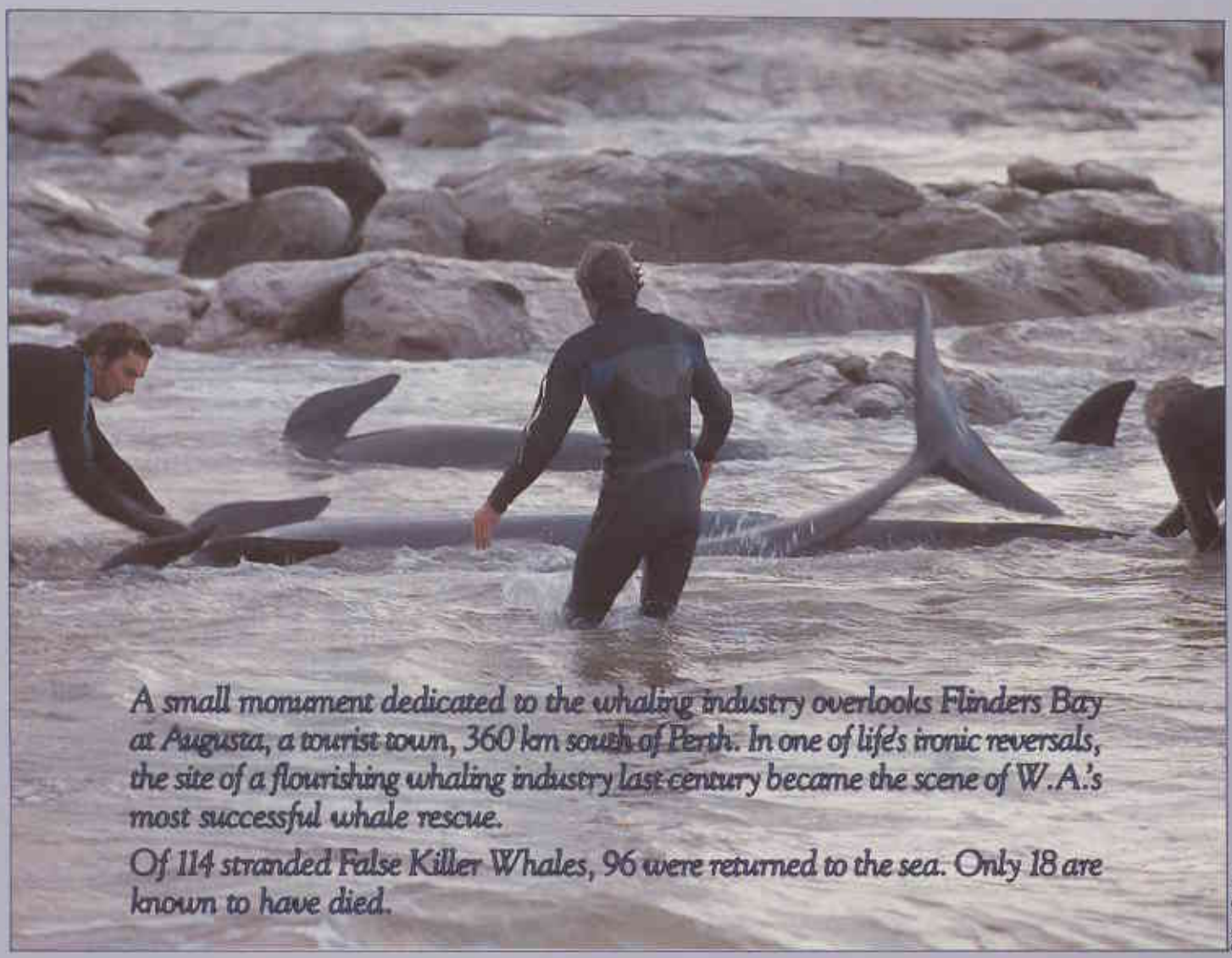
SAVING THE WHALES

by Keiran McNamara



A small monument dedicated to the whaling industry overlooks Flinders Bay at Augusta, a tourist town, 360 km south of Perth. In one of life's ironic reversals, the site of a flourishing whaling industry last century became the scene of W.A.'s most successful whale rescue.

Of 114 stranded False Killer Whales, 96 were returned to the sea. Only 18 are known to have died.

R. Kent Dayton

At 7.15 Wednesday morning 30 July 1986, Augusta librarian Sherryl Skippings, and her neighbour Shirley Langelaan, were walking along the town beach near Duke Head, at the mouth of the Blackwood River. They noticed a lot of tails and fins in a tightly-packed group just beyond the surf — presumably dolphins, a common sight in Flinders Bay.

Thinking no more about it, they started for home. Just as they crested a sandhill Sherryl turned around for a last look and saw what she now recognised as two whales break away from the pod, move straight inshore through the surf and become stranded on the beach. A third whale followed. The two women witnessed one of the rarest sights in the world — the beginning of a mass stranding of whales. Sherryl rushed home and telephoned local fisherman Russell Cooley. The Fisheries Department and the W.A. Museum were contacted and, within an hour, Conservation and Land Management's Chief Wildlife Officer, David Mell, had been notified.

Russell confirmed that there were 114 whales, two to five metres long. All were alive.

Then began a remarkable rescue effort which involved hundreds of volunteers and Government employees over the next three days.

Responding at first to the bush telegraph, and later to media appeals for more volunteers, people arrived in a steady stream from Augusta, nearby areas and as far afield as Perth and the Eastern States.

