

**Courtship behavior of the Pied-billed Grebe.**—Pied-billed Grebes (*Podilymbus podiceps*), of which no more than 4 were present at any one time, were watched on a small pond in Seneca, Maryland, from approximately 8 to 9 a.m. on successive week ends from March 22 to April 19, 1953. Activity suggestive of courtship was first noted on March 28 when 2 grebes swam together for a few moments with bills touching, one making a loud, rapid note *h'n, h'n* resembling a nasal laugh. On the following day 2 grebes made the same noise as they swam near each other. On April 5, one grebe (A) suddenly flew over to a second (B). Then B swam after A, remaining 2 to 6 feet behind. Grebe A kept turning its head from side to side as it swam away. The pursuit, which was not hurried, continued for about 30 feet. This same performance of one grebe flying to another, then swimming away with head turning, was observed 3 times in one hour. On April 12 a single grebe (C) remained in one spot and fairly motionless for some time. Suddenly it stood upright on the surface, beating its wings rapidly, and treading water with both feet. In spite of this vigorous and sustained activity the bird remained in one spot. Another grebe (D) was 20 feet away at the time and began to swim toward C, which soon ceased performing and swam toward D. As the 2 came together they floated side by side. Grebe D then held its wings out horizontally and beat them in a rather helpless fashion against the water. Grebe C mounted the back of D and both birds sank under the water with much splashing. After a few moments they separated and swam away. By April 25, the grebes had left the pond, on which they have not been known to nest in previous years.

On April 26 continued observations were made in a wooded swamp one mile from the pond. I waded to the middle of this small swamp until I was about 25 feet from 2 grebes which I couldn't see because of bushes. One made *coup, coup, coup* noises interspersed with *ugh* notes suggestive of air being sucked into a defective pump. The other grebe joined in with the *h'n, h'n* notes described above. Suddenly both birds burst into an open stretch of water, one pursuing the other at top speed. The bird I judged to be the male grabbed the female by the nape of the neck with his bill and held on vigorously for the next few minutes. During this time there was much thrashing about, the pair being as much under the water as above and moving about irregularly the whole time. The male hung on so that he was somewhat on the side of the female. When they had separated and returned behind the bushes, I waded through and found an uncompleted nest. This consisted of old bull rush stalks on top of which was a circular layer of mud and plant matter, the whole resting on the submerged end of a log in 3 feet of water. There were no eggs. Grebe feathers floated nearby on the water. A week later the nest had not been added to, although one grebe was calling in the vicinity. No more grebes were seen in the swamp after this time.

Comment: Courtship activities and at least attempted coition may take place among Pied-billed Grebes before they reach their nesting waters. Activities associated with coition may be more abrupt and violent when eventuating in the vicinity of a nest as Glover (1953. *Wilson Bull.*, 65:32-39) has also described. Courtship behavior of Pied-billed Grebes, especially the standing upright on the water and the head turning, shows some resemblances to that described for other species of grebes.—LAWRENCE KILHAM, 8302 Garfield St., Bethesda, Maryland, May 11, 1953.

**Blue Jays feed tent caterpillar pupae to nestlings.**—Although it is generally known that American cuckoos (*Coccyzus americanus* and *erythrophthalmus*) and Baltimore Orioles (*Icterus galbula*) feed on tent caterpillars (*Malacosoma americana*), there are few references to the important activity of Blue Jays (*Cyanocitta cristata*) in

the control of this pest (see Forbush, 1929, "Birds of Massachusetts, etc.," Part 2, p. 383). In April and May, one pair of Blue Jays will destroy hundreds of the cocoons to feed the pupae to their nestlings, thus eliminating potential thousands of eggs due to hatch on fruit trees the following spring.

I first observed Blue Jays gathering the cocoons in 1948 while watching a jay nest near my house. As the food brought to the nestlings was always carried inside the mouth instead of between the mandibles, it was necessary to watch the adults as they foraged to find out what they were bringing to the nest. With binoculars, I could see them carry a small white object to a brush pile, hold it between the toes, and pound it with the bill. Something was then tossed into the mouth as the white object was released to float off in the breeze or cling to the twigs. After two or three repetitions of this performance, the parent jay flew to the nest to feed the young. Examining the white objects, I found them to be the silky cocoons woven by the adult tent caterpillar. The birds had opened each one at the end to extract the developing pupa.

Each year since, I have noted that Blue Jays hunt these cocoons about the wild cherry trees.—AMELIA R. LASKEY, 1521 Graybar Lane, Nashville 12, Tennessee, July 22, 1953.

**The cause of partial albinism in a Great-tailed Grackle.**—The presence of white feathers in certain areas, on a bird normally colored elsewhere, is a common and well-known phenomenon. The frequency of partial albinism (if we may really apply the term "albinism" here), usually very low, varies with the species; it is highest in the young of the Cliff Swallow (*Petrochelidon pyrrhonota*), but is also rather high in the Robin (*Turdus migratorius*), English Sparrow (*Passer domesticus*), and Brewer's Blackbird (*Euphagus cyanocephalus*). On the other hand, it is very low in such groups as the flycatchers (Tyrannidae), warblers (Parulidae), and the cardueline finches. But despite its widespread occurrence, we know little about the causes of partial albinism.

On November 26, 1952, a female Great-tailed Grackle (*Cassidix mexicanus*) was collected in some newly cleared fields between Las Varas and the Boca de Chila, on the coast of southwestern Nayarit, México. On picking it up, I found that it was white on the left side of the face in the lores, the rear of the malar area, and most of the intervening subocular region. On skinning the bird, thirty hours or more later, I found a large yellow cyst directly under the skin at the same point, in the muscular area beside the rear of the lower jaw. The bird's health was evidently unaffected, as it weighed 121.8 grams even though without fat (which condition is not unusual at this season).

The only preservative at hand was 70% alcohol. Nevertheless, the tissue was preserved and, through the kindness of Dr. Louise Micklewright of the University of Arizona, was prepared for sectioning. She found, however, that it would not slice properly because of a very hard sliver in the center. She then cut some sections by hand and stained them. Nowhere in the preparation are any cell nuclei visible. Thus it appears that the sliver had become accidentally embedded in the jaw muscles, and a very hard fibrous cyst had then developed around it.

These results fall short of what might be desired; but they do suggest that our knowledge of partial albinism might be advanced if collectors made a point of preserving the tissues lying directly under the affected areas. Some abnormalities may not be so obvious, macroscopically, as was this one. It must be admitted that I, for one, have neglected opportunities of this sort in the past.—ALLAN R. PHILLIPS, *Museum of Northern Arizona, Flagstaff, Arizona, July 17, 1953 (Contribution No. 203).*