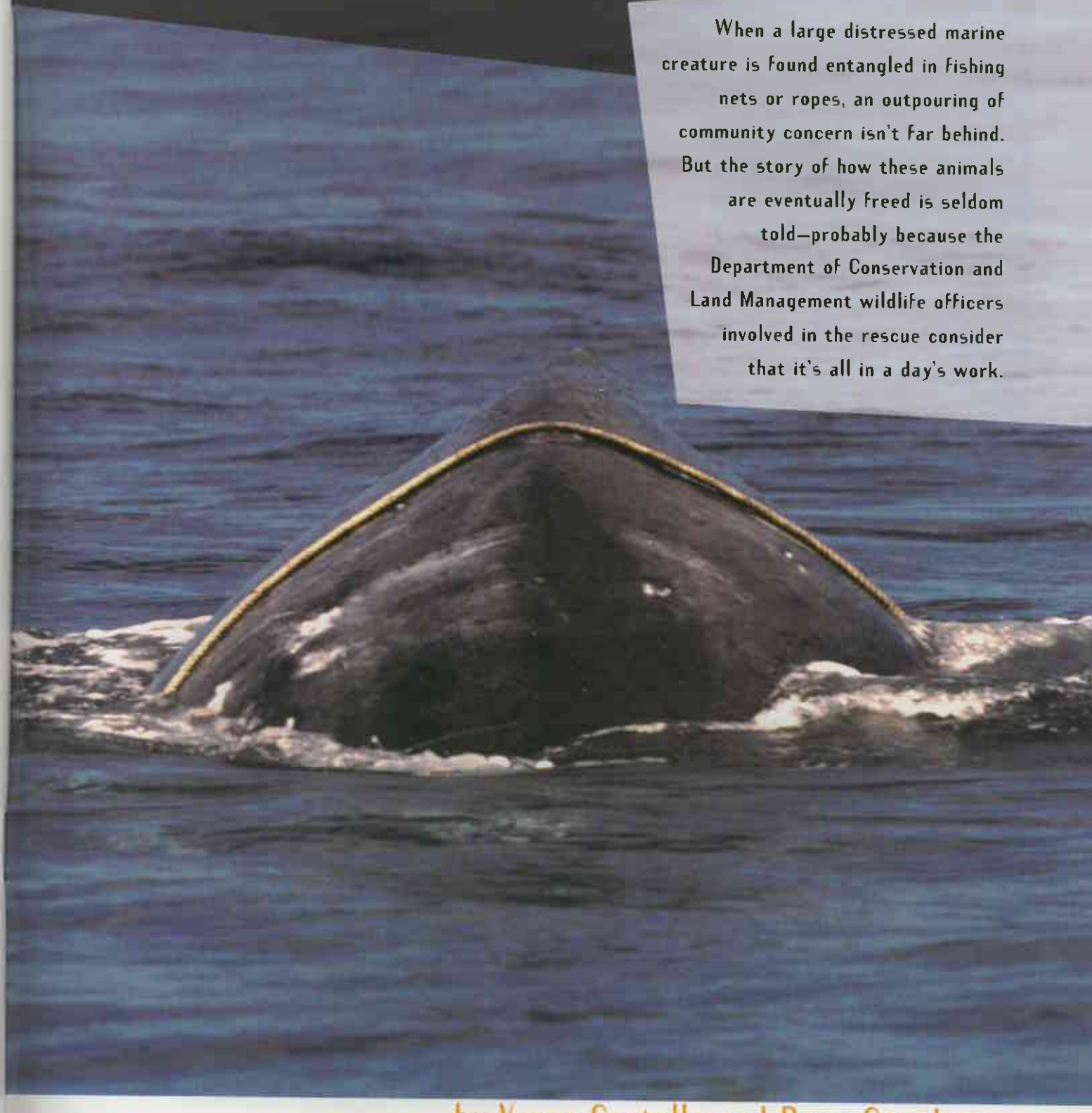
When nature calls... for help

When a large distressed marine creature is found entangled in fishing nets or ropes, an outpouring of community concern isn't far behind. But the story of how these animals are eventually freed is seldom told—probably because the Department of Conservation and Land Management wildlife officers involved in the rescue consider that it's all in a day's work.



by Verna Costello and Doug Coughran

The wildlife officers from the Western Australian Department of Conservation and Land Management are recognised throughout Australia for their expertise in rescuing marine mammals.

