Journal of Marine Animals and Their Ecology

Vol 10, No 1, 2018
Printed in Canada

Commentary

Protecting both public curiosity and safety as well as Scientific research during marine animal strandings

Nesime Askin[1*] and Michael P. Belanger[1]
[1]Oceanographic Environmental Research Society, Barrie, Ontario, Canada

The speed at which news and information is transmitted today has changed the way that it reaches the public (6). There is almost instantaneous reporting of events from around the world, especially with environmental issues becoming more important to the public. One of these issues that seems to strike a very emotional response is the reporting of marine animals stranded on a beach or trapped within fishing gear. Immediately, news feeds, blogs, and emails go viral creating a huge interest to assist or a curiosity to go see these animals. This often results in situations where individuals or large groups of people respond to either assist in the rescue or get the opportunity to just see/touch/be near an animal that is not usually seen. Sometimes animals are found in an environment that is filled with potential hazardous conditions (inclement weather, slippery rocks, incoming tides, etc) or may host numerous harmful zoonotic diseases. This creates a confounding paradox of protecting the public from these real hazards yet allowing them to experience a once in the lifetime opportunity of being close to these majestic animals (7). As researchers/ scientists, we usually become the first to answer the many questions that are asked from the curious public or those who want to be helpful and so it falls to us to consider the publics' best interest and warn them of such hazards to their safety.

Being the Director of Operations for the Oceanographic Environmental Research Society (OERS) (Michael Belanger) and an OERS Research Biologist (Dr Nesime Askin) allows us unique opportunities to observe and work with various marine species; elasmobranchs (sharks, skates, rays, dogfish) and other fish species, seals, dolphins, whales, and even marine animals found in eelgrass beds. Unfortunately these interactions are mostly one sided as most of the mammalian species we get to work with have died and their bodies found washed up on some deserted hard to get to shoreline or beach. OERS has a very dedicated research team that goes out to collect valuable data and samples from these strandings in order to study the effects of climate change along with pollutants/contamination on these species and help determine the cause behind their tragic demise. We try to respond to all stranding events to gather these very valuable samples. Not the most pleasant interactions with these amazing marine species but it is necessary to gain valuable knowledge.

The past 2 months (March/April- 2018) at the OERS research facility (the Comeauville Marine Institute- CMI) located in Comeauville, Nova Scotia have been busy as we experienced 3 major stranding events during this period. The first was a live stranding response to a young male hooded seal (*Cystophora cristata*) that had made his way into a debris field of a local shipyard and was in danger of being injured from tractors or trucks (1) (Figure 1). The worried workers had called the local Department of Fisheries and Oceans (DFO- Meteghan) for assistance and DFO called OERS to see if we could intervene and lend

Figure 1: A young male hooded seal (Cystophora cristata) found stranded (alive) in a debris field of a local shipyard. Photograph credit OERS.

Received: March 3, 2018; Accepted: April 25, 2018
Correspondence: Nesime Askin
Address: 479 Highway 1, Saulnierville, NS, B0W 2Z0.
Email: nesimeaskin@yahoo.ca

assistance. We responded and after ensuring that the seal was not sick or injured, we gently coaxed him back to the nearby beach and into the water where he belonged. An unusual event as hooded seals are rarely found in this area (1). We had a few employees come over to see the animal and ask us questions about him but overall it was a 'quiet' uneventful stranding.

The second call out was for a seal found deceased on a local beach by a student at Universite Saint-Anne who was beach combing. Once again OERS responded to find the body of a mature female grey seal (*Halichoerus grypus*) semi buried in the sand (Figure 2). After taking photographs and collecting some basic data, the seal was necropsied and samples collected. A typical response where the weather was unpleasant (very windy, very cold), the tide was closing in fast, and the animal was extremely heavy (~150 kg), making it very difficult to get it off the beach and into the OERS vehicle. There was no public on hand to deal with at this response due to the inclement weather and the fact that this victim was a seal species commonly seen in this area. Again another 'quiet' stranding.

Figure 2: A mature female grey seal (Halichoerus grypus) found stranded (deceased) on a beach along the St Marys Bay coastline. Credit OERS.

However, the third stranding involved a dead 13.5 m long male humpback whale *(Megaptera novaeangliae)* that had stranded along a very rocky beach 2 hours away from CMI (Figure 3). Locally this stranding received a lot of attention. It was featured on local/national television as well as several social media groups. We arrived at the beach to find scores of people and families coming and going from the stranded whale carcass. The whale had stranded approximately 1 km away from

Figure 3: A stranded (deceased) 13.5 m long male humpback whale (Megaptera novaeangliae) found along a very rocky and hard to access to beach. Photograph credit OERS.

the closest accessible point on a beach composed of rocks that threatened to twist a knee or break an ankle with every step. Carrying our gear to the site added to the potential of severe injury (Figure 4). Again the weather was formidable- high winds, cold temperatures, with the tide closing in fast - allowing us only about 30 minutes to collect some data and samples.

Figure 4: Figure shows the beach composed of rocks that made walking to and from the whale extremely hazardous. Also note the weather conditions that were composed of high winds, cold temperatures, and fast rising tide; all factors that limited recording data and taking samples. Credit OERS.

