III.—Notes on Nova Scotian Zoology: No. 4.—By Harry Piers, *Halifax*, N. S.

(Read 12th April, 1897.)

In the following paper is recorded anything of interest regarding the zoology of the province that has come to my notice during the past year or two. Former contributions on the same subject will be found in recent volumes of the Transactions of this Society.

MAMMALS.

GRAY SQUIRREL (Sciurus carolinensis). The capture of a specimen of this large species is recorded in a former paper of mine (vide Trans. N. S. Inst. Nat. Sc., vol. vii., p. 467). Another was killed, May 20th, 1894, near the old sugar refinery, on the western side of the North-West Arm, Halifax.

RED Fox (Vulpes vulpes var. fulvus*). In the winter of 1893-4, an albinistic Fox was killed at Musquodoboit, Halifax County, and was brought to Mr. A. G. Kaizer, furrier of this city, who subsequently sold it to Captain Campbell. The general colour of the pelt was cream white with a rusty tinge. Each hair of the tail was tipped with black, giving the whole brush the appearance of having been slightly singed. More of this black was towards the end and underside of the tail, but the extreme tip was whitish. Posterior parts of ears, black; but inside, white. Snout dusky. On the chest, a little behind the four legs, was a lead-coloured blotch which merged into the surrounding colour of the under parts. A white line margined with black extended on the front of the hind legs, from hock upward; front of hind legs, from hock to claws, black. Length of pelt from snout to tip of brush, four feet.

^{*}Mr. Outram Bangs in a paper published in the *Proceedings of the Biological Society of Washington* (March 16, 1897), describes a new form of Fox from Nova Scotia under the name *Vulpes pennsylvanica vafra*, it being distinguished from the typical *V. pennsylvanica* (= fulvus) by its larger size and deeper colour. Mr. Bangs also considers the American Red Fox entirely distinct from the European species (*V. vulpes*).

Mr. Kaizer informs me that some years ago he obtained a similar skin. This and the specimen just described, are the only albino Red Foxes he has ever seen, although he handles very many pelts.

Regarding the Silver Fox (var. argentatus), a well-known variety of the Red Fox, Mr. Kaizer tells me that while it is found on the Island of Cape Breton and in the eastern and western parts of Halifax County, and sometimes also in Guysborough, yet he has never for thirty years heard of its capture west of the County of Halifax. He is therefore inclined to think it is somewhat local in distribution.

BIRDS.

Roseate Tern (Sterna dougalli). On June 2nd, 1894, Mr. T. J. Egan obtained a specimen which had been shot at Prospect. Halifax County, N. S., a day or two before.

Mallard (Anas boschas). A male was shot at Cole Harbour, Halifax County, on October 17th, 1895, and was brought to Mr. W. A. Purcell. Another, killed at the same place, was in the Halifax market on November 2nd, of that year. It had evidently been taken two or three days before. The Mallard is a rare Nova Scotian bird.

WOOD DUCK (Aix sponsa). Mr. Purcell informs me that a male Wood Duck was shot several miles westward of Halifax (at Joshua Umlah's) about September 18th, 1895, and another was taken about the same date near Three Fathom Harbour.

KING EIDER (Somateria spectabilis). A fine specimen, a male, of this rare winter bird was killed on February 22nd, 1895, at Devil's Island, at the mouth of Halifax Harbour. Another male was taken at Three Fathom Harbour, Halifax Co., about March 20th, of the same year. Both birds were brought to Mr. Purcell. One or two other specimens were in the Halifax market about the last-mentioned date.

LEAST BITTERN (Botaurus exilis). In March, 1896, a bird of this species was brought to me for identification. I examined it

"in the flesh" and found it to be an adult male in full breeding plumage; total length, 14 ins.; wing 4.70; bill 1.88. It had been shot by Thomas Beck on the 16th of the above mentioned month, at Upper Prospect, Halifax County.

This small, handsome species has never before been met with in Nova Scotia, and its occurrence here is remarkable. Its regular range in the east only extends as far north as Massachusetts, but stragglers have been taken in Maine and New Brunswick. In the latter province some five individuals were shot between 1877 and 1881, on the Bay of Fundy shore between Black River and Mispeck (Chamberlain, "Catalogue of Birds of New Brunswick"). In Ontario, Mr. McIlwraith reports it as generally distributed throughout the south part of the province, and as a regular summer resident at Hamilton Bay (Birds of Ontario, 2nd ed., p. 108.) Its presence in Nova Scotia is the more remarkable when we consider the very early period of the year in which it was taken; a time when only the more hardy birds arrive here.

