



# BOOKS of the TIMES

By **GEORGE VUKELICH**

## The Life and Death of Whales

By *Robert Burton, Universe Books, 159 Pages*

*God seems to have made the whale as a proof of his power. It is in every respect the finest animal in nature.*

—From a 19th century handbill advertising the exhibition of a whale skeleton.

Spring is the mischief in me, as Robert Frost used to say. How else explain the review of Mr. Burton's lovingly crafted little book?

It's not going to make the best seller lists, but it deserves to in the same way the writings of Loren Eiseley, Sigurd Olson and Aldo Leopold always deserved to—and never did.

Mr. Burton, a graduate of Cambridge, was a member of the British Antarctic Survey from 1963 to 1966 and is quite expert in his knowledge of the mammalian order Cetacea.

In his understated British way, he'll have you sharing his tiny dory on the open sea watching the largest creatures in all this blue planet surfacing before your unbelieving eyes and thoroughly blowing your land-scaled mind.

Whales, of course, are mammals.

**They are warm-blooded, they breathe air. They bear their young alive and suckle them.**

There are two distinctive groups of whales:

- The suborder Mysticeti, the whale bone, or baleen whales, which feed mostly on small animals, shrimp, krill, etc. which they sieve from the sea by rows of whale bone or baleen plates hanging from the upper jaw.

- And the suborder Odontoceti, or toothed whales. The jaws of these whales are armed with peg teeth ("Rather," says the author, "like the incisors of a dog.") which are used in the capture of fish and squid. Sperm whales, killer whales and numerous porpoises and dolphins belong to this group.

It is an irony that with whales on the verge of extinction there is much that is completely unknown about them. It is also an irony that two of the original important whaling countries, Norway and Britain, are leading the way in whale research. (Japan with its technology is said now to be one of the major whaling nations — and threats to the whale's survival).

The problems in research are immense.

Whales for the most part move unwatched, unmonitored through the vastness of the world's oceans.

And because of their great size, even a simple laboratory dissection to increase our knowledge becomes a hazardous, herculean operation. The author cites the dissection of a beached whale.

**"... when dissecting the enormous heart, his foot slipped and he fell into one of the cavities of the heart, his feet passing down into the great artery, the aorta. Assistance was luckily at hand or he might have met with a fatal accident."**

Our knowledge of whales surfaces in strange, unexpected ways.

We know that sperm whales dive to great depths to feed on squid, but we really don't know exactly how deep. Skeletons of sperm whales have been found entangled in submarine cables — one skeleton was recovered from a cable lying on the seabed at 3,700 feet!

As Richard Boyd at Petries will tell you, for each thirty feet of the descent, the pressure increases by one atmosphere (about 15 pounds per square inch) so that a deep-diving sperm whale encounters pressures of a hundred atmospheres, or half a ton per square inch.

To stay at that depth for an hour, as sperm whales are thought to do, boggles the land-based mind.

On the evidence of indigestible squid beaks found in their stomachs, sperm whales are thought to hunt a species of squid hardly known to science.

It is known that sperm whales do regularly fight **Archi Teuthis**, a monster squid growing up to fifty-five feet long.

**"Marks made by the suckers of these squids,"** writes the author, **"have left scars four inches across on the skin of sperm whales."**

The thought of the sperm whale, an air breather like us, cruising in the pitch black darkness of the crushing depths, homing in with his superb dolphin-like sonar on the greatest squid in the seas, is indescribable.

(Have you ever swum in murky waters and been touched, unexpectedly by ice cold weeds?)

And large as the sperm whales are, they are smaller than the great blue whales, the largest animals on this planet. The blue whale grows to more than a hundred feet in length — and whales weigh roughly one ton for every foot of growth.

Mr. Burton treats in depth the known biological data on whales — i.e., the suspension of the hearing organs overcomes the problem of conduction — the very problem that makes it hard for men to pinpoint sound underwater.

You will learn that sperm whales are polygamous, whereas whalebones appear to be monogamous; that the term of pregnancy is ten to twelve months and that at birth a blue whale baby is twenty-five feet long and weighs more than two tons. (From fertilized egg to birth, that's the fastest known growth in the animal kingdom.)

The last half of the book recounts the history of whaling from the primitive to the present — and culminates in an appeal to ban whaling.

A boycott of whaling products, the author fears, would not be effective.

**"They are not easily identified despite being all around us: margarine, soap, suntan oil, paint, shoe polish — and pet food, to name a few."**

In 1972, the International Whaling Commission when called upon for a ban on whaling at a United Nations Conference rejected the ban — but did start an International Observer Scheme whereby nations exchange observers to report on each other's whaling activities.

There now are quotas for each species of whale and the author allows that the great whales may have been saved.

But many whaling nations do not belong to the Commission and there is no protection for small whales and dolphins.

**"The main problem now,"** Burton concludes, **"is whether it is ethical to kill these animals at all, but that is a problem that extends well beyond the subject of whaling."**