Initial Response

Acting on David Mell's advice, Russell Cooley returned to the beach, where Augusta townspeople had begun to congregate, wanting to help the whales. He asked volunteers not

to push whales back into the water, but to keep them wet and their blowholes clear.

Experience from other mass strandings had shown that whales should, wherever possible, be returned to the sea as a group rather than refloated individually. This is because whales will often continue to re-strand if other whales remain on the beach sending out distress signals.

This was to be the first phase of the rescue, aimed at looking after the whales while a rescue strategy was determined.Several factors were crucial to planning of the rescue. The identity of the species had not been confirmed, but Russell's report suggested either Pilot or False Killer Whales. The size and location of the whales, however, were known, and clearly rescuers were faced with a species which congregates in large social groups.

Lack of support for their massive weight quickly causes circulatory and muscular problems for beached whales. Holding whales in shallow water for a period of stabilisation and recovery is often desirable before returning them to the sea.

Under a hot summer sun, the condition of whales worsens more quickly because of the increased difficulty they have in losing body heat to their surroundings. The cold weather and occasional rain squalls at Augusta, therefore, gave rescuers a little more time to plan and implement a rescue strategy.

Prevailing sea conditions and local beach topography also influence the type of rescue attempted, as well as its ultimate success. The town beach at Augusta is gently sloping and some distance from deep water. It was decided, therefore, to look for a safe 'holding' area, with direct access to deep water, where the whales could be cared for until ready for release. This technique had been applied successfully in the rescue of False Killer Whales at Crowdy Bay in N.S.W. last year.

Alerted by David Mell, CALM District Wildlife Officer Peter Lambert arranged through his Busselton District Office for earthmoving equipment, trucks and other back-up services. Peter then contacted local veterinarian John Brighton and Witchcliffe farmer Ted Wright, who played a key role in the success of the rescue that followed.

Throughout the morning volunteers and sightseers continued to arrive from Augusta and elsewhere, as news of the stranding spread. Children from the local primary school were among those giving first aid to the whales — pouring water over them, gently rocking them, keeping their blowholes free of sand, and offering whatever encouragement they could.

Some of the later arrivals, distressed by the plight of the whales, persisted in trying to push them back into the water.

Arriving mid-morning, Peter Lambert counted 85 whales on the beach and saw a few more swimming beyond the surf. Stranded whales were spread more widely than at first, as some whales pushed back into the sea had re-stranded further along the beach. Volunteer rescuers were reminded not to push whales back, but simply to care for them on the beach.

Meanwhile in Perth, David Mell and other CALM staff, Darrell Kitchener, Senior Curator of Mammals at the W.A. Museum, and Mark Conway from Atlantis Marine Park were boarding an aircraft for Augusta, bringing with them CALM's two kits of whale rescue equipment.

DIARY OF THE AUGUSTA WHALE RESCUE

Wednesday 30 July 1986

7.15 am	Stranding of 114 False Killer Whales on the Augusta town beach begins.
10.30 am	Some whales have been pushed back into the sea, and 85 remain on the beach.
4.00 pm	Movement of whales overland to the safe holding area at Flinders Bay boat ramp commences.
11.00 pm	Movement of more than 80 whales to the holding area completed.

Thursday 31 July 1986

2.00 am	Rescuers work throughout the night in icy water caring for the whales.
7.00 am	Two further whales rescued from east of the Blackwood River using boats.
11.30 am	Whales move out to sea from the holding area.
12 noon	More stranded whales are found east of the Blackwood River.
6.30 pm	Rescue of whales from east of the river postponed because of bad weather.

Friday 1 August 1986

2.00 am	Rescuers work throughout the night again caring for the two whales which remain in the holding area.
6.30 am	Rescue of whales from east of the river resumes.
4.00 pm	Last of the 11 whales from east of the river arrives at the boat ramp.
4.30 pm	Rescuers commence driving the 13 whales out of the holding area.
5.30 pm	Whales successfully moved out to sea and swimming strongly.
6.00 pm	Rescue hailed as an outstanding success.

Saturday 2 August 1986

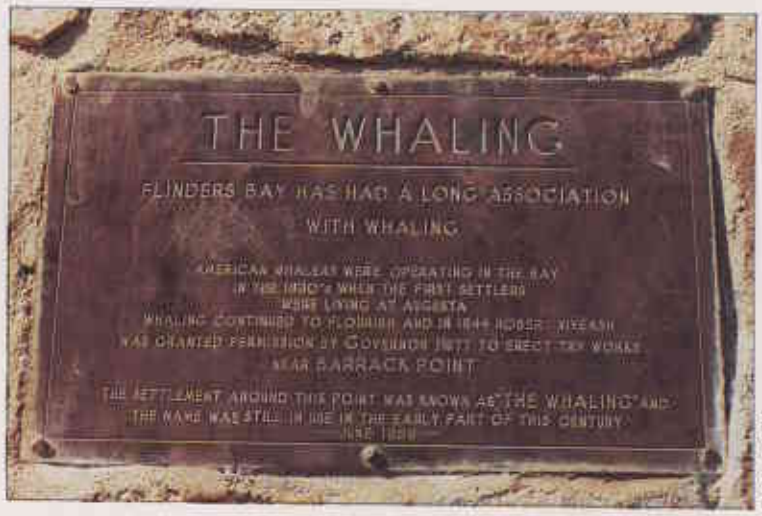
8.30 am	Aerial and beach patrols confirm that no whales have re-stranded overnight.