LITTLE BLUE HERON (Ardea cærulea). On March 18th, 1896, a male of this species, in adult plumage, was killed at Lawrencetown, Halifax County. The bird was thin and had evidently had but little food for some time. It was brought to Mr. Egan. On April 10th, 1897, another specimen, an adult, was taken at Sheet Harbour. It was mounted by Mr. Egan and now belongs to Mr. Hart of Halifax.

With these two exceptions, the species has only once been collected in the province. The late Mr. J. Matthew Jones reported that a specimen was taken at Cole Harbour, near. Halifax, during the summer of 1884, (vide Chamberlain's Catalogue of Canadian Birds). The specimen referred to by Mr. Jones was formerly in the collection of Mr. Egan, but is now owned by the Fisheries Department at Ottawa. It was in whitish immature plumage.

Purple Gallinule (Ionornis martinica). This handsome but somewhat bizarre species is an accidental visitor in Nova Scotia. Two specimens have been taken in the province in pre-

vious years, one having been killed near Halifax on January 30th, 1870 (Jones, American Naturalist, iv., 253), and another captured in April, 1889 (vide Trans. Inst. Nat. Sc., vii., 468). It not unfrequently comes as far north as the New England States, but in Canada has only been reported from our own province, New Brunswick and Ontario, in all of which localities its occurrence is merely casual.

In 1896, I saw a adult female which had been captured alive on Devil's Island, Halifax Harbour, about January 16th of that year, the bird had evidently struck the lighthouse on the island and fell to the ground disabled. It was kept alive for about twenty-five days when it died and was mounted by Mr. Walter Brett. S. Fraser of Halifax, who now possesses the bird, also has another of the same species, which he tells me was found dead at Chezzetcook, Halifax County, in the same week as that in which the above-mentioned specimen was taken.

Wilson's Snipe (Gallinago delicata). About October 11th, 1894, there was shot at Canning, King's County, a Snipe whose colours were so very light and tinged with gray, as to constitute partial albinism. It was mounted by Mr. Purcell for Mr. Dickie, of Canning. On December 3rd, 1894, I noted a Snipe at Halifax—the latest date on which I have seen the species. There was about five inches of snow on the ground at the time. The last Snipe of the regular body was noted on November 21st of that year. I have been told that individual birds occasionally remain very late in the season.

Lapwing (Vanellus vanellus). This is another purely accidental visitor in our province. The species is a native of the northern portions of the eastern hemisphere, although it occasionnally has braved the perils of the Atlantic and been found in Greenland.

On March 17th, 1897, an individual of this species was found, lying dead, on the sand of the shore at Ketch Harbour, near Halifax, N. S. It was very thin and death had evidently

been largely owing to starvation. The bird was brought to Mr. Egan's store, where I examined it before it was skinned.

It is doubtful if there is another well authenticated record of the occurrence of this bird in temperate America, for Mr. Ridgway in his Manual places a query after "Long Island" in the list of localities where it has been met.

Mourning Dove (Zenaidura macroura). Several Mourning Doves were taken in Halifax County during October, 1896. Mr. Searle, taxidermist, had three specimens: one killed about October 2nd; another shot at Terence Bay, about October 6th; and a third killed about the 9th. I also saw a fourth specimen in the market on October 10th, which had been killed at Porter's Lake, probably the day before. Mr. Francklyn of Halifax purchased a specimen in the market on September 28th, 1895. It had likely been killed on the previous day. Still another specimen was shot at Canning, N. S., by C. R. Dickie, on November 4th, 1895.

BLACK VULTURE (Catharista atrata). On January 12th, 1896, a Black Vulture was killed at Pugwash, Cumberland Co., N. S., and two days later was brought to Mr. Egan. I examined it after it had been mounted and identified it as the above species. It measured as follows: wing 17.75 ins., tail about 7.50, culmen .93, tarsus 3.13, middle toe without claw 3.

The occurrence of this bird in our limits is remarkable, and is doubly so when we consider the period of the year in which it was taken. It is regularly found as far north as North Carolina, and has been met as a casual visitor in the New England States, and Chamberlain (Nuttall's Ornithology, 1891,) records that it has even been killed on Grand Manan in the Bay of Fundy. With this exception, it has not hitherto been met with in Canada.

