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978-1-108-07187-1 - The Natural History of the Order Cetacea: And the Oceanic Inhabitants of the Arctic Regions

H.W. Dewhurst

Excerpt

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NATURAL HISTORY

OF

THE ORDER CETACEA,

&c. &c.

“There are none, O Lord, who can compete with thee in the creation of thy wondrous and stupendous works; for they alone are sufficient to convince mankind of thy existence.”

INTRODUCTION.

THE cetaceous animals constitute the last order of the class *mammalia*, or mammiferous animals, in most of the modern systems of zoology, especially those of Linnæus, Blumenbach, and Cuvier, by whom the natural history of these animals has been denominated *cetology*: this may be defined to be that department of zoology which treats of the structure, economy, and history of cetaceous animals, or of *whales* and those inhabitants of the deep which resemble them in their anatomical structure.

Few of these animals appear to have been known to the ancients, as we meet with but little respecting them in the writings of the first zoologists. Both Aristotle and Pliny, however, mention several of those species with which naturalists are now acquainted. Thus the former,

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in his “*Historia Animalium*,” lib. iii. cap. 12, speaks of the *great* or *Greenland whale*, whilst, in the same book, he treats of the *dolphin* and *porpoise*. The account which he gives us of these species is indeed very imperfect, and a good deal of the marvellous is mixed with his descriptions, but he is much more to be relied upon than any of his successors in the ancient schools of philosophy and science: in particular, his natural history of the dolphin is the most faithful of any that we find in the ancient writers, and proves that Aristotle was well acquainted with the true form and manners of the animal which he describes, either from his own observation or from that of his assistants.

The “*Natural History*” of the elder Pliny abounds with observations on several species of whales, especially the *great whale*, which he describes in lib. iii. cap. 37 under the name of *musculus*; the dolphin, *delphinus*, lib. ix. cap. 9; the porpoise, *phocæna*, in cap. 8, and the grampus, *orca*, in cap. 6 of the same book. We are by no means certain, however, that modern writers are correct in identifying the *musculus* of Pliny with the *mysticété*, by considering them as synonymous; inasmuch as he speaks of the former as preceding another species, which he calls *balæna*, by way of leader; and in several parts of his work he denominates the largest species of the whale *cété*. The descriptions and relations of Pliny respecting these animals are exceedingly fanciful, showing that disposition towards the marvellous for which this zoologist is so celebrated: his account of the dolphin, in particular, is little better than an entertaining collection of fables, gleaned chiefly from the poets and travellers of the time; but his account of the grampus, and of the contests between this species and the large whales, is very respectable, and tolerably authentic.

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Among the earlier naturalists of modern times, many have treated more or less minutely of cetaceous animals; as Aldrovandi, in that part of his general work entitled *Ceta*; Gesner, in his work, “De Piscibus;” Johnston, in his “*Historia Naturalis de Piscibus et Cætis*;” and Rondèlet, in his “*Histoire des Poissons*.” Of these, the most respectable is Rondèlet, whose work is not unfrequently quoted with approbation: he, however, does not add much to our stock of information respecting the number of species, although he mentions some, and particularly the *B. gibbar*, which were unknown to the older naturalists. The work of Aldrovandi is, perhaps, the most imperfect and inaccurate of the four: he quotes largely, and apparently with implicit reliance, from the writings of Aristotle and Pliny, and even from the fictions of the poets.

Among the naturalists of the seventeenth century, I may mention three of our countrymen, of distinguished eminence in most branches of the science,—Willoughby, Ray, and Sibbald. Mr. Willoughby’s work, “*De Historiæ Piscium*,” edited by his friend Ray, contains many valuable remarks on the cetaceous animals, more particularly the *great whale*, the *dolphin*, the *porpoise*, and the *grampus*. This learned writer appears to be the first who marked distinctly the similarity of anatomical structure in whales and quadrupeds.

Mr. Ray, in his “*Synopsis Piscium*,” follows his predecessors in zoology in the error of including the *cetacea* among fishes, although he seems to be among the first who doubted the propriety of such a classification. The number of species enumerated by Ray is considerable, and includes almost all that have at different times been thrown upon the coasts of our islands.

