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- ప్రేశ్ సేధా ర్వరిస్, D.V.M., M.Sc., PhD ర్వినరిశ్రాశ్, రదశీ లో ఎరా రాశిగింత ప్రీలి ఎరా దిధారారిశిళిలిందా (École Nationale Vétérinaire de Toulouse, France), శరిరిశిళిగి ఓ ఒరి కారి దిధారారి శిళిలింది శిళిలింది (ర్దీశిలిగి కాశింది), శరిలి ప్రాంతి దిధానారి పారి ఉండింది ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి స్థారి స్థింగి ప్రాంతి స్థింగి ప్రాంతి స్థింగి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి స్థింగి ప్రాంతి ప్రాంతి ప్రాంతి స్థింగి స్థింగి స్థింగి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి స్థింగి స్థింగి స్థింగి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి ప్రాంతి స్థింగి ప్రాంతి స్థింగి స్థింగి

- ϽϹʹͽ S. ΗΔ°Ρ, PhD ΔϲʹͽϭϟϲͺϭʹͿϚ ϤͰ Ⴑ、ϨͰϲͺͺϭʹͿϚ ΔϼϲͺͺϭʹͿϚ ʹϧϷϷϞΔϭϭʹͿϚ, Ϲʹͼͺ ΓϤϲϲϧΓϷϹϷʹϿϭ ʹϧϷϷϞϧͽϹͰͺϷϷϷϞΔϲϷͽϟͰϟͽ 1980-ͽʹϻͼ ΔϟͰϔϷϟϽͽͽϭ ϤͰ ΛʹϲͺͺϷϽϭϷ ϷϥϹΓ ʹϧΔϨϲϚϟϤͽʹϻʹ϶Ͻͼ ϹϷϘϭ Gulf of St. Lawrence ϤͰ ϞͽႱϭ ϭϷϘͼʹͼͼΓϷϚ. 1985-ͽʹ϶ͻͿ, ͶϽϚϲϷͽϟͰϟͽ ϹΔϷϷϟΓϷ "ϥϚͶʹͽϚ ϷϥϹϨϹϚ, ΓϤϲϲϧΓϷϚ Ϲϭ϶ϥͽϲʹϷϚϚ." ϭϷϟϤͽΓϷϹϷʹϿϭ (ΓϤϲϲϧϭ), ͶϽϚͽʹͶͽϛ ϤͽϧϞϷͽϧϲϷͼ ΛϘʹϲϤϟϼϚ ϹΔϷϭ ϼϥʹ;ϤϭϳϚ ϭʹ;ϤϚͺΓϤϭϧϷϭͽʹϻͽͼ ΛϲϲͺϐͽϧϾϭ (ϟϗϲϟϲͼΓ).
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1. Malouf Report (1986)

Royal Commission on Seals and the Sealing Industry in Canada http://epe.lac-bac.gc.ca/100/200/301/pco-bcp/commissions-ef/malouf1986-ef/malouf1986-eng.htm

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FOREWORD

During the past 20 years the management of seals in Canada has changed from being viewed as essentially a technical matter that concerned a few fishermen on the east coast and a handful of scientists and fishery administrators, to a responsibility which has aroused considerable interest, and sometimes strong feelings, among a great many Canadians. Canada's approach to seals and sealing has also evoked public interest in a number of other countries and given rise to actions which have had important impacts on Canadian international trade and, on occasion, threatened Canada's image in other countries. The controversial nature and the complexity of many of the issues involved have created substantial difficulties for successive governments in their efforts to develop policies for the management and utilization of the seal populations which would be well balanced and acceptable to a wide spectrum of Canadian opinion.

The Royal Commission on Seals and the Sealing Industry in Canada Gas set up by the Government of Canada in August 1984. Its Mandate was to review all matters pertaining to seals and the sealing industry in Canada, to assemble relevant information, and to make recommendations on the implications of this information for the development of policy. The Royal Commission's considerations included social, economic and biological matters.

The Government considered that such an Inquiry would do much to clarify the situation for the general public both in Canada and in other concerned countries. It would provide an opportunity for all interested parties, Canadian and foreign, to put forward their views and to present any evidence they desired, and thus assist the Commission in drawing its conclusions and making its recommendations.

The Royal Commission has now completed its work, and the findings are presented in this Report. The first volume (Part I) describes the setting up of the Commission, the tasks with which it was faced, the way in which it attacked those tasks, the principal conclusions it has reached, and the recommendations which it is presenting to government on the basis of those conclusions. The subsequent parts of the Report contain detailed discussion of the issues that the Commission examined.

