

ON SOME PHOTOGRAPHS OF LIVING FINBACK
WHALES FROM NEWFOUNDLAND

BY FREDERICK W. TRUE

It is only within recent years that works upon cetaceans have been illustrated with reproductions of photographs from nature. Earlier writers had to content themselves with drawings, and as these were quite commonly the work of unskilled hands, they were often extremely inaccurate, or even positively worthless as illustrations. From lack of knowledge the artist was usually unable to interpret the form of the various parts of the animal before him and consequently introduced features and combinations which had no counterpart in nature.

As photography improved, opportunities were taken to obtain photographs of skeletons, of dead whales lying on the beach, etc., upon the study of which conclusions could be based without great risk of error. All the earlier photographic pictures of whales, however, represented dead animals, and not unfrequently such as were in a more or less advanced stage of decomposition, whereby a life-like appearance was entirely lost. Photographic representations of living whales were still, therefore, a desideratum. Within the last four or five years some such photographs have been obtained, and the purpose at this time is to describe those which the writer made in Newfoundland in 1899. The only others with which I am acquainted are those taken by Dr. Racovitza and Dr. Cook in the Antarctic Ocean in 1898 and published a few months ago among the results of the voyage of the *Belgica*. My own photographs are, I believe, the only ones representing living whales in American waters thus far published.

They were taken from the bow of the whaling steamer *Cabot*, belonging to the Cabot Steam Whaling Company, while engaged in chasing whales in the unquiet waters of Notre Dame Bay, Newfoundland. They all represent the common finback, *Balænoptera physalus* (L.), and all the individuals were in motion.

Mr. Aldrich, writing of the Arctic right whale, very justly remarks: "It is disappointing to see a whale, for most pictures represent him as standing up like a buoy, or posing on his tail on the top

of the water. The real fact is that only the top of the head and a small piece of the back are seen and perhaps the 'flukes,' or, in common English, the tail, may take an occasional sweep in the air." It is much the same with the Newfoundland finbacks. Seen alive in their native element they presented to the eye only a slight hint of that graceful form which was revealed when they were drawn out on the slip at the whaling station. Still, the part seen was that of a living animal, and therefore was possessed of a separate interest from the dead specimens on the slip. While the photographs show little of the whale's form, they do represent with accuracy their appearance in their natural environment, and also give some idea of their actions and attitudes while swimming.

Among whales, as among other animals, some actions and movements are habitual and characteristic, while others are unusual and are repeated only at long intervals or under peculiar circumstances. Nearly all observers who have had frequent opportunities of observing whales agree that many species, such as the humpbacks, indulge at times in strange antics, such as leaping entirely out of the water, rolling from side to side, taking a vertical position, with the head up or the tail up, as the case may be. While the Newfoundland finbacks may, and probably do, engage in such performances, nothing of the kind occurred during my observation of them. They appeared singly or by twos or threes, spouting at irregular intervals, but pursuing a quite regular course in a definite direction for a considerable distance. They came up to the surface obliquely to spout, and the top of the head became visible, but was not elevated perceptibly above the waves. Then the head sank down, the back came into view gradually from the shoulders backward, exhibiting a strong curvature, and finally the dorsal fin appeared, but little or nothing beyond. The flukes were not to be seen in any instance, nor the pectorals, nor the eye, nor any of the underparts.

The photographs show a number of details not noted at the time they were taken. Indeed, the difficulty of getting the picture itself is so great that one's faculties are entirely absorbed in the proceeding and there is little opportunity for observing particulars. The pitching and rolling of the steamer in the restless waters is very disconcerting, and not less so the fact that the point at which the whale will appear is uncertain and the length of time it will remain in view very brief. I will now describe the several photographs which are here reproduced. Others were taken, but are less satisfactory or less characteristic.

Plate XXIV, 1, shows a very characteristic appearance of a finback



1. Preparing to descend.



2. Just reaching the surface.

LIVING FINBACK WHALES.

(*Balenoptera physalus* L.)



1. After spouting.



2. Similar attitude, nearer view.



3. Posterior view.

LIVING FINBACK WHALES.
(*Balænoptera physalus* L.)



1 Ready to descend.



2 Process of descending—head under water, back arched.

LIVING FINBACK WHALES.

(*Balænoptera physalus* L.)

as it courses along at the surface. The whale has spouted and is preparing to descend. It will be noted that the entire head is below water; the back is slightly arched and the dorsal fin is distinctly in view above the surface, though the water is breaking over it in front. The flukes are invisible and make no disturbance of the surface of the water. Nothing is seen of the pectoral fins.

Plate xxiv, 2, represents a finback that has just come to the surface to spout, or has just completed that act. The top of the head is out of water and slightly inclined upward. The blowholes are seen as a dark eminence, and all about the head is a white rim of foam. There is an appearance on the right side as of the mandible projecting laterally beyond the upper jaw, but this is probably an illusion due to the waves.

In plate xxv, 1, is shown a finback in a similar position, but there is no doubt in this case that the whale has spouted. Its vapory breath forms part of the haze at the left of the head. The whole upper surface of the body from about the middle of the head to the dorsal fin is above water and the blowholes are distinctly marked by a dark eminence near the left end. The dorsal fin is not visible, but would have soon appeared. A very remarkable feature of this view is the great height of the eminences at the sides of the blowholes. The apertures themselves are situated between elevations, but in the dead whales on the slip these eminences present no such apparent height as here shown. This photograph and the next lend some support to the view advanced by Buchet and Racovitza that the whales project the blowholes outward when spouting. Racovitza's photographs, however, while admirable in other respects, and extremely interesting, do not show the region of the blowholes distinctly enough to throw much light on the point in question, and his sketches are rather unintelligible, and in some cases (*e. g.*, plate 3, figs. 14, 15, etc.) certainly incorrect. It would appear, at all events, that the eminences at the sides of the blowholes are raised when the whale is spouting, rather than the blowholes themselves.

Plate xxv, 2, shows a finback in an attitude similar to the last, but the animal is nearer. In this the ridges on the sides of the blowholes are extremely prominent and clearly defined. The anterior end of the head is hidden, but the line of the back is visible to the dorsal fin, over which the waves are breaking. Even beyond the fin the dorsal line is to be seen, but is not well defined.

Plate xxv, 3, is a rather indistinct view of one of these finbacks from the posterior end. It shows the great breadth of the back. The blowholes appear as black spots at the interior end of the figure, and the dorsal fin, with foam about it, at the posterior end.

In plate XXVI, 1, is shown a finback ready to descend. The head has already disappeared, the back is quite strongly arched, and the dorsal fin is very distinct and entirely above water. As in the other views nothing is seen of the flukes.

The finback shown in plate XXVI, 2, has the head much farther down in the water and the back very strongly arched. The dorsal fin is visible, but is partially submerged. Here again the flukes are invisible.

These photographs and the notes, which I made while on the whaling steamer, are in agreement with the observations of Packard, Scammon, Pechuel, Cocks, Balfour, and Rawitz on the same species and its close ally (which may, indeed, be identical with it) in the Pacific. All agree that under ordinary circumstances the finback rises and sounds obliquely, that the flukes are not thrown out, that the spout is vertical, and that the actions of the animal as regards the length of time it remains below the surface, the distance it travels while submerged, and the number of times it spouts in succession, are irregular. Pechuel held that the spout was double, but my observations agree with those of Packard, Rawitz, and Racovitza, that the spout is single in the finbacks. The vapor-laden breath in all whalebone whales escapes, of course, from two separate apertures, but in the common finback, at least, the two columns unite so close to the head that they appear as one.