

Thar' She Blows!

The Return of the Southern Right
and Humpback Whales

by John Bannister, Director of the W.A. Museum



Photography by Ray Smith, courtesy A.N.P.W.S.

In August 1955 a young CSIRO biologist, Graham Chittleborough, saw a southern right whale accompanied by a calf near the Albany whaling station. The species was once a common sight near the southern Australian coast. In 1804, for example, it was dangerous to go up the Derwent River in Tasmania because there were so many whales there. Yet Chittleborough was unable to find any published record of the species being seen off the Australian coast in the 20th century. Early 19th century whaling had so depleted the stocks that right whales were regarded as virtually extinct.

Since the 1960s, the number of Australian reports of right whales has increased considerably. In a postal survey I conducted in 1983, only seventeen sightings of individual right whales could be found for the years between 1900 and 1960. But between then and 1982, more than 250 individuals were reported.

Nearly 200 of those reports were after 1975. Some of the increase may well be due to the recent upsurge of interest in whales generally, but the overall picture seems to be that numbers of this species of whale have been increasing off the coast of Australia for at least the last decade.

Unlike right whales, humpback whales have been relatively common off Australia this century. Before World War Two they were caught in large numbers (more than 12 000 in five years) off the west coast and in the Antarctic south of W.A. After World War Two large catches were again taken from the west coast population, and also off the east coast. More than 1 000 per year were taken off W.A. in some years. Most catching was from Pt Cloates (near North West Cape) and Carnarvon, but there was also catching from Albany. By 1963 the stocks had been depleted so severely that catching was uneconomic. Australian

humpback whaling ceased that year, and no commercial catching was permitted on the species after 1965. Since then there has been the hope that this species, too, might be recovering under protection. Those hopes have been encouraged by increasing reports of sightings along the east and west coasts since the late 1970s.

Aerial surveys have been undertaken since 1976 in an attempt to discover whether stocks are actually increasing, and if so at what rate. Other information, on biology and behaviour, is also collected whenever possible. Similar studies have been conducted, particularly on humpbacks, off the east coast. Since 1979 the surveys have been funded by the Australian National Parks and Wildlife Service, Canberra.

Surveys of right whales are flown along the south coast from Cape Leeuwin to Israelite Bay, and occasionally some way beyond, mainly between July and October. Flights are conducted over 2-3 days, once



Humpback lobtailing (thrashing water with tail flukes) off Shark Bay (above).



A loosely knit group of nine southern right whales close to the south coast (above right).

Three humpback whales. Note the tail markings on the upside down individual (right).



Southern right whales: cow and calf in shallow waters close to the coast (below).



or twice a month. The aircraft, a Cessna 172, flies along the beach line at about 500 m, while the observer searches seaward over and beyond the surf zone. The pilot, John Bell, manager of Albany's Whale World, has had many years' experience as a whaling company aerial spotter; his observer, CALM Wildlife Officer Ray Smith, not only sights the whales, but is responsible for photographing each individual. The largest

number of right whales recorded from the survey along the coast at one time is 63, with 24 calves. That was in early September, 1986. Some bays are favoured more than others, e.g. Flinders Bay near Augusta (which was the site of the 1986 Augusta whale rescue), between Point Ann and Point Charles (near the Fitzgerald River mouth) and Tagon Bay east of Esperance. The most usual sighting is a single cow with a calf, but up to 26 animals have been recorded together, among them certainly some single adult males.

