NAMMCO ANNUAL MEETING 29

13-15 September 2022
Grand Hotel, Oslo & Hybrid

MEETING OF THE COUNCIL

DOCUMENT 11	**REPORT OF THE WORKING GROUP ON BY-CATCH, ENTANGLEMENT AND LIVE-STRANDINGS (BYCELS)**
Submitted by	BYCELS/Secretariat
Action requested	To take note of the report and consider the forwarded recommendations: • Revised guidelines for euthanasia of stranded cetaceans • Future workplan
Background/content	This document consists of: • Report from the BYCELS meeting held 19 May 2022 • Appendix 1: Guidelines on how to euthanise stranded cetaceans

1. MEETINGS AND MEMBERS MARCH 2021 – SEPTEMBER 2022

BYCELS meeting: 19 May 2022, Copenhagen Denmark

Working Group members:

- FO: Signar Pettersen, Ulla Svarrer Wang
- GL: Masaana Dorph, Amalie Jessen,
- IS: Guðni Magnús Eiríksson, Elin B. Ragnarsdottir
- NO: Guro Gjelsvik, Kathrine A. Ryeng and Hild Ynnesdal

Chair: Ulla Svarrer Wang

2. OVERVIEW OF MAIN DISCUSSIONS AND DECISIONS

2.1 ANNUAL REPORTING FROM MEMBERS

A new comprehensive system for annual reporting from Parties was introduced in 2020. The objective was to develop a procedure whereby the Parties submitted, once a year, all the data required for the committees to carry out their tasks as efficiently as possible. It was also an attempt to standardise the entries in the database to enable comparisons between countries and activities.

The new reporting system did not meet the expectations and the added workload for the Parties had increased significantly. Too many "non-functional" data categories had been introduced primarily based on a "nice to know" rather than "need to know" basis. The diversity of target species, hunting methods, national regulations and praxis resulted in an abundance of requests for input of data that were not relevant for all members.

The reporting system has now been revised taking into consideration the data needed for committees to meet their mandates and also taking into considerations priorities put forward by the Parties.

2.2 GUIDELINES ON EUTHANASIA OF STRANDED CETACEANS

Council 28 reviewed the guidelines om euthanasia of stranded cetaceans and agreed to asked BYCELS to incorporate the use of the spinal lance in the guidelines and present a revised version to the next Council meeting. Appendix 1 gives the revised guidelines for consideration and endorsement of the Council.

2.3 FUTURE OF BYCELS – WORK PLAN

BYCELS agreed to reiterate the views expressed at Council 28 that the WG has accomplished and followed through on what was initially identified as its tasks, namely:

- Make an overview of the extent of by-catch, entanglement and disentanglement and live strandings, including dead strandings in the member countries.
- Review existing guidelines (IWC, ASCOBANS and others) on by-catch, including entanglement and disentanglement and live strandings with the aim of identifying procedures and actions for recommendation to NAMMCO.
- Co-operate with and inform relevant network of the existence of BYCELS.

BYCELS was established as a working group under Council and not as a standing committee. In line with its ToR and also the praxis of similar WGs it recommends convening in response to specific requests for advice and not by default on a pre-set annual basis. BYCELS reiterated the importance of having a competent body addressing animal welfare issues related to by-catch, entanglement and strandings, but agreed that any future meetings will be scheduled when the Council or member countries ask for advice within the BYCELS mandate.

APPENDIX 1

GUIDELINES FOR THE EUTHANASIA OF STRANDED CETACEANS

1. GENERAL PRECAUTIONS

Definition of euthanasia: *the use of humane techniques to induce the most rapid and painless and distress-free death possible (AVMA 2013)*.

From an animal welfare point the pain and suffering of live stranded cetaceans could be ended by euthanasia and should be considered. These guidelines pertain to such events.

ALWAYS call the responsible authority. Specify telephone number!! Parties: Identify relevant responsible authority for animal welfare issues related to marine mammals.

