

## Cliff and Bank Swallows at a Barn Swallow Colony near Charleston, S.C.

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On 5 June 1977, I saw a Cliff Swallow (*Petrochelidon pyrrhonota*) fly up with a flock of Barn Swallows (*Hirundo rustica*) from a mud puddle at Moore's Landing, Cape Romain National Wildlife Refuge, Charleston County, S.C. The Barn Swallows were part of a flock of about 30 pairs that nest under the 1000-foot concrete pier at this locality. I assumed the Cliff Swallow was a late migrant, but on 7 July I saw it again. This time it seemed to center its activities near a section of the pier about 100 feet from shore. By leaning over the rail, I saw its gourd-shaped mud nest. The nest, under a sheltering overhang, was partially supported by a joint in a ½-inch metal electrical conduit. The "neck" of the nest was barely an inch long. The next day, while photographing the nest, I saw the Cliff Swallow fly out of the structure; and it was seen looking out of the entrance for several successive days. During this period, Barn Swallows occasionally harassed the Cliff Swallow in flight.

No other Cliff Swallow nests were found, and only one pair was seen in the colony. I believe this may be the first nest built by this species at Moore's Landing.

The angle of the sun on 23 July permitted me to see into the nest. It contained four rather large, well-feathered young. They were still in the nest on 3 August, and both parents were flying in the vicinity. However, on 6 August all adults except a few Barn Swallows had departed the colony, and only one Cliff Swallow nestling remained. It was still in the nest at 0830 on that date, but at 1500 the nest was empty. I believe the whole brood fledged successfully. The fragile neck of the nest was intact. Had a predator robbed the nest, the neck would probably have been broken.

The Cliff Swallow is expanding its breeding range. It was first reported nesting in piedmont South Carolina in 1965 by Adair M. Tedards (Chat 29:95-97). Other nests were located (no date given) by the Norwoods beneath the bridge on SC 49 over the Catawba River in York County, S.C. (South Carolina Bird Life, 1970, p. 616). Sidney Gauthreaux and Carl Helms found a Cliff Swallow nest at Clemson, S.C., and another under a bridge at Lake Hartwell, in 1974 (Chat 38:97-98). These sites are in the upper piedmont. Gilbert S. Grant and Thomas L. Quay (Wilson Bull 89:286-290) summarized the appearance of this species in the piedmont of North Carolina and Virginia. In 1975, Paul W. Sykes (Wilson Bull 88:671) found a small disjunct colony in south-central Florida. The Moore's Landing nest represents the first breeding record for the southeastern coastal region.

While the status of the Cliff Swallow in the Moore's Landing colony seems clear, that of the Bank Swallow (*Riparia riparia*) is not. Although I have no field notes on this species earlier than 7 July 1977, I believe that about 6 pairs were present through May and June. They were definitely present from 7 July through 3 August. On 21 July these birds were joined by a flock of approximately 50 presumed migrants that lingered for 2 or 3 days. As no suitable banks for nesting are known in the vicinity, and as Moore's Landing is outside the known breeding range, the presence of apparently resident Bank Swallows in late spring and summer is perplexing.

Eugene E. Murphey in *Observations on the Bird Life of the Middle Savannah Valley* (Contributions from the Charleston Museum, 1937, p. 31) found Bank Swallows breeding in Aiken County, S.C., in 1895 and 1896, and collected both adults and eggs. The A.O.U. Check-list Committee (1957, p. 359) apparently accepted this record, because the southern limit of the breeding range is given as "... northern Alabama (Tennessee Valley), central West Virginia, and eastern Virginia, casually to south-central South Carolina (Aiken County). . . ."

## ADDENDUM

A pair of Cliff Swallows returned on 25 April 1978, were repairing the neck of the old nest with fresh mud on 5 May, and seemed to be incubating by 10 May.

### On a House Sparrow Mutant from Fayetteville, N.C.

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On 7 April 1975, an accidental sighting of a mutant female House Sparrow (*Passer domesticus*) was made in the Tallywood section of Fayetteville, N.C. The bird was first noticed flying in the company of an apparent mate that was normally pigmented. Later the mutant was viewed on a lawn at close range through a 7x50 binocular.

At first glance this bird appears to be generally white. However, upon closer scrutiny, the coloring is more of a beige. Sightings of similarly pigmented birds have been reported from Europe (Rutgers 1966). If this mutant has been seen in North Carolina, I have not as yet seen it reported.

The characteristic pattern of the mutant is that of a normal female House Sparrow; however, the color is very much diluted. The underparts are a very light beige. The upper parts are darker, especially the tail and the outer wing feathers, which appear to have some pink-brown tints. The beak is beige. The legs and feet are also beige, but darker. The eyes are normally pigmented.

This bird has been seen repeatedly since the first sighting. By 6 May 1975, the mutant was accompanied by two fledged juveniles that were normally pigmented. The bird was again seen on 28 May 1975 carrying nest materials. The mutant was last seen in the company of two normally pigmented fledglings on 18 June 1975.

The particular interest in this bird is that it appears to resemble a similar mutation in the Zebra Finch (*Taeniopygia guttata*), which is called *Fawn*. Aiuto (1964) has explained that *Fawn* (F) is inherited as a sex-linked recessive gene. Since the female is hemizygous, such traits are always expressed. However, there is also a *White* mutant that is not an albino. This trait is inherited as an autosomal single recessive gene (Rutgers 1964).

It is expected that at least another season will be required in order to gain sufficient insights into the nature of the inheritance pattern of this mutant sparrow. Although the relative number of mutant offspring appearing in this population will have an important bearing in determining the inheritance type, the sex ratios of the mutants in this population will prove more conclusive (Sturdevant and Beadle 1939). To confirm the *Fawn* trait, controlled breeding of this mutant sparrow would very likely be required.

Another point of interest is centered on any apparent selective value that this mutant might possess. So far, it appears to be at least a neutral one. At present this mutant appears to be the only individual of this type in the population, and it has survived at least for a period of three months, the period of observation. It has also successfully produced two sets of offspring. Production of additional mutants in the local House Sparrow population may make it possible to assess any selective value that might be present.

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