

**NAMMCO**



**COMMITTEE ON HUNTING METHODS**

**REPORT**

**21 FEBRUARY 2017**

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Report of the NAMMCO Committee on Hunting Methods 21 February 2017

The Committee on Hunting Methods (CHM) held a telephone meeting on 21 February 2017 from 14:00 – 15:30 hrs. Online were Guðni Magnus Eiriksson and Kristjan Loftsson (Iceland), Kathrine Ryeng (Norway), Amalie Jessen (Greenland), Ulla Svarrer Wang (Faroe Islands) and Charlotte Winsnes from the Secretariat. Nette Levermann (GL), Signar Petersen (FO) and Hild Ynnesdal (NO) were not present.

## **1. OPENING REMARKS AND ADOPTION OF AGENDA**

Guðni Magnús Eiríksson chaired the meeting in the absence of Nette Levermann who was unable to attend. The meeting reviewed the agenda and list of documents – appendix 1. The agenda was adopted with the inclusion of a new item 5. Alternative methods of collecting TTD data.

## **2. UPDATE FROM MEMBER COUNTRIES ON HUNTING METHODS AND REGULATIONS**

Documents [NAMMCO/CHM-February2017-2](#) list of references on hunting methods in member countries and [NAMMCO/CHM-February/2017-3](#) overview of laws and regulations in member countries were presented under this agenda item.

CHM commented on changes and new additions to the two documents all of which are given in appendices 2 and 3. In general, CHM agreed that the NAMMCO manuals on hunting should be listed in document 2.

### **The Faroe Islands**

#### *Regulations*

A new Executive order (No 9 of 26 January 2017) on pilot whale and other small whales had been approved and had replaced the Executive order from 2013. The new Executive order has been made with the authority in Parliamentary Act No 56 of 19 May 2015 on pilot whale and other small whales and is regulating all stages of the drive hunt. The law confirms the traditional pilot whale drive hunt, and among other things, enables the authorities to prosecute persons exhibiting disruptive behaviour and interference in the hunt.

There are 23 approved whaling bays. Presently three new locations are provisional approved, and will be investigated and tested to see if they are suitable as whaling bays.

CHM noted that there has been a slight revision to the design of the spinal lance based on experiences made in 2015. The Secretariat will revise the NAMMCO manual on pilot whaling accordingly.

#### *Quotas, number of active boats, hunting period*

There is no regular quota system in the pilot whale hunt, and all small boats can participate. The drive hunt can take place all year around.

#### *Catches, strandings, irregularities*

In 2016 there were 5 drives and 295 pilot whales were taken. No irregularities were reported.

## **Greenland**

### *Regulations:*

A revision to the Executive Order regulating the hunt on narwhal and beluga (2017) is recently approved. New items include more specific rules concerning quotas and stocks in combination with hunting grounds. Securing that all settlements and cities gets a part of the quota for the area, harmonizing the rules of hunting in Melville Bay with the Sanctuary rules for the Bay and finally change of the length of the vessels allowed in the hunt from 14 meter to 15 meter.

### *Quotas*

The national quotas for large whales in 2016-2017 is based on the advice from the IWC Scientific Committee and approved by the IWC Commission.

The 2016 and 2017 quotas for West Greenland are: 164 minke whales, 19 fin whales, 10 humpback whales, 2 bowhead whales and East Greenland: 12 minke whales. Carry-over numbers have been added for both years.

### *Number of active hunting boats*

There were 30-ish approved whaling boats with harpoon guns and 400-ish smaller boats were active in whaling activities in Greenland in 2016.

### *Catch numbers including struck and lost*

#### Whale catches in 2016:

10 fin whales, (about average for the last five years).

148 minke whales including 3 struck and lost in West Greenland and 15 in East Greenland. (about average for the last five years in WGRL and fully utilized quota in EGRL for first time in 10 years).

5 humpback whales (lowest number since the quota was given) and 0 bowhead whale.

187 beluga in West Greenland (quota 320) and 16 in Qaanaaq (quota 20; technical, 3-year quota is given for 100 animals).

176 narwhales in West Greenland (quota 306), 81 in Inglefield Breeding (quota of 103 animals), 91 in Melvin Bay (quota 70+46) and 53 in East Greenland (quota 82

Extra political quota to EGRL, and Melville Bay on narwhal.

52 walrus in West Greenland (quota 69), 74 in Northwater (quota 86) and 9 in East Greenland (quota 18).

The catch numbers for beluga and narwhale and walrus includes stuck and lost without specifying the actual numbers of S/L.

There are no quota regulations on other small cetaceans or pinnipeds in Greenland.

