Notes on Swallows and Martins.

By J. W. Mellor.

Welcome Swallow (Hirundo neoxena).—The nesting haunts of these birds are so close at hand and common in existence that one scarcely makes notes upon them. The variety of situations selected by the birds is also common, yet at times exceedingly interesting. I have noted that they more often than not seek a locality where flies and gnats and also mosquitoes are numerous, so that the food-supply for their young is close to hand and easily procurable in large quantities. About the stables where manure acts as a hotbed for hatching out the larvae of flies is a favourite locality. At Fulham there were They were always always several nests in the large stables. built of mud carried in small pellets and fixed against and upon the large beams above the horses' heads. At Lockleys a nest was built upon the wall-plate inside an outhouse, and there I have noted, as elsewhere, that the birds rear at least two, and often three, broods during the year. They have a great liking for placing their nests under verandas, usually in a snug corner

just above the doorway, where flies are usually in numbers endeavouring to enter the house, and the birds are better able to get their supplies; but in such situations they are a great nuisance in dropping the mud whilst building, and also make a great mess during the rearing of their family. It is almost impossible to prevent the little birds from carrying out their I have repeatedly broken down the nest in trying to discourage them, but their persistency is such that they have eventually finished off their work and reared their young. Disliking to kill them, I found that it was advisable, when a nest was occupied, to take precautionary measures against the dirt falling on the veranda-tiles by nailing a piece of tin under the nest sufficiently large to catch the droppings. The same pair comes back each year to build in the same spot, or if the old nest be there they will repair it if necessary, and, lining it with fresh feathers, will lay forthwith, and so save the time of building a new home. A nest at Lockleys was built inside the local post office and store, and the postmaster, being of a kindly nature, used to leave a hole in the fanlight for the parent birds to come in and go out, and there year after year a couple of broods were reared in full view of the numerous customers that continually passed beneath them, and I have often seen five little heads appearing over the rim of the nest with mouths wide open to receive the titbits brought to them by their parents. Before civilization came here, I believe the Welcome Swallows. built in the hollow trees, as years ago I have at times found them building in the old gumtrees that have been burnt out by the blacks. Those trees were generally near swampy situations which supplied the necessary food. The clutch of eggs varies much, from three to five, four being a good average clutch. Generally speaking, the eggs all hatch out, and very few casualties occur amongst the nestlings, so careful are the parents and such good foragers are they, being continually at work carrying in food from daylight to dark.

White-backed Swallow (Cheramoeca leucosterna).—Commonly known as the Sand-Martin, on account of its burrowing into the sandbanks and making its nest at the end of the burrow. These holes extend about 18 inches to two feet into the sand, at the end of which is a little chamber generally lined at the bottom with small bits of seaweed, if near the coast, or fine rootlets where the nests are more inland. Near Henley Beach, before houses were built on the sand-dunes, I knew of some sandbanks which were regularly occupied by these Swallows, and one could always tell if the little birds had started to occupy the mouse-like burrows, as the lower part of the passage would

be marked with a narrow groove where the wings had dragged on either side, and there would be little marks where the feet of the birds had trodden between the two "wing-tracks." unoccupied, the floor of the hole would be quite smooth. I have also noted the birds further inland at Fulham, in the red sandbanks, as well as in railway and other cuttings where the soil was of a sandy nature. I have noted that the birds occupy the holes as roosting-places out of nesting season, and in some instances the holes are enlarged and more than one pair roost in these larger cavities, but the entrances are always small so as to admit but one bird at a time. They are not round in shape, but are elliptical, so as to just fit the structure of the bird with its shallow keel to the sternum. The bird thus can spread its wings slightly and pass easily in, whilst birds of the same size, but with a deeper "keel," cannot enter in and molest The eggs are pearly-white in colour, and are generally four in number, although I have taken a clutch of five at times. They were rather spasmodic in their breeding but not often. habits, and spread the time over a great many months of the year, and in this way would rear more than one set of young ones. I have noted that when a nest was destroyed and the eggs taken, the same pair of birds would soon tunnel again and lay another clutch, but always in a new nest.

Tree-Martin (Hylochelidon migricans).—The Tree-Martin is a very common bird at the Reedbeds, much more so than the Welcome Swallow. The former, owing to their larger numbers and their persistency in worrying the Welcome Swallows, used to drive these latter away to other districts, and the nests built by the Welcome Swallows of mud and placed beneath the stableroof would be taken possession of by the Tree-Martins, but these in turn were interfered with by the House Sparrow (Passer To prevent this invasion the Tree-Martins domesticus). ingeniously carried pellets of mud and added to the nest until the rim was so close to the roof that you could not squeeze the palm of your open hand into the space. The Tree-Martins could just squeeze in. The nests were lined with narrow redgumleaves, a lining I always found they used in whatever situations they chose, and those were legion. A favourite place was in the ceilings of houses. They would squeeze through holes in airbricks or get through the laths beneath the eaves of houses and carry in large quantities of leaves, making slight depressions here and there; on those they would lay their four spotted eggs and rear their young. The top of the stone wall or wall-plate was also used, the dry gumleaves being always used. Fulham the birds were in such large numbers, through being

