

## PARASITISM OF THE ENGLISH SPARROW ON THE NORTHERN CLIFF SWALLOW

BY DAYTON STONER

THAT the English Sparrow (*Passer domesticus*) frequently inflicts its presence on many of our native bird species is well known. Throughout the breadth of the United States its association with the Northern Cliff Swallow (*Petrochelidon a. albifrons*) during the nesting season of the latter has been responsible in some measure, I think, for the Cliff Swallow's vagaries of local appearance and disappearance.

In the Albany, New York, region I have observed for several seasons situations paralleling those reported by Barrows (*U. S. Dept. Agric. Bull.*, 1, 1889), Burleigh in Washington State (*Auk*, 47, 1930: 48) and by other writers in which Cliff Swallows nesting under the eaves of buildings were dispossessed of their domiciles by English Sparrows. Tufts of grass and feathers projecting from the entrance usually mark the sparrow-inhabited Cliff Swallow nests. Not only do the English Sparrows lay their eggs and rear their young in these usurped domiciles but, in one instance that came under my observation, a pair of sparrows temporarily confiscated the domicile and later either left it voluntarily or was driven away by the Cliff Swallows originally inhabiting it, but not until at least one sparrow egg had been deposited in the nest.

The group of Cliff Swallow domiciles in question was located on the east side of a barn, long since painted red, about 15 miles southwest of Albany, New York. When I first visited this nesting on June 2, 1937, it comprised 52 domiciles of which 40 contained one or more eggs. Two of the domiciles contained only eggs of the English Sparrow while in one domicile ("No. 3"), reposed three Cliff Swallow eggs and one sparrow egg.

On June 11 the three swallow eggs in domicile No. 3 were still under incubation but the sparrow egg had hatched about two days earlier and the nestling appeared to be in good condition. On June 14 the swallow eggs were still unhatched while the flourishing young sparrow weighed 13.1 grams and its outer primary was 1.0 mm. in length. Evidently it was attended only by the adult Cliff Swallows. Immediately following my removal of the nestling sparrow the solicitous swallows began repairing the slight damage I had inflicted to the mud shell in this operation.

On June 16 the domicile contained one unhatched swallow egg, one dead swallow age 1 to 2 days, one live nestling swallow age 3 to 4 hours (weight 1.5 grams), and the nestling English Sparrow which weighed 12.0 grams; length of outer primary 4.0 mm. As before, the adult Cliff Swallows began to repair the mud shell while I was still weighing and measuring the young birds.

On June 18 the domicile contained only a newly hatched Cliff Swallow (weight 1.2 grams) and the well-fed nestling English Sparrow weighing 19.3 grams; outer primary 9.0 mm. in length. The adult swallows began to effect repairs on the domicile before we concluded examination of the nestlings.

Three days later, June 21, the completely repaired domicile held only the well-grown English Sparrow weighing 26.0 grams and bearing outer primaries 22.0 mm. in length. Upon completing measurements and returning this bird to the nest, Mrs. Stoner observed two *different* adult Cliff Swallows carry food to the young sparrow. One adult remained in the domicile for a time, then left with a pellet of excrement which it dropped after flying a short distance.

That the nestling English Sparrow had fared well through the ministrations of its energetic but misguided foster parents was attested on June 23, when it weighed 24.8 grams and the outer primary measured 29.0 mm. in length. The domicile, too, had been completely repaired by the Cliff Swallows.

Our last observation on the young sparrow occurred on June 25 when it was about 16 days old and weighed 23.0 grams. The total length of the outer primary was 34.0 mm., of which 12.0 mm. remained enclosed in the feather sheath.

It occurs to me that the circumstance here reported for one pair of English Sparrows may be, perhaps, more widely prevalent and that possibly this introduced and rather undesirable bird may be tending to develop parasitic breeding habits. Supplementary observations to supply further evidence are highly desirable.

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