

of flight speed. The large size of the Wild Turkey often deceives the observer who attempts to estimate the flight speed. Actually the Wild Turkey may be compared to the large airplane which must have considerable wing area and fly fast to provide the necessary lift for the heavy body.—FRED A. GLOVER, *West Virginia Conservation Commission, Elkins, West Virginia.*

**Interrelations of House Wren and Bewick's Wren.**—The impression has prevailed among ornithologists that House Wrens (*Troglodytes aëdon*) and Bewick's Wrens (*Thryomanes bewickii*) do not ordinarily occupy successfully the same territories. Many observations have been to the effect that when House Wrens enter a territory as invaders the Bewick's Wrens become scarce, or move out entirely.

These observations are certainly correct during the early years following House Wren invasion of Bewick Wren territory. There is every evidence of the incompatibility of the two species, and the latter species is almost invariably the sufferer. In recent years, however, I have seen in a number of situations Bewick's Wrens re-establishing themselves in territory from which they had formerly disappeared. The result has been that both species now breed in the same areas, with seeming compatibility.

At French Creek, Upshur County, West Virginia, Bewick's Wrens were, for many years, abundant, whereas House Wrens were virtually unknown in the region until the early years of the present century. With the invasion of the latter species, however, Bewick's Wrens moved out, virtually disappearing for several years. During recent seasons Bewick's Wrens have reappeared, occupying many of their former nesting niches.

In the valley of the Ohio River (in West Virginia, at least) House Wrens for many years seemed to dominate on the flood plain, with Bewick's Wrens appearing on the escarpments back from the river. As late as ten years ago, Haller, in a study of the birds of four river-valley counties, found that this situation obtained. Within the last decade, however, Bewick's Wrens have moved down on the flood plain, and are now rather common co-occupants with the House Wrens. Burt L. Monroe, of Anchorage, Kentucky, tells me that the wren populations of Kentucky's Ohio Valley counties have had a similar history.

Near my home in Morgantown, West Virginia, a single pair of Bewick's Wrens has occupied an old shed each nesting season for the last six years. There are no other resident Bewick's Wrens near by. Surrounding this territory are dozens of nesting pairs of House Wrens. Despite the abundance of the latter birds, the Bewick's Wrens completely dominate the territory around their chosen home, and I have not witnessed any conflicts between the two species.

Since the clearing of the Appalachian forests, there have been many invasions by bird species formerly absent from the region. These invasions, in most cases at least, have followed the same pattern. First the invader appears as a pioneer; then it becomes locally common and often dominant in certain areas, frequently to the seeming detriment of some other species; and finally it settles down as an accepted member of the community, often considerably reduced in numbers. In this last stage it tolerates, and is tolerated by, other avian neighbors. I believe that Bewick's Wrens as old residents of the West Virginia hill country and House Wrens as recent invaders are now engaged in working out some such *modus vivendi*.—MAURICE BROOKS, *West Virginia University, Morgantown, West Virginia.*

**Bank Swallow and Belted Kingfisher nest in man-made niche.**—On June 9, 1946, James L. Edwards, Richard S. Thorsell, and the writer discovered a nesting

colony of Bank Swallows at the Mt. Hope Mine property of the Warren Foundry and Pipe Corporation at Wharton, New Jersey. The swallows had run their tunnels into the sides of a huge pile of iron ore 'tailings.' This scrap pile, accumulated over a period of years and now abandoned, has settled and weathered in such a way that the outside presents a large number of vertical faces. The consistency of the material is that of a mixture of coarse sand and finely crushed cinders, and is easily worked by the swallows. On a subsequent trip to band this colony, the writer also found a pair of kingfishers using the same niche. Mr. Harry Davenport, superintendent of the mine, who kindly granted me permission to band the swallows and who has rigidly protected the colony, tells me that the birds started nesting on the property in 1943. A. C. Bent, in Bulletin 179 of the United States National Museum, records two instances of the Bank Swallow nesting in piles of sawdust accumulated during lumbering operations.—HOBART M. VAN DEUSEN, *American Museum of Natural History, New York City.*

**Late nesting of the Hermit Thrush in New York.**—In 1944, while I was on summer duty with the U. S. Fish and Wildlife Service and living in a house at the north end of the sixteen-acre reservation of the U. S. Fur Animal Experiment Station, Saratoga, New York, I found a very late nest of the Hermit Thrush (*Hylocichla guttata*). The reservation is situated a few miles north of Saratoga Springs and can be regarded as in the outskirts of the Adirondacks. The climate is cool and the summer season is of short duration. One brood is probably the rule for the woodland passerine birds.

The reservation fronted on a larger wooded tract that, while chiefly made up of small growth, had, like the north end of the reservation, a scattering of large trees, mostly white pine, sugar maple and beech. A Great Horned Owl had a favorite hooting perch in a large white pine near the house and could be heard in the early morning hours until it began to grow faintly light. And several times a Barred Owl, a little farther back toward the main forest, would add his higher, more vociferous comments to the listener in the dark.

During June and early July, Hermit Thrushes were heard singing regularly in the woods back of the house and in a woodlot across the highway in front, with the singing gradually tapering off until by mid-July it had stopped for the season. Wood Thrushes likewise ceased to sing regularly at about the same time, though during the middle of July one Wood Thrush could be heard occasionally, carrying on a few days beyond the Hermits.

It was distinctly surprising to hear a Hermit again in good song after August was well started. Rather by accident the nest was discovered the third week of August. It was situated in a rather open place in the woods and contained only three eggs. As the fourth week of August started, two newly hatched young were found in the nest. The third egg did not hatch and later disappeared. Then the evening of August 31, a last hurried observation was made before leaving the region. One young bird, only, was seen but it seemed to be in good condition and just starting to feather.

No observations were made on the feeding of the young, but some years earlier, in the Catskills, a Hermit Thrush was watched returning to the nest with food. The young were at the stage where they were just beginning to show feathers. Several times a caterpillar, apparently a geometrid larva, would be brought in the bill and fed after a short halt at the edge of the nest. Then a pause of some seconds would result in the regurgitation of an entire blueberry and several times the first one was followed some seconds later by a second berry. Then, if no nest sanitation was