

XXVIII.—FOOD OF FRESH-WATER FISHES.

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The following notes were made almost wholly from the contents of the stomachs of a few fresh-water fishes collected by Mr. J. W. Milner.

(Numbers in brackets ([]) are the numbers under which specimens were received.)

WHITE-FISH, (*Coregonus albus*.)

[No. 202.] Specimens from Outer Island, Lake Superior, contained great quantities of *Mysis relicta*; *Pontoporeia Hoyer*; and *Pisidium abditum*, var. *abyssorum*; and with these were a few specimens of dipterous larvæ of the genus *Chironomus*; a small worm, (*Lumbricus lacustris*); *Daphnia galeata*; *D. pellucida*; and a small species of *Planorbis*.

[No. 115.] From Sand Island, Lake Superior, *Pontoporeia Hoyer*; larvæ and pupæ of *Chironomus*; *Valvata sincera*; and *Gyraulus parvus*.

(No number.) From Sault Sainte Marie, one lot contained scarcely anything but small shells. Among these, *Valvata tricarinata*; *V. sincera*, var. *striatella*; *Amnicola generosa*; *A. palida* (?); *Gyraulus parvus*; and a species of *Limnæa* were in abundance; while there were fewer specimens of *Goniobasis livescens*; *Physa vinosa* (?), young; *Sphærium striatinum*; and *Pisidium compressum*.

[No. 407.] Other specimens contained nothing but the remains of insects, among which were the imago of two species of *Diptera*; larvæ and pupæ of *Chironomus*; larvæ and pupæ of some specimens of *Ephemeride*; great numbers of the larvæ, pupæ, and subimagos of a species of *Hydropsyche*; and the larvæ of a species of some other genus of *Phryganeidæ*.

[No. 380.] From Ecorse, Mich., specimens contained a species of *Hydrachna*, the leg and the scales from the wing of some lepidopterous insect, and a species of *Limnæa*.

White-fish which I examined at Île Royale, in August, 1871, contained scarcely anything but *Mysis relicta* and *Pontoporeia Hoyer*.

[No. 65.] Ecorse, Mich. Remains of a small fish and several specimens of a species of water-boatmen, (*Corixa*.)

Specimens of *Coregonus quadrilateralis* from Madeline Island, Lake Superior, contained a number of specimens of a leech (*Nepheleis fervida*) and a neuropterous larva allied to *Perla*.

These few observations are sufficient to show that the white-fish, like the different species of trout, feeds on a large number of species belonging to very different groups of animals. In this brief enumeration,

twenty-five species are mentioned—nine of insects, four of crustacea, one worm, and eleven of mollusks; and these are undoubtedly only a small part of the species upon which the white-fish really feeds.

SUCKER, (*Catostomus aureolus*.)

[No. 15.] Ecorse, Mich. Many specimens of partially-digested *Aselopsis tenax*, var. *dilata*; and portions of a *Corixa* and of the larva of a dragon-fly.

YELLOW PERCH, (*Perca flavescens*.)

Buffalo. Bones of several small fishes; spawn of some fish; small dipterous larva.

STURGEON, (*Acipenser rubicundus*.)

[No. 118.] At Sand Island, Lake Superior, a specimen contained a few bones of some fish and numerous shells, among which were the following: *Valvata tricarinata*; *V. sincera*; *Limnæa catascopium*; *Physa*, sp.; *Planorbis bicarinatus*; and *Sphaerium striaturum*.

Stomachs of *Menobranhus lateralis*, from Ecorse, Mich., contained a number of specimens of a crawfish, (*Cambarus propinquus*;) a neuropterous larva allied to *Perla*; and the remains of a small fish.