BROAD-WINGED HAWK (Buteo latissimus). In September, 1894, Mr. Purcell showed me a hawk which I identified as a young bird of the above species. It had been shot at Windsor,

N. S., on the 9th of the month. The species is very rare about Halifax, although in some portions of the Maritime Provinces it has been reported rather common. The bird is evidently local in distribution.

Duck Hawk (Falco peregrinus anatum). About 1893, Mr. Austen mounted an adult male which had been killed on Devil's Island, at the mouth of Halifax Harbour. The bird is very rare in Nova Scotia. Two individuals were taken on McNab's Island in September, 1892, as recorded in "Notes on Nova Scotian Zoology, No. 3."

AMERICAN HAWK OWL (Surnia ulula caparoch). This owl has now become rare in the province. In the winter of 1895, Mr. Purcell had four specimens—a most unusual number: a pair purchased in the Halifax market on November 16th, probably from near Musbuodoboit; one brought in, November 23rd, by John Paul, Indian, who had killed it near Salmon River, Halifax County; and another brought to town on December 2nd, from West Chester where it had been taken. All were quite fresh and had evidently been shot only a day or two before.

PILEATED WOODPECKER (Ceophlœus pileatus). A female was shot at Liverpool, N. S, on October 17th, 1895; another female was taken on the Windsor Road, Halifax County, about November 3rd, 1896; a male was brought to Mr. Purcell on January 6th, 1897; and a fourth specimen was killed at Oxford, Cumberland Co., about February 10th, 1897.

AMERICAN CROW (Corvus americanus). A curious freak of nature is found in a partially albinistic Crow which was shot at Shad Bay, Halifax Co., on October 6th, 1896. It agreed perfectly with descriptions of normal individuals except in the colouring, which may be more particularly described as follows: general colour brown (umber brown or light hair-brown), darker on throat, cheeks and belly; scapulars and feathers of back margined obscurely with whitish; primaries mostly whitish; tertials white; tail feathers light reddish brown (cinnamon

rufous) margined with whitish on outer edge; legs and bill dark-brown; eyes brown. Measurements: wing, 12.90 in.; tail, 7.50; exposed culmen, 1.93; depth of bill at base, .92; tarsus, 2.37.

Bobolink (Dolichonyx oryzivorus). As is well known, this bird is now exceedingly rare at Halifax, although formerly it was rather common. On the marshes in the western parts of the province it is still very abundant. On May 20th, 1895, while walking past a field in the western part of Halifax, my ears were saluted by the rollicking, gurgling notes of a Bobolink, and I saw a fine male in full plumage sitting on the top rail of a fence. His notes brought to my mind the flat, diked lands of Grand Pré and Windsor. I went over a wall after him and soon he flushed out of the wet grass and in full song flew to the top-rail of a neighbouring fence, where he alternately pruned his feathers and sang his glorious song. This ditty begins with a few metallic notes, somewhat bell-like in tone, from which the singer proceeds helter skelter into an inimitable rush of liquid, light-hearted music.

On May 28th, 1897, I heard another Bobolink singing in a swampy bit of grass-land on the side of Chebucto Road, near the North West Arm, Halifax.

In May, 1896, my friend Mr. Walter Brett, of Sackville, N. S., showed me a specimen which he had collected at that place. He also informs me that during the spring he saw two males: one at Sackville and the other on the Bedford rifle-range. Still another, a young male, was taken by him on September 13th, 1897. It therefore is evident that the bird is found occasionally on the meadows bordering the Sackville River.

MEADOW LARK (Sturnella magna). On October 24th, 1895, a Meadow Lark was obtained by Mr. Dickie, of Canning, King's Co. The bird is very rare in this province.

Bronzed Grackle (Quiscalus quiscalu æneus). On November 9th, 1894, one of these Grackles was shot on the Preston

Road, about two miles from Dartmouth, by Mr. Watson L. Bishop. There was about four inches of snow on the ground. It is the first of the species he has obtained, although he had collected for many years near Kentville, in the western part of the province. About Pictou, I understand, the species is more common, but near this city it is rare.

NORTHERN SHRIKE (Lanius borealis). This is a rare winter visitor in Nova Scotia. Mr. Francklyn shot a specimen at the North West Arm, Halifax, on February 22nd, 1895. The bird at the time was engaged in killing Snowflakes (P. nivalis). Another was obtained at Canning, King's Co., on March 1st of the same year, by Mr. Dickie.