- *Do not act before responsible authorities have been notified, and necessary permission granted*
- *Only authorised personnel should perform euthanasia*
- *Human safety is the 1st priority. A whale may move the tail or pectoral fins with great force*
- *Action (euthanasia, disentanglement or moving of animals) should not be initiated in a hasty manner due to expectations from the public*

A stranded whale is defined as a whale that is laying on land or in shallow water. The general rule is that such animals should be euthanized, and no rescue operation should be conducted.

When a large whale, such as members of the rorqual family (fin whale, minke whale and humpback whale), sperm whale, killer whale or a beaked whale is stranded on the beach or in shallow water it is assumed that they are already sick or weakened for some reason. Due to its weight, attempts to pull the animal out to sea will inflict wounds and injuries. For animal welfare reasons, **the animal should not be pulled out to sea.** It should either be allowed to die on its own or euthanized if it could be done in a responsible manner from an animal welfare perspective.

Responsible euthanasia requires knowledge of the anatomy of the species and which weapons are the most effective. Euthanasia is only responsible when conducted by competent personnel and with suitable weapons.

2. KILLING METHODS

Stranded whales or whales that are entangled beyond rescue can be killed by explosive grenades, explosives, heavy calibre rifles, spinal lance and drugs. However, methods for the euthanasia of large whales by drugs are not sufficiently developed and should not be used.

2.1 EXPLOSIVES

Explosive harpoon grenade/penthrite grenade can be used only on large whales out at sea or in shallow waters where it is possible to approach the animal with a vessel with harpoon gun (shooting distance within 10 – 30 meters). In this context, large whales mean all baleen whales plus sperm whale, beaked whale, and killer whale. **The shoot shall be aimed towards the thorax from the side** as shown in figures 1-6. When used correctly the animal will in most instances die immediately.

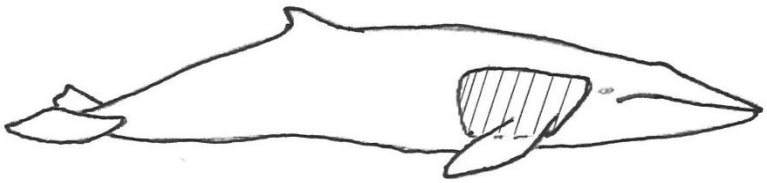

Fig. 1 Minke whale target area (vital organ area – hatched area) for detonation of harpoon grenade

Fig. 2 Fin whale target area (hatched area) for detonation of harpoon grenade

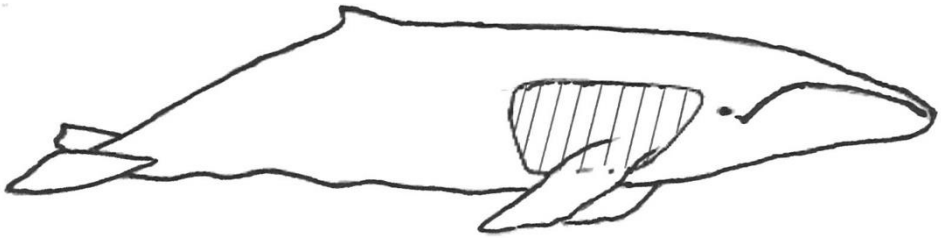

Fig. 3 Humpback whale target area (hatched area) for detonation of harpoon grenade

