196 BULLETIN OF THE UNITED STATES FISH COMMISSION.

It appears that the number of ova produced by various species of Teleostean fishes are in some way proportioned to the chances they may have of surviving. Viviparous forms like the Cyprinodonts have comparatively few ova, and the number may be as few as 15 or 20 in such a form as *Gambusia*. The sticklebacks, we find, may in some in-stances have quite as few. Anadromous and marine species, on the other hand, often exhibit the most surprising fecundity. The female shad, for instance, may have 250,000 ova in process of maturation at one time in her rows the rock-fish or stringd base unwords of 2 000 000. one time in her roes; the rock-fish or striped bass upwards of 3,000,000; the cod from 2,000,000 to 9,000,000; the pollock 4,000,000; the had-dock not far from 2,000,000. These are significant figures, and doubtless indicate that there is some principle or law regnant in nature which determines these wide differences in the number of ova matured by one female in a single season. It may be a fact that the eggs of the one female in a single season. It may be a fact that the eggs of the cod and many other species have been gradually adapted to float, be-cause, if they did not, the pressure of the water at great depths would prevent their development. In spite, however, of this admirable pro-vision, it is doubtless a fact that one egg of a nest-building species, like the stickleback, has a thousand chances favorable to its survival as against one in favor of a single egg of the cod, left as it is floating in the open sea at the mercy of wind and waves. The species with thread-bearing eggs seem to a certain extent intermediate as regards the number of ova produced, and this is perhaps as strong an argument as can be produced, tending to show that the filaments are devel-oped as protective contrivances, which suspend such ova in safe posi-tions to fixed objects above the sea bottom during their development.

WASHINGTON, D. C., June 11, 1883.

18.-DO SNAKES CATCH AND EAT FISH?

By WILLARD NYE, Jr.

[From letter to Prof. S. F. Baird.]

While up on Lost Creek, yesterday, I saw a snake coming out of the water with a fish in his mouth, that he had caught all by himself. The snake was one of these common kind/seen around pounds, and about 30 inches in length, while the fish was about 4 inches long (but thick and bulky), being what they call out here a "bull-pout" (looks just like a toad-grunter from the salt water, and live under stones the same as they do). I killed the snake, and the fish being alive, put him back in the water, when he went off seemingly much pleased at the change.

A friend who was with me also found a snake which had swallowed one of the same kind of fish; that is, he had got him down as far as the gills, and the fish was still alive. The idea of a snake going in for a morning's fishing struck me as rather funny, so thought I would send you an account of it.

PARK CITY, June 25, 1883.