Moving the Whales

The Perth party was confronted with an incredible sight upon arrival. First impressions were of chaos, with whales, children and adults everywhere, along with front-end loaders, trucks, a bulldozer and other vehicles from CALM and the Augusta-Margaret River Shire.

J Lochman

These children from Augusta Primary were among the first to help the whales. They returned on the second day to observe the rescue's progress (top right).



D Coughran

The plaque (right).

A bucket brigade helped keep the whales alive on the first day (below).

R. Kerr-Davies

WHAT ARE WHALES?

Cetaceans (whales, dolphins and porpoises) are warm-blooded, air-breathing marine mammals which give birth to live young. About 80 species exist today, divided into two groups.

The filter-feeders (Order Mysticeti) filter plankton through plates of baleen hanging from the mouth roof. They may gulp at their food and squeeze the water out, or swim with open mouths until enough food accumulates on the baleen. Most baleen whales have throat grooves which expand when feeding.

Baleen whales range in size from the Pygmy Right Whale *Caperea marginata*, which reaches almost 6.5 m and 5 t, to the largest animal on earth, the Blue Whale *Balaenoptera musculus* which can be more than 30 m long and weigh over 170 t. Most baleen whale populations have been greatly reduced through hunting.

Toothed whales (Order Odontoceti) generally feed on fish and squid. They range in size from dolphins and porpoises a few metres long to the Sperm Whale *Physeter macrocephalus*, which can be 20 m long and weigh 38 t. The Killer Whale *Orcinus orca* is the only true flesh-eater, feeding on penguins, seals and other cetaceans as well as fish and squid.

False Killer Whale *Pseudorca crassidens*

The False Killer Whale is one of the toothed whales. It was discovered in 1846 as a fossil on land. This was 16 years before its external appearance was able to be described from a stranding of 100 of these animals in Germany.

It is a widespread species in tropical and temperate seas, and is probably quite common.

This species often travels in schools of several hundred and there have been many mass strandings, e.g.

- 172 at Black River Beach, Tasmania in June 1974;
- 231 at Manukau, New Zealand in March 1978;
- 87 at Croajingolong, Victoria in January 1983;
- more than 60 at Crowdy Bay, N.S.W. in June 1985;
- 114 at Augusta, W.A. in July 1986.

WHY DO WHALES STRAND?

Whale strandings have puzzled people for centuries. They may involve small dolphins or large Blue Whales, and occur on all types of coastlines and in any weather conditions.

There is no single explanation of why whales strand. Scientists study individual strandings, as well as patterns of strandings over time, in an attempt to unravel the reasons.

Strandings of single animals may be either toothed whales, or less commonly, baleen whales. They are generally diseased, weak or aged.

Mass strandings, on the other hand, invariably involve toothed whales, with several species seeming particularly susceptible (e.g. Pilot, False Killer and Sperm Whales). Mass strandings are thought to be related to herd behaviour, which may be influenced by many factors. The most common explanations include:

- sea-floor and coastal configurations which give rise to confusing echolocation signals (in Tasmania and Victoria several such areas, called 'whale traps', have been identified as having a high incidence of strandings);
- meteorological events such as severe electrical storms;
- disease and parasite infections in one or more members of a herd, especially herd leaders.

In mass strandings, social cohesion is so strong that the whole group may seek to help one or more herd members in distress. When one or several whales become stranded and emit distress calls, they may precipitate the stranding of the entire herd as the remaining whales respond to these calls.

There was order, however, in the seeming chaos. A sheltered holding area had been found at the boat ramp, two kilometres south of Duke Head, and Ted Wright's nearby beach-house had been set up as the whale rescue headquarters. The decision was made to move the whales overland.

A track was cleared from the beach to the road and by mid-afternoon the first of the whales, now confirmed as False Killer Whales, was being moved. Each whale was carefully picked up in the bucket of a front-end loader, placed on the back of a tip-truck, where it was cushioned by sand, and driven to the boat ramp where more volunteers waited to slip it into the water. The increased number of CALM officers on site provided more advice and feedback to volunteers and better co-ordinated their efforts.

By 11.00 pm more than 80 whales, the largest measuring five metres and weighing two tonnes, had been moved to the holding area.

Photo courtesy of the Western Mail

Photo courtesy of the Western Mail

Photo courtesy of the Western Mail

The whales are carefully lifted...

... wrapped and placed in the front end loader...

... and returned to the water near the boat ramp at Flinders Bay.

R. Korn-Davies

J. Lachman

Equipment normally used for fighting fires was commandeered for rescuing whales (above).

Holding the whales upright helps prevent internal injuries (left).

A disoriented whale is cared for (below).

National Park Ranger Rory Neal conferring with wet-suited volunteers (top right).

Fires on the beach were a welcome relief after the icy water (below right).

R. Korn-Davies

Veterinarian John Brighton had been assessing the condition of the whales, while Darrell Kitchener began collecting valuable scientific data. Margaret River veterinarian Tink Robey later assisted in both tasks. At the holding area, volunteers cared for the whales under the guidance of Mark Conway.

What happened overnight was an experience those present will never forget. Under the glow of State Emergency Service floodlights, a human barrier of wetsuited volunteers worked in shifts, braving the icy water, trying to contain the whales in the holding area and prevent them coming ashore.

