

NOTES ON THE HALIBUT FISHERIES OF 1881-'82.

By CAPT. J. W. COLLINS.

The importance of the fishery for fresh halibut, the apparently rapid diminution of the species wherever it has been sought, causing thereby more changes in this industry than are noticeable in the other food-fisheries, seems to make it desirable that a record of the leading events connected with this business (so far at least as relates to the abundance of fish on certain grounds) should be kept. Two events of a remarkable character, and which seem worthy of special mention, have occurred during the seasons of 1881-'82. These are (1) the discovery of a new fishing ground, and (2) the occurrence, at a season when it was least to be expected, of halibut in almost unequalled numbers in a well-known and long-frequented region. The following account of the events alluded to is based on such facts as could be gathered from the halibut fishermen during my stay at Gloucester this summer (1882), and though not at all exhaustive may possibly prove of some interest.

As a rule, during most of the season of 1881, and particularly in the fall, halibut were scarce on the more frequented fishing grounds along the edge of the outer banks. Consequently the inducement was great for the skippers to seek new and untried fields, where, perhaps, fish might be found in undisturbed abundance. With this end in view, Capt. George H. Johnson, of the schooner *Augusta A. Johnson*, in the autumn of 1881, crossed the Grand Bank and fished in the deep water on its eastern slope, where, so far as I know, no systematic research had previously been made.* Anchoring in 110 fathoms—latitude 43° 55' north, longitude 49° 08' west—he found halibut abundant, and made large catches on trawls set to the eastward of his vessel and in somewhat deeper water. In six days' fishing he secured a fare of between 50,000 and 60,000 pounds of halibut, most of which were large "gray" fish.† The same schooner on her next trip—this time commanded by another man—revisited the new ground, but the winter

* I was told by an acquaintance several years ago that a vessel had looked for halibut along the eastern edge of the Grand Bank as early as 1877, but had failed to find any, the skipper reporting that the bottom declined so suddenly that it was impracticable to attempt to anchor or set trawls. The late researches have shown that the statement was entirely wrong, and give reason to doubt the probability of the vessel having visited the deep water on the east side of the Bank.

† It is somewhat remarkable that when halibut are found on grounds not previously fished a large percentage of the catch are generally "gray" fish, and with rare exceptions these are above the average size. Instances are somewhat uncommon where medium sized "white" halibut have predominated on newly tried fields, but such instances have, however, occasionally occurred. After several years' fishing in one locality the quality of the halibut generally improves, the fish being of smaller size and in finer condition.

season had then so far advanced that there was a constant succession of furious gales. The prevalence of strong northerly winds caused an unusually rapid flow of the polar current (which often sweeps down by the eastern side of the Grand Bank with such velocity as to render fishing nearly impracticable), and in consequence of this combination of unfavorable circumstances, very little was accomplished. In the spring of 1882 Captain Johnson went to this place again and had remarkable success. His good fortune was soon noised abroad, whereupon many of the other halibut schooners made similar ventures, the result being that the eastern side of the Grand Bank was pretty thoroughly "tried over" from latitude $43^{\circ} 15'$ to $44^{\circ} 30'$ north, in depths varying from one to three hundred fathoms. At many points along this stretch halibut were abundant, but a strong polar current caused the fishermen much loss of gear, whilst the prevalence of dense fogs, together with the proximity of numerous icebergs, rendered fishing in that locality so hazardous that the majority of the skippers were glad to resort to other grounds, even where, perhaps, the prospect of finding large numbers of fish was not so good. Several of the vessels lost most of their trawls before they had secured a full fare, and few that fished on the eastern side of the bank returned to port without having met with some damage to their gear.* The icebergs sweeping down from the north, borne along by the swiftly running currents, were a source of great danger to the vessels lying at anchor. Huge mountains of ice would often appear suddenly out of a dense fog so close to the schooners that the startled crews were frequently almost compelled to cut their cables to prevent collision. Captain Johnson told me that on one occasion he counted twenty-eight bergs within sight of his vessel, and one of the number lay grounded for nearly a week—all the time he remained at anchor—not more than a mile distant, in water probably not less than 125 fathoms deep. It is scarcely necessary to say that in a rough sea one blow from such a monster would crush a fishing schooner as though it were an egg-shell.

The fact, however, of halibut having been found in abundance off the eastern, or rather, perhaps, the southeastern side of the Grand Bank, is a matter of more interest than would appear at first glance, since it permits us to form a better idea of the winter habitat of certain schools of this species, and also to judge more intelligently concerning the spring and fall migrations, about which, heretofore, only indefinite and uncertain ideas could be formed. For several years previous to the discovery of the deep-water fishing-grounds, it was noticed by the fishermen that, during the winter and early spring—from about the

* Where strong currents prevail in deep water the buoys which mark the position of the trawl-lines are dragged beneath the surface of the water by the great strain on the buoy-line. These buoys, being generally soft wood kegs, are broken by the pressure of the water, when they have been submerged to any considerable depth, and the result is that there being nothing to support the buoy-line—the only means by which the trawl can be recovered—the apparatus is lost.