### By-catches:

3 humpback whales, 1 minke and 1 finwhal along the coast of WGRL.

### *Hunting period*

The hunting period for 2016-2017 is for fin whale and humpback whale from 1 January to 31 December and for minke whale March to 30 November and bowhead whale 1 April to 31 December.

### *Strandings and irregularities*

No strandings had been reported in 2016 and there were no reported infractions of national legislation on large whales.

### *Others*

#### IWC entanglement response training for Greenland

An entanglement response training was concluded successfully on July 1, 2016 in Nuuk, Greenland. Recognising an apparent recent upward trend in entanglements and with the training opportunity provided through the IWC, the Government of Greenland requested, organized and sponsored a three day training course (one day in the classroom and two at sea).

The training was organized by the Ministry of Fisheries and Hunting, with support from the Greenland Fisheries License Control. In addition, the IWC provided support through its technical adviser, and the voluntary entanglement fund. The trainees included 18 wildlife officers and whalers/fishermen.

The training also allowed wildlife officers and whalers/fishermen to discuss, for the first time as a group, what is known of entanglements along the coast of Greenland. One immediate priority issue appears to be coastal pound nets, and the group was able to develop a strategy that will hopefully alleviate the negative impacts to both these fishers (gear damage) and whales.

### **Iceland**

There have been no changes to the regulations in Iceland in 2016.

### *Minke whales*

Quota: 264 minke whales

Catch: 46 taken by 3 vessels. No struck and lost

No irregularities have been reported.

### *Fin whales*

Quota 146 fin whales, but no hunting took place in 2016.

Eiriksson informed the meeting that following a recommendation from the Expert Group meeting on TTD in 2015, a course for minke whale hunters on weapons and method had been successfully organised in 2016 with participation from 12 hunters.

Furthermore, it was the plan to complete the TTD measurement in minke whale hunt in the summer of 2017.

### **Norway**

Norway has not introduced any new hunting methods or adopted new or revised legislation in 2016.

### *Hunting updates*

#### Whaling

Quota: 880 minke whales

Active hunting boats: 16 vessels

Catch including struck and lost: 591 minke whales

Hunting period: 1. April – 7. September

Irregularities: No irregularities were reported

#### Sealing

##### *The West Ice*

Quota: 21.270 harp seals

Active hunting boats: 1 vessel

Catch: 1442 harp seals, including 6 animals for scientific purposes

No commercial hunt was allowed for hooded seals, but 18 animals were taken for scientific purposes

Hunting period: 1. April – 30. June

Irregularities: No irregularities were reported.

In 2016 The Ministry of trade, industry and fisheries decided to reintroduce some financial support to the sealing industry. One vessel was assigned the financial support, and participated in the hunt.

##### *The East Ice*

Quota: 7000 harp seals

Active hunting boats: No vessels conducted hunt in this area.

Catch: 28 animals were taken for scientific purposes.

CHM took note of the presented information from member countries.

### **3. STRUCK AND LOST (S&L)**

Documents [NAMMCO/CHM-February/2017-4](#) and [NAMMCO/CHM-February/2017-5](#) were presented under this agenda item.

Council at NAMMCO 24 tasked CHM to review underlying reasons for Struck and Lost (S&L) with the aim of decreasing it.

At its last meeting in October 2016 the Secretariat had prepared document (NAMMCO/CHM-October/2016-5) that gave an overview of the known S&L rates today for different hunts. In addition, the document tried to define S&L and summarised different factors that may contribute to S&L. Prior to the October meeting member countries had responded to a questioner developed by the Secretariat with the aim of getting the latest updated S&L rates for different hunts including how it is recorded and also possible identified reasons behind the S&L.

CHM had agreed to make this into a working document for the Committee in its work on S&L. The Secretariat had been tasked to update the document but had not finalised that yet. The working document was therefore not on the agenda for present meeting.

Following recommendations from the October meeting the Secretariat had developed a one page information sheet stating what S&L is, what can be done to avoid and reduce the risk of S&L and what the hunter should focus on to avoid S&L. The sheet should inform on known possible reasons for S&L like the importance of target point and angle of shoot. The information sheet would be translated into the NAMMCO languages and also be placed on the webpage. CHM reviewed document [NAMMCO/CHM-February/2017-4](#) which contained this information sheet and approved the content. Jessen noted that for Greenland it would be important to add the different regulations on how to deduct S&L from the quota. CHM agreed that member countries might add information that was of particular interest for that country.

CHM agreed that the information sheet will have a one-page text with appendices with illustrations of target point for the different hunts – see appendix 4.