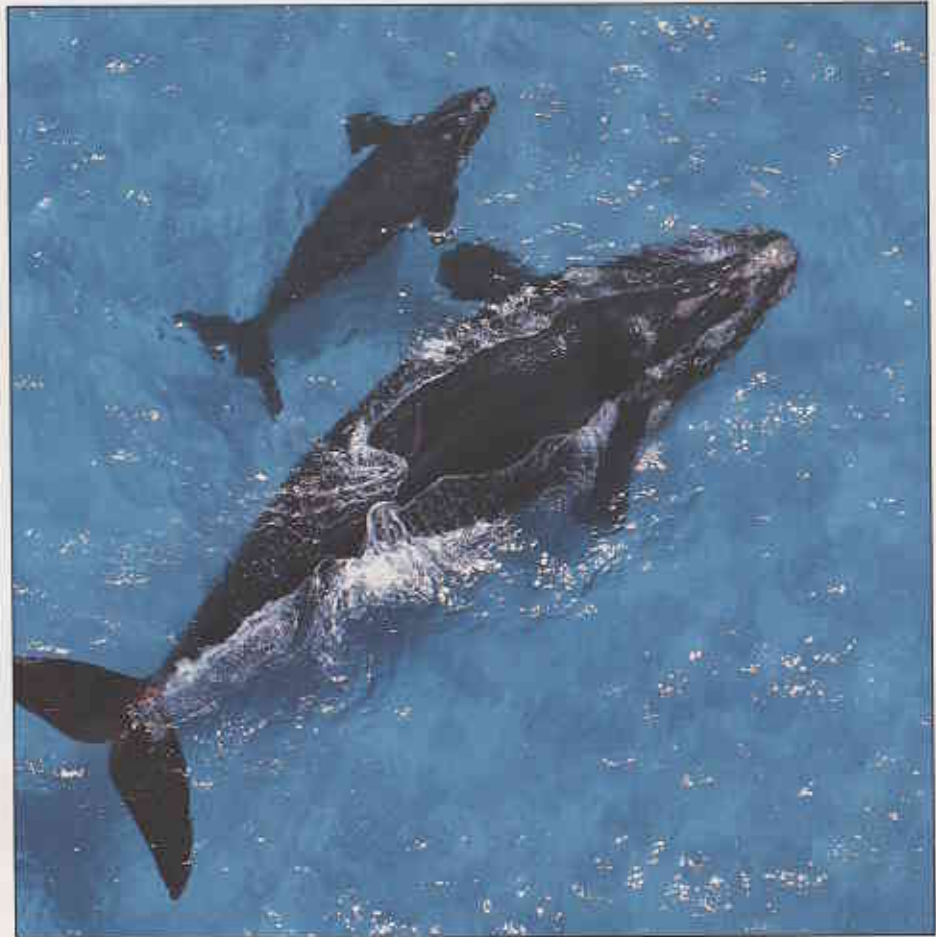
Photographs are taken to identify individual animals from 'callosities' on the head. The callosities, large warty lumps characteristic of right whales, stand up white against the dark skin on the head, along the lips and lower jaws. Work elsewhere, particularly off South Africa and South America, has shown these remain individually distinct, like fingerprints, throughout life.

In the ten years since the surveys began there is a strong indication of an increase in right whale numbers. For example, the average number of calves seen from 1977 to 1981 was just over three per year; between 1982 and 1986 it was more than seven. The surveys have also shown that individuals may stay on the coast for up to 13 weeks, though most stay only 2-3 weeks; that cows give birth on average every three years, and only return to the coast at that time; and that they often return to the same or a nearby bay. While most cow and calf pairs remain in or close to a particular bay in one year, others, usually single animals, can be more adventurous, often moving from east to west along the coast during the season. Further annual surveys are planned, particularly to give information on the age of first maturity in females, and the sex of animals unaccompanied by calves, as well as to provide unequivocal evidence of an increase in numbers.

For humpbacks, surveys have been flown off Shark Bay, out of Carnarvon, since 1976. The objective has been to provide information that can be compared directly with sightings from the company spotter aircraft during the 1963 whaling season. A flight each day for ten days, over a set grid pattern west of Bernier and Dorre Islands, was flown between 1976 and 1982, and again in 1986. The numbers seen per day in 1982 (11.3) were more than twice those seen by the company aircraft in 1963 (4.8), proving conclusively that the numbers had increased over the intervening 19 years; in 1986, although the sighting rate (16.1) was 50 per cent higher than 1982, it was not statistically greater than 1982. Nevertheless, the results have been taken to indicate a real increase in the west coast

humpback population following protection. Further flights, planned for 1988 and at three year intervals after that should give more precise evidence of a continuing increase in that population.

It is very heartening that individuals of each species are now being seen regularly off W.A.'s coast. Humpbacks are now often reported from near Rottnest, from between the Abrolhos and the coast, from off North West Cape and even further north. An increase has also recently been reported from the east coast. Right whales are now frequently recorded off the southern W.A. coast as part of a whale watching program organised through the Albany Residency Museum. Anyone wishing to know more about such schemes, or wanting to help in the humpback work, for example by photographing their tails (which also bear individual 'fingerprints') should contact the nearest CALM Wildlife Officer, or the author at the W.A. Museum, on (09) 328 4411. □



Southern right whales: note the distinctive callosity pattern on the head of the cow.