protected and encouraged to breed, that we found it necessary to erect artificial nesting-places for them, and many quaint and curious containers were made for that purpose. Bamboos of a giant nature introduced from Mauritius were very serviceable, as a hole could be cut into every joint. These bamboos were hung longitudinally under the roof of a very long set of pigsties. These bamboos were The Sparrows, however, were very pugnacious, and would enter the holes. To circumvent the Sparrows we then cut the holes in the bamboos of a similar shape to the entrances to the tunnels made by White-backed Swallows in the sandbanks. Long nails were driven into the bamboos near each hole so as to allow the Tree-Martins to rest before entering their nests, but even then the Sparrows kept up a warfare by waiting near by and attacking the Tree-Martins as they flew to their nest-holes; so the small gun had to be brought into action against the Sparrows. But this in no way frightened our little friends the Tree-Martins, as they bred in numbers in these improvised hollows. nesting sites were also provided in the shape of old tins, cans, kerosene-tins, bits of hollow logs, etc., but all these had to be provided with the oval-shaped hole so as to prevent the inroads of the Sparrow. One of these nesting-sites, I remember well, was an old watering-can with its spout still intact, but with a flap-lid put over the hole on top. This can was hung up under the veranda, and a pair of Tree-Martins filled it with dry gumleaves until it was about a couple of inches from the top. On the leaves they made their nest, just a slight depression; four eggs were always laid, and the birds sat very close. I often took the can down and lifted the lid to show visitors the sitting bird. Then, to satisfy their curiosity, I would first gently stroke the bird, which would nestle against my finger, and then, gently pushing my finger beneath the bird, would lift her up a little so as to disclose the eggs. Then, on letting her gently down on to her possessions again, she would slightly shuffle to get comfortable. I would then give her a little stroke, close down the lid, and hang up the can out of harm's way, and the little bird would not move off her nest. I had other tins occupied in the same way, and the birds had every confidence in my protecting them. Prior to the advent of white men, the Tree-Martins used to seek out hollows in trees in which to nest and rear young. In many localities they carry out the same old habit, only taking to artificial places when their old nesting haunts in the gumtrees are destroyed. I have often seen them entering their nestingplaces in a hollow spout or bole of a tree. The birds are not generally migratory, and although some may depart in winter, by far the greater number stay with us all the year round, and

at night roost either in the hollows of trees or in the various situations used for nesting in the springtime. They have a peculiar habit of collecting in certain places as if about to migrate, but this seems to be for the purpose of mating, as they pair off afterwards and take to their various nesting localities.

Fairy Martin (Hylochelidon ariel).—The Fairy Martin, or Bottle-Swallow, as it is often called on account of the curious bottle-shaped nest that it constructs, was once extremely plentiful at the Reedbeds, but of late years it has disappeared. The houses in the early days were built on the Old English principle with overhanging eaves, and beneath the shelter of these the Fairy Martins were wont to build their nests in I well remember the old homestead of the late Mr. Samuel White, the noted naturalist and ornithologist, at Fulham, where the birds were protected and where the nests were piled two or three deep under the eaves of the house until the nests would at times fall down from their own weight. Under the eaves also of the local Wesleyan Chapel the Fairy Martins built in scores. They have a great liking to use red clay, as against the dark mud used by the Welcome Swallows. nests are always lined with feathers like those of the Welcome Swallows, and contain four and sometimes five eggs sparsely The natural nesting-places of these spotted with light pink. birds are in caves and beetling precipices, as along the cliffs of the River Murray, where I have seen hundreds of nests clustered together in one lump, and where the birds return to lay each year in their old nests, merely renovating and relining them, and so save much labour in the mud-building process. The birds have a great liking, too, for building beneath bridges, placing their nests on the girders, but I am sorry to say that the boys are generally too mischievous to allow them to remain whole, and, with the aid of stones, sticks, and shanghais, the bottoms of the nests are knocked out and the contents destroyed. little birds will, however, cleverly fill up the gaping hole with pellets of mud and commence to lay and incubate, but are soon molested again and eventually driven to other positions. I have noted a number of nests at the foothills near the trestle bridge which was used for the South line trains, but these, I believe, are now deserted, and it would be hard to find any near the city at the present time. A few years ago a pair of these birds came to Mellor Park, and I was in hopes that they would have bred here, but, after building a nest and getting it ready for lining, they suddenly disappeared. I believe that the Tree-Martins worried them, although the latter birds were not breeding here, but only casually visiting the place.