

NOTES ON THE FISHES COLLECTED.

1. *Ammocetes tridentatus* (Gairdner). This species ascends the rivers to spawn. At La Grande the Grand Ronde, a small stream 5 or 6 yards wide, is dammed for milling purposes. Just below the dam a large number of this species were noticed in all stages of decay. Some had evidently died the preceding night. The ovaries of those taken at this place were large, but the eggs were quite small. Whether the "steels" had spawned and died, or whether the specimens were left stranded, I am unable to state. All the specimens were about 600 mm. long. At Caldwell I secured a large number of the young of this species. The largest of these measured 60 mm. In their habits the young very much resemble *Branchiostoma*. They burrow in the sand near the margin of the stream. If they are disturbed they will come out of the sand a few centimeters from the place of disturbance. The small ones were procured by throwing the sand on the banks, whereupon they would squirm out and could be secured.
2. *Acipenser sturio* Linnaeus. This species is common at Winnipeg and in the lakes to the north. I procured a single specimen 96 mm. long. It has the upper part of the snout black, a black spot on the sides above the posterior third of pectorals, and another below the dorsal; a narrower dusky band connects these and extends to the tip of the tail.
3. *Noturus flavus* Rafinesque. A number of specimens of this species (150 to 250 mm. long) were obtained with hook and line at night in the Missouri River at Craig, Mont. This seems to be the most western record for any members of the *Siluridae*. They were reported to me at Medicine Hat, but I did not procure any specimens at that place. Prof. Evermann reports none in his explorations in Montana and Wyoming. It has hitherto been supposed that the members of this family do not ascend to the mountains. None have been found indigenous to the Pacific slope. In the larger specimens the two maxillary barbels reach the base of the pectorals. There is uniformly a white spot on the back just at the base of and behind the last dorsal ray.
4. *Ictalurus punctatus* Rafinesque. Winnipeg. Exceedingly abundant in the Red River, where it is caught in great numbers, especially at night. It frequently reaches a length of about 750 mm. It was reported to me at Brandon, but it cannot be abundant at that place, since none were said to have been caught there since 1883. A catfish was also called to my attention at Medicine Hat, but from the description it must be a *Naturus*.
5. *Ictiobus cyprinella* (Cuvier & Valenciennes). Winnipeg. Two specimens, the largest 760 mm. long.
6. *Carpionodes velifer* (Rafinesque). Winnipeg, Brandon, Medicine Hat, Poplar. I can detect no differences between the specimens from Winnipeg and some taken in the Ohio River at Cincinnati.
7. *Pantosteus jordani* Evermann.

(*Pantosteus columbianus* Eigenmann & Eigenmann, Am. Nat., Feb., 1893.)

Three specimens, 92 to 100 mm. long, Boise River, Caldwell, Oreg. Very closely related to *P. generosus*, the eye slightly larger, the caudal much longer. Head, $1\frac{1}{2}$ - $1\frac{3}{4}$; depth, $4\frac{1}{2}$ -5; D, 11, $11\frac{1}{2}$ - $12\frac{1}{2}$ (in two); A, 1, $8\frac{1}{2}$ ($7\frac{1}{2}$ in *generosus*). Scales, 16 to 19-80 to 100-15. Eye, $1\frac{1}{2}$ -2 in snout, $1\frac{1}{2}$ - $1\frac{3}{4}$ in interorbital, $3\frac{1}{2}$ to little more than 1 in head ($2\frac{1}{2}$; $3\frac{1}{2}$; 4 in *generosus* of same size). All the fins more pointed than in *generosus*, the caudal lobes considerably longer than the head (shorter than head in *generosus*), $3\frac{1}{2}$ -1 in the length (5-5 $\frac{1}{2}$). Light brown with indistinct clouds of darker.

8. *Catostomus catostomus* (Forster). Winnipeg, Swift Current, Medicine Hat, Calgary, Bantf, Golden, and Revelstoke. Ascends streams to spawn. Is said to be very abundant at Winnipeg during the winter. Only a single specimen, the first of the season, was taken during my stay. As will be seen from the above localities, the species extends across the Rockies. A specimen of *catostomus* 290 mm. long, from Golden, on the Columbia River, differs in only a few minor details from a specimen of *Catostomus catostomus* of about the same size, the origin of which is not known. A series of larger specimens will probably show perfect intergradation. In the Golden specimen the eye is more anterior than in the other; and this feature changes all the proportions of the head. The size of the eye is the same in both; $6\frac{1}{2}$ in the length of the head, 2 in the postorbital portion in the Golden specimen ($2\frac{1}{2}$ -3 in the other), about $2\frac{1}{2}$ in the snout ($3\frac{1}{2}$); middle of head behind anterior margin of pupil (at anterior