middle of January to the last of April—the schools of halibut found on the body of the Grand Bank, between $43^{\circ} 30'$ and 45° north latitude, appeared to come from the east or southeast side of the Bank, and almost invariably moved slowly but steadily across the ground in a westerly or northwesterly direction. A vessel might obtain remarkably good fishing for two or three days, perhaps for a shorter time, but the halibut would suddenly disappear and none could be taken. It frequently happened that on such occasions a change of position—the schooner moving 5 or 6 miles in the direction which the fish were known to be going—might result in the school being overtaken again, and in the capture of a full fare. In some instances a skipper might be able to “keep run” of the fish for several days, and while they were passing over a distance of 20 to 30 miles, and many statements could be cited of a character to verify this assertion, though it would probably be superfluous to do so, since these matters have been quite fully discussed in the account of the halibut fishery, where, perhaps, they more properly belong. As it may be a source of wonder to many how any intelligent idea could be formed by the fishermen of the direction in which the halibut were moving, the following explanation should be offered:

The custom is for the Grand Bank halibut schooners to fish with trawls, each more than a mile long. These are set out from the vessel, from which, as a center, they radiate in the form of a star, stretching out in six long lines like the tentacles of the nautilus. A school of halibut approaching from the east would first be caught in great abundance on the lines set in that direction, while the trawls on the west side of the vessel would get comparatively few fish. On the next set the catch might be pretty equally divided, while succeeding hauls would show that the fish had moved so far that only the “tail end” of the school could be reached by the farthest ends of the western trawls. As soon as this occurred, any intelligent skipper, understanding the habits of the species, could form a tolerably definite theory as to how fast the halibut were moving and also the course they were pursuing. Notwithstanding it was apparently well known that the halibut were migrating at such times, only the most vague and indefinite ideas were formed as to the place from which they came or whither they went. No one seems to have entertained the thought that they “hung around” the edges of the Bank in deep water after leaving the body or shoaler portions of the ground. That the halibut came from some undiscovered bank to the eastward and passed across the Grand Bank on their way north and west towards Newfoundland, the Gulf of Saint Lawrence, Labrador, etc., was, I think, the general belief of the fishermen, at least, of such as took the trouble to formulate any theory. The discovery of halibut along the east side of the Grand Bank seemingly settles this question, and it is undoubtedly a fact that the great schools of this species, which for many years have been known to migrate

northwesterly in the spring, make their winter residence on the eastern slope in depths varying from 100 to probably 400 fathoms.

Fortunately, halibut were discovered in remarkable abundance in the early summer on another and well-known fishing-ground, thus rendering it unnecessary for the fishermen to be longer exposed to so many losses and perils as they had experienced on the east side of the Bank.

On the deeply submerged plateau which extends in a northwesterly direction from the northwest prong of the Grand Bank to Saint Peter's Bank, forming a sort of border to the southern end of Green Bank—by which name this stretch of bottom is usually called by the fishermen—in depths varying from 112 to 250 fathoms, halibut of the finest quality, and in extraordinary numbers, were found. This locality has been famous for the abundance of halibut in the spring of the year since the discovery of the deep-water fishery in 1875. In April of that year the vessels, driven off the shoaler parts of the Grand Bank by immense masses of field-ice, sought to catch fish in deeper water, and halibut were found exceedingly abundant off the northwest prong of the Grand Bank in depths varying from 100 to 200 fathoms. During the whole season—even as late as September—these fish were caught at about the same depths nearly the entire length of the slope extending from the northwest prong to Saint Peter's Bank. And in such numbers did they occur that few vessels fishing in the locality failed to get full fares, while most of the fleet made extraordinary catches. Since 1875, however, notwithstanding the fact that large schools of this species have been found off Green Bank almost every spring, it has appeared from the movements of the fish that they were migrating to more northern regions, and that they were only passing over these grounds, pausing slightly, perhaps, in their course, or, at least, moving slowly.*

For a period of four to six weeks, generally in March and April, large fares were obtained between the northwest prong of the Grand Bank and Saint Peter's Bank. After that interval, however, the fish became scarce, and rarely did it happen that they were sufficiently plenty during the summer for vessels to obtain good fares there.† This

* On several occasions the movements of these fish have been pretty definitely traced along the southwestern side of Saint Peter's Bank and into the deep water between this bank and the shores of Newfoundland. Without doubt a portion of the Green Bank spring school is found in summer on the west coast of Newfoundland in pursuit of capelin close into the shore.

