

Unique aspects of Marine Mammal Rescue

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Abstract

In all states of Australia, the rescue and rehabilitation of marine mammal incidents is managed under the Australasian Inter-Service Incident Management System (AIIMS). Rescues are often complex situations and usually conducted under the spotlight of world-wide media coverage. This paper covers the unique aspects of volunteer work with whales, dolphins, seals and dugongs under these circumstances, focusing on ORRCA's protocols, training and community engagement.

Keywords: marine mammals, whales, dolphins, seals, community engagement

Why are they different?

Organisation for the Rescue and Research of Cetaceans in Australia (ORRCA) volunteers are trained to assist the government authorities in marine mammal rescue and our work is centred on charismatic marine megafauna. Whales and dolphins are beloved by Australians (Woods 2000) for their size and mystery. They are elusive creatures that spend their life in the oceans, allowing us an occasional glimpse as they playfully breach or breathe at the surface. When they strand on shore, there is a potent combination of human nature wanting to help and a rare opportunity to observe these creatures that fascinate us.

All wildlife volunteers face difficulties in their work; dangerous rescue situations and long hours rehabilitating their native patients. Marine mammals present special features that make these incidents unique and complex: the large numbers of animals ashore in a mass stranding; the size and weight of even the smaller whales, dolphins and dugongs; the potential threat of seal bite; tail strike; large and unwieldy equipment; duration of incidents; and, besides all of these, large numbers of curious onlookers and the media thrown into the mix.

How are they managed?

It is not possible to manage these events like the rescue and rehabilitation of many of Australia's other native animals, where rehabilitators might attend individually to assess, rescue and possibly take the animal home for rehabilitation or to a veterinarian. A marine mammal incident is managed on the shore or in coastal waters by the authorities, and our ORRCA volunteers are trained to **assist** them. In Australia, government authorities in each state manage these incidents using the Australasian Inter-Service Incident Management System (AIIMS). This system is used to handle major emergencies such as floods, oil spills and fires (AFAC 2017). The system provides for different agencies to work together under the direction of the Incident Management team and all personnel, equipment, communications and logistics are combined and co-ordinated to achieve a goal. It is very flexible system that can be scaled up or down depending on the needs of the situation. It is equally versatile to co-ordinate the rescue of 100 animals mass stranded on a beach, with 1000 people and a complex array of equipment or one large, cranky seal hauled out in a busy Sydney Harbour park with lots of people and off leash dogs running around.

How ORRCA prepares itself and its volunteers for these incidents

ORRCA was established in November 1985 and, over the past 30 years, has developed more than just a set of rules to get a mass stranding of whales off a beach and back to sea. All aspects of ORRCA's work, from training, organisation protocols and communication systems, have

developed to ensure our volunteers are prepared and able to operate effectively within the AIIMS system.

1) Training

a) Understanding the AIIMS framework and diversity of roles

ORRCA's training focuses on the AIIMS and teaches each member of our rescue team their role within that system. They understand how they will fit in to the AIIMS framework and carry out a range of different roles depending on what is required, working beside several different agencies. In most cases that might be in the water rehabilitating a whale or dolphin or monitoring and evaluating a seal on the beach, but it can be quite different. Our members may also assist with bystander education, crowd management, incident planning and data collection from the dead animals. They are expected to remain calm in difficult situations and ORRCA training prepares them for this.

During a 2015 mass stranding of Pilot whales (*Globicephala macrorhynchus*) in Bunbury, Western Australia ORRCA members retrieved all the morphometric data from the 12 dead whales. Data collection had to be completed in 45 minutes due to the difficult location and each animal had to be measured and photographed methodically to ensure the data was not confused or mixed up between the 12 subjects.

ORRCA members are trained to approach even a small task with the same discipline as in a larger incident. Actions and roles are divided and co-ordinated amongst our members to achieve the goal. ORRCA team members need to remain calm and cool-headed within the drama of an incident. Teamwork is the key and the foundation of ORRCA work.

b) Health and Safety

All rehabilitators may encounter danger in their work. For marine mammal volunteers it comes from the sheer size of the animals we work with. One swipe from the tail flukes of a whale can cause severe injury if not a fatality, our members can be crushed, trapped, and bitten. Heavy equipment is needed to move animals and incidents occur in locations that may be remote or difficult to access, and in extremes of temperature.