The information sheet will be circulated to member countries for translation and all language versions will be put on the website.

Council had also asked CHM to address how data on S&L best could be collected. This request had also been sent to NAMMCO Scientific Committee which discussed it at their meeting in November 2016. Document [NAMMCO/CHM-February/2017-5](#) gave the report of the discussion in the SC.

The CHM concurred with the conclusion of the SC that the best method for collecting S&L data was using observers in the different types hunts, as S&L rates vary between species and hunts. Like the SC, CHM acknowledged that this would be logistically challenging and costly and would therefore perhaps not represent a prioritised parameter for improving assessments.

The CHM agreed that collection of S&L data for large whales were controlled and that the big challenge was with respect to the small whale hunts. CHM did not have any concrete solutions but pointed out that there might be a need for reviewing regulations for those hunts where S&L are thought to be high.

#### **4. NEXT MEETING**

The CHM agreed to plan for a fall meeting back to back with CIO, unless new requests from Council at NAMCMO 25 required otherwise.

#### **5. ALTERNATIVE METHODS FOR COLLECTION OF TTD DATA**

Council at NAMMCO 24 had tasked CHM to organise a workshop on alternative methods for collecting standardised TTD data that are less expensive, thus making it easier to compare TTD between countries.

The agenda item was discussed at the last meeting and the Committee had agreed to postpone a more indebt discussion after having discussed the issue in more detail internally in the member countries. There was nothing new to discuss at the present meeting and the CHM agreed to refer the discussion to a future meeting.

## **6. ADOPTION OF REPORT**

The report was adopted by correspondence on 24 March 2017.



## **Agenda**

1. Opening procedure
  - 1.1 Introductory remarks
  - 1.2 Adoption of agenda and review of documents
2. Update from members on hunting methods and regulations
3. Struck and Lost
4. Next meeting
5. Alternative methods for collection of TTD data

**LIST OF REFERENCES ON HUNTING METHODS**  
(Updated March 2017)

**NAMMCO**

- Manual on maintenance and use of weaponry and equipment deployed in hunting of baleen whales in NAMMCO member countries
- Manual on Pilot whaling
- Manual on small whale hunting in Greenland

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**LIST OF LAWS AND REGULATIONS IN NAMMCO MEMBER COUNTRIES**  
(Updated March 2017)

**FAROE ISLANDS**

Parliamentary Act	No 57 of 5 June 1984 on whale hunting, as last amended by Parliamentary Act No 54 of 20 May 1996 No 56 of 19 May 2015 on pilot whale and other small whales, as last amended by Parliamentary Act No 44 of 6 May 2016 No 9 of 14 March 1985 on the protection of animals, as last amended by Parliamentary Act No 56 of 19 May 2015 No 43 of 22 May 1969 on weapons etc., as last amended by Parliamentary Act No 81 of 22 May 2015
Executive Order	No 87 of 20 September 2007 on protection of whales 9 of 26 January 2017 on pilot whale and other small whales No 57 of 12 September 1969 on weapons etc. No 74 of 28 June 2016 on registration of shooting weapons, as amended by Executive Order No 92 of 7 September 2016 No 93 of 7 September 2016 on weapon certificate

**GREENLAND**

## Greenland Home Rule Act

No 1 of 16 Mai 2008 on revisions to Greenland Home Rule Act No 12 of 29 October 1999 on hunting  
No 25 of 18 December 2003 on animal welfare  
No 29 of 18 December 2003 on nature protection

## Executive Order

No 26 of 24 October 1997 on extraordinary check and approval of harpoon canons  
No 22 of 19 August 2002 on trophy-hunting and fishing  
No 21 of 22 September 2005 on protection and hunting of polar bears  
No 20 of 27 October 2006 on protection and hunting of walrus  
No 12 of 16 July 2010 on reporting from hunting and strike of large whales  
No 16 of 12 November 2010 on protection and hunting of seals  
No 12 of 22. December 2014 on protection and hunting of large whales  
No 13 of 30. December 2014 on hunting licenses for full time hunters  
No 14 of 30. December 2014 on hunting licenses for part-time hunters  
No 3 of 27. January 2017 on protection and hunting of beluga and narwhal

Catch registration form (1993-present) “*Piniarneq*”

**ICELAND**

Law	No 26, May 3, 1949 on whaling No 40, June 1, 1979 on amendments to Law No 26/1949 on whaling No 23, April 17, 1991 on amendments to Law No 26/1949 on whaling (cf. Law No 40/1979) No 92, July 1, 1991 on amendments to Law 26/1949 on whaling (cf. Law No 40/1979 and 23/1991)
Regulation	No 163, May 30, 1973 on whaling No 359, April 6, 2009 on amendments to Regulation No 163 of May 30, 1973 on whaling (cf. Regulation No 304/1983, 239/1984, 862/2006, 822/2007, 456/2008 58/2009 and 263/2009) No 414, April 29, 2009 on the ban on whale hunting in specific areas.
Minke waling licenses	Rules in the licenses for minke whaling.