Many of the marine mammal species that become entangled are listed as threatened, so the loss of a single animal could have a significant effect on their gene pools. Whale populations, for instance, were reduced to a fraction of their original size by commercial whaling. Although their numbers are now increasing, it is vital to protect their genetic diversity. Also, public attitudes to whales have changed greatly over the past few decades and people expect them to be looked after, at least in Australian waters.

Over time, through the process of natural selection, nature has developed ways for species to adapt to natural threats to individuals and populations. When a human-induced threat occurs, however, human intervention is invariably required. As such, it is important that the various government agencies responsible for the marine environment have an integrated rescue plan for animals that become entangled in man-made structures, such as ropes, nets and debris that may have fallen overboard from oceangoing vessels, or in gear used by the fishing industry. Plastics and nylon ropes don't break down quickly, so if an animal becomes entangled in such material it usually needs to be cut free.

HOMEGROWN SKILLS

Because rescue operations are often complex, and hazardous situations can spring up without warning, placing the rescuer, the animal or both in jeopardy, it is important that the officers involved have the training, the skills and the equipment to deal with rescues safely and effectively.

Over the years, the department's wildlife officers have developed skills and new equipment to deal with such incidents. Resources from agencies around the world—especially those of the northern hemisphere—have also been sourced, adapted and refined by staff to suit local situations and conditions. Their familiarity and knowledge of animal behaviour allows wildlife officers to read situations better and to make informed decisions.

The potential hazards increase dramatically with the animal's size (an adult humpback can reach 50 tonnes and an adult southern right whale can weigh between 60 and 80 tonnes) and, while it's important to try to save the animal, the safety of staff involved in the rescue is the highest priority. For this reason, an integrated planning process is the most important factor in dealing with marine mammal rescues, and a major key to their success is the widespread adoption of an Incident Control System to manage a range of events. This is the same approach used for wildfires, oil spills and other major incidents dealt with by the Department of Conservation and Land Management.

ONE SUMMER DAY

Late last year, an early morning call came through to the Supervising Wildlife Officer at the department's Operations Headquarters in Perth. What was believed to be a humpback

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Entanglements of large whales frequently occur off WA's long coastline.
Photo – Kelvin Aitken/marinethemes.com

Above left: Wildlife officer Doug Coughran is dwarfed by this fin whale on a Mandurah beach. It measured 15.5 metres long and weighed between 60 and 80 tonnes.
Photo – Colin Crowley

Left: A southern right whale weighing 60–80 tonnes that became entangled in a large net in 1995 presented a mammoth task to free it.
Photo – Trevor Walley

whale—possibly a calf—had been found in eight to nine metres of water offshore from Jurien about two nautical miles south of Favorite Island, entangled in a lobster-pot rope, tethered to the ocean floor. The young whale was about eight metres long. Although still able to breath, its breathing rate was rapid. It is unlikely that the animal would be able to disentangle itself without human intervention.