The authorities and the AIIMS treat safety as a priority (OEH, NSW National Parks & Wildlife Service, 2013). Like many other rehabilitators, our members are trained in the use of personal protective equipment, prevention of injury and threat of illness from zoonoses. ORRCA's bespoke training dolphins ensure our volunteers understand how heavy even a small 2.5 m dolphin is, and thus train volunteers with the proper lifting techniques. ORRCA also uses a buddy system, where our members look out for each other to mitigate the threats and in particular the risks posed by extremes of weather conditions and sudden dangerous movements of animals and equipment.

2) Community Engagement and Education

Most incidents are high visibility where rescue and rehabilitation are conducted in front of many onlookers and usually the media. Constant updates for spectators and the media as the incident unfolds are required (OEH, NSW National Parks & Wildlife Service, 2013). Like all aspects of the AIIMS, communication is co-ordinated to ensure its effectiveness and clarity. When ORRCA members attend incidents, they maintain a media blackout and sign a commitment to confirm this. This blackout means ORRCA members will not talk to the media on site and will also not post on social media as one inadvertent tweet, Snapchat, Facebook or

Instagram post can go worldwide. The ORRCA team co-ordinates this and all members know that before posting anything they email or text the senior back- up team to ensure co-ordination.

A single humpback whale carcass that washed into a pool at Newport Beach in Sydney during a storm in August 2012 resulted in 510 articles including broad coverage in Australia and mentions around the world (Last 2012 pers. comm). Once word got out, over a two-day period over 1000 people came to the beach to watch the whale being assessed, dismembered and removed.

Unfortunately, ORRCA's work is made more difficult as every action and every decision by the agencies involved is debated in the media and social media by journalists as well as by community members who are emotionally attached to the animals.

In 2008 a small neonate humpback whale was abandoned and strayed into Pittwater, suckling on the hulls of boats whilst slowly starving and losing strength. After seeking advice from experts worldwide and using the skill and expertise of many agencies, the decision to euthanase after five days, was taken by the marine mammal veterinarians and government authorities based on the welfare of the small whale. ORRCA was not the only agency to receive abusive phone calls and threats. In comparison, other rehabilitation events where animals are picked up and taken away, some involving iconic species such as koalas and birds of prey or cute little penguins, may generate huge media interest, but the actual care and rehabilitation is not carried out in front of everyone and the organisation responsible may have the luxury of choosing to initiate publicity for a successful outcome or to maintain silence where results were not what was hoped for.

A unique feature of marine mammal incidents is that some continue for weeks, months and even years. In these situations, community engagement and education are critical to a successful outcome. ORRCA has managed two social solitary dolphin incidents since 2012. Social solitary dolphins leave their family units or pods and spend extended periods of time alone. Over time, as their interaction with humans increases, they lose their natural fear of humans and become desensitised, playing with boats, people and anchor ropes. These dolphins have a poor prognosis of survival if left unchecked as they can suffer from boat strike or become entangled in ropes and chains (Wilke, Bossley & Doak 2010).

Both of ORRCA's social solitary dolphins required extensive community engagement and a dedicated media and education programme to educate people about the risks (both to themselves and the animals) of playing and touching the dolphin. Despite legislation in NSW prohibiting the touching of cetaceans, (Biodiversity Conservation Regulation 2017 (NSW) Division 2.8) a study by Wilke, Bossley & Doak (2010) recommends that the complete prohibition of interaction is less effective than limiting interactions to a few swimmers in the water, but not permitting large crowds or touching or feeding the dolphins. At best, this will result in a gradual weaning of these animals in their human interaction. At worst, it will stop the animal progressing further up the stages of socialisation. (Wilke, Bossley & Doak 2010).

