

pleasures once or twice again before I hang up my rod for the last time; but it is not the salmon fishing that the strong, vigorous man most delights in. It is not the fish alone that he cares for; of course he wants them, but their value is enhanced to him by the difficulties and obstacles he surmounts in capturing them. There is no comparison between killing a fish from a canoe and fighting one perhaps a mile or two down a rough-bottomed river, as he runs from one pool to another in his wild struggle to escape. To be sure, the angler tries to kill his fish in the pool in which it is struck, but sometimes it "gets the bit between its teeth" and starts out apparently with the determination to return to the sea from whence it came. It is hardly necessary to state that with a single gut casting line or leader, and none other should be used, any efforts to restrain the fish would be futile; the frail strand would snap like a cotton thread. The only course to be pursued is to follow the fish, and this the angler does to the best of his ability. Jumping from one boulder to another and stumbling over all sorts of rocks and ledges, he holds his rod aloft so as to keep the line as taut as possible, in order that it may not hang up in one of the numerous obstructions which line the path, he keeps on, sometimes at the top of his speed, until old salmo drops into deep water again and pauses for a rest.

This is the critical moment. If the angler now forces the fight to the utmost, the salmon may be quickly conquered, but if it is allowed to "get its wind," as it were, it will soon be ready to make another rush down stream, and if it does so, the chances are good for its escape. The skillful fisherman, realizing the importance of speedy action, "gives the butt" most rigidly and fighting the quarry

head and shoulders of the kingly fish when he leaps for the lure." (Sic.)

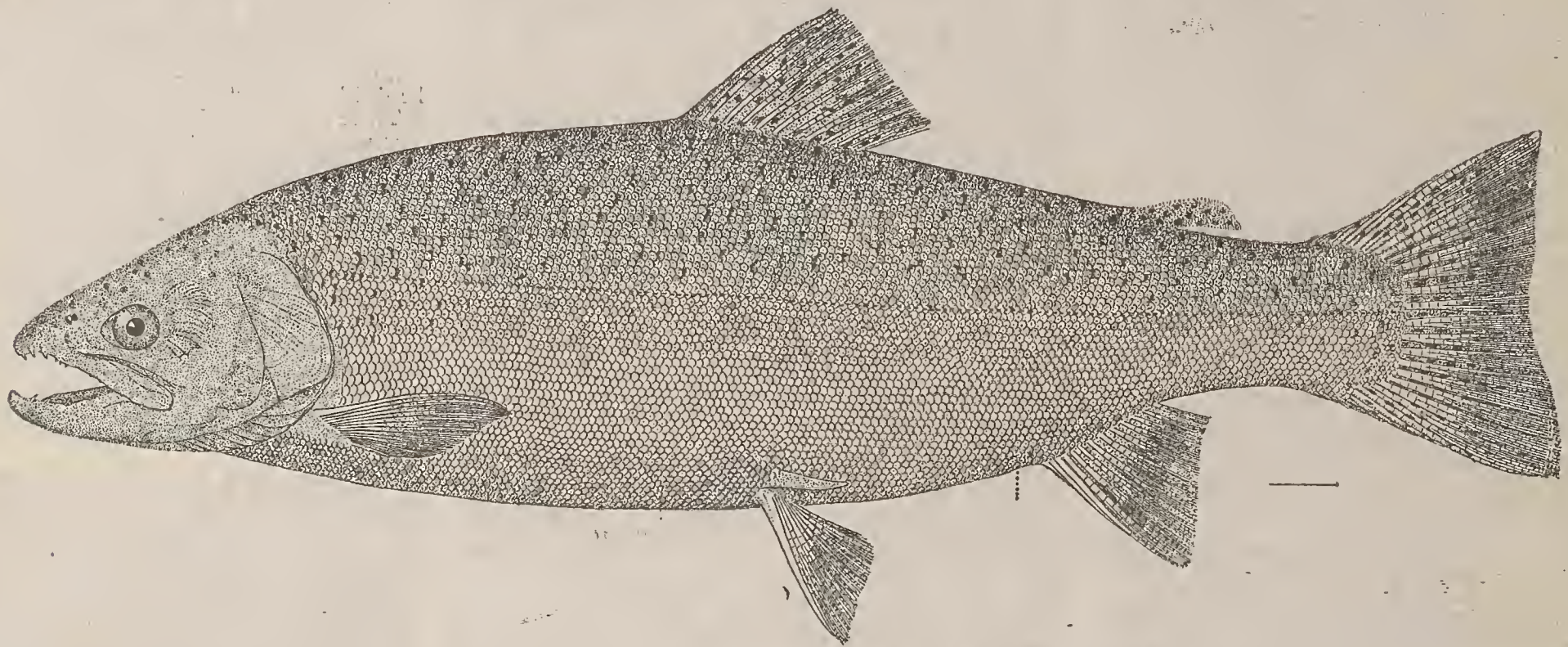
Now as regards sinking the fly, I will say that occasionally it may not be advisable, but that it should not be practiced at all I must deny. In my experience the salmon rises slowly, not with a rush, for the fly, and almost always takes it beneath the surface of the water with a sort of sucking-in movement; but that it comes with a rush leaping with head and shoulders in plain sight inferentially above the surface; no, I never had the good fortune to meet such eager fish.