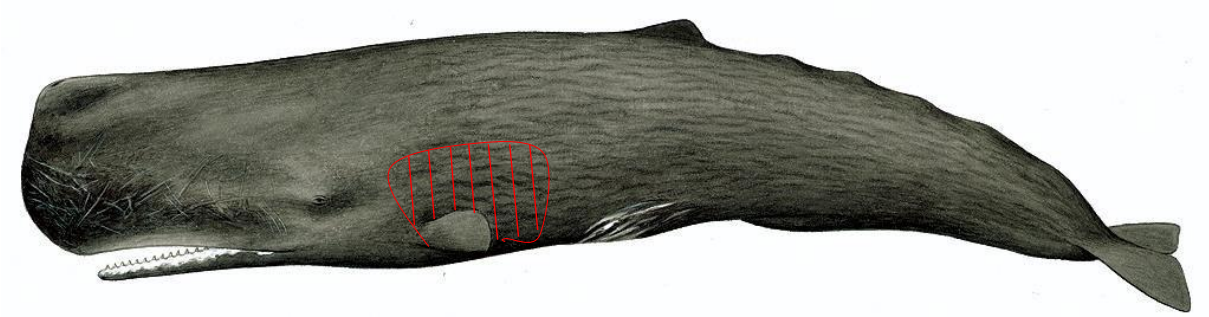

Fig. 4. Sperm whale target area (hatched area) for detonation of harpoon grenade.

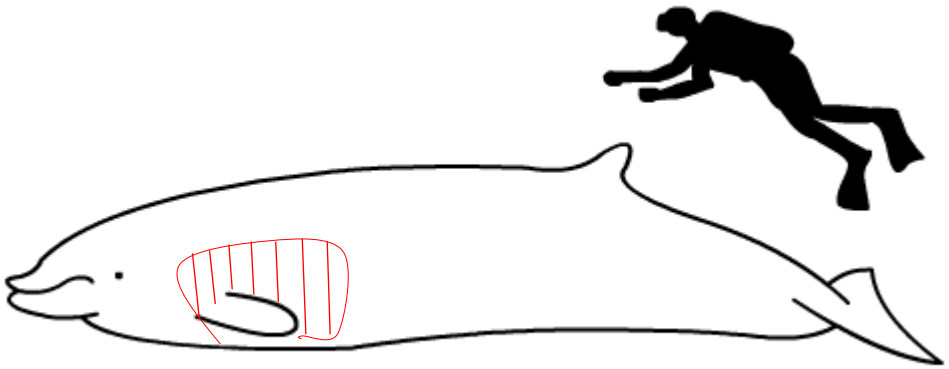

Fig. 5 Cuvier´s beaked whale target area (hatched area) for detonation of harpoon grenade. Basic illustration from Wikipedia.

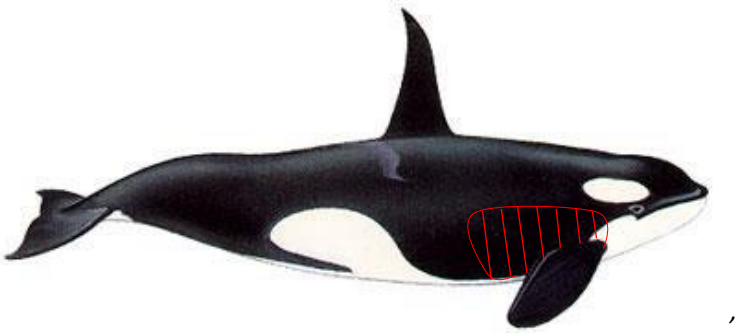

Fig. 6 Killer whale target area (hatched area) for detonation of harpoon grenade

2.2 RIFLE

Rifles may be used to kill several whale species. For smaller toothed whales, such as pilot whales and dolphins, ordinary expanding large game ammunition can be used. For large whales, however, the expanding projectile will most often not be able to penetrate the thick skull and reach the brain. Therefore, expanding ammunition should not be used on large whales.

The recommended ammunition in Norway for large whales is full metal jacket, round-nose bullets in calibre 9.3 mm (.366) and upwards. Norwegian investigations have shown that such ammunition penetrates the skull and reach the brain causing instantaneous loss of consciousness and death in minke whales. Calibre .458 has proven good results in both humpback- and sperm whales.