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2. Report of the Independent Veterinarians' Working Group (IVWG) on the Canadian Harp Seal Hunt (2005)

www.ivwgonline.org

Summary

The Independent Veterinarians' Working Group (IVWG) on the Canadian Harp Seal Hunt was formed in May 2005 to contribute to the promotion of animal welfare, and to minimize or eliminate animal suffering within the context of the hunt.

The Canadian harp seal hunt is a highly competitive activity. It is carried out by a large number of hunters, over an extensive area, in a short period of time, and monitored by a relatively small number of regulators.

An information meeting with sealers, industry representatives, government managers, scientists and the Working Group was held on May 26, 2005. The Group received information about seal population biology in the context of the hunt; the industry: past, present and future; sealing methods; and management and enforcement. At that meeting sealers asked the members of the working group to assist them in improving humane practice.

On May 27-28 the IVWG met in camera to discuss the hunt, and to develop recommendations regarding animal welfare. The Group determined that, if carried out by a trained and skilled individual, a three-step method of stunning, checking and bleeding seals can result in rapid, irreversible loss of consciousness, and death, and thus can be a humane process.

This report discusses a range of factors and issues related to the hunt, and makes eleven recommendations to the sealers, industry and regulators.

Specific recommendations:

• The three steps in the humane killing process -- stunning, checking that the skull is crushed (to ensure irreversible loss of consciousness or death), and bleeding -- should be carried out in sequence as rapidly as possible.

• Confirmation of irreversible loss of consciousness or death should be done by checking by palpation that the skull is crushed, rather than checking the absence of corneal (blink) reflex.

• A seal should not be shot in the water, or in any circumstance when it is possible the carcass cannot be recovered.

• Bleeding to achieve or ensure death, following stunning, is an important element in the threestep humane killing process. The Marine Mammal Regulations should be amended to replace the requirement for death to occur before bleeding, with a requirement for unconsciousness before bleeding.

General recommendations:

• Reducing the competitive nature of the hunt can result in improved animal welfare, better compliance and enforcement, and a safer work environment.

• The Department of Fisheries and Oceans Canada (DFO) should take steps to improve supervision, monitoring and enforcement, including the training of officers.

• Individuals should receive training before they are licensed as hunters, and periodic upgrading should be required.

• Sealers would benefit from strong professional associations that support and promote humane practices.

- Research and observation should be undertaken on a regular and systematic basis.
- Industry should continue to strive for full utilization of each seal killed.
- It is important for observers to work in collaboration with sealers.

The Working Group identified a number of areas in which research should be carried out. These include: possible refinement of the hakapik, bleed-out time, the swimming reflex and assessment of gunner accuracy. Research and observation effort should be increased at the Front.

The IVWG intends to continue working together toward the goal of promoting animal welfare by minimizing or eliminating suffering in the Canadian harp seal hunt. The Group will be represented at the Fall 2005 management forum, and hopes to observe the 2006 hunt.

3. European Food Safety Authority (EFSA) Report (2007)

Animal Welfare aspects of the killing and skinning of seals. Scientific Opinion of the Panel on Animal Health and Welfare – Adopted on 06 December 2007 (Question No EFSA-Q-2007-118) www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1178671319178.htm

Summary

In September 2006, the Council of Europe adopted a recommendation on seal hunting inviting member and observer states to ban all cruel seal hunting methods and to prohibit the stunning of animals with instruments such as hakapiks, bludgeons and guns. A written declaration was then adopted by the European Parliament requesting the Commission to draft a regulation to ban the import, export and sale of all harp and hooded seal products, whilst ensuring that this measure would not have an impact on traditional hunting (e.g. Inuit). The Commission undertook to make an assessment of the animal welfare aspects of the killing and skinning of seals and asked EFSA to issue a scientific opinion on this matter as well as to assess the most appropriate killing methods which reduce unnecessary pain, distress and suffering.

EFSA's Scientific Opinion was adopted by the Scientific Panel on Animal Health and Welfare (AHAW) on 6 December 2007. The Opinion critically evaluated the available evidence but little robust information was found that could be considered scientifically valid, robust and objective, and that had not been obtained without some form of bias, or there was a lack of independent verification. Nevertheless, it was possible to look objectively at the different methods used, their inherent advantages and disadvantages, their use in practice, and to draw some conclusions and recommendations. Ethical, social, cultural, economic and some relevant management aspects do not form part of this opinion (as they are outside EFSA's remit).