Since writing the above I have had the curiosity to see what other anglers have said on this point.

Genio C. Scott, in describing a bout with a salmon, says: "The fish did not take a fly as a trout does by rushing at it from beneath, but rose *over the fly*, and took it on going back." The italics are mine.

The author of "Salmonia" (London, 1829) in dialogue says: "You fish well, were common trout your object; but, in salmon fishing, you must alter your manner of moving the fly. It must not float quietly down the water; you must allow it to sink a little, and then pull it back by a gentle jerk—not raising it out of the water—and then let it sink again, till it has been shown in motion, a little below the surface, in every part of your cast."

J. H. Walsh (Stonehenge) says: "The fly is worked very differently to the trout fly, which must always be on the top of the water to be effectual; whereas, the salmon fly should always be sufficiently under the water to avoid making any ripple as it is drawn toward the thrower, and yet not so deep as to be wholly out of sight."



THE STEELHEAD (*Salmo gairdneri*).

sharply, he soon brings it to the gaff, and then with what a feeling of exultation and pride does the conqueror gaze upon and even caress the silvery beauty that he has fought for and won so gallantly.

Yes, that is salmon fishing that the true sportsman enjoys; it is the real thing.

Perseverance a Great Requisite.

Another requisite in the salmon fisherman is patience, or if you prefer, perseverance. He must be content to cast his fly sometimes for hours at a stretch without obtaining a rise.

There may be fifty salmon in the pool, over which his flies are dragged, and not one of them will move a fin at his offerings; but he must persevere in casting, and change his lure as often as seems desirable. The stubborn angler who declares that "the salmon must take a certain fly, for they will get no other from him, so there now," is not as a rule very successful. It is to be remembered that the surface color of the pool is constantly changing. Where there was a large bright patch a half-hour ago, the movement of the sun has cast that spot in the deep shadow of the trees on the shore. So with passing clouds and the movement of the breeze which ripples the surface and consequently darkens it.

A Change of Flies Necessary.

It is to meet these varying conditions of the water that a change of flies is necessary. No one in his senses would think of offering a large, bright fly in clear, shallow water, and most salmon pools are shallow, if they are not five or six feet in depth.

On the contrary, he would present a small, dark fly, a fairy or black-dose, or possibly an unobtrusive Montreal, but let the water become dark and the butcher, silver-doctor, Jock-Scott, Popham and Durham-ranger will be desirable. Of course there are no hard and fast rules, for a salmon will often come to a fly which an hour before he had ignored.

A change of flies, therefore, is usually necessary, but the angler must be guided by judgment and careful observation of the conditions which prevail. At the beginning of the season, when the water is high, it is dark colored, but in the summer as the volume of the streams decreases more and more, the water becomes clearer, and consequently the changed condition will require different treatment by the angler, both in methods of fishing and in the choice of flies.

Fishing with a Sunken Fly.

Much has been said about sinking the fly for salmon, and many curious statements have been put in print in relation to it. Dawson says, in "Fishing With the Fly," "The rule with some anglers is to let the fly sink a little; my rule is never to let it sink at all. When a fish strikes I want to see him. There is no movement that so thrills and delights me as the rush of the salmon for the fly. To me, half the pleasure of a rise is lost if I don't see the

Opinions from other writers might be quoted, but I will forbear.

Now, while fishing with the sunken fly is the proper method in most waters, there are some streams in which there is a uniformly steep pitch, which makes quick water even in the pools.

In the Indian River, which empties into Margaret's Bay, N. S., the water is so quick that it is almost impossible to sink a fly, and the fish come to the surface for it, as it is dragged across the eddies and swirls.

But Indian River is peculiar. It is only three or four miles in length, from the bay to the lakes at the head of the stream. The salmon in it are always fresh-run—they could not well be otherwise when they can traverse the whole river in a single day—and they are ready, like all other fresh-run fish, to come to the lure unhesitatingly. The lower or first pool is on one side of the post road which winds along the shore to Halifax, and on the other side is the salt water of the bay.

I recall another stream which has for several miles a current similar to that of the Indian River, and that is the Big Levogle, a tributary of the Miramiche, and on this, too, a surface fly is successful.

I have no desire to be considered as trying to teach salmon fishing, for that is furthest from my thoughts. I believe that no amount of written instructions can make a "complete angler," for experience is the best and only teacher. But I may without great immodesty state that my practice is to get out my lure into all the best-looking spots, beginning on the near-by ones and working out further and further. I permit the fly to sink two or three inches and then drag it in short jerks, each movement being about five or six inches, and repeating this until the whole water is covered.