## NORWAY

Act of 29 May 1981 No 38	Relating to Wildlife and Wildlife Habitats (the Wildlife act)
Act of 27 March 1999 No 15	Relating to the Right to Participate in Fisheries and Hunting
Act of 6 June 2008 No 37	The Marine Resources Act
Act of 19 June 2009 No 97	Animal Welfare

Executive Orders from the Department of Fisheries and Coastal Affairs:

31 March 2000	Regulation of the practice of hunting minke whales.
11 March 2003	Regulation of the practice of hunting seals in the West Ice and the East Ice
22 December 2009	Regulation of the practice of hunting seals on the coast of Norway

The Ministry of Fisheries and Coastal Affairs and the Directorate of Fisheries issues each year executive orders relating to the participation and governing of the hunt of Whales and Seals.



## **STRUCK AND LOST (S&L)**

“Struck and Lost” occurs when an animal is hit (struck) by a weapon, such as a rifle bullet, grenade or harpoon, and is not landed. The injured animal may survive or die, depending on the severity of the injury.

### **FACTORS THAT MAY CONTRIBUTE TO REDUCING S&L**

**Always have equipment to secure the animal before or after it is killed, such as a harpoon, line and float or a grappling hook.**

It is important that equipment is suited to local conditions and maintained in good condition.

#### **Anatomical and physiological features:**

- Involuntary reflex movements – especially up and down trashing with flippers and/or tail - can be very violent and last for several minutes.
- The animal’s locomotion ability makes it possible for a seal to slide off the ice, thus important to take into consideration when shooting seals that are lying near the ice edge. A wounded animal can move quickly into the sea.
- Most marine mammals sink when dead or in a state of unconsciousness.
- Fat animals float, while thin animals sink. This is the case for seals and smaller toothed whales but not for large whales.

Important to consider these factors before taking a shot/throwing a harpoon/hakapik etc.

#### **Hunters training /experience and technique**

Proper hunting skills and proper hunting techniques are more critical than equipment to hunting success and reducing S&L. Here is a list of the most important aspects to consider:

- Target area (brain, neck, thorax (heart and lungs) and abdominal area) differs from species to species – see attached figures
- The angle of the shot relative to the animal axis - do not shoot from behind – see attached figures
- Shoot when the probability of retrieving the animal is best – i.e. after it has taken a breath so it does not sink.
- To be patient and wait for the right moment to strike an animal
- Knowledge and training on use of equipment
- Bullets/grenades are slowed down in water and changes direction
- In water versus on land/ice
- Seals: the long shooting distance, the animal sink before being secured.
- Seasonality, salinity of the water and locality plays a role. For seals: sink easier when body fat content and the salinity of the water is low. River deltas will have less saline water.

## LARGE WHALES

### GUN/RIFLE SHOTS IN MINKE WHALE HUNT

Only shoot when whale head is above water. Direct the gunshot to the brain of the animal or the foremost part of the neck region. The site of the brain in minke whale in relation to the outer body characteristics such as eye and blowhole are shown in Fig. 1. If necessary, should the head not emerge from the water, the shot can be aimed at the heart.

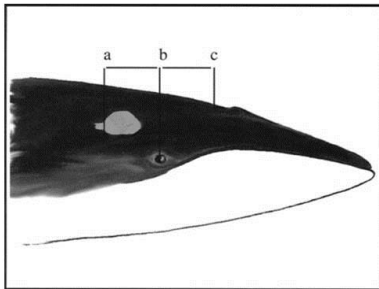


Figure 1  
Minke whale head with the brain as seen from the side

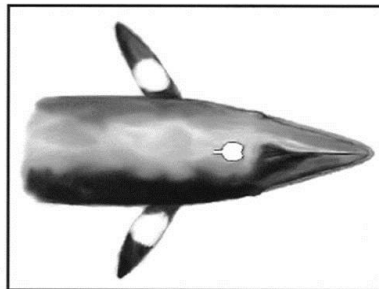


Figure 2  
Minke whale head with the brain as seen from above

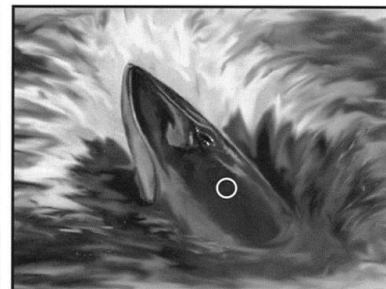


Figure 3  
Minke whale head with the characteristic target point for the rifle seen obliquely from the back

