

The only other parts, of any constancy, in the limbs besides the bones and muscles are the nerves. And here again we find facts that point towards the existence of the thumb. In man and some mammals the I, II and radial side of the III fingers are supplied by the radial nerve while the ulnal supplies the rest. This also is the case in birds, a small branch from the ulnal running down the posterior face of the pinion to the III finger.

Thus, since the arguments drawn from the *Archæopteryx* must be discarded, none remain to prove the non-existence of the thumb. On the other hand, all the facts of myology point to its existence, while the nerves, though not so constant, point the same way. Analogy to the foot also points this way, there being two joints in the thumb and three in the index; the same number that are the rule in the foot for the first and second toes. Also where there are two and three joints respectively in the finger there are often claws on the end, thus pointing to unguis phalanges.

So it seems safe to say that the structural evidence of the forearm and hand points to the existence of the I, II, III, and IV fingers in the class of birds.

---

#### NOTES ON A FEW BIRDS OBSERVED AT FORT HAMILTON, LONG ISLAND, N. Y.

BY DE L. BERRIER.

ABOUT the 20th of September, 1877, great numbers of the Red-headed Woodpecker (*Melanerpes erythrocephalus*), made their appearance about Fort Hamilton. They outnumbered the "High-holes," usually so common at that time of the year, and attracted the attention of the local gunners. Up to this time I had looked upon the Red-head as a scarce bird with us, having seen it only a few times before. As long ago as 1844, Giraud noticed that this bird had become much less abundant in the Eastern States than formerly. Dr. Coues, in "Birds of the North West," says it is now rare in New England. The conclusion is that either the bird is becoming extirpated in these regions, or else it is taking the advice



of a late prominent politician. However, in the fall of 1877 it was very common here for about ten days. It was also abundant in the adjacent parts of New York and New Jersey. Thus, at Tarrytown, an acquaintance of mine took a hundred and four specimens, and my friend Gerard Hardenberg, Esq., found it very plentiful about New Brunswick and Princeton. Unless I am mistaken, it was recorded in considerable numbers from the south side of Long Island in the winter of 1877 and 1878. In the fall of 1878 I saw only two or three individuals of this species, and during the last autumn I shot but one.

The fall of 1878 was also remarkable for the unusual number of Red-bellied Nuthatches (*Sitta canadensis*), White-bellied Nuthatches (*Sitta carolinensis*), Brown Creepers (*Certhia familiaris*), and Chickadees (*Parus atricapillus*). Excepting the first-named, which had hitherto been rather scarce, the rest had always been regular fall visitants, but never in such hosts as came that autumn. The little fellows were everywhere, — about the trees, on the fences, climbing the sides of the houses, and running about the shutters. They remained with us through the winter and first half of the spring. I may here remark that I shot a Red-bellied Nuthatch at Fort Hamilton, July 20, 1877, in full breeding plumage (see Brewster's "First Plumages," this Bulletin, Vol. III, pp. 20, 21). What this bird was doing on Long Island in mid-summer I can not imagine, as its southern breeding limit is far north of here. During the past autumn and winter I have seen not one Red-bellied Nuthatch, or Chickadee, and only two or three White-bellied Nuthatches. Why such a common bird as the Black-capped Tit should have been wanting I cannot imagine. It would be interesting to know whether this species wintered in unusual abundance north of Long Island.

In the fall of 1879 the Water Thrush (*Siurus naevius*) was the characteristic bird of this neighborhood. Fort Hamilton is hardly the locality where one would look for the Water Thrush. Almost every pond in the township of New Utrecht has been drained, on account of the malaria that formerly prevailed, and there are no streams. Nevertheless from the middle of August to the latter part of September Water Thrushes were very abundant. They were found in dry woods, in pastures and orchards, and in yards and gardens. In fact, I found them more plenty away from than about moist ground. Heretofore the Water Thrush had been



rather scarce both in spring and autumn. About the middle of the present month, May 1880, I noticed it in considerable numbers.

What occasions these erratic movements of the birds? The supposition that a variation in the supply of food is the cause seems hardly probable, for it appears incredible that the food of the Chickadee and Nuthatches should have been so scant last fall as to cause these birds to avoid this locality in their migrations. I say it is incredible because their kind of food is shared by many other birds that were abundant. As for the character of the season influencing their travels, unless it can be shown that they wintered north of Long Island in unusual numbers, I do not think it can be taken as a reasonable explanation, for the birds mentioned above are regular migrants whatever the character of the seasons may be.

In closing I may remark that there are three common birds that are always rare about Fort Hamilton, viz.: The Hairy Woodpecker (*Picus villosus*), the Downy Woodpecker (*Picus pubescens*), and the Purple Martin (*Progne purpurea*). Now I expect that some readers of this article will conclude that its author is either afflicted with blindness, or else is a very careless observer. I beg leave to say that neither conclusion is correct. The statement regarding the scarcity of the species just named, is the result of four years' careful observation of the birds of this locality. Mr. Geo. H. Coues has, indeed, given both the Hairy and Downy Woodpeckers as common about the Naval Hospital, Brooklyn (this Bull., Vol. IV., p. 31). The Hospital is scarcely a dozen miles from Fort Hamilton, nevertheless I must stand to my statement, and am willing to take my oath upon a copy of Dr. Coues's "Key to North American Birds," as to its validity. In this vicinity I have met with the Downy Woodpecker only two or three times, and with the Hairy Woodpecker not at all. It is true that the woods have been pretty nearly cleared away from this part of the island, still a sufficient amount of woodland remains, and certainly the orchards should furnish ample accommodations. The case of the Purple Martin is equally curious. This bird is common enough at the eastern end of the island, yet here I have only seen a few individuals.