

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

was noted on 27 May. On 28 May several stalks of grass were present, protruding from the algal masses. On 3 June a two-foot-long grass stalk was hanging from the nest's outer surface, and a cup had been formed.

I also observed the construction of a nest on a flat beam inside a wooden porch in one of the unoccupied brick buildings on Great Gull Island. Small algal globs had been placed in a ring on a flat surface; several stalks of grass were present. This nest was first discovered on 30 May. The algae formed a ring about a bare hollow of wood. On 3 June I found several dried wads of algae in the hollow.

Great Gull Island offers several possible sources of freshwater algae. After exploring these, I found that the single actual source was one flooded, roofless cement bunker. The alga (*Schizomeris*), which formed a surface mat covering a depth of approximately two feet of stagnant water, was easily separated into small pieces. I saw Barn Swallows obtaining small algal masses from the bunker, and watched while one swallow flew to the bunker, disappeared within, and emerged with algae in its bill. It then added the algae to the rim of a nest located approximately 250 feet away.

I did not detect mud in the early construction stages of nests although nests that were being reused had bases of dried sandy soil. I dissected a deserted Barn Swallow nest that had been active in 1970 and observed the presence of dried *Schizomeris* algae and several different kinds of marine algae that are commonly found in the vegetation deposit along the high tide line. There are few reliable sources of mud on the island. It would be interesting to note whether or not the relative amounts of freshwater and marine algae employed vary significantly from year to year, how the use of the algae affects nesting success, and whether or not algae are employed as a nesting material by the Barn Swallow in areas where both algae and mud are amply available.

I am indebted to Helen Hays for assistance in preparing this note. I would also like to thank Dr. Kenneth Parkes for suggesting possible references and critically reading the manuscript. I would like to acknowledge the assistance of Isabelle Fries and Bill Schiller for help in identifying algal samples.—KATHLEEN DUFFIN, 211 Montross Road, Yorktown Heights, New York 10598, 30 August 1972.

Immature Robin gathering nest material.—On 22 August 1972 a Robin (*Turdus migratorius*) with throat and extreme upper breast still in the spotted juvenal plumage was foraging on my lawn in Larchmont, Baltimore County, Maryland. At one place it tore off, sometimes tugging hard to do so, about half a dozen blades of fine, dead grass. It carried these in its bill for several steps, then dropped them and foraged again. A minute later it ran at an immature Song Sparrow (*Melospiza melodia*) on the lawn and put it to flight.

Nice (Trans. Linnaean Soc. New York, 6:78-79, 1943) has assembled records of nest-material carrying by young birds of some other species. Other breeding behavior known for immature Robins includes attempts at copulation (Young, Amer. Midl. Nat., 53: 332, 1955) and, in captivity, the feeding of still younger birds (Favell, Wilson Bull., 47: 298, 1935).—HERVEY BRACKBILL, 2620 Poplar Drive, Baltimore, Maryland, 21207, 11 September 1972.

The nesting of the Apapane in lava caves on the island of Hawaii.—The Apapane (*Himatione sanguinea*) is one of the few members of the Hawaiian honeycreeper family (Drepanididae) that is still found in any numbers throughout the state. It inhabits the wet native forests and is a permanent resident of these areas.