

VIII.—REPORT OF OPERATIONS OF THE U. S. FISH COMMISSION
STEAMER FISH HAWK FOR THE YEAR ENDING DECEMBER
31, 1886.

BY MATE JAMES A. SMITH, U. S. N., COMMANDING.

The following is a general report of the operations of this vessel for the year 1886:

On January 1 the vessel was moored to the wharf at the U. S. Fish Commission Station at Wood's Holl, Mass. The crew and some of the hatching equipment of the vessel were utilized in the codfish hatching work then being conducted at that station. This continued until February 14, when the vessel proceeded to New Bedford, Mass., to procure coal and stores, returning to the station at Wood's Holl on February 16. The next few days were spent in building a live-fish car, and otherwise preparing for a trip to the cod fishing-grounds in Ipswich Bay, for the purpose of procuring spawn for propagating purposes. On February 21 left station at Wood's Holl and proceeded down Vineyard Sound, bound for Gloucester, Mass., arriving there at 8 a. m. the next day.

On February 24 got under way from Gloucester Harbor, steamed to Ipswich Bay, and in that vicinity boarded several fishing vessels in search of codfish spawn, but did not succeed in procuring any, and proceeded to harbor of Portsmouth, N. H. Came to anchor in the roadstead at 4 p. m.

On February 25 got under way at 5 a. m., steamed out towards the Isles of Shoals, boarded several fishing vessels, and succeeded in procuring about 8,000,000 of codfish eggs. Then proceeded to Portsmouth Harbor and came to anchor off New Castle. Shipped 4,000,000 cod eggs from Portsmouth, N. H., to Wood's Holl Station. A severe gale of wind from SSE. shifted to NW., in which some slight damage was done to vessel by two schooners fouling while at anchor. Steam-launch of the vessel was also sunk, and at times there was great danger of the vessel dragging on the rocks, which was happily averted. Weather moderating on the 27th, at 3 p. m. slipped starboard and port chains, steamed up the river, and arrived at Kittery navy-yard, where the vessel was made fast to the wharf and remained until the gale was over.

On March 3, at 3 p. m., steamed down the river and picked up the buoy; unshipped anchors and chains, which were both secured. Swept

for steam-launch and made a rigid search for her all next day, but without success.

From March 4 to 23 the vessel was engaged in making trips to the fishing-grounds whenever the weather would permit. Boarded all fishing vessels for the purpose of procuring codfish spawn, and shipped it to station at Wood's Holl, Mass.

On March 24 got under way from navy-yard at Portsmouth, N. H., and proceeded to Boston, Mass.; arrived and made fast to wharf at navy-yard at 4 p. m. Vessel remained there until April 10 awaiting orders, during which time repairs were made to the upper work that had been damaged by the collision with the schooners during the gale of February 27.

On April 12, at 4 p. m., unmoored ship from wharf and steamed down the harbor, bound to Wood's Holl, Mass., arriving at Fish Commission wharf on the 14th.

On April 16, at 10 a. m., cast off from wharf and proceeded down the Vineyard Sound, bound to New York. At 5.30 p. m. put into Newport, R. I., on account of fog. Got under way next day and proceeded to Brooklyn; made fast to wharf at navy-yard, Brooklyn, at 6.45 April 18. The vessel remained there awaiting orders until the 21st.

On April 22 proceeded down East River to sea, bound to Havre de Grace, Md. Arrived at Battery Station at 4 p. m. on April 24, and began to fit up hatching apparatus for the season's shad work.

On April 26, at 4 p. m., left Battery Station, steamed over to North East River and anchored at a point midway between Red Bank and Carpenter's Point, adjacent to the fishing-shores and gilliers. Sent out spawn-takers daily to the fishing-shores and gilliers, which duty was carried on until May 1, when orders were received to discontinue work at this point and proceed to the Delaware River. At 6 p. m. went to Battery Station and transferred all shad spawn and eggs in process of hatching to superintendent of station.