SOUTHERN RIGHT WHALES

Right whales were so called because in the days of open boat whaling with hand harpoons they were the 'right' ones to catch. They were slow swimming, floated when dead, and yielded large amounts of valuable products — particularly oil for illumination and lubrication.

Right whales occur in both the southern and northern hemispheres, mainly between latitude 30° and 50°; they don't seem to undertake the long seasonal migrations between cold water feeding grounds and warm water breeding grounds that their close relatives such as the blue, fin and humpbacks do. Being baleen whales, i.e. having no teeth but with horny plates of baleen hanging down from the upper jaws, they rely on finding swarms of plankton for their food in near-surface waters. The food is 'sieved' out of the water through the mat of fibres formed by the inner hairs of the baleen plates. During summer right whales occur mostly out in the open ocean, away from the coast, but during the late winter and spring, cows come in close to the coasts of the southern continents. There, near the surf line in sheltered bays they give birth to their young, before returning to deeper waters offshore as summer approaches.

HUMPBACK WHALES

So called because of the distinct 'hump' that shows as the whale arches its back when it dives, humpbacks are more coastal in their habits than most of the other large baleen whales. In the southern hemisphere, at least six separate breeding stocks have been recognised, each associated with the east or west coast of the three continents. In winter, each travels close to the coast on its way to and from warm water breeding grounds and summer feeding grounds in the Antarctic. Off Australia in winter one breeding population is centered off the north-west coast, and another off the east coast and into the Coral Sea.

Humpbacks have recently become well known because of their 'songs' — particularly from males on warm water breeding grounds, e.g. off Hawaii. Recent Australian work, by Dr Bill Dawbin of the Australian Museum Sydney, has shown that humpbacks also sing on migration, and that the Australian east coast and west coast songs are quite different. That confirms the view that they are separate populations.

LANDSCOPE

Volume 3 No. 1
Spring Edition/September 1987

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Executive Editor: Sweton Stewart
Editor: Liana Christensen
Designer: Trish Ryder/Robyn Mundy

All maps by Department of Conservation and Land Management
Mapping Section.

Offset plates by Photolitho-PM.

Typesetting by Printworks.

Printed in Western Australia by the Department of Services, State Printing
Division. ISSN 0815-4465.

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COVER PHOTO:

Stark silhouettes evoke the spirit of our remote
regions. This photograph was taken near
Quairading by Hans Versluis.

EDITORIAL

Public participation in land management sounds like a great idea: the community has a chance to study and comment upon the government's proposals. The scientists and managers can keep their fingers on the pulse of public demand. But sometimes good ideas are hard to put into practice.

Last April the Department of Conservation and Land Management released draft management plans for the south-west forest regions, and a draft timber strategy for W.A. The release of the plans was accompanied by a series of workshops and public meetings, and extensive media releases. Four hundred and thirty-five letters offering briefings and speakers were sent out. Ninety groups responded. Public comment on any aspect of the plans and the strategy was invited.

4070 responses were received. This included 3505 proformas (from 30 organisations) and 565 substantial submissions, some up to 200 pages in length. Many submissions endorsed the plans in their entirety; some rejected them out of hand; others suggested hundreds of minor changes.

How can so many, and such varied, views possibly be integrated simply and sensibly into a final plan? What weighting should be given to the views of different groups or individuals? Who decides what is 'right' when pure value judgements are to be made and values are in conflict? How should one resolve an issue when the views of a large section of the public are quite different from those of a small group of scientists working closely on the problem? These questions represent the sharp end of public participation. It's a relatively new game for W.A.'s land managers, and one in which the rules are still unwritten and ill-defined.

What is certain is that the Department's policy and planning staff have a big job ahead of them, and a job which must be done to the highest possible professional standard. It is important that the final plans for our south-west forests reflect the tremendous thought, effort and interest shown by the community; and it is essential that there are efficient mechanisms for public involvement in conservation and land management, because these processes will be the norm, not the exception in years ahead.

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Published by Dr S. Shea, Executive Director, Department of
Conservation and Land Management, 50 Hayman Road, Como,
W.A. 6152