We have been on numerous other large cetacean responses and approach them with the usual scientific need of collecting the important data/samples, along with answering questions from the curious individuals or groups who are always present at these strandings (Figure 5). No matter how far down a beach or whatever the weather conditions, there are always a few brave souls who are drawn to seeing and touching these amazing creatures. After overcoming a sense of awe at

seeing these larger than life creatures, usually the curious will walk around the animal to look at its large head, see the teeth or baleen depending on species, and shake their heads at its size. Finally they will get close enough to reach out to get a sense of what its skin feels like; most being surprised at the 'rubber-like' feel to it.

Figure 5: Curious individuals or groups who are always present no matter the conditions. Notice the number of children and even a pet walking around the whale. Photograph credit OERS.

Then if some person of authority is nearby or some researchers are collecting data the questions will start flowing. Finally, if children are present, the parents will let them climb on top of its fins and even its body, which in this case was at least 3.5 meters high from the ground to the top of its dorsal fin (Figure 6).

Figure 6: An example of the young and curious children present at a stranding. Although difficult to see, there was some bloating of the abdomen right at the location of the children. The small area of missing flesh above the pectoral fin was taken by representatives of the Department of Fisheries and Oceans (DFO) for scientific analysis. Photograph credit OERS.

This is where a constant awareness of the dangers of being around stranded animals in a very hazardous environment needs to be considered. Performing scientific procedures while collecting data/information on an open beach, usually in the public eye and sometimes being interviewed for television/radio/newspaper/internet, covered in some kind of body fluid, is all part and parcel of doing this work. We have absolutely no problem with answering questions from the curious as everyone at OERS believes that educating the public is important if we want to preserve our environment and respect for these awesome mammals for future generations. In fact we encourage the curious to come forward to see what blubber looks like or understand how baleen functions. However, this stranding triggered some worries about public education, the potential for injuries, and the closure of future strandings to the public and possibly to researchers. As mentioned above, children were allowed to climb on the whale where, if they had fallen off, there could have been serious injuries incurred (broken limbs or concussions). As well, we had no idea how long ago this animal had died. As we were taking our samples, we could tell that there was significant gas building up in the abdominal area, a potential source for serious injury had the gas suddenly erupted from the abdomen. Aside from the animal being a cause of concern, the beach topography was also a risk factor for serious injury. This was exemplified by the fact that a woman injured herself that very day while walking on the beach to reach the stranded whale and required a helicopter airlift out to a nearby hospital (2).

It would seem that there is more news coverage or events dealing with human/marine mammal interactions. These events range from concerned individuals deciding to take care of an abandoned seal pup to a child sitting on a pier being dragged into the water by a large adult seal (4,5). A deadly event occurred when a whale being freed from ropes/netting accidentally killed one of its rescuers despite this person having freed numerous entangled cetaceans for over 15 years (3). This event prompted the Canadian government to halt all efforts directed to freeing of entangled whales until a full study was done to see if this type of fatality could be prevented in the future during whale releases from nets/traps/ropes.

As scientists and researchers we must always be aware of the dangers responding to any situation that might involve live or dead animals, not only for ourselves but for the public that will always be drawn to seeing these animals. If the

number of stranded animals continue to increase in frequency, there will be further contact between these animals and the general public which would lead to greater potential for injury or even worse - deaths. It is hoped that the authorities will not further prevent responses to strandings as they did with the fatality mentioned above, which would make it more difficult for researchers to gain critical data and samples. We are all responsible for making sure that not only are we as scientists and researchers protecting ourselves from potential injury but we must also make the public aware of the dangers of being in these situations that are harmful or dangerous. Ultimately, preventing the public from seeing first hand these stranding episodes will only further foster distrust of government agencies handling these events and might even result in public disinterest - serving to discourage future generations of people from wanting to protect marine mammals or other potentially endangered animals.

REFERENCES

1. Askin N, Belanger M. An unusual Hooded Seal (*Cystophora cristata*) sighting along St. Marys Bay, Nova Scotia, Canada. *Journal of Marine Animals and Their Ecology* 10 (1): 3-4, 2018.
2. Atlantic CTV News. Emergency crews rescue woman stuck on rocks in Kings County. https://atlantic.ctvnews.ca/emergency-crews-rescue-woman-stuck-on-rocks-in-kings-county-1.3851646. Accessed on March 21 2018.
3. CBS NEWS. Whale kills Canadian rescuer after he helps free it. https:// www.cbsnews.com/news/whale-kills-canadian-rescuer-after-he-helps-free-it/. Accessed March 23 2018.
4. Daily Mail. Girl, 6, who was attacked by a sea lion while sitting by a pier in British Columbia is being treated for 'seal finger' which can lead to amputation and death. http://www.dailymail.co.uk/news/article-4541046/Girl-attacked-sea-lion-treated-rare-bacteria.html. Accessed on March 21 2018.
5. MV Times. Seal becomes a lesson for Island woman http:// www.mvtimes.com/2018/03/14/seal-becomes-lesson-island-woman. Accessed March 26 2018.
6. Pavin J. The impact of technology on journalism. *Journalism Studies* 1(2): 229-237. 2000.
7. Pugliares KR, Bogomolni A, Touhey KM, Herzig SM, Harry CT, Moore MJ. Marine Mammal Necropsy: An introductory guide for stranding responders and field biologists. Technical Report WHOI 2007-06. September 2006