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The first work of any distinguished eminence, as a separate treatise on the cetacea, is the “Phalainologia” of Sir Robert Sibbald, published in Edinburgh in 1692, and in London in 1778. In this work the author professes to describe the rare species of whales that have been cast on the shores of Scotland, distinguishing them, according to their natural characters, into genera and species, and adding some observations on the nature, origin, and use of spermaceti and ambergris. Considering the time at which it was written, it is a valuable work, containing accurate descriptions, and, in general, judicious remarks: it first treats of whales in general; and then distinguishes them into such as have teeth in both jaws, such as have teeth only in the lower jaw, and such as want teeth altogether (the proper *balæna*). He particularly describes the *grampus*, the *small spermaceti whale*, or round-headed cachalot; the *black-headed spermaceti whale*, or great-headed cachalot; the *high-finned cachalot*, of Pennant; the *common Greenland whale*; the *pike-headed whale*; and the *round-lipped whale*.

As far as Sir Robert Sibbald depends upon his own observation, he appears pretty correct in his descriptions; and his work must be deemed one of the best treatises on cetaceology, and far superior to any thing that appeared for nearly a century afterwards.

Early in the eighteenth century, Artédi, the friend and companion of Linnæus, composed his “Synopsis Piscium,” into which he introduced the cetaceous animals as an order of fishes. He distinguishes a greater number of species than had before been enumerated. His specific characters are, in general, highly expressive and very accurate, although he appears to have copied an error from Rondèlet, in describing the grampus as hav-

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ing broad serrated teeth, a mistake into which Linnæus has also fallen.

Among the last writers who have classed the *cetacea* as an order of fishes is Mr. Pennant, who has borrowed much of his information from Sir Robert Sibbald's works, and has also gleaned freely both from the ancients and from some modern voyages of travels and histories, as Dale's "Account of Harwich;" Martin's "History of Spitzbergen;" Crantz's "Greenland;" and Borlase's "Account of Cornwall." The blunt-headed cachalot he seems to have described entirely from his own observation. He has given a figure of the animal, with its teeth.

The most complete and scientific account of the *cetacea* is, however, to be found in the "Histoire Naturelle des Cetacées" of Count La Cépède, published in Paris in 1804. John Hunter has given the best account of the anatomy and physiology of these animals;* the Abbé Bonnatérre has described in the "Encyclopédie Méthodique," in an excellent article on "cetology," their natural history; but La Cépède has condensed all that was valuable on the subject, having reduced it to form and method, and improved the whole with a very scientific arrangement and animated description, though he has included many serious errors. He has distributed the thirty-four varieties or species of *cetacea* into two orders, the toothless and the toothed: of the former he makes two tribes and eight species; of the latter, eight tribes and twenty-six species. His division of the genera is certainly more scientific than that of any of his predecessors, inasmuch as it is founded on anatomical differences; and though the generic and specific characters are often unnecessarily long, and involve circumstances

* *Vide* Philosophical Transactions, vol. LXXVII. part ii. p. 371.

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that are implied in the preceding characters of the order or the genus, they are more accurate and more descriptive than those of any other author with whom I am acquainted.

These are the principal writers on zoology who have treated on cetæca; but there are several works, on the productions of particular countries, which contain useful or curious information on the same subject. Of these I shall notice a few of the most respectable, and thus conclude my historical sketch of cetological writers. Among the earliest of them is the "History of Iceland," by John Anderson, a German naturalist of considerable reputation: he has described several species that were but little known before his time, particularly the *balæna nord-caper*, or Iceland whale; the *balæna gibbosus*, or knobbe-fish, or scrag whale; and the *balænoptera jubartes*, or Jupiter fish (the pike-headed whale); and he has interspersed some amusing particulars respecting the manners of the Icelanders, and the methods employed by them for taking the cetæca, though his accounts cannot always be received with implicit reliance.

Frederick Marten, another German, published an "Account of Spitzbergen and the neighbouring Arctic Regions," which is frequently referred to by Pennant and other zoological writers, particularly as containing the best account of the *B. gibbar*, or fin-fish, and the *butskoff*, or beaked whale.

About the middle of the eighteenth century, John Egede, a Danish missionary, who had lived many years in (Eastern) Greenland, successfully labouring for the conversion of the natives, having acquired a thorough acquaintance with the productions of the natives, and their manners, and the country, published his "Description of Greenland," which was speedily translated into English, and published in octavo, with tolerable plates.

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It contains an account of the black or Greenland whale, the fin-fish, and the narwhale, but is nothing to boast of.

