105.—REPORT OF A TRIP MADE BY THE FISH HAWK TO THE LOWER PART OF CHESAPEAKE BAY, TO ASCERTAIN THE CHAR-ACTER OF THE FISHERIES FOR SHAD, HERRING, ETC., IN THE SPRING OF 1884.

## By Lieut. W. M. WOOD, U. S. N.

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

In obedience to your instructions I left Washington on the 24th of April on a cruise of investigation as far as the mouth of the York River. I visited first the trap-nets on York Spit and in the Poquasin.

There were about one hundred and eighty traps being fished here; but the fishermen report a very bad season. They say they have not taken enough fish to pay expenses. At this particular time they were taking more menhaden than anything else. They report having noticed a good many young shad in their nets this spring, and I succeeded in finding two specimens among a lot of recently caught fish. They were respectively about 5 and 6 inches long. The probability is that these are last year's young fish which have passed the winter in the bay.

From York River went to Mobjack Bay. Found here one hundred and seventy traps, and the same report as to a bad season.

The next point was the mouth of the Rappahannock, where we found about twenty nine traps. They also reported a poor season.

All these people ascribed the poor catch to the prevailing westerly and northwesterly winds and gales, which they think kept the fish off the shoals and in deep water.

I ran over to the Eastern Shore and touched at Watt's Island, at the mouth of Tangier and Pocomoke Sounds, but could find no nets being fished there. Then returned to the westward and entered the Great Wicomico. Here they say they had a fairly good season for the first two weeks, but that they had done but little since. About fifty traps fished here. At all these points about the same number of traps are being fished as last year.

From the Great Wicomico entered the Potomac again, finding rather fewer nets in the lower part than last year. The trap-net fishermen near Mathias Point report the season as so far not good. Mr. Smoot, who fishes two traps, says the biggest catch for one day, both nets, was one hundred and fifty shad. At that time they were taking a good many menhaden of a fair size.

Mr. Ewing, who fishes at Windmill Point, the lowest seine haul on the Potomac, reports a very bad season. He says he was behind in his expenses until a week or ten days previous to my visit, when they had a good run of herring, and he was enabled to catch up. Mr. Robb, near Aquia Creek, and Mr. Waller, at Clifton, are both reported to have done well on herring. These seines all cut out between May 1 and 10; but,

if the season justifies it, Robb will move up the river and fish Sandy Bar.

The gill-net fishermen in the Upper Potomac report a fairly good season on shad. The first catch of shad in the bay was early in March.

I submit herewith a table showing the number of traps at different points as far up as Indian Head, the places to which the catch is consigned, and the maximum and minimum temperatures of the air and water at the different places visited. I find the fishermen, as a rule, call one trap a net, no matter if there are several in a line, such as might be called a single net of several traps. In this table it is the number of traps given without respect to their location.

In regard to a record of the temperatures at these places during the fishing season, I can suggest no better observers than the light-keepers. There is a light at every point where trap-nets are fished extensively, and I believe the Commission already gets reports from most of them. They do not, however, from Point Lookout, which I consider a most important station for such observations, putting out as it does into the bay at the mouth of the Potomac. There is a new Government wharf at this light, where such temperatures could be taken in deep water without trouble.

Arrived back in Washington on the evening of the 28th of April, and secured at the navy-yard.

FISH HAWK, Washington, D. C., April 30, 1884.

Table showing the places where fishing was prosecuted in the Potomac and Lower Chesapeake, in the spring of 1884, the number of nets, places of consignment, and temperatures of air and water.

Date of Fish Hawk's visit.	Place of catch.	Number of nets fished.	Place of consignment of catch.	Temperatures.			
				Air.		Water.	
				Max.	Min.	Max.	Min.
1884. April 25	Mobjack Bay	170	Baltimore and Philadelphia.	60	52	56	52
26	York Spit and mouth of York River.	180	Baltimore, Philadel- phia, New York, and Richmond.	67	52	56	52
- 26	Mosquito Point to Windmill Point.	29	Baltimore	67	53	56	54
27	Mosquito Point to Windmill Point. Great Wicomico to Smith Point	50	Baltimore	67	53	56	. 54
. 28	Ragged Point	7	Washington	82 82	56 56	60	55
28 28	Lower Cedar Point Pope's Creek to Nanjemoy Creek, both sides of river.	*11 26	Washington	82	56	60 60	55 55
28	Nanjemoy Reach Chicamuxon Creek	3	Washington	82	56	60	55
28	Chicamuxon Creek	. 3	Washington	82	56	60	55
28 28	Powell's Creek Mattawoman Creek	1	Washington	82 82	56 56	60 60	55 55
28 28	Daen Point	1	Washington	82	56	60	55
28	Deep Point Occoquan Creek	18	Washington		56	60	55
28	Indian Head	2	Washington	82	56	60	55
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<sup>\*</sup> Nine on Maryland side, two on Virginia side.