*Fig. 1. The brain's location in the minke whale and target sites for gunshot from different positions. (SK Knudsen, H Rud and EO Øen)*

*Seen from the side, the brain is positioned on 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 back from the blowhole opening in a small (5.5 m) minke whale and about 75 cm back from the blowhole opening in a large (8.5 m) minke whale.*

### EXPLOSIVE GRENADE ON LARGE WHALES

The heart and lungs and their major blood vessels lay in the chest cavity. Above the chest cavity lies the back region with the spinal column that goes up to the brain. **These organs are the greatest and most important target region of the animal.** Detonation in this region causes the whale to die instantly or in a moment. The grenades are especially made to detonate in the middle of the chest cavity when the shot is directed against the chest and from the side. (Figs. 2 - 5).

Direct the shot from the whaling gun against the chest region and as much as possible from the side.

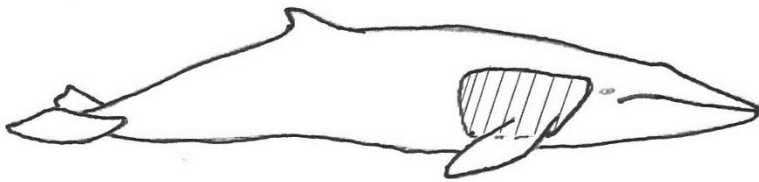


Fig. 2. Vital vulnerability area (hatched area) regarding detonation of a grenade in a minke whale (*Balaenoptera acutorostrata*).

Illustration: S Kessler and EO Øen

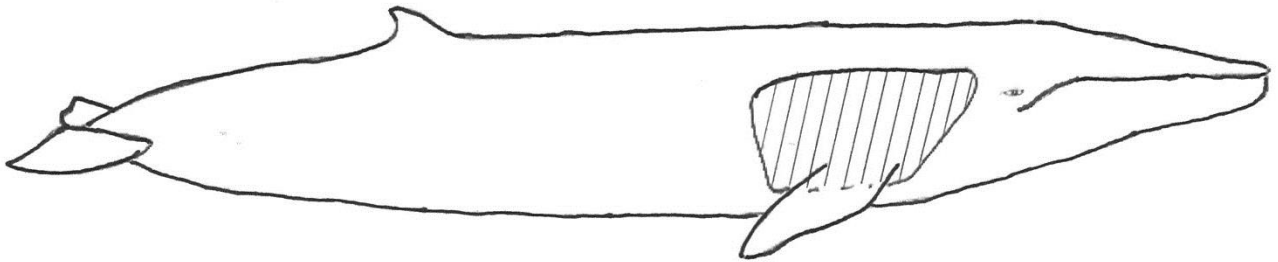


Fig. 3. Vital vulnerability area (hatched area) regarding detonation of a grenade in a fin whale (*Balaenoptera physalus*).

Illustration: S Kessler and EO Øen

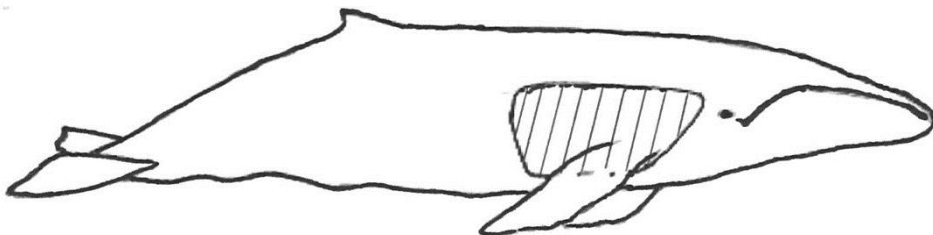


Fig. 4. Vital vulnerability area (hatched area) regarding detonation of a grenade in a humpback whale (*Megaptera novaeanglia*).