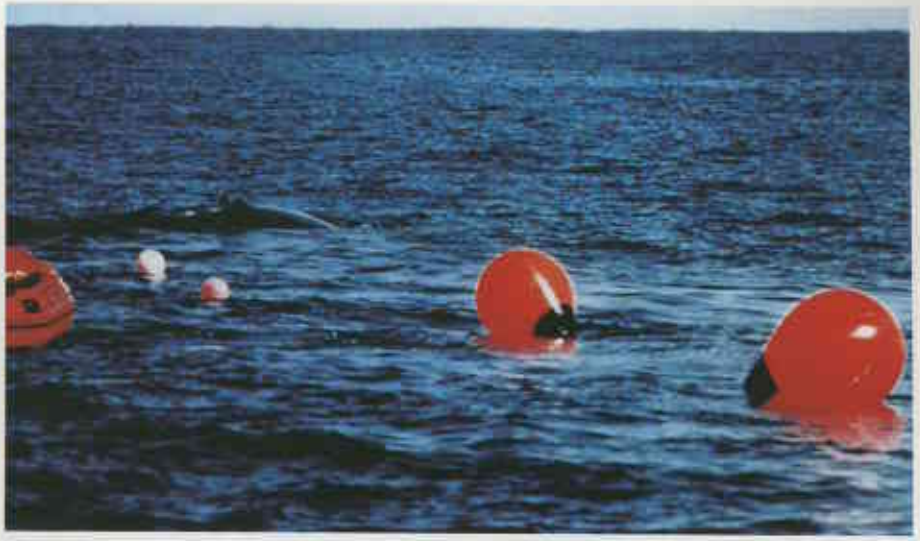
The local district manager quickly set up an Incident Control System and sent out requests asking that all vessels and media helicopters keep clear of the entangled whale. During rescue operations such as this, the incident controller sends regular updates to the department's headquarters in Perth and to its media unit, which maintains contact with Perth metropolitan media and provides them with timely updates for news broadcasts.

With district staff supporting the operational response and providing additional logistical support, an experienced 'Disentanglement Team', made up of Wildlife Protection Section and Swan Coastal District staff, was dispatched from Perth, arriving at the scene around lunchtime.

As this type of operation has an extremely high risk, the team brought purpose-designed rescue equipment. Each member of the five-person team had been thoroughly trained, was experienced in using the equipment and had a high level of marine skills—all essential to a safe operation.

District staff members were briefed by the Team Leader and an appropriate response plan agreed upon. The media, already gathered onshore, were also briefed, before the team set off in two inflatable dinghies to the whale's location, supported by a larger 'mother' vessel.

On arrival, it was confirmed that the animal was a humpback whale (*Megaptera novaeangliae*), a species listed as threatened under the Wildlife Conservation Act. It was about a year old and eight metres long, and, fortunately, no longer dependent on its mother. Close inspection revealed that the lobster-pot rope ran from the left side of the whale's mouth at the jaw joint, across the mouth to the right side of the jaw, also at the joint. Four floats were attached to the rope. The lobster-pot gear was that of an amateur fisher.



Above: Floats were tied to this humpback to slow it down so wildlife officers could safely free it.

Right: The gear removed from the humpback shown in the photo above.

Below: Department of Conservation and Land Management staff being trained in whale disentanglement procedures.
Photos – Doug Coughran

The whale was exhausted. About seven-eighths of its left pectoral fin had been cleanly bitten through, by what was suspected to have been a large shark. An off-duty police officer later reported having seen a tiger shark in the vicinity earlier in the day. The following day, a media helicopter pilot said that he had counted four large tiger sharks—all longer than the team's 4.2-metre inflatable dinghy.

The rescue operation began in a 12 to 15-knot south-westerly wind, with an increase to 20 knots forecast (in fact, the wind eased off to about 10 knots by four o'clock in the afternoon). Based on the available forecasting, however, it was important to proceed quickly or the team's efforts could have been

increasingly hampered, and losing track of the whale would have been a real possibility. If the humpback were to have broken free of the anchoring point but remained entangled, the team would have had to work on a moving target. All things considered, the team decided to seize the opportunity and move straight to the head of the whale. Armed with a specialised, custom-made cutting implement, the team assessed the extent of the entanglement.

Being so close, with no aggressive response from the whale, it was decided to attempt to disentangle it without having to cut the line holding the whale down. The team was able to pull and weave the free end of the rope from the animal's mouth, with the anchoring point being freed last of all. All the while, the inflatable vessel had to be deftly manoeuvred to assist in the disentanglement process. The operation was successful and, once freed, the humpback moved slowly eastwards.