On May 3 steamed up to Havre de Grace; coaled ship at Hiller's coal wharf. At 1 p. m. cast off from wharf, steamed down the river, landed Assistant Commissioner Ferguson at Battery Station, then proceeded down Chesapeake Bay, bound to the Delaware River; arrived and came to anchor off Gloucester City, N. J., at 12.30 p. m., May 5.

From May 6 to June 19 vessel was stationed in the vicinity of Gloucester City, N. J.; crew were employed in gathering shad spawn from the different fishing-grounds on the river. The depositing and transferring of shad fry was continued until the close of the season; a detailed report of which has been printed in Fish Commission Bulletin, 1886, page 289.

On June 10, at 3.30 p. m., proceeded to Cooper's Point, Camden, N. J. Arrangements were made to haul the vessel out on Tilton's marine railway, repairs being needed to the sheathing and the ship's rudder. On June 15 the vessel was hauled out, repairs were made, and vessel was

launched on the 17th. On June 19 took on board 50 tons of coal from coal wharf at Port Richmond. Returned to Gloucester City, N. J.

On June 21, at 5.30 a. m., proceeded down the Delaware River, bound to Washington, D. C.; arrived at and made fast to wharf at navy-yard at 1 p. m., June 24.

From June 25 to July 9 the vessel was at navy-yard, Washington, D. C., awaiting instructions, in the mean time making some necessary repairs to main boiler and repairing dredging-machine and scows to be towed to Saint Jerome Station, Maryland.

On July 10, at 5.15 a. m., got under way from navy-yard, Washington, D. C., with dredging-machine and two dump-scows in tow, and proceeded down the Potomac River, bound to Saint Jerome Station, arriving there next day at 6.30 p. m., and delivered them to superintendent of station.

On July 12, at 1.10 p. m., proceeded up the bay, bound to Battery Station, arriving there at 10 a. m. next day; took on board a lot of machinery for transportation to Saint Jerome Station.

On July 14, at 10.40 a. m., left Battery Station with two steam-launches in tow and proceeded down the bay, bound to Saint Jerome Station, arriving there on the 16th at 2 p. m. Delivered machinery and launches to superintendent of station; vessel remained at station until August 3. Crew were employed while there in working on dredging-machines and scows and rendering assistance to the superintendent of the station in dredging the channel. During the stay of the vessel at this place the command of the vessel was turned over to Mate James A. Smith, U. S. Navy. W. J. Maxwell, U. S. Navy, was detached and ordered to duty on the U. S. Fish Commission steamer Albatross.

On August 3 received orders from Assistant Commissioner T. B. Ferguson to tow dredging-machine, two dumping-scows, and one steam-launch to Battery Station, Havre de Grace, Md.

On August 4, at 2 p. m., got under way and proceeded up the bay with tow and arrived at Battery Station at 6 p. m. next day, and delivered the dredging-machine and scows and steam-launch to superintendent of Battery Station, and vessel remained at station until August 20. Crew were employed in dredging-machine and scows in digging out the channel leading into the station. On that date received orders to proceed to Saint Jerome Station and drive a well for the use of the station.

On August 21, at 10 a. m., got under way with well-driving equipment on board, bound to Saint Jerome Station. Arrived there next day and made fast to the Fish Commission wharf. Crew were employed until August 27 in driving well pipes, when orders were received to discontinue work at this place and proceed to Wood's Holl, Mass.

On August 28 took on board well-driving apparatus and seven men for transportation to Wood's Holl Station. At noon steamed out of

creek and proceeded down Chesapeake Bay and came to anchor in Hampton Roads at 10.30 p. m.

On August 29, at 9 a. m., got under way and proceeded out to sea. Visited Winter-Quarter Shoal, Five-Fathom Bank, and Sandy Hook Light-Ship and consulted with the keepers in regard to the temperature observations for the United States Fish Commission. Arrived at Newport, R. I., and came to anchor at 10 p. m., having been instructed to stop there and convey the Commissioner to Wood's Holl, Mass. On September 2, Commissioner Spencer F. Baird came on board. At noon steamed out of the harbor, bound to Wood's Holl; arriving at station at 5.45 p. m., where vessel remained awaiting instructions until September 12.

