study of mortality, I have encountered several abnormalities which render the birds flightless. The commonest abnormality in 1969 and 1970 was fracture of the humerus apparently due to collisions with automobiles. The West End Beach colony lies on both sides of a U-shaped road, and auto traffic is heavy. Normal terns become capable of flight at 4–5 weeks of age, and at this age they congregate on open surfaces including the road, and many are killed or crippled by cars (Gochfeld, Newsletter of Linnaean Society of N.Y., 19(9):1–3, 1966). Flightlessness due to premature feather-loss (Gochfeld, Kingbird, 21:206–211, 1971; Hays and Risebrough, Auk, 89:19–35, 1972) first appeared at West End Beach and also at Gull Island in 1969. In 1970 and 1971 about one percent of chicks hatched at West End suffered premature feather-loss.

A third cause of flightlessness, feather encrustation, was observed first in 1969. Of about 1,600 Common Tern chicks banded that season five were found with several primaries of one wing matted and damaged. In late July I captured the first of these, a banded chick known to be at least 39 days old. It flapped vigorously but could not fly. Close examination revealed that the primaries of the right wing were encrusted with a white cement-like substance and were badly frayed. The shafts were denuded of barbs in some places. The substance appeared to be dried avian excrement which I was unable to remove with a knife. Although the material was not water soluble a forceful jet of water removed some of it, but caused further damage to the primaries. I released the bird. I found the bird on several subsequent visits and damage to the feathers progressed, while those on the other wing appeared normal. The other four birds were first found in August, after most normal young and adults had left the colony. Parents of flightless chicks attended them at least until 1 September, but on 15 September the adults were gone and I found remains of two of these chicks. One case of severely encrusted primaries was seen in 1970. In 1971 I found a bird estimated to be more than 5 weeks old which was unable to fly due to mild encrusting of the three outer left primaries. The bird was kept in captivity and after 6 days normal feather growth had progressed sufficiently to allow it to fly.

Harrison (Bull. Brit. Ornithol. Club, 75:113–114, 1955) reported a Guillemot (= Common Murre, *Uria aalge*) which had rectrices denuded of barbs for most of their length. He suggested that this was due to defective feathers rather than traumatic preening. The terns with encrusted feathers preened vigorously and very frequently in vain attempts to remove the crusts. It seems likely that actual damage resulted from both brittleness of the caked feathers and vigorous preening. W. R. P. Bourne (pers. comm.) believes that Harrison's example was not well chosen, and that his bird may have had feather wear normal for that season. I have found no mention of encrusted feathers in the literature, neither in the detailed report by the Marples (Sea Terns or Sea Swallows, Country Life Ltd., 1934), Palmer (Proc. Boston Soc. Nat. Hist., 42:1–119, 1941) or in numerous papers by Oliver L. Austin and O. L. Austin, Jr. I have not learned how the feathers become encrusted. Young terns frequently huddle together under small bushes of seaside goldenrod (*Solidago sempervirens*) which provide the main cover in parts of the West End Beach colony. When disturbed they may defecate, possibly fouling the plumage of nearby chicks. It is also possible that chicks may occasionally be showered by jets of excrement which flying adult terns emit when attacking intruders. Observations are needed to explain why only the primaries seem to be involved. Perhaps matting of other parts of the plumage escapes notice since the birds are not rendered flightless.—MICHAEL GOCHFELD, *Department of Ornithology, American Museum of Natural History, New York, New York 10024, 7 June 1972.*

Barn Swallows use freshwater and marine algae in nest construction.—Dixon (in Bent, U.S. Natl. Mus., Bull. 179:447, 1942) reports the occurrence of seaweed in Barn Swallow nests in caves along the California coast. In 1972, I found that Barn Swallows nesting on Great Gull Island used a large quantity of freshwater algae and some marine algae in constructing their nests. Great Gull Island, originally a fort, is a tern sanctuary at the eastern end of Long Island Sound, 72° 07′ W, 41° 12′ N.

I studied these nests from 23 May through 3 June 1972. Active nests were visited each day to check their progress, and possible nest sites were examined for indications of building activity. On 24 May I observed a piece of damp kelp on the rim of a Barn Swallow nest. Upon closer examination of the nest, I observed that it was composed primarily of globs of moist freshwater algae (*Schizomeris*). A subsequent examination of all other active nests revealed that they also contained varying amounts of freshwater algae. Old nests were repatched with algal rims and new nests were begun with algal globs.

I observed three nests that were in early stages of development. One was being constructed on a vertical surface within an open-ended wooden tunnel. It appeared to be initially supported by a small projection of the wall, and was at first a mass of algal globs into which several stalks of grass were stuck. Mud was not detected in this early construction. The nest was first observed on 27 May. On 28 May a mass of algae and grass was found directly under the nest, which had apparently been rebuilt after it had collapsed. On 29 May it appeared that part of the nest had fallen again. It continued to fall down and be rebuilt. After a collapse on 1 June the nest had not been rebuilt by 3 June when observations ceased. An examination of the fallen nest material revealed the presence of club mosses (*Lycopodium*) obtainable only at one flooded gun emplacement located approximately 1,000 feet away from the nest site.

Another new nest built directly on a vertical surface and composed of algae and grass was more successful. This nest was constructed within a brick-walled bunker. The first stage was the plastering of globs of algae directly onto the eroded brick surface. This