A NEW THREAT

The Operations Officer on board the media vessel gave journalists a brief update, while team members in the two inflatable vessels monitored the now free-swimming whale. The wildlife officers decided to examine the bitten-off left pectoral fin, and photographed the injury by lowering a submersible camera into the water. The whale, still moving eastward, persisted in heading towards an island close to the mainland, so the inflatable dinghies were used to gently 'nose' the animal westward. Although it was not apparent to the rescuers at this point, it later became clear that the whale was endeavouring to move away from shadowing tiger sharks. This was observed from a media helicopter, which was following a safe

Top left and centre left: Western Australian officers undergoing on-water, hands-on training. Similar workshops have recently been conducted in South Australia and Victoria.
Photos – Peter Lambert

Left: Humpback whales are very active on the surface and are more likely to become entangled.
Photos – Doug Coughran/Lochman Transparencies

distance behind so as not to distress the whale or hamper the operation.

The animal was turned to a more southerly direction and swam clear of the shadowing sharks. Soon, the whale began to display recovery behaviour—swimming with purpose and strength. Finally, seven-and-a-half hours after the initial call, the team decided to leave the animal to move off at its own speed and choose its own direction. Over the next few days, the humpback whale did not wash up dead or strand itself, so all indications were that it had survived its harrowing ordeal.

NEVER ENDING STORY

While writing this account for *LANDSCOPE* in June 2002, a 12-metre-long humpback whale, weighing between 20 to 30 tonnes, arrived at the southern end of Garden Island, just south of Perth, with a lobster-pot line entangled around its tail. The animal was freed by the team, without mishap.

A few days later, another humpback whale, also 12 metres long and weighing 20 to 30 tonnes, was found with a lobster-pot line entangled through its mouth, one-and-a-half kilometres north-west of Hillarys Marina, in the Marmion Marine Park. It was pursued by the team, but continued into deep water. The team was forced to call off the rescue attempt, due to deteriorating weather and sea conditions. It is not known if the whale survived.

Shortly afterwards, yet another humpback whale, this time measuring 15 metres and weighing about 45 tonnes, was found four kilometres north of Rottnest Island and 20 kilometres off the Perth metropolitan coast. It was badly entangled in heavyset line gear, about two centimetres thick. It had probably arrived in Western Australian waters towing the gear behind it. Unfortunately, the animal sank in 60 metres of water and drowned before the team was able to effect a rescue.

EMPOWERING OTHERS

After each marine rescue incident, everyone involved attends a thorough debriefing. Lessons are learnt from each incident and added to the vast bank of knowledge gathered over the years. If any equipment needs arise, steps are taken to develop or purchase new tools. While it's always sad for officers when they lose an animal, the sense of achievement and motivation they get from a successful operation makes it all worthwhile.

Expertise in preparing and implementing action plans for whale entanglements enable the job to be done efficiently and effectively. The department's wildlife officers recently shared their expertise with their counterparts in other States, conducting training workshops for the South Australian Government and for the Victorian Department of Natural Resources and Environment. These workshops will further increase the number of trained specialists throughout Australia who can respond to a range of incidents.

Top: A humpback whale at Favorite Island that was entangled through its mouth and tethered to the bottom.

Above: The animal at top begins to move away after being successfully disentangled.
Photos – Peter Lambert

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Discover some amazing lifestyles of the little-known fungi of our south-west forests. See 'Forest fungi' on page 10.

One of WA's longest serving wildlife researchers looks at changes to nature conservation in the State. See 'For the times they are a-changin' on page 20.

Two unusual beetles are attracted to large bushfires. But why, and how do they find the fires and avoid getting burnt? See 'Australian fire-beetles' on page 36.

Two wildlife rescuers recently received Queen's birthday honours. See 'Kanyana to the rescue' on page 42.

What do wildlife officers do when a large whale weighing up to 80 tonnes becomes entangled? Turn to 'When nature calls...for help' on page 42.

COVER

The dugong is the only living species in the Family Dugongidae, and is more closely related to elephants than it is to whales and dolphins. One of the largest and most secure populations of dugong grazes on the extensive beds of seagrass in the shallow marine environment of Shark Bay. An estimated 10,000 dugongs, representing 10 per cent of the world's population, live in the bay. A new study, involving collaboration with local Aboriginal people, is discovering more about their movements in the bay. See page 28.

Cover illustration by Phillipa Nikulinsky

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