Illustration: S Kessler and EO Øen

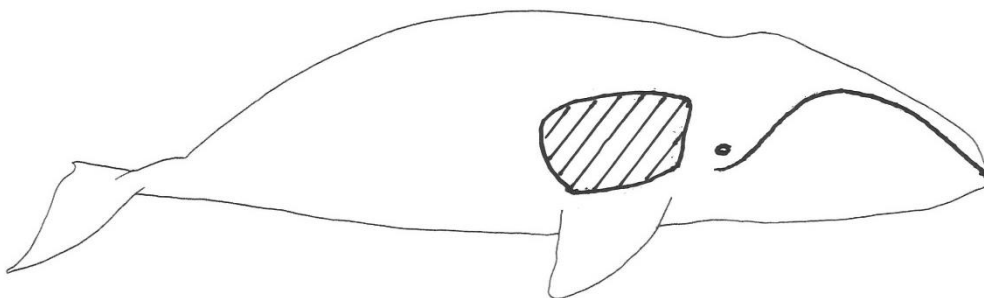


Fig. 5. Vital vulnerability area (hatched area) regarding detonation of a grenade in a bowhead whale (*Balaena mysticetus*).

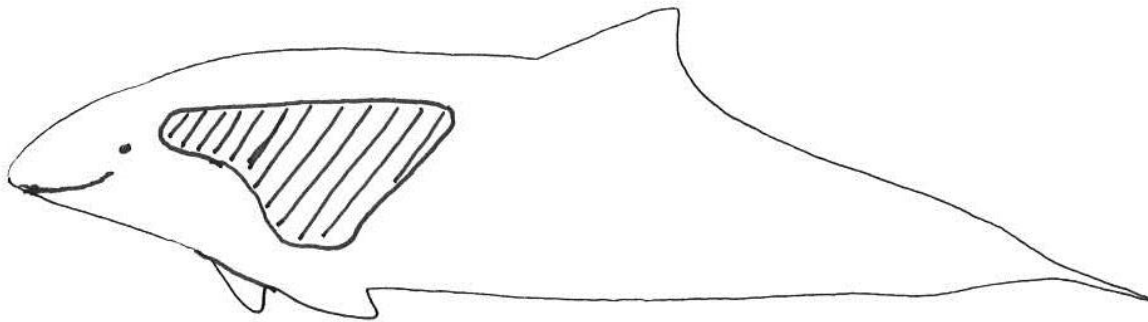
Illustration: S Kessler and EO Øen

## SMALL WHALES

- The most suitable bullet types for brain shot of small cetaceans are: full metal jacket round nose, solid round nose and solid expanding.
- Different ammunition has dissimilar trajectories. The rifle must therefore always be tested with the ammunition that is employed prior to the hunt.
- Rifle bullets are slowed quickly in water, regardless of the calibre and the weight of the bullet. To ensure that the bullet penetrates the brain, the shot must be fired when **the skull is above water**.

## SPECIES SPECIFIC TARGET SITES

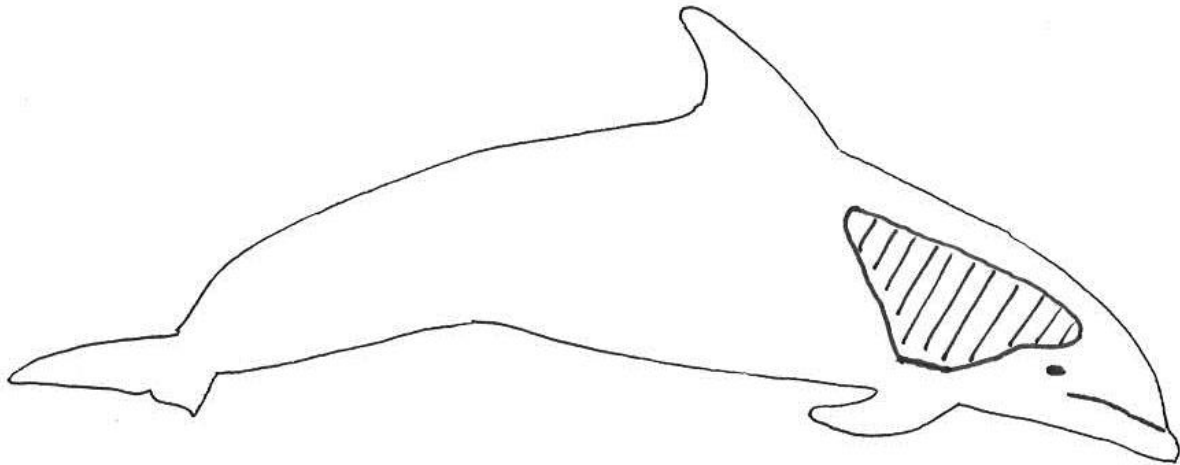
### HARBOUR PORPOISE, FIG. 6



*Fig. 6. The marked area indicates the optimal target area in harbour porpoise. From NAMMCO Expert Group Meeting to Assess the Hunting Methods for Small Cetaceans 15-17 November 2011.*