With a little practice one may discern the silvery gray fish rise from the bottom and move for the fly, but it takes a fairly good eye to see when the lure is about to be seized, and though in nineteen times out of twenty the salmon will hook himself when he takes the fly, the angler should have a quick wrist to strike at exactly the right moment in order that the barb may be fixed deeply and securely.

EDWARD A. SAMUELS.

[TO BE CONTINUED.]

"A New Shad from the Ohio."

THE titles of the illustrations given in connection with the description of the new Ohio shad, described by Dr. Barton Warren Evermann, in our issue of May 24, should have read as follows:

Fig. 1.—Ohio shad, *Alosa ohioensis* Evermann; female. Drawing from the type.

Fig. 2.—Ohio shad, *Alosa ohioensis* Evermann; male. Drawing from one of the cotypes.

Fig. 3.—Alabama shad, *Alosa alabamae* Jordan & Evermann; male. Drawing from the type.

Fig. 4.—Alabama shad, *Alosa alabamae* Jordan & Evermann; female. Drawing from the type.

Fig. 5.—Common shad, *Alosa sapidissima* (Wilson); male.

Fig. 6.—Common shad, *Alosa sapidissima* (Wilson); female.

Steelhead Salmon in Lake Michigan

THE National Museum has recently received from Mr. R. J. Sawyer, of Menominee, Mich., the head and tail of a steelhead salmon (*Salmo gairdneri*). In his letter, dated April 26, Mr. Sawyer says: "I have sent you by American Express the head and tail of a 9½-pound salmon taken from the waters of Green Bay, a few miles north of Menominee, Mich. It was a very handsome fish, the flesh a good deep color, the markings very distinct. About twenty-one years ago I sent you a small specimen. Can you tell me when the last salmon were planted in these waters? Why is not more attention given to stocking these waters with salmon? This fish would indicate that they will do well here. This specimen was a female well filled with spawn."

The parts received here indicated a healthy fish, and the few eggs attached to the head were apparently almost mature. The broad rainbow-like color on side of head was distinct, as were the crimson marks on the throat.

During the years 1896, '97, '98 and 1900, the U. S. Fish Commission planted 212,000 fry of the steelhead salmon in Lake Michigan, and during 1898, '99 and 1900, 10,335 yearlings were placed in the same waters.

The fish received from Mr. Sawyer and one sent to the U. S. Commission of Fish and Hatcheries by the Michigan Commission, about two weeks ago, are the only ones of which we have record from Lake Michigan. In the western end of Lake Superior, however, the steelhead salmon has become quite common, the catch of one season being about 2,200 fish. Lake Huron has also been stocked with the steelhead.

While the steelhead salmon seems to thrive in our inland lakes, the Columbia River or Quinatat salmon does not seem to do so. It, too, has been introduced into the Great Lakes, but the results are discouraging.

The steelhead salmon, Gairdner's trout of the books, is a good game fish, and furnishes fine sport to the anglers of the Columbia River and its tributaries. In 1892 the writer had the pleasure of fishing for "salmon" in the Spokane River, about ten miles north of the city, being a guest of Mr. Knight, of Spokane, on a two days' trip to Granitic Lake. Several good fish were taken, my prize being an eight-pound female steelhead on a seven-ounce steel rod, the combination giving fifteen minutes of anxiety and real pleasure such only as successful angling can give. The fishing was done in a succession of rapids by trolling. Mr. Nelson, of Spokane, caught a male fish for me of about the same size as my female, and the pair were preserved in alcohol and brought to Washington, and are among the museum collections. Along the banks of the Spokane were numerous Indian lodges, near which were to be seen salmon drying. These for the most part seemed to be steelheads.

B. A. BEAN.

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Iowa Fishing.

HUMBOLDT, Ia., May 22.—Another season of fishing has just opened in Iowa (May 15), and if the same amount of enthusiasm was shown all over the State as was shown here, upon the opening of the season, there must have been a great turn out.

Last fall Fish and Game Warden Lincoln stocked the Des Moines River at this place with 25,000 small fry, but they will not have much effect upon the fish supply till some time later. Good catches of pickerel and rock bass are made, while catfish and black bass are caught in small numbers. Every year there has been a preponderance of some certain species; last year it was the worthless bullhead, and this year it is the rock bass.

The height of the water in the river is the greatest factor affecting the supply of fish. Low water means poor fishing, high water good fishing, and as there has been but little high water so far, fishing has been nothing extra. High water in June is what fishermen are wanting now.

Minnnows are the principal live bait at present, while spoon hooks are used with good results; frogs and grasshoppers will come later on in the season, with the catfish and black bass (probably the gamiest fish of Iowa) fishing.

The reports from the lakes in the northern part of the State, which are noted for their fishing, say that there has been rather poor fishing.

Probably one of the greatest hindrances on the Des Moines River and its tributaries, is the big dam at Bonaparte, situated in the extreme southeast part of the State across the Des Moines River, about thirty-five miles from where the river empties into the Mississippi. This is one of the most noted dams in the West, and law suit