ORRCA has been monitoring a young female dolphin since August 2012 when she first popped up in St Georges Basin. Rapidly, she became more and more humanised and very quickly moved to continuous interactions with humans by late December 2012. She was trapped within the basin system unable to navigate past a sand bar, and in May 2013 she was relocated by a multi-agency task force due to the threats to her welfare as people flocked to the area to play and interact with her. Within three months she started travelling up and down the NSW coast to

different locations and ORRCA and NPWS worked with each of the local communities to discourage people from interacting too much with her. During the summer of 2013 and 2014, the dolphin moved frequently and ORRCA completed a media programme and talks to the local community groups. ORRCA spent hours in the water teaching the fascinated public to swim, but not touch the dolphin, and encouraged them to understand the importance of keeping the dolphin's wild behaviours and natural caution. Whilst in some cases there were up to a hundred people in the water, over time she has reduced her interactions and the heady days when she sought out interaction every day and all day have largely dissipated. She is now observed two to three times a year in both Sydney and the Illawarra and spends no more than an hour playing with surfers before retreating back to the wild.

Another dolphin that turned up in Brisbane waters in 2014, did not fare so well. Despite the media and community education, a small group of people treated it like a pet and actively encouraged the dolphin to follow their boats and play. The dolphin suddenly died on 11th November 2105 when it drowned after becoming entangled in an anchor rope. In both cases community interaction was implemented, and the poor outcome for the Brisbane Waters dolphin is a stark warning that a forceful, broad engagement and education of the wider community are the keys to success.

The numbers of Australian fur seals (*Arctocephalus pusillus doriferus*) and long nosed fur seals (*Arctocephalus forsteri*) are now recovering after they were extensively hunted in the 1800's (Kirkwood & Goldsworthy 2013). Once it was a rarity to see a seal, but as numbers continue to increase, ORRCA has been tracking the seal hotspots, with seals now hauling out year-round in Jervis Bay, Narooma, 5 islands, Pittwater, Newcastle, Port Stephens. ORRCA also monitors seals in northern NSW, southern Queensland and Western Australia predominantly over the winter months. For every seal reported hauled out, ORRCA attends the site and completes an evaluation and health check. All seal sightings and haul outs reported and evaluated by ORRCA are recorded in the ORRCA database and ORRCA is assisting the authorities and scientists as they move to manage increased human/seal interactions. With more seals about, ORRCA is working to educate the public on the dangers of seals and the threats they pose, as well as the threats to the seals posed by humans.

All of ORRCA's seal evaluation and assessment is completed over time, with reports provided to the Government authorities, marine mammal veterinarians and the RSPCA. Seals can survive some severe injuries and, unlike many other wildlife injuries, are not picked up and taken into care but always monitored on site with intervention occurring as a last resort. As a result, ORRCA needs to work with the community and help them understand why someone is not just coming out, retrieving the seal and taking it into care in the same way as an injured kookaburra or disoriented koala.

ORRCA is currently assisting National Parks and Wildlife in Narooma to educate the community around the fish cleaning tables at boat ramps. Without understanding the implications, some community members have been throwing pieces of fish to seals, resulting in them becoming conditioned to attending the location for an easy feed. This food provisioning is forbidden by the NSW legislation (Biodiversity Conservation Regulation 2017 (NSW) Division 2.7) and over time these practices may result in injury to members of the community who attend, unaware of the food provisioning and unaware of the danger seals pose as they swim up and attempt to grab and snap and bite at food. Acevedo-Gutierrez, Acevedo & Boren (2010) identified that placing volunteers in an area of concern, can help discourage and thus reduce the infringements by people as they attempt to get close to the seals, which has a better outcome

over the long term. As the community becomes more educated, they take ownership of the situation and then educate further visitors to the area. Narooma offers an early example and an advance warning of what other areas in NSW and Western Australia will face as seal numbers continue to recover and seals progressively return to areas near former seal colonies.

Marine mammal incidents are complex and unique, and their management by the government authorities requires a flexible system to handle the size and numbers of the animals as well as the high-profile interest of the community. ORRCA must continue to ensure that our volunteers are prepared for the complexity, collect accurate and scientifically useful data and that the public continues to be involved and educated through community engagement and education.

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