

occurred several times, notably about 1865 and in 1878, when large numbers were thrown on the shore at Key West, many of them of very large size, so that perhaps all that came within the influence of the poisoned water perished sooner or later.

There is nothing known as to the origin of the poisonous qualities of the waters that affect the fish in this way, but the prevalent opinion seems to be that there is something emptied into the beds of the fresh-water courses from volcanic or geyser-like springs, and that as soon as the water thus impregnated reaches the sea it kills every living thing that comes under its influence.

It has been reported that several smacks have lost their cargoes within the last two weeks, and that the waters of Tampa, Sarasota, and Charlotte Harbor were covered with thousands of dead fish, and that the stench was so great that the vessels were obliged to keep free from them.

Very respectfully,

W. C. W. GLAZIER,
Assistant Surgeon, M. H. S.

The SURGEON-GENERAL U. S. MARINE HOSPITAL SERVICE,
Washington, D. C.

NOTES ON SOME FISHES FROM HUDSON'S BAY.

By TARLETON H. BEAN.

Two small collections of fishes collected in the Hudson's Bay region, and received by the United States National Museum in 1880, are worthy of note, because fishes from that quarter are rarely added to museums in the United States, and consequently our knowledge of the fauna is limited.

One of these lots embraces the following four species, presented by Walton Hayden, esq., from Moose Factory. The numbers at the left of the name of the species refer to the Museum Fish Catalogue.

27782. *PERCOPSIS GUTTATUS* Ag.

The dorsal has 9 to 11 developed rays; the anal 1, 7; ventral 8; scales in lateral line 47 to 48. Seven specimens were obtained.

27783. *STIZOSTETHIUM VITREUM* (Mitch.) Jord. & Copeland.

Two young examples about $3\frac{1}{2}$ inches long.

27784. *ACIPENSER MACULOSUS* LeS.

A young individual $4\frac{1}{2}$ inches long.

27785. *URANIDEA SPILOTA* Cope.

One specimen measuring 4 inches without the tail, which is wanting. Vomerine teeth only. D. ix, 18; A. 12; V. i, 4.

From Robert Bell, M. D., Assistant Director of the Geological Survey of Canada, have just come the following six species, all of them collected at the mouth of Nelson River except *Cottus labradoricus*, which is from

near York Factory. As the last species has figured among the doubtful ones in our lists of East Coast fishes, I give a somewhat detailed description of it.

27776. PERCOPSIS GUTTATUS Ag.

27777. STIZOSTETHIUM VITREUM? = (*Lucioperca americana* Cuv.)

The example is very young and entirely without scales, but the species is most probably *vitreum*.

27778. GASTEROSTEUS PUNGITIUS L. = (*Pygosteus occidentalis* [C. & V.] Brev.).

This is the form described as *G. nebulosus* by Agassiz. It does not differ from marine *pungitius* except in its fresh-water habits.

27779. GASTEROSTEUS ACULEATUS var. GYMNURUS Cuv.

The few scaly plates on the anterior part of the body are present, but rudimentary.

27780. COTTUS LABRADORICUS (Girard).

Taken near York Factory, Hudson's Bay, by Robert Bell, M. D., Assistant Director of the Geological Survey of Canada, 1880.

Br. vi; D. X, 14; A. 14; V. i, 3; P. 17; C. 11 (developed).

Two small spines above the snout; a rough irregular prominence above each orbit and two similar ones on the occiput. The slight depression on the crown becomes narrower posteriorly where its width is about one-half the length of the space included between the supraorbital and occipital prominences. *Four preopercular spines*, two of which are at the angle; the uppermost and longest is two-thirds as long as the eye, but the spine is slightly imperfect; the two lower spines are short and extend downward and slightly forward. The length of the longest preopercular spine equals the distance between the eyes measured on the bone. The long diameter of the eye is one-fifth of the length of the side of the head, and nearly equal to the length of the snout. The maxilla is twice as long as the eye, about half as long as the head to the end of the opercular spine, and extends to about the vertical through the hind margin of the eye. Teeth on the vomer, none on the palatines. The dorsal spines are slender; the first is twice as long as the distance between the eyes; the third and longest is five-sixths as long as the maxilla and one-half as long as the distance from the tip of the snout to the end of the occipital prominences. The length of the spinous dorsal base is one-fourth of the total length without caudal. The interval between the spinous and soft dorsals is one-half as long as the eye. The longest ray of the soft dorsal (9th) is about as long as the middle caudal rays, or one-sixth of the total length with caudal. The pectorals reach a little beyond the origin of the anal (to the second ray of the anal); the ventrals are as long as the postorbital part of the head and do not reach near the vent. Skin above the lateral line

with a few spiny tubercles, none of them more than one-fourth as long as the eye. The specimen sent is a dried individual and its colors cannot be made out. There is a small slit behind the fourth gill. The local name at York Factory is "Miller's Thumb," according to Dr. Bell.

27781. *COREGONUS ARTEDI* LeS. var.

The species agrees in all respects with typical *Artedi* from the Great Lakes with the exception of its smaller eye. Two larger examples collected at Moose Factory many years ago also have the eye notably smaller than in *C. Artedi*. The local name at York Factory, says Dr. Bell, is "*tulibi*." It must not be inferred, however, that the species is at all like *Coregonus tullibee*, for it is not closely related to this form. Specimens in alcohol are much desired.

U. S. NATIONAL MUSEUM,
Washington, D. C., March 28, 1881.

ON THE MINERALOGICAL COMPOSITION OF THE NORMAL MESOZOIC DIABASE UPON THE ATLANTIC BORDER.

By GEORGE W. HAWES, Ph. D.

In my opinion the Mesozoic "trap rocks" have excited more interest and received more lithological attention than any other defined rock species upon the Atlantic border. There is, therefore, no rock concerning the geological features and chemical composition of which we are so well informed; but much as it has been discussed, the mineralogical composition has, in part, remained a matter of speculation rather than of definite knowledge. As our methods for determining such points are now much more satisfactory, I think that the final determination of the mineral composition of the normal variety of this rock may be accomplished, and this will be of much interest on account of the wide distribution and the uniform character of these diabases.

I will give a few references to show the development of our knowledge of these rocks and the essential uniformity in their composition.

When Perceval wrote, no attempt was made to determine their composition, and their geological features and distribution were chiefly considered.¹

Prof. J. D. Dana has at different times pointed out the wonderful uniformity of these rocks wherever they occur, intersecting the Mesozoic sandstones on the Atlantic border.² He quotes specific gravity determinations by Professor Brush of New Haven, Professor Cooke of New Jersey, Professor Kerr of Raleigh, N. C., and Professor Howe of Nova Scotia, made upon specimens from their respective localities, and

¹ See Dana's Geology, page 20.

² American Journal of Science, series iii, vol. vi, page 104.