BAY-BREASTED WARBLER (Dendroica castanea). In a previous article ("Notes on N. S. Zoology, No. 2") I noted a nest and two eggs of this warbler which had been collected by Mr. Austen. The same gentleman informed me that during the summer of 1895 he found two more nests at Dartmouth, near Halifax. One of these, containing four eggs, was taken during the latter part of June, and the other was collected about July. Nests and eggs of this species are rare.

BLACKBURNIAN WARBLER (Dendroica blackburniæ). During the summer of 1896 Mr. Walter Brett, of Sackville, Halifax County, took one specimen at that place. The late Mr. Downs considered this species very rare. Mr. Chamberlain thinks its secluded habits may have given rise to its reported rarety in Canada.

Winter Wren (Troglodytes hiemalis). An account of the very rare nest and eggs of this wren has already appeared in the publications of the Institute (Transactions, vol. viii., p. 203). On June 11th, 1894, my brother and myself found another nest of the species at the Rocking-stone (Kidston's) Lake, Spryfield, Halifax County. It was only a few feet away from the spot in which was situated the one described in the paper just referred to. As far as could be observed, the second nest was

precisely like the first in form, construction and materials. Both were built in moss, which was constantly saturated with water trickling from the bank above and slowly flowing over the top of the stone upon which the moss grew. The present nest contained a number of young, which we could just reach with the tip of the finger. There is not the slightest doubt about identification, for one of the parent birds was seen entering and leaving the opening a number of times. It is quite likely that this nest was constructed by the same birds which built the one found in May, 1891.

RUBY-CROWNED KINGLET (Regulus calendula). Mr. Austen, to whose exertions we owe much of our knowledge of the eggs and nest of this little bird, found two more nests at Dartmouth during the month of June, 1895. One of these contained eleven eggs, the other seven. Both were suspended beneath the limbs of black spruces. He tells me that nests of both the Ruby-crowned and Golden-crowned Kinglets may be found either on the limb or suspended beneath, so that the situation of the nest does not decide to which species it belongs.

REPTILES.

RING SNAKE (Diadophis punctatus). On July 24th, 1896, Mr. Augustus Allison saw one of these very rare snakes in Point Pleasant Park, Halifax, but he was unable to capture it. As well as he could judge, it measured about 10 or 11 inches in length. On the 17th of the succeeding month, on passing near the same place, he picked up a snake that had been crushed by a wheel. It proved to be D. punctatus. He kindly lent me the specimen, which I examined after it had been in alcohol for about a day. It furnished the following description: back, bluish black with slightly violet reflections in some lights. Beneath, orange buff, deepest about anus, palest on throat. Occipital stripe two scales wide, yellowish orange (nearly as deep in colour as abdomen near anus). Blackish spots on centre of each abdominal scutellum from near throat to near anus. These spots are small and round on anterior part of body,

transversely longer on posterior part. Lateral ends of each abdominal scutellum with a blackish, somewhat triangular mark. Length, 14.25 inches; tail, 3.70; greatest diameter of body, .30. Fifteen rows of dorsal scales.

TRUNK-BACK OF LEATHER TURTLE (Dermochelys coriacea). The occurrence of this animal in Nova Scotian waters has only once been previously recorded. In my "Notes on N. S. Zoology [No. 1]", was described a specimen which had been taken near Prospect, N. S., about August 30th, 1889.

In 1894 I had an opportunity of examining a second one, which had been taken on September 9th of that year by a man named Dauphiney, who found it entangled in his mackerel net about three miles off Hubbard's Cove, St. Margaret's Bay, to the westward of Halifax. It was brought to land and kept alive until September 13th, when it died, and was taken to Halifax for preservation. Subsequently it was placed on exhibition. The following measurements were taken after the reptile had been stuffed, and consequently a few of them are only approximately accurate: total length, 86 inches (7 ft. 2 ins.); length of head, 10 ins.; greatest breadth of head, 83 ins.; breadth between orbits, 4 ins.; length of fore-paddles, 32 ins. (plus about 2 ins., which had been worn off); greatest breadth of fore-paddles, 11 ins.; length of hind-paddles, 14 ins.; greatest breadth of hind-paddles, 10% ins.; length of tail (may have been extended in mounting), 12 ins.; length of dorsal shell or carapace, 58 ins.; breadth of dorsal shell, 34 ins.; depth of notch in posterior margin of hind-paddles, about 1 in. The furrows or grooves in the shell were not so deep as those in the specimen of 1889. This is probably owing to a difference in age.

