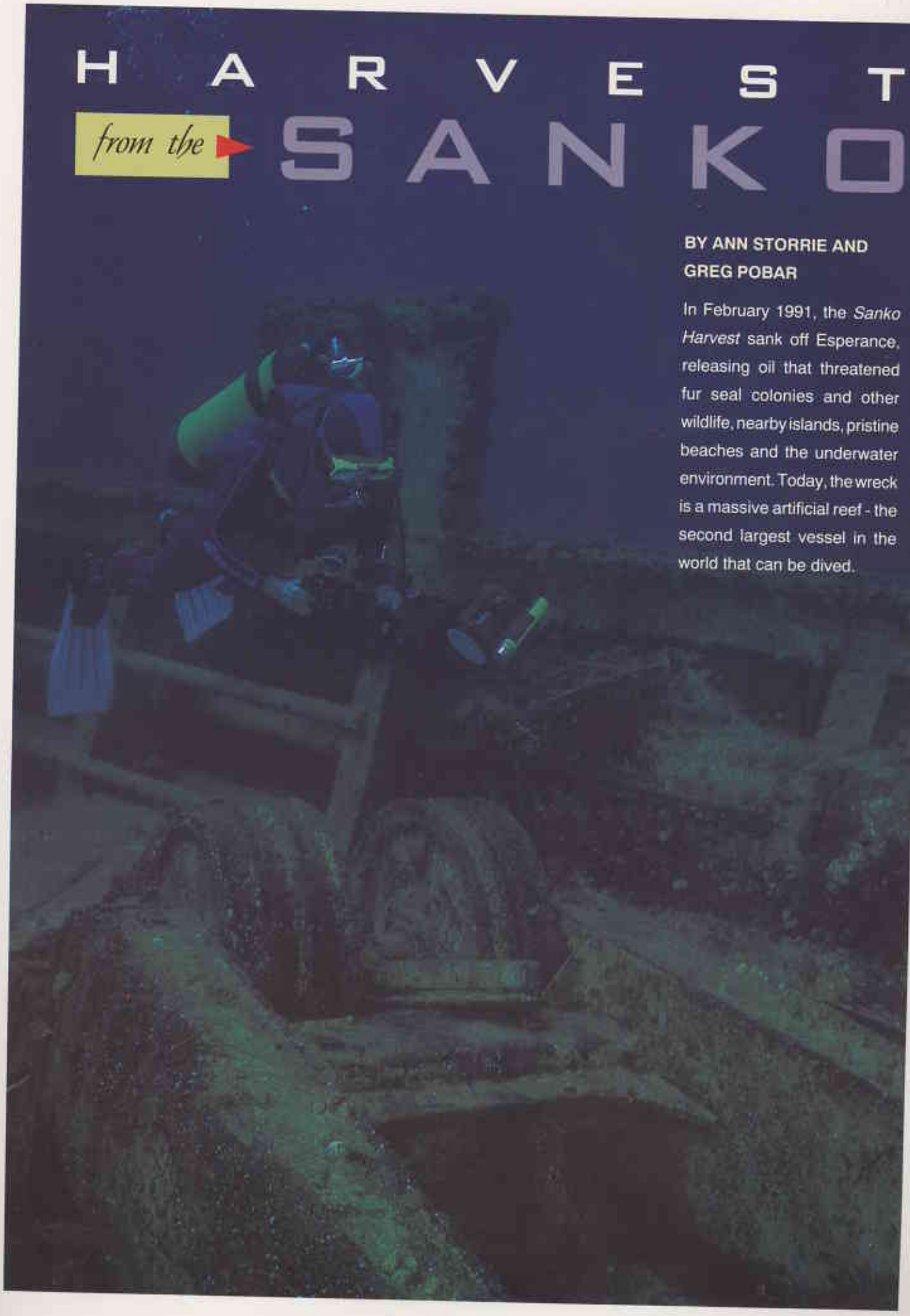
HARVEST *from the* SANKO



BY ANN STORRIE AND GREG POBAR

In February 1991, the *Sanko Harvest* sank off Esperance, releasing oil that threatened fur seal colonies and other wildlife, nearby islands, pristine beaches and the underwater environment. Today, the wreck is a massive artificial reef - the second largest vessel in the world that can be dived.

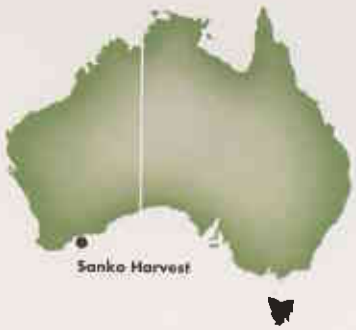
The *Sanko Harvest* ran aground on Thursday 14 February, 1991 on a reef (later called Harvest Reef) 12 nautical miles off Esperance. The 30 000 tonne bulk cargo carrier was loaded with phosphate and bound for Esperance. While attempting to negotiate the Archipelago of the Recherche, the vessel struck the submerged reef near an important nature reserve. The State Combat Committee immediately swung into action, rigging booms around the ship to contain escaping oil (at that stage only a small leak). However, by Saturday the ship began to break up in heavy seas and large quantities of oil began to leak from the wreck. Before long, oil and phosphate spilled freely from the ship.

