Bulletin of the

OKLAHOMA ORNITHOLOGICAL SOCIETY

Vol. VI September, 1973 No. 3

A CORMORANT COLONY ON ROBERT S. KERR RESERVOIR

By Philip W. Norton

THE Double-crested Cormorant (*Phalacrocorax auritus*), a well known transient in Oklahoma (records, too, for late December and three for January), nested from 1945 to 1950 in a large dead tree at the north end of the main reservoir on the Salt Plains National Wildlife Refuge in Alfalfa County, north-central Oklahoma, but the little colony left when the tree fell (Sutton, 1967, Oklahoma birds, p. 18). The species has not, so far as is known, nested in Oklahoma again until recently.

In the summer of 1973, on the Kerr Reservoir in east-central Oklahoma, a

DOUBLE-CRESTED CORMORANT ON NEST

Photographed by Philip W. Norton on 8 May 1973 at the Woods Hole Rookery on the Robert S. Kerr Reservoir, east-central Oklahoma.

large colony bred successfully. The colony probably established itself in 1972. The reservoir was created in December 1970 as part of the Kerr-McClellan Navigation Project. As the big impoundment filled, hundreds of acres of timber were flooded, most of it willow, cottonwood, and elm. Continued submersion had killed most of the trees by 1972. In these dead trees, above water up to 6 feet deep, the cormorants nested.

On 16 July 1972, about a mile east of the village of Tamaha, I discovered a thriving colony of Common Egrets (*Casmerodius albus*) — a rookery that came to be known as the Woods Hole Rookery. The nests held well developed young. In the trees of the rookery about 250 Double-crested Cormorants also roosted, many of them brown young birds. About 45 unoccupied nest-platforms appeared to be much more substantial than the nests the egrets were using. These platforms almost certainly were cormorant nests, though I obtained no evidence that young had been reared in them that season.

THE SALT PLAINS REFUGE CORMORANT COLONY

Photographed by Wallace O. Hughes on 4 July 1947 along the north edge of the refuge's main reservoir. The colony left when the tree fell after the 1950 breeding season.

Throughout the rest of the summer in 1972 the cormorant population remained stable at about 250 birds. In early fall it started to increase, reaching a peak of about 8500 on 18 November. With arrival of cold weather the number dropped sharply. In December, January, and February the 100-200 remaining birds lived in small scattered groups, taking refuge in protected coves and among flooded willows when the weather turned bad. They often loafed on floating logs. Extensive areas of the reservoir remained free of ice even during the severest weather.

In mid-March 1973, cormorants became noticeably more common. On 28 March I saw about 350 at the Woods Hole Rookery, many of them standing on the platforms referred to above. I estimated that the cormorant population of the refuge numbered 1200 birds on that date.

On 12 April I observed several cormorants carrying nest material toward the nesting area. On 23 April I counted about 400 cormorants at the rookery, many of them still wearing crests. I saw no Common Egrets near the colony. That day I counted 186 cormorant nests. I could not tell for sure how many were in use. Of the several that I climbed to, most held from one to four eggs,

YOUNG CORMORANTS AT THE WOODS HOLE ROOKERY

Photographed by Philip W. Norton on 20 June 1973 on the Robert S. Kerr Reservoir in east-central Oklahoma. The 86 nests counted on this date held a total of 203 young.

while a few had only a lining of freshly pulled dead cattail leaves. In the middle of the rookery I found the nest of a pair of Great Horned Owls (*Bubo virginianus*), in it two half-grown young.

On 5 May I counted the cormorants again. Of the 186 nests, two were in a dead sycamore, the rest in dead elms. The lowest were about 10 feet above water, the highest 30 feet or more. The number of nests per tree varied from one to 18 (average 4.9). The 38 trees holding nests were close together. At most nests birds were incubating eggs. I did not see crest-plumes on a single bird.

On 15 May many eggs were hatching. That day I climbed to 11 nests. Four of them held eggs only (3,4,4,5), four of them young only (3,3,3,4), three both eggs and young (2 young, 2 eggs; 2 young, 2 eggs; 1 young, 2 eggs): average clutch-size 3.6. A clutch of four collected for the Bird Range at the University of Oklahoma were at the point of hatching.

On 6 June I checked the rookery for storm damage. Only 137 cormorant nests remained. Some of these obviously had not been used recently. Wind had uprooted some of the trees. Many branches that had supported nests had snapped off. Some young birds that had survived were now climbing about. I was not sure that any of them could fly.

On 20 June I counted 203 young in 86 nests — an average of 2.4 young per nest. Nineteen additional nests, white with excrement, probably had been in use, so it is reasonable to believe that 105 nests produced a total of about 250 young in the summer of 1973.

As the trees deteriorate, their branches may not be able to support the heavy cormorant nests. Many a tree will blow down. The Woods Hole Rookery may not continue for more than a few years. The great reservoir has, none the less, provided good habitat for the Double-crested Cormorant along the south edge of its range for at least two years.

SEQUOYAH NATIONAL WILDLIFE REFUGE, P.O. BOX 398, SALLISAW, OKLAHOMA 74955, 15 JULY 1973.

GENERAL NOTES

Sparrow Hawk preys on young Killdeer.—On 27 June 1972, while working at the Animal Behavior Laboratory on the North Campus of the University of Oklahoma in Norman, Cleveland County, central Oklahoma, I noticed a female Sparrow Hawk (*Falco sparverius*) hovering a bit then dropping swiftly to the flat roof of a nearby building. Two adult Killdeers (*Charadrius vociferus*) were flying about the building, calling loudly. Presently the hawk flew to a telephone pole not far away, carrying prey she had captured on the roof. Using an 8 x 40 binocular, I determined that the prey was a still-downy young Killdeer possibly a week old. After eating part of the Killdeer, the hawk flew off, carrying what was left of her prey.

The fact that the young Killdeer was captured on the roof clearly indicated that it had hatched there. *Charadrius vociferus* not infrequently nests on a