Hypothermia was a real danger to the rescuers. National Park Ranger Rory Neal, armed with loud-hailer, ensured that volunteers were replaced in the water at least every 30 minutes, and as the night grew colder, every 15 minutes. Many volunteers were reluctant to leave the whales and come out of the water. The St John Ambulance Brigade, together with several doctors and nurses, were on hand to provide medical advice and support.

On the bank overlooking the holding area, resting rescuers and sightseers warmed themselves around fires and watched the whales through the rain and mist, relishing the hot food and drink from the Busselton SES caravan. Members of the Country Women's Association worked tirelessly, side-by-side with an assortment of volunteers.

The plan was to hold the whales at the boat ramp ready for release at high tide in the morning through a narrow, shallow gap in the reef to deep water. During the night some whales escaped the holding area and re-stranded among rocks nearby, but were returned to the pod.

The ranks of volunteers were bolstered throughout the day and evening as radio and television stations called for assistance, as was to be the case throughout the rescue. Early in the morning the first of the interstate helpers arrived, from ORRCA (Organisation for the Rescue & Research of Cetaceans in Australia) in Sydney.

The First Rescue

First light on Thursday revealed that 20-30 whales had escaped the holding area, leaving 50-60 whales near the boat ramp. There was, however, a hitch to the planned rescue.

Late on Wednesday, rescuers had been told that two live whales were stranded on the

R. Karri-Davies

R. Karri-Davies

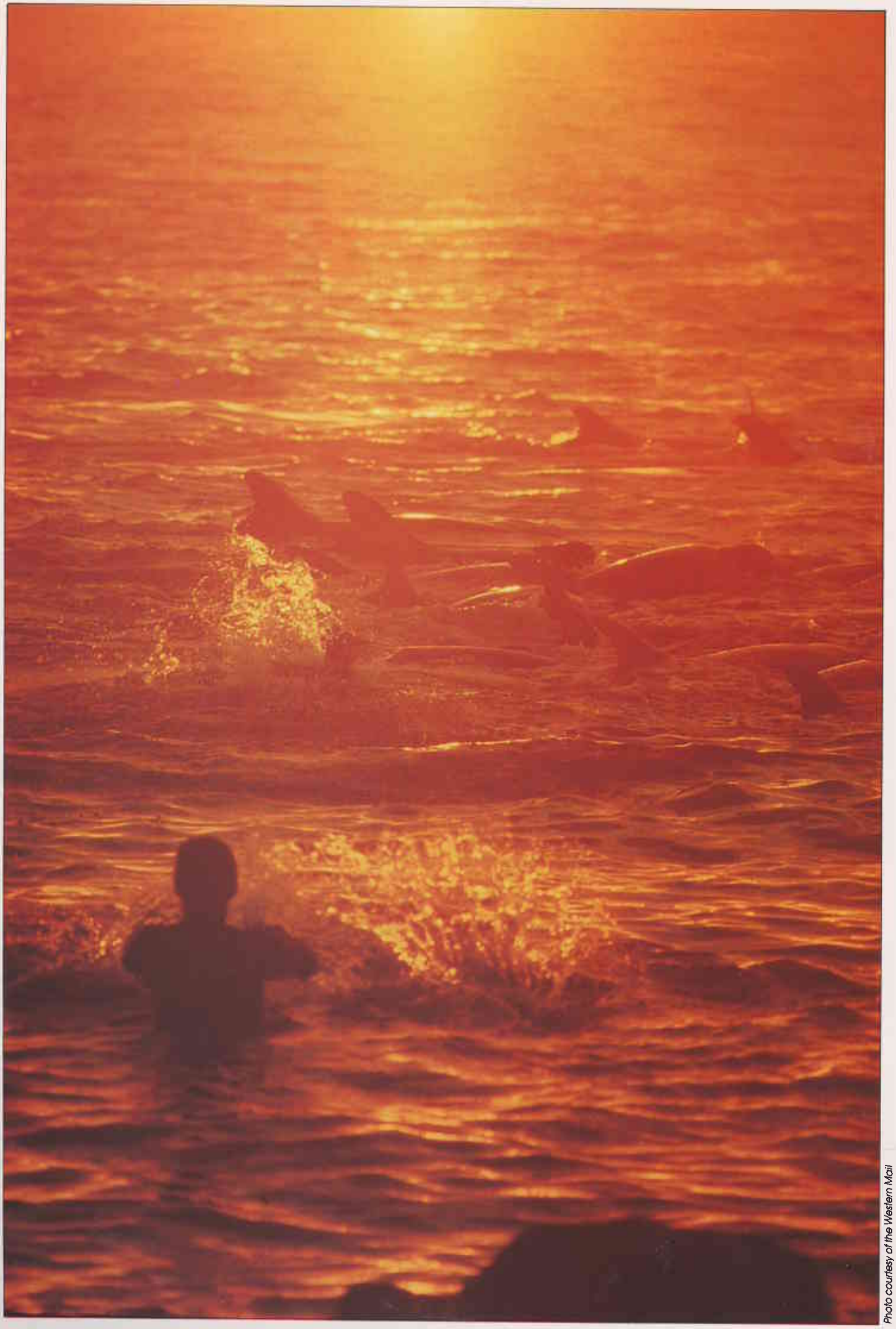


Photo courtesy of the Western Mail

east bank of the mouth of the Blackwood River. Perhaps they had been pushed off the town beach earlier. They had to be rescued first because their calls might have caused the main herd to re-strand.