Aiming/targeting and safety

- Main rule: aim at the brain or first cervical vertebra
- For animals lying on the side: aim towards the brain from the back side (dorsal side) of the animal
- For animals lying on the belly/with stomach down: position yourself to aim from above towards the brain
- The barrel of the rifle must never be in contact with the animal when the shot is fired! If in contact, the rifle may explode, which may be life threatening for the shooter.
- Be aware of the background – the bullet may penetrate the skull and ricocheting represents danger for shooter and personnel.

2.2.1 Baleen whales (minke whale, fin whale and humpback whale)

Ammunition:

- Minke whale: full metal jacket, round-nosed bullets calibre 9.3 mm (.366) and larger
- Fin whale and humpback whale: full metal jacket, round nose bullets calibre .458 and larger
  For the largest whales, it may be necessary to use several shots to make sure the animal is dead.

To hit the brain in these species, the shot should be placed in the middle plane (sagittal plane) along an imaginary projected line that starts at the eye and advances upwards and backwards at the same angle as an imaginary line from front through blowhole and eye (Figure 7.1).

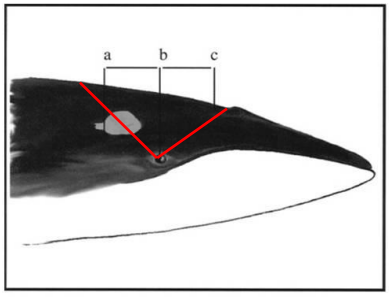

Figure 1
Minke whale head with the brain as seen from the side

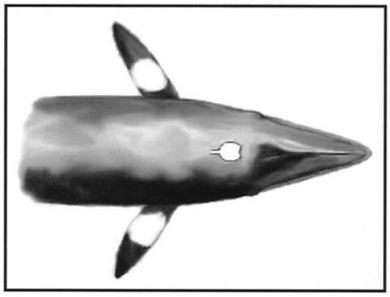

Figure 2
Minke whale head with the brain as seen from above

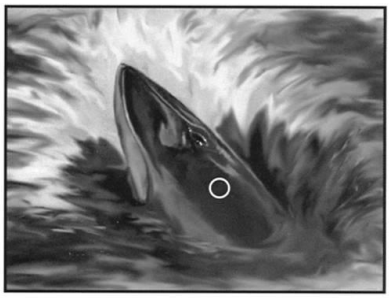

Figure 3
Minke whale head with the characteristic target point for the rifle seen obliquely from the back

Fig. 7. The brain's location in the minke whale and target sites for gunshot from different positions. (SK Knudsen, H Rud and EO Øen, 1997). Seen from the side, the brain is positioned in a plane mid-way between the eye and dorsal surface of the head. Fig. 1 shows the back edge of the brain laying along a projection on a horizontal line (a) as far behind the eye (b) as the blowhole (c) extends to the front of the eye. The brain of the minke whale is about 20 cm wide, 20 cm long and 15 cm high. The centre of the brain lays about 55 cm behind the blowhole opening in a small (5.5 m) minke whale and about 75 cm behind the blowhole opening in a large (8.5 m) minke whale.

2.2.1.1 Shot from the back side (dorsal side)

Aim from above directly towards the brain. If the shot is directed from behind, it must be directed obliquely forwards approximately 60 – 80 cm behind the blow hole.

2.2.1.2 Shot from the side

Aim at a point on the imaginary line that goes backwards from the eye and about 20 - 25 cm below the contour of the head.

2.2.1.3 Shot from the belly side (ventral side)

Aim midway between the jaw bones (mandibles) to a point 30 - 50 cm (depending on the size of the whale) behind the eyes. It may be difficult to accurately place the shot.

2.2.1.4 Shot to the heart

If emergency situations, the shot may be aimed to the heart.

Fin whale species: the heart is located underneath the centre of the pectoral fin when the fin is lying into the body.