By Sunday 17 February, the oil had reached the New Zealand fur seal colony on nearby Hood Island and Seal Rock. A massive clean-up operation was begun by the Department of Conservation and Land Management, on behalf of the State Combat Committee and in association with other government departments and local volunteers. Over the next few weeks more than 30 CALM staff and 100 volunteers became involved in the rescue. Hundreds of oiled seal pups and other wildlife were captured and cleaned. Despite the best efforts of the rescuers, at least 15 seal pups and 30 seabirds died.

EFFECT ON MARINE LIFE

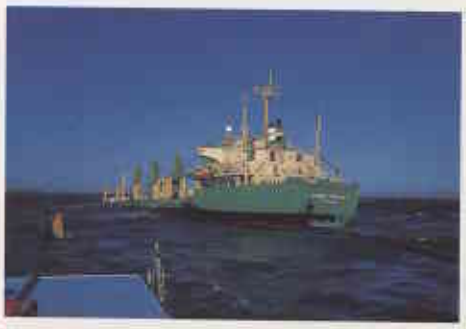
The spill's initial effect on marine life was obvious. At oiled sites, nerites molluscs (*Nerita atramentosa*) were seen crawling high up on to granite boulders or well down in the pools, their shells and soft bodies covered in oil. The common crab (*Leptograspus variegatus*) appeared to be badly affected, with most individuals being well oiled. Crabs were also seen feeding on oiled substrates. At one site, brittle starfish crawled out of the pools and on to rocks where they dehydrated. However, some animals were able to use the by-products of the spill to their advantage: in some inshore waters, large blue groper were seen darting under black oil slugs for cover.

Some tidal pools became filled with oil that they couldn't release, and intertidal life in these pools suffered. A



Previous page
Ann Storrie looks at one of the *Sanko Harvest*'s pulleys on the deck.
Photo - Wayne Storrie

Top: The two deck cranes of the *Sanko Harvest* marked the spot of the wreck for about a year until they collapsed into the ocean.
Photo - Jiri Lochman

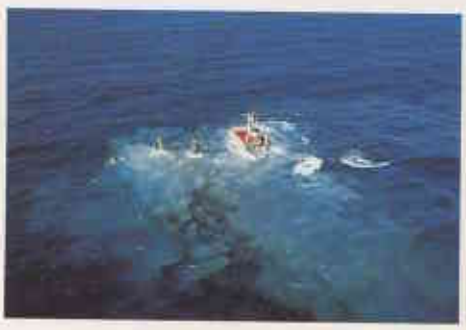


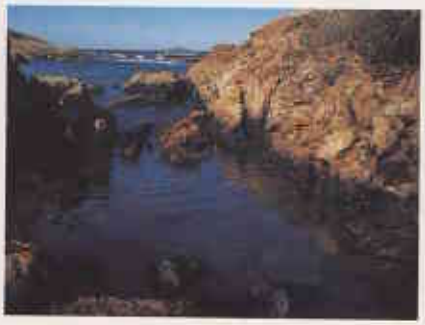
Left: The vessel, surrounded by oil containment booms, 24 hours after it was pinned on the reef; the flag indicates salvage divers were below.

Below left: The *Sanko Harvest* four days later. Bunker oil continued to escape and clouds of fertiliser drifted around the wreck. Studies showed no long-term impact.

Centre: Rock pools on the coast and islands remained heavily oiled for up to 10 weeks, and in some areas oil had to be physically scooped from the water.

Below right: The fur of these two-week-old New Zealand fur seal pups was badly contaminated with oil.
Photos - Greg Pobar





Left: Divers around the crow's-nest of the vessel - a good place for a decompression stop.
Photo - Ann Storrie

Below left: Anemones coat many of the railings around the ship. They are often the first animals to colonise new structures under water.
Photo - Ann Storrie

tidal pool on Figure of Eight Island, west of Seal Rock, remained polluted with thick bunker oil for four weeks, until it was flushed by a rising sea. Five months later there was still no life in this pool and the surrounding rocks were covered in oil.

However, in the six months after the spill there was no detectable reduction of commercial and recreational fish catches as a result of the pollution. A year after the spill, there were still layers of weathered oil under beach sand but, in general, wildlife showed no signs of long-term oil effect.