With the help of Augusta Sea Search and Rescue and local fishermen, the two whales were harnessed in slings alongside two boats. The intention was for their calls to be used to 'lure' the main pod out of the holding area. Almost as soon as the two whales left the river mouth, the whales in the holding area two kilometres away reacted, whistling audibly and trying to swim towards the two harnessed whales, so that it was difficult to keep the main pod in the holding area. The two boats moved slowly to a position several hundred metres from the boat ramp, in line with the main channel out through the reef.

Meanwhile, vehicle and foot patrols confirmed that no live whales remained stranded along the town beach or either side of the holding area. These patrols, and later on aerial checks, continued throughout the rescue.

By mid-morning the lure whales were in position facing the holding area, another lesson learned from Crowdy Bay. Then a human wall of swimmers, aided by surfboard riders and several small boats, started to herd the whales through the

J. Lochman

R. Karn-Davies

R. Karn-Davies

R. Karn-Davies

First light revealed that some of the pod had already made their way out to sea (left).

Day and night a chain of volunteers prevented whales from re-stranding (above right).

Whales charged the human barricade in an attempt to beach themselves (right).

Whales also stranded themselves on the rocks (above & below).

Photos courtesy of the Western Mail

narrow channel out to sea. The first attempt led to panic among the whales, with many re-stranding on the rocks. Tired after the efforts of the long night before, some rescuers were on the verge of despair.

Fearful of losing control of the whales, David Mell asked the rescuers to back-off and allow the whales to settle down. Amazingly, while rescuers were trying to work out what to do next, the whales started to swim steadily out to sea. In contrast to the despair of half an hour earlier, elation swept through the ranks of rescuers as the whales moved into deeper water, picking up speed and strength.

At the time this seemed a stroke of luck, but one volunteer had remained on his surfboard in the channel with a small whale. Perhaps the rest of the pod had responded to its calls, or possibly the two lure whales had served their purpose, or perhaps all the pod needed was a chance to settle down. Whatever the reason, near-disaster had been turned into a resounding success.

The one power boat involved in the final rescue was held back well behind the board riders until the whales were on their way out to sea. The boat was needed, however, when one whale lagged behind. The whale was quickly harnessed to Ted Wright's boat and taken out to be released with the pod. Ted's final radio message was that he had followed the whales until they were more than two kilometres offshore and he last saw them swimming strongly towards the open ocean.

David Mell knew that surveillance over the next few days would tell whether the rescue had been a success, but there was a feeling of satisfaction and jubilation among rescuers and sightseers alike as David called everyone together on the beach to thank and congratulate them. That jubilation spilled over to a public meeting and celebration held in Augusta on Friday night. Congratulatory

THE ORGANISATION BEHIND THE AUGUSTA WHALE RESCUE

There seems little, if any, similarity between rescuing stranded whales and fighting bushfires, yet experience in fighting fires contributed greatly to the success of the Augusta whale rescue.

Fire-fighting is always an emergency operation. It calls for fast and efficient action which, to be successful, requires good organisation of resources. Mass strandings of live whales pose similar challenges.

Because of its responsibility for fire-fighting in State forests, national parks and nature reserves, CALM has a 'Large Fire Organisation' based upon experience gained over many years. There is a structured framework for overall control, direction of effort in the field, provision of up-to-date information, media liaison, keeping of records and supply of the necessary personnel, equipment, communications, meals and accommodation.

When CALM was first told of the whale stranding at Augusta, the Large Fire Organisation was swung into action immediately.

An aircraft transported personnel and two kits of whale rescue equipment from Perth to Augusta, and CALM District offices in Busselton, Nannup and Collie sent staff, equipment and vehicles, including front-end loaders and tip-trucks. An operational base was established at Ted Wright's house near the Flinders Bay boat ramp.

The house was at the focal point for control and direction of the rescue operation. It was at the centre of a complex radio communications network linking vehicles, boats, aircraft and hand-held radios on the beaches, enabling quick decisions about rescue strategies and deployment of personnel and equipment.

Requests for more volunteers, additional equipment and specialist assistance, and for information such as weather forecasts, were all dealt with by small teams based at the house. Those staff also liaised with the State Emergency Service and volunteers over the supply of food, blankets, lighting and beach-fires, and quickly handled numerous 'emergencies' such as finding a local electrician to repair a generator needed for lighting the holding area overnight, and obtaining medical assistance when required.

The whale rescue received extensive coverage in the media throughout Australia and overseas. Public support was essential to the success of the rescue, particularly when calls were made through the media for more volunteers. The phone rang hot with non-stop inquiries from the media and prospective volunteers, and Telecom quickly installed a second line to cater for the number of calls. A CALM officer was appointed to liaise with the media on-site, and he arranged for hourly press releases to be issued through the Department's Perth office.

The skill and efficiency of this back-up organisation allowed other staff members and volunteers to concentrate on the task of rescuing whales without having to worry about how to get a front-end loader or where their next meal was coming from.

NATIONAL CONTINGENCY PLAN FOR WHALE STRANDINGS

Increasing public interest in whales through the 1970s led to calls for a better response to strandings to enable rapid and effective rescue. Mass strandings of Sperm and Pilot Whales in south-eastern Australia in 1980 and 1981 reinforced the need for an integrated response to strandings, particularly mass strandings.