† In this connection it may be well to mention that in the summer of 1878 the schooner "Gwendolen" found a new fishing-ground some 20 miles to the southwest of Saint Peter's Bank, in a depth of about 200 fathoms, where no soundings are laid down on the chart. She succeeded in taking several large fares, but other schooners, learning of her good fortune, resorted in such numbers to the same grounds, that in September of that year the school had been broken up, nor has any large catch of halibut been made on that ground since. Allusion to this fact is made here because the locality is not far from that region off Green Bank now under discussion, and also because, with this exception, halibut have rarely been found abundant in the summer in its immediate vicinity since 1875, until the present year.

season has, however, been a marked exception to the general rule, and the fact of the abundance of halibut at that point during the present year is all the more remarkable, inasmuch as when the schools have been broken up on other fishing grounds, or the fish forced to leave their favorite resorts during a portion of the year, they rarely return to stay in such abundance. From early in June until late in October the species has occurred in almost unprecedented numbers off the southern part of Green Bank in depths ranging from 100 to 250 fathoms; whereas, in former years, even when halibut have been most plentiful, a dearth has usually occurred on all the halibut grounds in the latter part of September and in October and November. During those months, however, of this year (1882) wonderful catches have been made, several fares of from 40,000 to 75,000 pounds having arrived at Gloucester. The following are a few of the many instances of large captures made on Green Bank during this season: One of the first fares to arrive from that locality—possibly the first—was brought in by the schooner *Isaac A. Chapman*, which reached Gloucester on June 25, 1882. She had on board above 80,000 pounds, four-fifths of which were "white." The following detailed account of the amount and value of her fare appeared in the *Cape Ann Advertiser* of June 30, 1882:

"Schooner *Isaac A. Chapman*, Capt. Augustus G. Hall, arrived from a Grand Bank trip on Sunday, bringing in 81,000 pounds of halibut and 5,000 pounds of codfish, stocking \$4,303.66, the crew sharing \$145.30. She was absent nineteen days, of which time two days were spent in Nova Scotia ports waiting for bait."

Captain Hall told me that these fish were caught at a depth of 112 fathoms in latitude 45° 04' north, longitude 54° 59' west. He fished for eight days altogether, during the first two of which he was in shoaler water, and caught only 4,500 pounds of halibut, so that 76,000 pounds were taken in six days.

September 11 the schooner *Gertie E. Foster* arrived home from Green Bank, bringing in a fare of 78,625 pounds of halibut. Captain Olsen, who commanded her, told me that he had made several unsuccessful attempts to catch halibut on the Western Bank and Banquetreau.

On the 4th of October the schooner *Willie M. Stevens* arrived with about 80,000 pounds of halibut, caught near Green Bank at a depth of 250 fathoms. The vessel, however, lay anchored in 220 fathoms, her position, according to Captain McInnis, being latitude 44° 58' north, longitude 54° 33' west.

A few days later the schooner *Grace L. Fears* arrived with a "big trip," caught near the same locality, the following notice of which was published in the *Cape Ann Advertiser* of October 13, 1882: "Schooner *Grace L. Fears* arrived from a Bank trip on Monday (October 9) with 70,220 pounds fresh halibut, which were sold to the Atlantic Halibut Company for \$3,606.61, her crew sharing \$119.39."

On October 28, the *Augusta A. Johnson* arrived in Gloucester from Green Bank with a fare reported to be between 50,000 and 60,000 pounds of fresh halibut.

In conversation with the captains of several halibut schooners I learned that many attempts have been made during the summer and fall to catch halibut along the southern edge of the Western Bank and the southwest prong and eastern edge of Banquereau, but these have rarely been successful. The captains of these schooners were induced to make these trials because the greater portion of the fleet had resorted to the vicinity of Green Bank, where the vessels lay close together, fishing on a small area of sea-bottom. As a result of this crowding there was much loss of gear, which rendered the trips far less profitable than they otherwise would have been. With scarcely an exception, however, so far as I have been able to learn, the vessels, after making the attempts already alluded to, were obliged to go to Green Bank in order to complete their fares. It may be interesting to note that, whereas in former years the halibut taken in the region under discussion (Green Bank) were nearly always of large size, the "gray" predominating, this year the reverse is the case, for the fish caught there have nearly all been of medium size and of much finer quality, averaging from two-thirds to seven-eighths "white." Mention should be made here of the capture of halibut along the southwest part of the Grand Bank, during the first part of this year (1882). Several fine fares were obtained on the western slope of that Bank in depths ranging from 150 to 300 fathoms between the extreme southern point of the Bank and 44° north latitude. Much difficulty has, however, been experienced in fishing off the southern peak, as well as on the eastern side of the Bank, from the strong polar current, though this is not generally a source of trouble on the western side of the Bank, north of lat. 43° 20'. It appears, however, that halibut were scarce along the southwest slope of the Bank during the summer months, though occasional fares were possibly taken in that locality since the spring. From information derived from the most reliable sources, however, it appears that nearly all the vessels engaged in halibut fishing have resorted to Green Bank since July. It is undoubtedly true that the small number of vessels engaged in this fishery has been favorable to their obtaining large fares throughout the entire season. Had the fleet, as in 1878 and 1879, been composed of forty or forty-five, instead of only fourteen or fifteen sail, there is no doubt but that the school of halibut on Green Bank would have been broken up after two or three months' fishing. And, if not, it is certain that the accumulation of lost gear on the fishing grounds would have rendered profitable fishing in that locality a practical impossibility.*

* When a large number of vessels are fishing on a small piece of ground the result is that the trawls of one vessel are generally set over those of another, until, in some cases, the gear of several schooners is piled, so to speak, in inextricable confusion on the bottom. This method of setting renders it difficult, if not impossible, for any