BENEATH THE WAVES

Twelve months after the *Sanko Harvest* ran aground, few reminders of the disaster were visible. There was still oil on the sea floor at Bunker Bay, but marine plants were growing in it and through it, apparently thriving on the hydrocarbons (low levels of hydrocarbons are found naturally in the marine environment). Ninety-nine per cent of the oil had dispersed or was buried and was gradually being broken down, no adverse effects of the phosphate were obvious and the New Zealand fur seal colonies were thriving. Only five metres of the ship's superstructure teetered above the water.

The last of the superstructure had disappeared beneath the surface by the winter of 1992. The vessel was slowly sliding down Harvest Reef. By later that year, the structure closest to the surface was a crane tower, which loomed three metres beneath the waves. The rest of the ship buckled and twisted down Harvest Reef to the sea bed. The bow, which pointed east-north-east, had dug into the sand at 43 metres, while the stern rested at about 26 metres. When the ship sank, the bridge split from the main hull and now sits about 50 metres from the rest of the ship.

THE WRECK NOW

The *Sanko Harvest* now generates very little interest, except for the diving fraternity. This relatively intact cargo ship is the second largest vessel in the world that can be dived, providing adventure and excitement for those brave enough to explore its awesome structure. However, the inclement weather often encountered on WA's southern shores limits the possible days for diving on the vessel. Blustering south-westerly winds, huge seas and strong currents have disappointed many would-be *Harvest* explorers.

Above: Blue groper are very curious about divers on the *Sanko Harvest*. Several have made their home around this artificial reef.
Photo - Ann Storrie

By January 1993, when a dive by Ann and Wayne Storrie was undertaken, the crane tower had settled 10 metres below the surface and the vessel was hard to detect, especially as there was little wave action on Harvest Reef. A slight easterly breeze was blowing, similar to that on the eve of the *Sanko Harvest*'s demise. With the aid of Global Positioning System navigation, they were dropped straight on to the deepest section, the bow, which was still intact at 43 metres.

Visibility was about 12 metres, yet the ship disappeared into the distance. Its size was awesome. Large gaping holes of jagged, torn metal beckoned the pair into the ship's bowels, where a fine layer of rusted metal and silt coated the interior. The ship was one huge resonating chamber from which the slightest noise echoed through the water. It was an eerie feeling to be inside the enormous, dark, silty, noisy hold, which was once full of phosphate.

ARTIFICIAL REEF

The *Sanko Harvest* is now simply an artificial reef. Devoid of its hazardous cargo, it has become a haven, enticing marine life to live and breed within a sheltered environment. A blue groper swam around the two divers, curiously peering at their shiny apparel and the bubbles emanating from them. It was soon joined by two more, and all three fish stayed within sight for the rest of the dive.

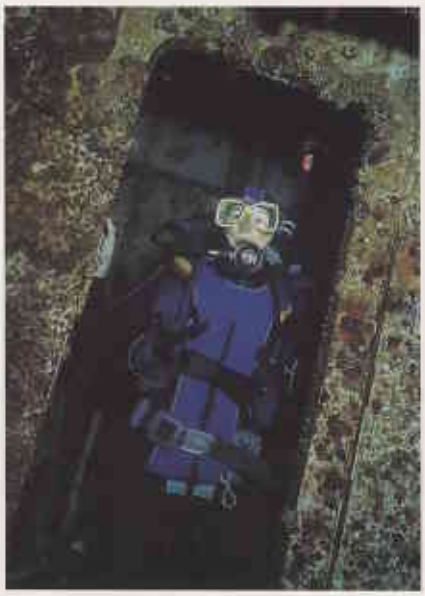
Wrasse, swallowtails, sweep, moonlighters, boarfish, truncate coralfish, morwong, and many other species swam around the hull and the fittings that were left on the deck. Bolts, shackles, pulleys, chains, and rope littered the area, while steel cable draped in roller-coaster fashion from the crane towers to the deck. A crane dangled over one side of the ship, like an enormous fishing line waiting for a shark to take the bait. Thousands of small sea tulips (ascidians of Genus *Pyura*) had taken hold on the railings and edges of the ship, and white-striped sea anemones (*Anthothoe albocincta*) coated the door frames and sides of the hull. An amazing amount of kelp was growing everywhere, especially on a section of hull that draped over Harvest Reef at 20 metres.