Following a request from the whale conservation group Project Jonah, in 1981 the Australian National Parks and Wildlife Service began preparing a national contingency plan to handle cetacean (whale, dolphin and porpoise) strandings.

A draft plan was circulated widely to State authorities and to interested organisations, institutions and individuals in Australia and overseas. In 1982 the National Contingency Plan for Cetacean Strandings was published (ANPWS Occasional Paper No 6, edited by G R V Anderson).

The National Plan sets out guidelines within which State authorities, which have direct responsibility for strandings, can develop operational plans suited to their local circumstances. The National Plan addresses:

- rescue and scientific objectives;
- early notification;
- control of operations at a stranding site;
- equipment;
- activities at a stranding site, including:
  - public information;
  - public control and safety
  - treatment and rescue of stranded cetaceans;
  - veterinary and scientific activities;
  - disposal of carcasses and follow-up action;
- personnel and training.

CALM is continuing to develop and improve its contingency arrangements for whale strandings, based on the lessons from Augusta and other strandings in recent years.

WHALE RESCUE KITS

ANPWS has provided funds to State authorities for the purchase of whale rescue equipment. CALM has two whale rescue kits containing:

- slings and stretchers suitable for dolphins and small whales;
- rolls of hessian;
- loud-hailers;
- torches and gas lamps;
- measuring tape;
- lanolin cream;
- buckets, shovels, rope and knives;
- first-aid kit.

messages were received from the Premier, Brian Burke, the Minister for Conservation and Land Management Barry Hodge and others, and a small donation to the celebration was made by the State Government.

Patrols on the Saturday morning found no further sign of stranded whales. Beaches from Black Point to Cape Mentelle, as well as St Alouarn Island and nearby islands and rocks, were searched from the air, while beaches from Augusta to Cape Leeuwin were searched from vehicles and on foot. One last whale was found dead in the river the next Monday; otherwise there were no further reports of stranded whales.

For a few mid-winter days the whale rescue at Augusta captured the imagination and admiration of the world. Where people had slaughtered whales for profit last century, the only concern of the Augusta rescuers was to work together to save the whales that had beached themselves.

The Second Rescue

But there was no chance to relax. As the whales headed out to sea, a Wildlife Officer aboard the Channel 7 helicopter reported that there were more whales stranded on the east side of the Blackwood River. Twelve were within one kilometre of the river mouth, and several more were scattered up to 10 km along the beach. These whales could have been ones which were refloated from the town beach on Wednesday, or they might have been among those that swam out of the holding area on Wednesday night.

As well, one of the two lure whales had been returned to the holding area, while the other had been released at sea but had not joined the main pod. Clearly, another rescue effort was required.

The rescue of the whales on the beach east of the river was especially challenging because of the difficulty of access. After aerial and ground inspections, it was decided to transport each live whale along the beach to the east bank of the river, harness it alongside a boat, ferry it across the river, and then truck it to the holding area.

Rescuers began the attempt on Thursday afternoon but had to stop before any whales could be ferried across because deteriorating weather, fading light and the outgoing tide made the river crossing unsafe.

In the meantime another whale, believed to be the lure whale released at sea, was found stranded south of the holding area. A front-end loader and truck were bogged before this whale eventually was returned to the boat ramp. Here it was nursed, along with the lure whale returned earlier, through the night by volunteers working in shifts and using slings to hold the whales. More interstate helpers, from the Whale Rescue Centre and Project Jonah in Melbourne and Greenpeace in Adelaide, bolstered the ranks of rescuers.

At first light on Friday 1 August, in improved weather conditions, the rescue resumed. By about 4.00 pm the remaining live whales from east of the river, 11 in all, had been delivered to the holding area to join the two held overnight.

Arrangements had been made in case there was a need to hold the whales overnight again. A rope and tarpaulin 'sea wall' had been built to help hold the whales and prevent escapes or re-strandings, back-up services were placed on standby, and organisers were ready to appeal through radio and television for more volunteers.

Because the 13 whales seemed to be in fairly good condition and there was concern that holding them overnight might cause more stress, it was decided to attempt the final rescue late on Friday afternoon. Drawing upon the experience of the previous day, surfboard riders were asked to take the leading role. About six riders, using a sling at first, slowly moved one whale through the break in the reef.

Other board riders and swimmers then quietly drove the remaining whales out. There were some anxious moments as two whales broke away and headed for rocks, but they were quickly turned back to the rest of the pod.

Hessian-covered whales are kept cool and moist.

Photo courtesy of the Western Mail

FURTHER READING

Whales and Dolphins of New Zealand and Australia – an Identification Guide by Alan N. Baker. Victoria University Press, 1983.

Sea Guide to Whales of the World by Lyall Watson. Hutchinson, 1981.

A Sea Guide to Marine Mammals by Richard Ellis. American Cetacean Society, 1982.

Australian Natural History. Published by the Australian Museum. Vol. 21 No. 2, 1983. (Contains several articles about whales).