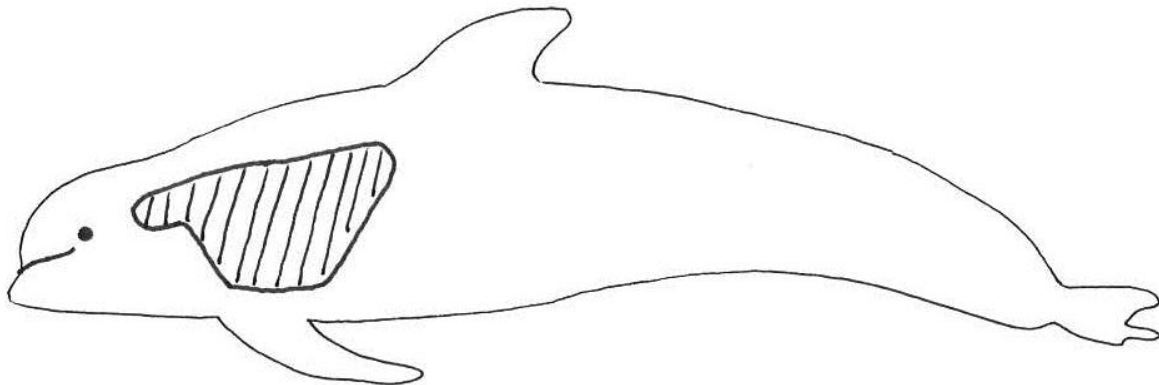
**WHITE-SIDED AND WHITE-BEAKED DOLPHINS, FIG. 7.**

Due to the larger body-size, calibre .30-06 with full metal jacket bullets are commonly used.



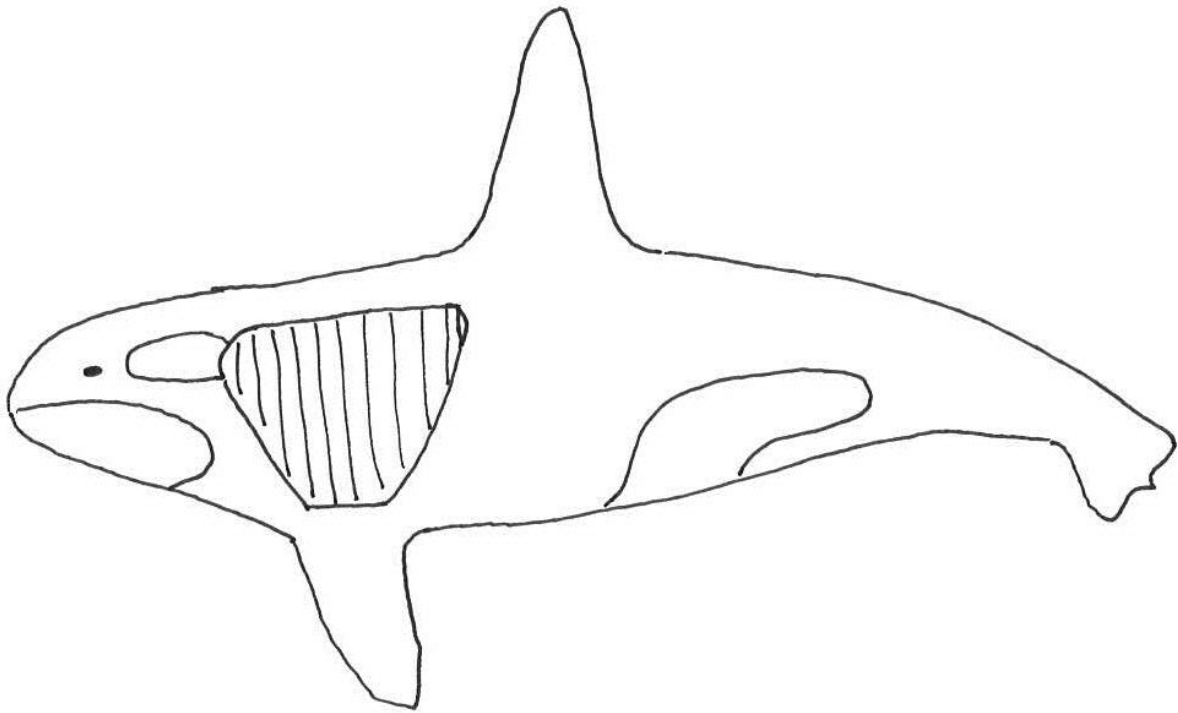
*Fig. 7. The marked area indicates the optimal target area of white beaked and white sided dolphins. From NAMMCO Expert Group Meeting to Assess the Hunting Methods for Small Cetaceans 15-17 November 2011.*

