AN ATTEMPT TO RESTORE THE CLIFF SWALLOW TO NEW JERSEY.

BY B. S. BOWDISH.

Ar the eighteenth annual meeting of the New Jersey Audubon Society, October 2, 1928, its late Vice-President, W. De Witt Miller called attention to the great and apparently growing scarcity of the Cliff Swallow as a summer resident in the State. He considered modern barns offering poor support for nests and molestation by boys and others as possible factors contributing to decrease. Mr. Miller proposed a campaign by the Society, looking to increasing the summer resident Cliff Swallows in New Jersey, of which one feature should be the offering of prizes for the three largest nest colonies in the State during the summer of 1929. This suggestion was adopted and with the coming of early spring the plan was announced to the members of the Society through the Bulletin and made public through several news items sent to the press of New Jersey, New York City and Philadelphia.

There was no evidence that these announcements awakened any interest or attention on the part of barn owners. Such colonies as were located were reported by members of the Wyanokie Bird Census party or discovered during two trips of investigation. The first trip, July 6, was made by Mr. Miller, Dr. James P. Chapin and the author, to colonies whose general location had been reported by the Bird Census party. This included a colony of 90 nests at that date (originally 97), on the barn of Noble B. Rhinesmith, on a rural delivery route from Newfoundland; one of six nests on a barn belonging to Norman Decker, on a Butler delivery route; and a barn belonging to George C. Freeland, also on a Newfoundland delivery route, where a small number of Cliff Swallows were congregating, although no nests were observed.

Mr. Rhinesmith is interested in birds and has taken pains to make provisions for them. On a clayey bank a short distance from the barn, he plows several furrows each spring, making the best of Cliff Swallow nest material readily available. He reported that in 1927 the colony on his barn numbered 180 nests and was unable to offer any reason for the decrease. The nests on his barn, as

well as those of several other colonies, were built on a plate nailed to the ends of the rafters, offering a much more dependable support for them than the vertical side of the barn.

The second inspection trip was made by Mrs. Bowdish and the author, on July 18, in the Wanaque Reservoir region, and only a few miles from the places visited on July 6. It developed the following colonies: William H. Rhinesmith, R. F. D. No. 1, Midvale, evidence of 14 nests, several still intact (a son admitted that his father had knocked down nests, considering the birds a nuisance); John Traverso, R. F. D. No. 1, Midvale, evidence of 12 nests, mostly down, having apparently broken away from lack of sufficient support; George R. Stephens, R. F. D. No. 1, Midvale, 4 nests; Abraham Stephens, R. F. D. No. 1 Midvale, had had a colony of 40 or 50 nests, successfully occupied during early breeding, but mostly down on occasion of visit; Belcher Farm (part of Wanaque watershed property) in Midvale section, an old barn which is likely to be demolished showed traces of having had 90 nests, of which not more than one or two remained intact; Fred Ricker, R. F. D., Midvale, 25 nests.

At all places visited advantage was taken of the opportunity to make known the value of the Swallows as well as the chance of winning prizes in future years. Nailing strips a few inches below the eaves as supports for nests and readily available mud supply were advocated.

Prizes in gold were awarded at the annual meeting of the Society October 1; \$25 to Noble B. Rhinesmith; \$10 to Abraham Stephens and \$5 to Fred Ricker.

With the exception of a small colony reported near the North Caldwell aviation field and several unconfirmed reports of small colonies in Sussex County, it is possibly significant that all colonies located were in comparatively small area in Passaic County. The results of the campaign for its first year were considered encouraging and it was determined to continue it.

For anything like an accurate determination of the present status of the Cliff Swallow as a summer bird in New Jersey, a great deal of investigation of back-country territory would be necessary. To determine its former status and the period during which it has been decreasing, much more delving in literature would be required than has been possible in preparing this paper. Queries addressed to a number of observers elicited the following: Mr. Charles H. Rogers states that he has not recently visited places where he knew of former colonies; that he remembers only four pairs on a barn between Crosswicks and Bordentown and a few west of Newton. In recent years the only breeding Cliff Swallows he has found were near the Delaware, a few miles above the Water Gap. He quotes Babson's 'Birds of Princeton' (1901) as follows: "Several years ago the Eave Swallow was a common summer resident, nesting in many places. As late as 1896 two pairs still bred at Gray's Mill, but since that time the species has occurred only as a migrant during May in spring, and in fall from August 10 to September 10." Mr. Rogers adds that at present the bird is a decidedly uncommon transient in spring about Princeton. He is not there at the time of fall migration.

Mr. Warren F. Eaton says that his notes on the bird in New Jersey are only since 1926 and as far as they go indicate that it is holding its own. For Wawayanda in 1926 he records two colonies containing 30 birds; Wyanokie, 1928, 110 pairs; 1929, 141 nests; Caldwell, 1928, 9 nests; 1929, 14 nests. These were among the colonies investigated by the Society, with the exception of the Caldwell site. Mr. Eaton indicates that about Montclair the Cliff Swallow has been observed only as a rather rare migrant.