CABINS AND KELP

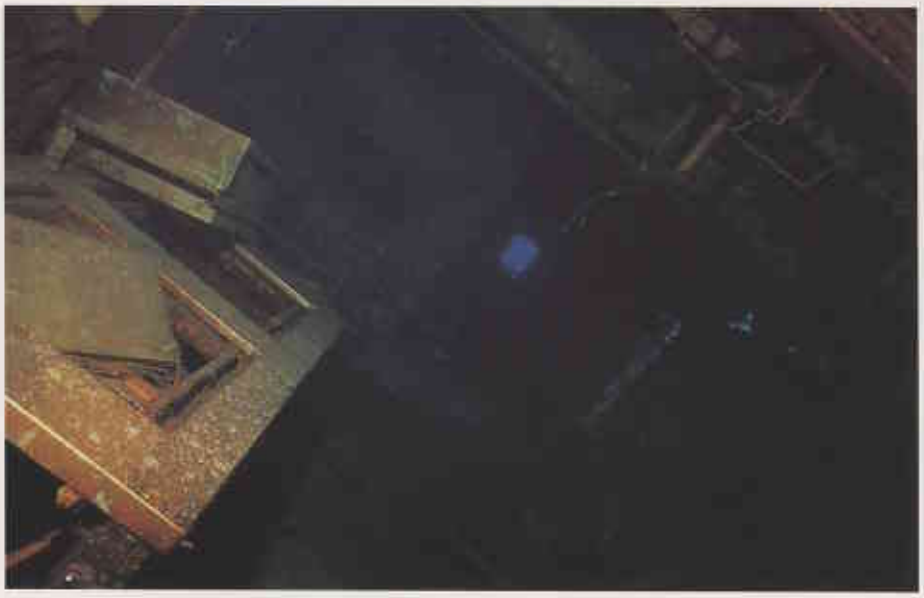
Although care has to be taken to avoid the jagged metal surrounding holes and door frames, it is relatively easy to swim through the ship. Few furnishings are left within the rooms. The frames of the enormous ship's ovens lie at an acute angle in the kitchen while the mess is empty except for electrical fittings and wires dangling from the walls. One single bed bolted to the floor remains in the Captain's cabin and you can wander through to the bathroom and toilet. There is little left in the engine room. The controls lie 10 metres from the hull, half buried in sand and silt. Amazingly, the propeller is still intact. It is so big that at first it is hard to recognise.

From the main hull, a huge trail of rubble and tangled metal leads to the bridge, where swallowtails often form large schools. Far above, the crow's-nest rises into a sunburst, silhouetting the fronds of kelp dragging over the railings. Together with the crane towers, it is a perfect structure on which to spend some time before rising to five metres for a decompression stop.

It took every minute of the three dives made by Anne and Wayne on the *Sanko Harvest* to see all this. They never put a fin in the same place twice, and there were many areas that were not covered. More blue groper joined them on each dive and several must now inhabit the wreck.



Above: Ann Storrie stands in one of the doorways of a crane tower, now encrusted with invertebrates.
Photo - Wayne Storrie



Above right: The frames for the ship's ovens lie on an acute angle in the kitchen.
Photo - Ann Storrie

Below: Schools of swallowtail on the bridge.
Photo - Ann Storrie

LONG-TERM EFFECTS

Incidents such as the loss of the *Sanko Harvest* will continue to occur and their impacts and outcomes will vary. While the long-term effects of the *Sanko Harvest* wreck appear to be minimal, it could have been a different story. It is believed that, without the swift and intense clean-up operation, the newborn fur seals on Seal Rock and Hood Island could have been severely reduced in number and the breeding viability of the colonies affected.

Fortunately, the *Sanko Harvest* today is only another reminder of nature's amazing power of recovery. We must now value the right of the adaptable marine life, from the magnificent blue groper to the tiny anemones, to live in harmony with yet another of humankind's misguided judgements. Those privileged enough to dive on the wreck should remember the damage to wildlife it caused and the tremendous clean-up and rescue efforts by volunteers that it made necessary.

Ann Storrie is an underwater photo journalist. She can be contacted on (09) 385 9355.

Greg Pobar is the Environmental Manager at Rottnest Island Authority. He can be contacted on (09) 372 9727.

Hand in hand with nature. This brushtail possum is just one of the animals studied during fauna surveys of the Batalling Forest. *See page 16.*

Lush vegetation and a welcoming smile greet you as you arrive at Mt Hart Homestead, the 'Oasis in the Leopolds'. *See page 48.*

LANDSCOPE

VOLUME NINE NO. 4 WINTER ISSUE 1994

'Fire, Wind and Water', on page 42, tells of recent research into the rehabilitation of exploration tracks in the Rudall River area of the Little Sandy Desert.

Deep beneath the Southern Ocean lies the wreck of the Sanko Harvest. *This rotting hull is now an artificial reef attracting marine life and divers alike.* *See page 23.*

Plantations of brown mallet in the early 1900's began a chain of events that resulted in the 'Woodland Wonderland' of Dryandra. *See page 28.*

FEATURES

REGULARS

COVER

Woylies prefer clumped, relatively open vegetation with sandy soils that are easy to dig. They are found, among other places, at Batalling Forest and the Dryandra Woodland. See stories on pages 16 and 28.

The illustration is by Philippa Nikulinsky.

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