

goose they surmise to be a bit beyond the capacity of the gourmand. Perhaps some ornithologist can provide a record to justify the use of the term 'goosefish.'

Hardly attributable to pressure during its incarceration within this soft-bodied fish is an accentuated recurvature of the merganser's beak.—STANLEY C. BALL, *Peabody Museum of Natural History, Yale University, New Haven, Connecticut.*

Some instances of bird tragedies.—Two unusual instances of tragedies to birds have come to my attention during the present year (1943). Early in April, one of our students reported the discovery of a dead Great Blue Heron (*Ardea herodias*) along the shores formed by the Sardis Dam Reservoir in North Mississippi. The bill of the heron was protruding through a good-sized fish. Apparently it had run its bill through the fish and, covering the external nares, had failed to extricate itself before it suffocated.

The second instance was related by a Mr. Dulaney of Tunica, Mississippi, who was fishing on Beaver Dam Lake near Tunica. About a hundred yards out in the lake he saw a duck, later identified as the Ruddy Duck (*Erismatura jamaicensis*), being pulled under the water from time to time. Paddling over to the spot, he snared the duck in a net and found one of its legs eaten almost off, presumably by a turtle. Due to the muddy water of the oxbow lake he was unable to be sure what had held the duck's leg. He made a special effort to try to pen the duck and heal its leg but it died a few days later. F. M. HULL, *University of Mississippi.*

Lawrence's Warbler in Maryland.—The fall migration of warblers through Maryland in 1942 was more advanced than usual. From the 19th of August until November, wave after wave of warblers was noted chiefly along hedgerows, through bottomland, and in upland forest areas in Prince George's County. Members of the *Vermivora* group were observed chiefly during the first week in September. On the fourth day of that month a Lawrence's warbler (*Vermivora lawrencei*) accompanied by several Blue-winged and Magnolia Warblers, Redstarts, Chickadees, and Titmice, was observed in thickets along an old farm field road near Bowie, Maryland.—BROOKE MEANLEY, 208 Oakdale Road, Baltimore, Maryland.

'Courtship feeding' by the House Finch.—The House Finch (*Carpodacus mexicanus frontalis*) was not included in David Lack's list of birds practicing 'courtship feeding' (*Auk*, 57: 169-178, 1940). So far as we know, W. H. Bergtold's study of the House Finch (*Auk*, 30, 40-73, 1913) at Denver, Colorado, contains the first reference to such feeding in this species. He reported that when the female is incubating "She is then often fed by the male, the feeding being precisely similar to the feeding of a young bird, even to the fluttering of the wings, etc."

Our own observations here in Tucson, Arizona, corroborate this. During the spring of 1942, several nests were built in our back lot. We saw the males frequently bring food to the incubating females. In fact, at one nest, the male began to feed his mate about the time the first egg was laid. Sometimes the female would leave the nest and fly toward the male, as he approached, alighting in a bush a few feet away. There was always a rapid fluttering of the wings and an excited twittering or chirping by the female—a typical juvenile begging attitude—as the male fed her by regurgitation. In every case it seemed evident that the female wanted the food. She returned to the nest immediately after being fed. At one nest, which was fully exposed to the hot April sun, the female continued brooding the young longer than usual. The male consequently brought most of the food to the young. On these trips he sometimes also fed the female.

No 'courtship feeding' was noted during nest building or before. The nest building is done entirely by the female. The male follows, singing frequently from perches close to her work. At intervals both of the birds search for food in the vicinity.

Whatever the explanation devised for this pattern of feeding during incubation, the pattern itself seems to be a useful one. The female can give more attention to incubation, since some of her food is brought to her, and the male begins his 'training' early in providing the family with food.—ANDERS H. ANDERSON AND ANNE ANDERSON, *Route 5, Box 488, Tucson, Arizona.*

Observations on the courtship of four woodland birds.—During the winter and spring of 1939–40 and 1940–41, I studied the birds of a forested area along the Sangamon River in central Illinois, forty miles west of Champaign. This work was done for a graduate thesis in zoology at the University of Illinois, under the direction of Dr. S. Charles Kendeigh. I express sincere appreciation to Dr. Kendeigh and to Miss Betty Buttry, my faithful companion and aide in the field. In the course of this two-year study, I made a number of interesting observations on the courtship of four species common to the region which are discussed below.

BLACK-CAPPED CHICKADEE, *Penthestes atricapillus.*—Courtship began in late February or early March in both years. In 1940, the Chickadees did not move about in pairs pronouncedly until March 17 but were observed in pairs frequently after the first week in March; in 1941, pairs were in evidence as early as February 16. These early pairs, however, seemed more or less temporary; the birds moved in flocks of five or six part of the time, sometimes separating into pairs and later joining the flock again. After March 1, 1941, they appeared to be paired all of the time.

The earliest date on which I heard the Chickadee's *phoe-be* song was January 12, 1941, a warm and sunshiny day on which the song was heard five or six times. Throughout February, *phoe-be* was heard on four different dates, always sparingly. After March 1, it became very common and was heard numerous times during March and the first three weeks in April.

On March 8, 1941, I observed a Chickadee calling *phoe-be* steadily from a perch in the top of a shrub. Answering *phoe-be* calls were soon heard coming closer and a second Chickadee flew in and perched on a shrub five feet from the first bird. The first bird stopped calling upon this arrival, but the newcomer continued calling *phoe-be* for two minutes. Then both birds moved together into the forest-edge where I followed them. Within five minutes, two more joined them and the four birds fed in the same hawthorn for several minutes. I imitated the *phoe-be* call and one Chickadee flew over near me. I called again, and it flew closer. Just then one of the other Chickadees flew at this bird and chased it back to the trees where the others were feeding.

On March 16, 1941, three Chickadees were observed feeding near each other, one by itself, the other two close together. The solitary bird was twice chased by one of the others when it flew too close to the third. It kept its distance thereafter, though feeding in the same tree.

On March 23, 1941, I observed two Chickadees twenty feet up in a tree on the bluff. One of them perched five feet from the other, fluttered its wings, half-hovering in the air and uttering a high squeak, and in this manner it moved to within a foot of the bird that sat quietly. At this time a third Chickadee flew into