**LONG-FINNED PILOT WHALE, FIG. 8**



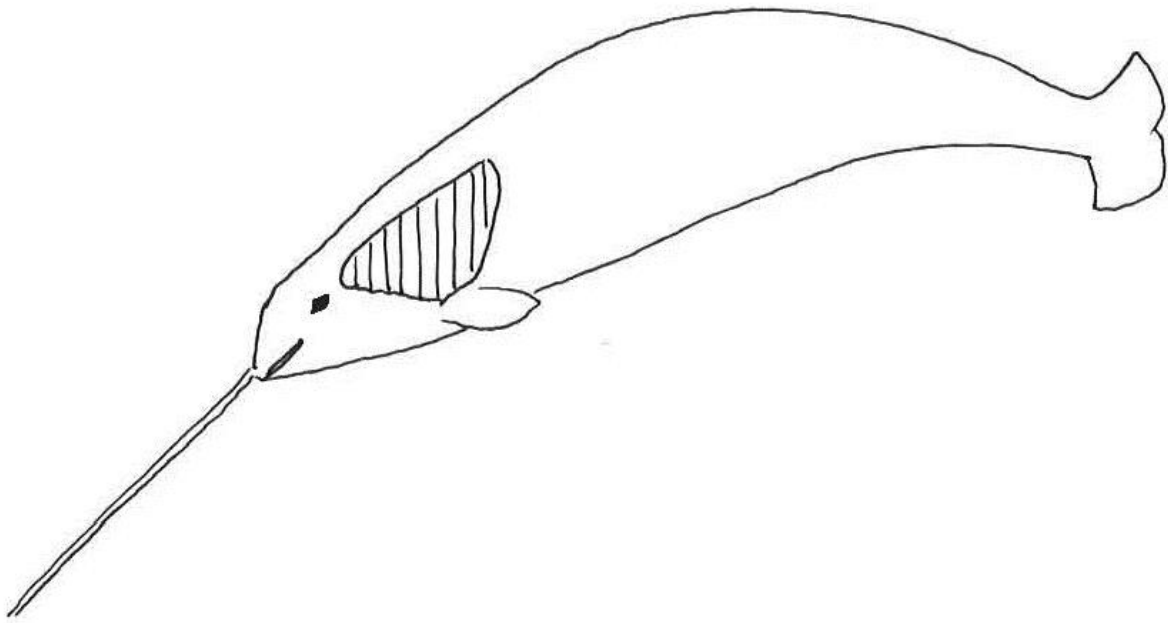
*Fig. 8. The marked area indicates the optimal target area of a pilot whale. From NAMMCO Expert Group Meeting to Assess the Hunting Methods for Small Cetaceans 15-17 November 2011.*

**KILLER WHALE, FIG. 9**

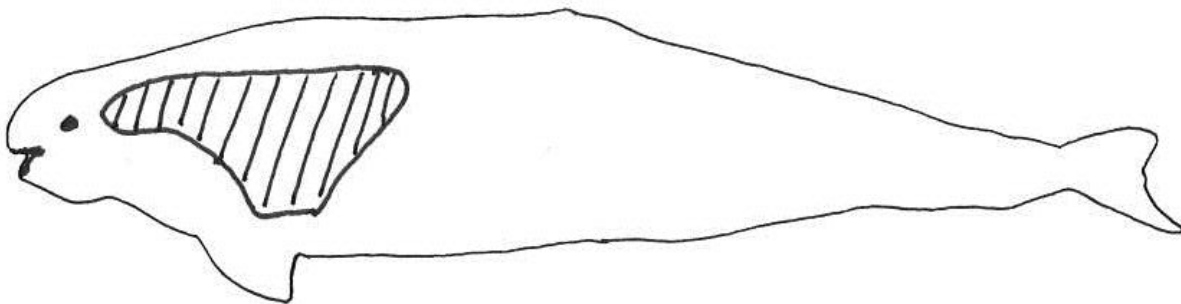


*Fig. 9. The marked area indicates the optimal target area of a killer whale. From NAMMCO Expert Group Meeting to Assess the Hunting Methods for Small Cetaceans 15-17 November 2011.*

**NARWHAL, FIG. 10 AND BELUGA, FIG. 11**



*Fig. 10. The marked area indicates the optimal target area of a narwhal. From NAMMCO Expert Group Meeting to Assess the Hunting Methods for Small Cetaceans 15-17 November 2011.*



*Fig. 11. The marked area indicates the optimal target area of beluga. From NAMMCO Expert Group Meeting to Assess the Hunting Methods for Small Cetaceans 15-17 November 2011.*