Humpback whale: the heart is located underneath the front half of the pectoral fin. See figures 1 - 4

2.2.1.5 Animal reaction to shot in brain and heart

Hits in the brain or cervical vertebrae: often the whale will strike one or more times with the tail fluke before the body it is completely relaxed. If the effect is uncertain, the animal should be reshot. When reshooting, the shot may be placed 10 – 15 cm in front of or behind the first shot.

Hits to the heart: Usually, the animal will show little reaction to the shot. Unconsciousness and death are caused by the bleedings that occur and are therefore not immediate but will take some time.

2.2.2 Sperm whale

Use harpoon grenade or rifle of minimum calibre .458 and round-nosed full metal jacket bullet.

The brain is located along an imaginary projected vertical line midway between the eye and anterior contour of the pectoral fin. From the back side (dorsal side) and the ventral side, the shot is directed in the middle plane (sagittal plane) along this imaginary line.

Because of the spermaceti organ in the head, the sperm whale should preferably be shot from the side. The shot is directed at the point of the skull where the vertical line crosses an imaginary horizontal line from the eye. Fig. 8.

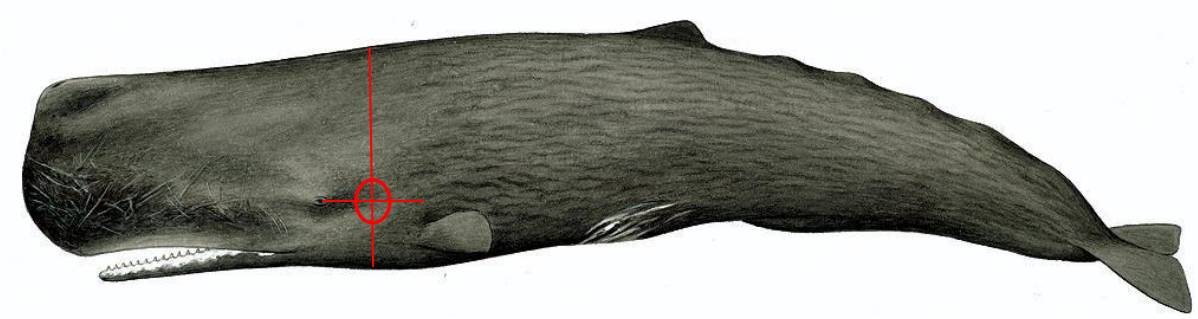

Fig. 8. Sperm whale: location of the brain and rifle shooting instructions from different positions. Illustration: Marcos Oliveira, Nat Drawings, http://natdrawings.blogspot.no/2013_04_01_archive.html Shooting instructions: EO Øen

2.2.3 Killer whale

The brain is located approximately right underneath the white spot above the eye. Shot from the side should be directed in the centre of the white spot. Shot from above should be directed in the midline so that it passes through this area – see fig 9.

Use rifles with a minimum calibre of 9.3 mm (.366) and a full metal jacket round-nosed bullet (equivalent to ammunition for minke whales).

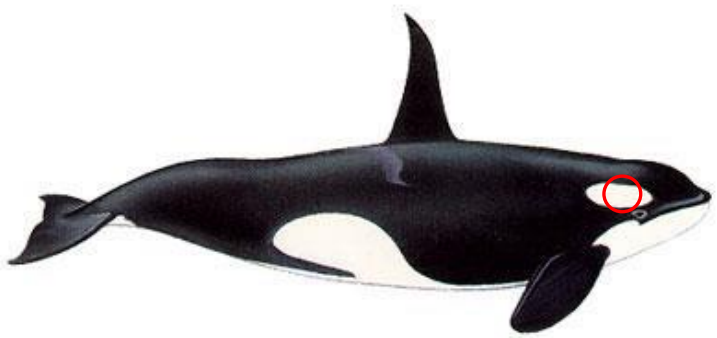

Fig. 9. Killer whale: location of the brain and rifle shooting instructions from different positions. Illustration: www.regjeringen.no/no/dokument/dep/nfd/veiledninger_brosjyrer/2000/fakta-om-hval-inorske-farvann/4/id275084 Shooting instructions: EO Øen

2.2.4 Other toothed whales

Ammunition:

- Pilot whales and dolphins: expanding bullets (hunting ammunition) may be used in calibres e.g., .270, .308, .30.06 or equivalent calibres
  In dolphins and harbour porpoise, shotguns with slugs, i.e., lead bullets, may also be used.