On September 13 took on board steam windlass left at the station by the schooner Grampus. Received orders to proceed to Providence, R. I., to have it fitted in vessel by American Ship Windlass Company; also to tow steamer Halcyon to Bristol, R. I., for repairs.

On September 14, at 7 a. m., cast off from wharf at station, steamed out of the harbor with steamer Halcyon in tow. At 3.30 p. m. dropped steamer at Herreshoff's Works at Bristol, R. I.; then continued to Providence, R. I., arriving there at 5.30 p. m. The vessel remained here until September 26, having steam windlass fitted.

On September 27, at 3.30 p. m., proceeded to Wood's Holl, Mass., having put into Newport over night on account of fog. Vessel remained at Wood's Holl awaiting instructions until October 23, during which time the crew were variously employed about the station, discharging coal from schooner, etc.

On October 23 received orders to sail for Battery Station, touching at New York and Saint Jerome Station en route. Took on board some articles for transportation to both stations; also took launch Cygnet in tow as far as New York.

On October 24, at 6.30 a. m., cast off and steamed out of harbor with launch Cygnet in tow, bound to New York. Arrived there and made fast to wharf at navy-yard, Brooklyn, at 8 a. m. next day. While there, received paymaster's stores from navy-yard.

On October 26, at 7 a. m., steamed down East River and proceeded outside of entrance to New York Bay; made several hauls of the trawl in the vicinity of Sandy Hook Light-Ship for the purpose of ascertaining if any of the English sole could be found which were deposited in that locality some years ago. Did not succeed in finding any. Weather looking threatening, came to anchor in the Horse Shoe, and were detained by bad weather until November 1. Got under way at 7 a. m. that morning and proceeded to sea, bound to Battery Station, touching at Saint Jerome Station en route, arriving there at 9 p. m. on November 2, where well-driving apparatus was landed.

On November 3, at 9 a. m., got under way with launch 55 in tow and proceeded up Chesapeake Bay, came to anchor off Spesutie Island at

9.30 p. m., and arrived at Battery Station next morning; anchored in the channel opposite the station, where vessel remained until November 20. The majority of the crew of the vessel were employed every day on work about the station, such work as the superintendent of the station required.

On November 22 received instructions from the Assistant Commissioner, T. B. Ferguson, to proceed with vessel to Saint Jerome Station; got under way and proceeded down Chesapeake Bay, arriving next day. Took on board several wheelbarrows, three flumes and gates to be transferred to Battery Station.

On November 25, at 4 a. m., got under way and proceeded up the bay to Battery Station, arriving there at 8.30 a. m. November 26. Got lighter alongside; put on board all articles received at Saint Jerome Station, which were transferred to superintendent of Battery Station. From then to December 3 the vessel remained at the station. The majority of the crew were employed in discharging coal for station, tending dredging-machine and scows, wheeling mud, and assisting carpenter's gang to build extension of hatching-house.

On December 3 weather very cold (temperature 18); drifting ice began to come down the channel. Not being able to get alongside of wharf at station, and to prevent vessel from being frozen in, at 4 p. m. got under way and steamed down off Spesutie Island and came to anchor. About 10 p. m. found ice making about the vessel. Got under way and steamed down the bay and anchored above Poole Island. Next morning proceeded to Baltimore, Md., and awaited instructions.

On December 24, at 9 a. m., went to Locust Point and took on board two small boilers and other machinery for transportation to Battery Station; then steamed up to Skinner's ship-yard and made fast to wharf.

On December 25 steamer *Haleyon* hauled alongside, and there were placed on board this vessel her cylinders, crank-shaft, and bed-plates, etc., to be taken to Battery Station as soon as the channel was open. From this time to December 31 ship remained at Skinner's ship-yard awaiting instructions.

WOOD'S HOLL, MASS., *September 12, 1887.*