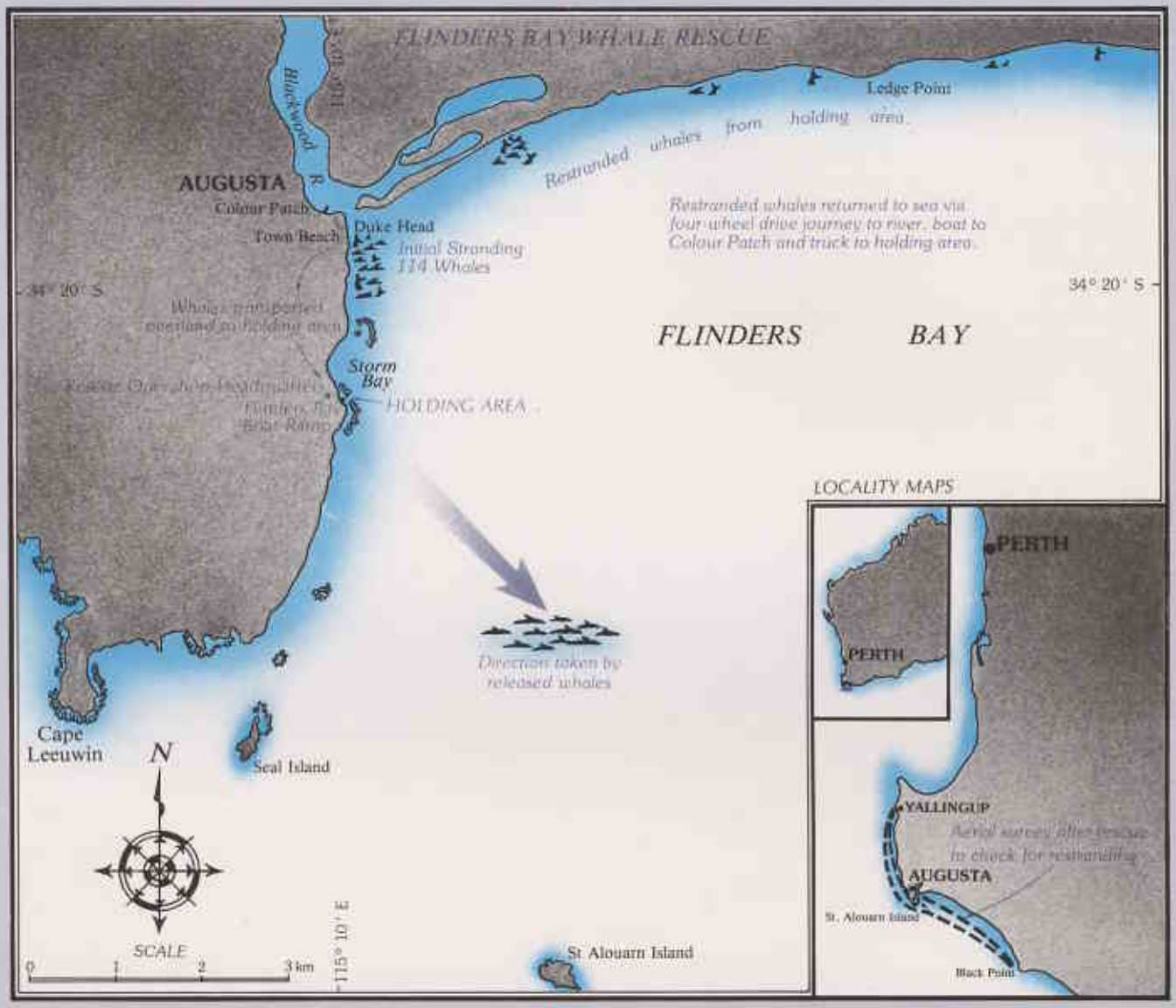
Whales, Dolphins & Porpoises by Ronald Lockley. Methuen, 1979.

National Contingency Plan for Cetacean Strandings. Edited by G. Anderson. Australian National Parks and Wildlife Service Occasional Paper No. 6, 1982.

Whales & Whaling. Report of the independent Inquiry conducted by the Hon. Sir Sydney Frost. Australian Government Publishing Service, 1978.

Whales in Australian Waters. Australian National Parks and Wildlife Service pamphlet.

(Several of these references were used in compiling this special *Landscope* feature on whales).



WHO IS RESPONSIBLE FOR CONSERVATION OF WHALES AND OTHER MARINE MAMMALS IN WESTERN AUSTRALIA?

All marine mammals are protected under the State Wildlife Conservation Act. The Department of Conservation and Land Management is responsible for their conservation and protection .

W.A.'s marine mammal fauna consists of more than 30 species of cetaceans (whales, dolphins and porpoises), two resident seal species (Australian Sea-lion *Neophoca cinerea* and New Zealand Fur-seal *Arctocephalus forsteri*), as well as seals which occur as stragglers from the Antarctic (e.g. Leopard Seal *Hydrurga leptonyx*), and the Dugong *Dugong dugon*.

WHAT TO DO IF YOU FIND STRANDED WHALES

1. **CONTACT:**
   - your nearest CALM office

   OR

   - a CALM Wildlife Officer in Perth, on (09) 367 0333 or (09) 364 9666.

2. **GIVE DETAILS OF:**
   - number and size;
   - exact location;
   - condition (alive or dead).

3. **APPLY FIRST AID:**
   - keep animals cool and wet, especially the tail and flippers;
   - cover with wet cloth if it is hot;
   - keep sand, water and cloth away from blowhole.

4. **REMEMBER:**
   - rescue operations rely on early notification;
   - do not move animals or push them back into the water until expert help arrives;
   - CALM wants to be informed of all strandings, even decomposing dead animals which are valuable for research.