On August 16th, 1895, another of these turtles was captured off the same place (Hubbard's Cove) and was brought to a fish-dealer in this city. I examined it on August 20th while it was alive in a tank of water. As the animal was moving about, it was difficult to obtain exact measurements, but the following are very nearly accurate. Total length, 75 ins. (6 ft. 3

ins.); length of head, 10 ins.; breadth of head between orbits, 4 ins.; length of fore-paddle, 34 ins.; length of dorsal shell or carapace, 52 ins. This last measurement, however, does not include about six inches of the posterior point of the carapace, which had apparently been broken off. Each hind-paddle had a well-defined notch, about one inch deep, on the posterior margin. Such a notch was observed in the specimens taken in 1889 and 1894. In the present individual there was a hole, about an inch long, through the left fore-paddle. This was probably an old wound, for there was no indication that the turtle had ever been secured thereby.

The Trunk-back is a wandering species, whose presence on our coast is entirely accidental.

FISH.

Sunfish (Mola mola). This is a rare visitor to our coasts. Only two specimens have been previouly recorded—one by the late Dr. Gilpin and the other by the present writer. On July 18th, 1894, one was captured by a man named Reino, about ten miles off Devil's Island, at the mouth of Halifax Harbour. It was brought to Halifax, where I examined it, and found that it differed only in size from the one taken in August, 1889. The length of the present specimen from tip of snout to end of most remote digitation of tail, was about 53.50 inches. From tip of dorsal fin to tip of anal fin it measured 67 inches. There were about ten scallops or digitations on the tail. Several parasites (Pennella filosa?) had penetrated the sides of the fish in like manner to those noted in the specimen of 1889.

On August 14th, 1895, while on the shores of Bedford Basin with my brother, we noticed a black object appearing and disappearing on the glassy surface of the water about half a mile from shore. From the peculiar motion and form of the object it was recognized as the dorsal fin of a Sunfish. The animal was watched for some time as it rolled its fin out of the water and then back again, meanwhile progressing very slowly. It was

evidently basking on the calm, warm surface. At times we thought another fin could be seen above the surface at a little distance from the first one; and if this was so, a second fish must have been present. Finally we obtained a boat and rowed out to the bobbing black fin. The boat was put alongside the animal, which made no attempt to escape. It was lying on its side at the surface, a vard or two from us, and in full view. We estimated its length to be about 51 feet, and it did not differ in shape from former specimens. It showed no alarm until struck with a pole, when it slowly sank, turned over, and propelled itself away beneath the surface by lateral movements of the dorsal and anal fins. It soon came up and once more waved its dorsal in the air. On being touched, it again went out of sight. but soon re-appeared and then sank once more. Finally the fin rose out of the water not far away and we pulled alongside. The animal, however, was now more alarmed, and on being merely lightly touched with an oar, turned over and, more rapidly than before, made off in an oblique direction downward. It was beneath for some time, and then appeared close to the shore, but was very shy and disappeared as soon as approached. A little later a wake was seen on the surface of the smooth water, progressing with a good deal of rapidity. It was without doubt caused by the fish swimming a little beneath It made toward the shore and then sheared off and went close along the beach, but in deep water, and then finally disappeared.

BATRACHIANS.

RED EFT (Diemyctylus viridescens = miniatus). The viridescent form of this species has been reported in the province by Dr. MacKay and myself, but the red, immature land form (miniatus) has not previously been collected. About October 10th, 1896, however a red terrestial specimen was taken at Lakeview, near Bedford, by Miss M. H. King, and was brought to me for identification.

Up to a few years ago these young specimens had been a great enigma to scientists. The red form is so different in

coloration from the older, viridescent one, that it was originally considered an entirely distinct species under the name miniatus, and even at one time was placed in a different subgenus. The late Prof. Cope in 1859 expressed the opinion that miniatus was only a state of viridescens, but it was not till a number of years later that the whole process of transformation from immature to mature pigmentation was observed in captive animals and fully described. The red specimens are found upon land, whereas the viridescent, full-grown form is aquatic in habits.