Mr. Charles A. Urner says: "I do not know much about the Cliff Swallow in New Jersey. The Bird does not breed, so far as I know, in Union County. In 1927 we found no colonies about Delaware Water Gap; in 1928 a colony of 20 near Flatbrook Valley; in 1929 none south of Newton. Have never found it breeding in the Pine Barrens. I have no data of its increase or decrease. The bird is not very common as a migrant in Union County and never was."

Mr. Julian K. Potter writes: "The Cliff Swallow is so rare in southern New Jersey that I do not believe I have any more than a dozen records during past fifteen years. I know of no nesting records in southern part of State."

Warren's 'Birds of Pennsylvania' records this bird as a "common summer resident; generally distributed throughout the State" and says: "although I have known these birds to breed for three consecutive seasons under the eaves of long sheds in a cow-yard, I am

inclined to think that they usually breed but one year in the same place." No similiar opinion has been found elsewhere. Stone's 'Birds of Eastern Pennsylvania and New Jersey' gives the Cliff Swallow as: "regular migrant but not very abundant, occurring mostly along the coast and river valleys; during the breeding season it is rare or local in southeastern Pennsylvania, but is more abundant in southern New Jersey—Cape May and Cumberland Counties (Reed and Wilde)." State Fish and Game Protector Charles A. Shriner's Birds of New Jersey, apparently based on the foregoing list by Stone gives the same status.

Stone's 'Birds of New Jersey' in the 1908 Annual Report of the New Jersey State Museum, says: "Tolerably common transient and summer resident, especially in the Pine Barrens. It is decidedly local and is generally reported to be less abundant than it was thirty or forty years ago. It nests at several localities in Cape May, Cumberland and Burlington Counties and nested near Princeton up until 1896 (Babson—Birds of Princeton, p. 67). At Plainfield, Mr. Miller reports a few nesting every year, while Mr. Hales (Bird-Lore, 1906 p. 173) reports it at Ridgewood, and Mr. Thurber at Morristown. Mr. S. N. Rhoads found it plentiful at Greenwood Lake and the Wallkill Valley, June, 1909. Mr. Crispin says it formerly bred at Salem." Griscom's 'Birds of the New York City Region,' states: "Breeding colonies formerly existed at numerous stations, but the bird is now extinct in all the places listed by Dr. Stone in 1910. Colonies still exist near Boonton (Miller), Newfoundland (Miller), south end of Greenwood Lake (Miller), Andover Junction (Griscom), the northeast end of Wawayanda Plateau (Griscom), and in a valley about half way between the Kittatinny Ridge and the Delaware River just west of Mashipacong (Griscom). As a transient it is now uncommon and decreasing; fall records are particularly defective." A list of birds observed during a trip to Clinton and Potter Counties, Pennsylvania, June 21-28, 1900 (Proceedings of Delaware Valley Ornithological Club, 1901), records the Cliff Swallow as "decidedly the most abundant of the swallows, being noted not only in the farming country but also in the more recent clearings wherever there happened to be a few buildings." 'Cassinia' for 1902 reported: "The Cliff Swallow appears to be losing ground. Colonies were reported at Chestnut Hill (S. Trotter) and Lansdowne (Wright), while four or five stations about Kennett Square have been deserted (Pennock) and other abandoned stations were mentioned at Lenape, Radnor and Wynnewood."

John D. Carter in Summer Birds of Pocono Lake, Monroe County, Pennsylvania (Cassinia, 1904): "The Cliff Swallow seemed to have a permanent place of abode under the eaves of a barn and the people of the farm were of the opinion that the swallows came regularly." Thomas D. Keim, Summer Birds of Port Alleghany, McKean County, Pennsylvania (Cassinia, 1904): "Cliff Swallow. Perhaps more abundant than the next species" (Barn Swallow). Cornelius Weygandt, Summer Birds of Broadhead's Creek, Monroe County. Pennsylvania (Cassinia, 1905) "Barns swallow-haunted with Barn Swallows within and Eave Swallows without. The Eave Swallows had several large colonies, both here in the valleys and high up the hills, but you found them on every third barn in the lowlands and only on every fifth barn in the uplands. One lowland barn had 51 nests, 44 on the southern side and 7 on the northern. There were young in some nests on June 16 and two months later found a few not yet flown. On August 17 there were hundreds of them on the telegraph wires and ridgepoles. After August 20 I saw none. Never saw as many Barn Swallows in any one place as Eave Swallows."

In 'Cassinia' for 1905 the Cliff Swallow is included in a list of "June Birds of Fulton County, Pennsylvania," by Witmer Stone and in the same volume E. Seymour Woodruff's "Summer Birds of Milford, Pike County, Pennsylvania," says: "Cliff Swallow. Common, the commonest of all the swallows." William L. Baily in "Breeding Birds of Passaic and Sussex Counties, New Jersey" (Cassinia, 1909), says: "Cliff Swallow. Abundant or common throughout." Then as now, that region would seem to have been about the best haunt of the Cliff Swallow in New Jersey.

If the efforts of the New Jersey Audubon Society shall aid two Cliff Swallows to grow where only one has grown before, they will not have been in vain.

Demarest, N. J.