The "History of Greenland," by David Crantz, a German missionary of the United Brethren, was published in English in 1767. It gives the best account of the natural history of the Polar Regions. This is confined chiefly to the first volume, which contains descriptions of thirteen species of cetaceous animals: only two, however,—the white-fish and the porpoise,—are from his own observation.

In 1751, Erich Pontoppidan, Bishop of Bergen, published, in the Danish language, his "Natural History of Norway," which was translated into English, and appeared in London in 1755. The second part of this work is chiefly devoted to zoology, and contains many particulars respecting some of the *cetacea*; as the *hual fish* or great whale, the *nebbe-hual* or beaked whale, the *narwhale*, and the *porpoise*. His account of the great whale is very minute and tolerably accurate, though in many points it borders on the marvellous. His engravings are badly executed and are incorrect.

Among the British Faunæ, I may mention Dale's "History of Harwich," Borlase's "History of Cornwall," already quoted, Neill's "Tour to the Orkney and Shetland Isles," and the Rev. Dr. Fleming's "Natural History of the Shetland Islands." The former of these last two works contains the distinguishing characters of the *delphinus deductor*, or Cáaing whale; and the latter notices the several species of cetaceous animals that have appeared on the Zetland shores. Dr. Fleming has also given an excellent account of a species of narwhale in the "Memoirs of the Wernerian Natural History of Edinburgh."

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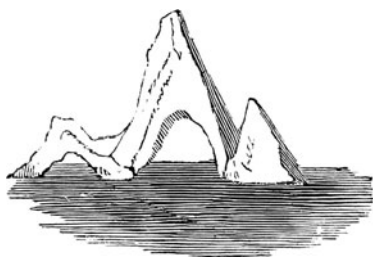
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In the late Baron Cuvier's great work on the animal kingdom, very little information is given on the natural history of the cetæea, the descriptions being extremely superficial, and mostly gleaned from preceding writers. The description given by the Baron of the most important distinguishing characters of the *balænoptera* rorqual is incorrect, as I shall take occasion to point out more particularly in the proper place. I must not omit to mention the works of Captain Scoresby on the Arctic Regions and the whale fishery, inasmuch as they abound with valuable information on the zoology of the Arctic Seas. The principal fault of Mr. Scoresby's works is, that in many points they are too superficial in regard to some animals, and particularly the fish tribe of the Polar Regions. At the same time, naturalists are indebted to him for the best and most accurate account of the *monodon monoceros* or narwhale, as also the *medusæ*, which form no inconsiderable portion of the oceanic Arctic inhabitants: and to the works I have mentioned it is my duty candidly to state that I am indebted for much valuable information on this interesting department of natural history.

AN ICEBERG IN LATITUDE $70^{\circ} 35'$.

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It may be necessary for me to observe that, in my descriptions of the oceanic inhabitants of the Arctic Regions, I shall arrange them in conformity with the classification of Linnæus, Count La Cépède, Baron Cuvier, Captain Scoresby, and Dr. Traill, in two parts: first, describing the *cetacea* both in their zoological and anatomical characters; secondly, the *fish tribes*; and ultimately concluding with an account of the *crustacea*, *medusæ*, *asteriæ*, and the minutest discoverable *animalculæ*.

I therefore commence with calling the reader's attention to the *whale*, the largest of any known animal existing at the present day, and which is, to use the language of the poet Milton,

“That sea beast,
Leviathan, which God of all his works
Created hugest that swim the ocean stream.”

Paradise Lost, b. i. 138.

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PART I.—CLASS MAMMÀLIA.

ORDER I.—EDENTATÆ, OR TOOTHLESS CETACEA.

GENERAL HISTORY AND CHARACTER OF WHALES.

WHALES constitute a tribe of cetaceous mammiferous animals, which, from their external appearance and habits of life, in their native element, the briny deep, appear at first sight to approach so near to the fish tribe, that it is no wonder the ancient, and even, as already mentioned, modern naturalists, who were but little acquainted with the correct history or structure of these creatures, or, in fact, any of the finny race, should arrange them as appertaining to the class of fishes.

There are no fewer than seven species of the whale which strictly appertain to the genus *balæna*; and the same number of species of the *delphinus*, or dolphin tribes, which may be considered as inhabiting the Northern or Arctic Seas. As the public are frequently led to deem the latter as whales, from their inattention to the distinguishing characters of this order of cetacea, and as the physeters, or sperm-whale tribe, are not unfrequently captured in the Arctic Seas, to complete this natural history of the cetaceous animals, as