In dolphin species the shot should be directed from the blowhole towards an imaginary line through the anterior contour of the pectoral fins (approximately 45 °) – see fig 10.

Fig. 10. Dolphins: rifle shooting instructions. Shooting instructions: EO Øen, Illustration: Lagenorhynchus albirostris © Würtz-Artescienza, CMS nettsider;
http://www.cms.int/reports/small_cetaceans/data/l_albirostris/l_albirostris.htm

In pilot whales, the shot should be directed in the same angle, approximately 15 – 20 cm behind the blowhole - see figure 11.

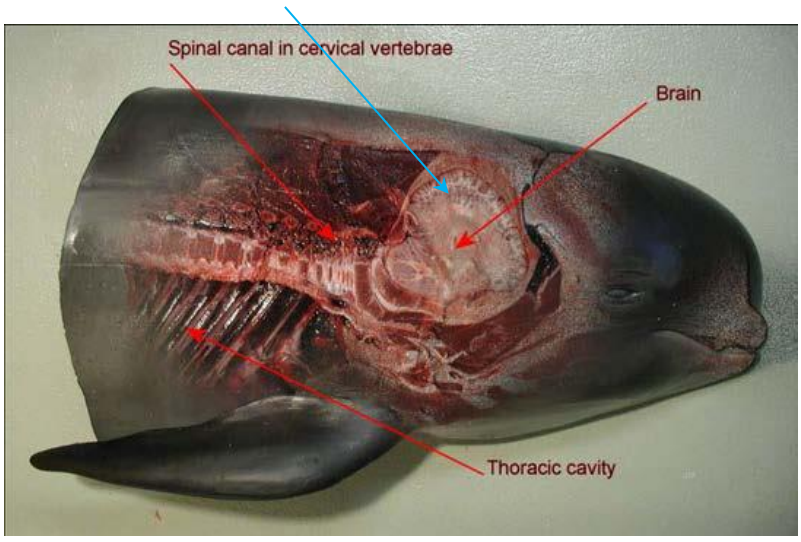

Fig. 11 Location of the brain and correct aiming of the rifle shoot (blue arrow). Shooting instructions: EO Øen Illustration: B.Hanusson, J. Olsen

2.3 SPINAL LANCE

The spinal lance can be used for pilot whales and white-sided dolphins.

The whale is secured with the blowhole hook (fig. 12), after which the whale is killed by stabbing the spinal lance **in the midline between the blowhole and the dorsal fin at one hand's breadth behind the blowhole** (fig. 13). The blade of the spinal lance must be perpendicular to the line between the blowhole and dorsal fin and the stab must be made perpendicular relative to the surface or be directed

at a backward angle of approximately 10 degrees. Immediately after the severing of the spinal cord the lance must be moved to both sides in order to ensure that the surrounding blood vessels in the spinal canal are cut (fig.14). This severs both the main blood supply to the brain as well as the spinal cord. Once the spinal cord has been severed in this way, the whale lies completely paralyzed, unconscious and dies.

Fig. 12. Adapted photos of a pilot whale. Blowhole hook inserted into left vestibular air sac. Photo: photo and adaption B. Hanusson

Fig. 13. Pilot whale stabbed with spinal lance. The spinal lance in the midline and one hands breadth behind the blowhole. Photo: Á. C. Joensen

Fig. 14. Skull of a large pilot whale seen from behind. Spinal lance correctly positioned. The arrows indicate how the spinal lance should be moved to severe all the blood vessels. Photo: J. Olsen, Adaption: B. Hanusson