A stakeholders' consultation meeting was organised by EFSA on 4 October 2007 in Parma (Italy) to give an opportunity to interested parties to provide relevant scientific information and data. Twenty-five stakeholder organizations attended the meeting and the information provided was considered when drawing up the Scientific Opinion. In addition, following a general request for input to the EFSA Advisory Forum (AF Meeting, Berlin, 19 April 2007), the Norwegian Scientific Committee for Food Safety adopted a Scientific Opinion on the animal welfare aspects of the killing and skinning of seals in the Norwegian hunt, which was taken into consideration in EFSA's Scientific Opinion.

Seal hunting (killing and skinning) is commonly carried out around the Arctic, and in southern Africa. Around 750,000 seals of at least fifteen species are killed and skinned by humans for commercial purposes each year with Canada, Greenland and Namibia accounting for approximately 60% of all seals killed in 2006. The degree to which seal hunts are regulated by law and monitored by observers varies in different countries and range states. Moreover, reference to welfare aspects of killing of seals is not included in all current regulations. The killing of seals can be compared with the killing of wild, domesticated and captive animals; and the criteria used to assess whether or not the killing methods are humane could be similar.

However, no equivalent data to that obtained in the abattoir are available for seals (e.g. time to loss of consciousness, monitoring points for unconsciousness that can be applied in the field).

In practice, and in terms of welfare, the effectiveness of the killing methods used for seals vary according to the methods used, the skill of the operators, and the environmental conditions.

The Scientific Opinion concluded that seals are sentient mammals that can experience pain, distress, fear and other forms of suffering. It is pointed out that there are only a very limited number of studies published in peer-reviewed journals that can be used to evaluate, with a high

degree of certainty, the efficacy of the various killing methods employed in different seal hunts around the world. Other studies (e.g. by NGOs, industry linked groups) that highlight serious deficiencies and concerns in the hunts, may contain potentially unproven serious biases (see Chapter 4).

In relation to the killing methods, it was concluded that many seals can be, and are, killed rapidly and effectively without causing avoidable pain, distress, fear and other forms of suffering, using a variety of methods that aim to destroy sensory brain functions. However, there is strong evidence that, in practice, effective killing does not always occur but the degree to which it does not happen has been difficult to assess, partly because of a lack of objective data and partly because of the genuine differences in interpretation of the available data. When seals are hit or shot, but are not dead, they may have to be hit or shot again or may they be moved or skinned whilst conscious, resulting in avoidable pain, distress, fear and other forms of suffering. In addition, seals may be struck and lost with injuries that may cause suffering and affect their survival in the wild. If seals are dead, or have been bled-out after adequate stunning from which they do not recover consciousness, then skinning is not a welfare problem. In terms of monitoring each seal to ensure death or unconsciousness before bleeding-out it was concluded that it is not always carried out effectively, and that this will lead to seals feeling the skinning cuts before loss of consciousness and death due to bleeding-out. It was also concluded that bleeding-out stunned seals to ensure death is frequently not carried out in some hunts. Some methods of killing seals are inhumane e.g. trapping seals underwater until they die, and should not be used. Seal hunts that involve herding before slaughter can cause fear and other forms of suffering in addition to any avoidable pain at the time of killing. Seals that are herded but are not targeted to be killed may suffer fear and, if the suckling young are separated from their nursing dams, they may also experience hunger until they are reconnected.

Seals should be protected from acts that cause them avoidable pain, distress, fear and other forms of suffering. Death or irreversible unconsciousness should be rapidly ensured after an attempt at killing or stunning by effective monitoring, and before bleeding-out and skinning are started. Observing the extent of brain injury, the presence or absence of responses such as the corneal (blink) reflexes, body movements, as well as palpation of the skull could be used for assessing and monitoring effective destruction of the brain. However, the presence of an intact skull would not necessarily mean that the animal had not been rendered unconscious or was dead and, conversely, a partial fracture could be compatible with consciousness and sensibility.

Furthermore, some body movements may be voluntary or involuntary and can occur in dead or unconscious as well as conscious animals. Therefore, the establishment of reliable, practical and enforceable criteria to ensure that the degree of brain damage is such that an animal is irreversibly insensible or dead need to be found. In some countries training of sealers is mandatory and only hunters who pass a shooting proficiency test are allowed to kill seals.

However, little information recorded by independent observers exists on the effectiveness of the training programmes, as well as on ways in which hunts can be monitored using criteria that define avoidable pain, distress and fear. As a way to help ensure the humane killing of seals, the 'three-step' method of effective hitting/shooting, effective monitoring, and effective bleeding-out, as well as a fourth step of effective implementation should be recommended.

Key words: seal welfare, stunning, killing, bleeding, skinning, seal hunting, consciousness, unconsciousness.

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