Volunteers from the Organisation for the Rescue and Research of Cetaceans in Australia (ORRCA), Project Jonah, the Whale Rescue Centre and Greenpeace travelled from the Eastern States to assist at the Augusta whale rescue. These groups have been very active in whale conservation campaigns throughout the world, and in whale rescue efforts in Australia. Their comments included:

'The logistics of the movement of the surviving stranded whales from both the original stranding site and from east of the river were very well conceived and were conducted with the precision of a military operation. It was a credit to all involved...

'Our sincere thanks go to the volunteers from Augusta and surrounding areas...

'Finally, a special note of gratitude to the people who ran the refreshment facility throughout the operation.

ORRCA

'The rescue at Augusta was magnificent. The hundreds of people who braved the ice cold waters and freezing conditions for three days were superb ...

'A positive attitude is important. Often, the first three or four attempts will be unsuccessful with the whales returning to the beach. It is important not to give in. Success comes usually after much frustration ...

'Whales certainly bring out the best in people. The initiative, ideas, enthusiasm, compassion and dedication that came from government departments, surfboard riders, boat drivers, divers and rescuers were magnificent ...

Whale Rescue Centre

'In numerical terms, the Augusta rescue was more than twice as successful as any other rescue in Australian history — an extraordinary achievement ...

'Indeed, to our knowledge, the Augusta rescue was the largest and best co-ordinated rescue effort ever mounted by a government anywhere in the world ...

'An extremely valuable new method of rescue was discovered. The use of surfboards instead of motor-powered boats had the twin advantages of being both calm and silent ...

Project Jonah

'It is only a few years ago that the Augusta whale stranding would have been given up as an impossible situation ...

'Thank goodness that didn't happen; everyone worked together with such determination, co-operation and goodwill, the common goal always being the comfort and survival of the whales ...

'I returned from the experience, like many others, physically and emotionally exhausted, but ultimately richer for having participated in one of those rare life situations where only the finest qualities in human nature shine through.

Greenpeace

JOIN A WHALE RESCUE GROUP

Since the Augusta rescue, several people have expressed interest in forming a whale rescue group in W.A. If you want to join, CALM can give you the names of the organisers. Please contact:

Wildlife Protection Branch
Department of Conservation
and Land Management
P O Box 104
COMO WA 6152

Attention: Mr P Pennings
or telephone (09) 367 0333 for further information.

SCIENTIFIC ACTIVITIES AT WHALE STRANDINGS

CALM's objective at Augusta was to return as many whales as possible to the sea in good condition. It is important, also, that scientific information is gathered at strandings, as this can help us learn more about the reasons for strandings, and about whales and their marine environment. For many whale species, strandings are the main source of biological data.

J. Lochman

One of the few casualties. Scientific research on the carcases may provide more insight into whales' biology and behaviour.

The information collected at strandings should include, wherever possible:

- conditions under which the stranding occurred;
- positions of whales when they first strand, as well as the size and sex of each whale (this helps us understand the social organisation of a herd);
- behaviour of whales during rescue efforts.

Various specimens and data can be obtained from whales which die. Skulls and skeletons are valuable reference and research material, teeth can be used to tell the age of a whale, and reproductive organs yield valuable information on the breeding biology of a species. Tissue samples can be taken to analyse levels of pollutants.

Scientific information collected at the Augusta stranding is being analysed for publication.

Landscope

Volume 2 No. 2
Summer Edition 1986/87

Contents **Page**

Published by the Department of Conservation and Land Management, 50 Hayman Road, Como, WA, 6152.

Executive Editor: Sweton Stewart
Editor: Liana Christensen
Designer: Trish Ryder

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

Offset plates by Photolitho-PM

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

COVER PHOTO
A tender moment between human and whale shows the care which was a feature of the highly successful Augusta whale rescue.
Photo courtesy of the Western Mail.

A Conflict of Interests

Why are there so many conflicts when it comes to our natural environment? There is conflict among industrial groups exploiting natural resources; environmentalists advocating preservation of wildlife; government agencies; and recreation groups.

In an ideal world we would have a total understanding about ecosystems and natural resources, and of the long term needs of the community. But this is not an ideal world, and much of the conflict stems from a lack of agreement about environmental impact and human needs.

Take whale strandings for instance. From the time whales beach, tissue damage occurs due to a rise in body temperature and the sheer weight of the mammal. We don't know how long they have to lie there and how hot they have to get before the chances of survival are next to nil. Strandings may be part of a natural culling process or accidents caused by human impact on the environment. And, what about the people who turn out in large numbers under often adverse conditions, and become so emotionally caught up in saving these creatures? What weight do we put on their need?

It is not an ideal world. We are a long way from knowing the answers to too many important questions.

There is a need for more investigation, better communication and a broader understanding of environmental processes and human needs.

This brings us to *Landscope* and its purpose. Its prime objective is to achieve an understanding about conservation of ecosystems and management of natural resources.

Landscope's aim is to provide expert information on the major conservation issues, latest developments, research in progress and general features of the State's wildlife, national and marine parks, nature reserves and forests.

It will give a balanced representation of viewpoints and will not shy from contentious issues.

Landscope will inform readers about the natural wonders of our environment, the management considerations involved and the lifestyle of its inhabitants. It will not provide all the answers, but it will present the facts and therefore a basis for sound argument.

Landscope is Western Australia's own conservation and wildlife magazine.

Wetlands

The theme for this year's World Environment Day has been 'Wetlands — Not just for the Birds'. In this issue of *Landscope* we feature the ecological importance of wetlands.