[*Text*]

STUDIES OF MARINE MAMMAL POPULATION

Question No. 3,483—**Mr. Halliday:**

Were any studies done which established a scientific basis for the contention that an increase in marine mammal population would damage over-all fish production and, if so, what were the names and who were the authors of the studies?

Hon. Roméo LeBlanc (Minister of Fisheries and Oceans): A scientific consultation on marine mammals convened by the United Nations Environment Program (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) in Bergen, Norway in 1976 agreed that interactions of various kinds between marine mammals and fisheries were significantly affecting some sea fisheries; mostly adversely, apparently. A subsequent review of this matter by the IUCN interim committee on marine mammals led to the holding of a workshop on marine mammal/fishery interactions held at La Jolla, California in 1981.

This workshop, attended by eminent specialists from the U.S.A., Canada, Great Britain, Italy, Australia, Norway and the U.S.S.R., considered several aspects of the biotic and other interactions between marine mammals and fisheries, with emphasis on fisheries of commercial importance.

Studies and case histories considered under those aspects which would result in damage to over-all fish production are listed below:

Loss of fish production through damage to the catch, to gear, or through interference with the catching efficiency of fishing gear:

Losses to Canadian Atlantic herring and cod production attributable to whales, were reported on by E. D. Mitchell, P. F. Brodie, J. Lien, B. R. Mate, also in: Mate, Bruce R. 1980.—NTIS report to the Marine Mammal Commission PB80-175144, 48pp.

Losses and net damage on the west coast due to sea lions were reported in:

Matkin and Fay. 1980. Report to the Marine Mammal Commission 78/07. 71 pp.

Losses and gear damage attributable to harbour seals, harp seals and grey seals on the American west coast and on both sides of the Atlantic were reported on by:

Everitt et al, 1980. Report of the Washington Department of Game. 120 pp.

Øritsland, T. and A. Bjorge. Seals on the Norwegian coast from Stadt to Lofoten and their interactions with inshore fisheries.

Ultang, Ø. Harp seals in the Barents Sea (White Sea harp seals) and the fishery for cod.

Miller, D. J. 1981. Marine mammal fisheries interaction study. Annual Report 1979-80. Southwest Fisheries Center, La Jolla, California.

Mate (1980) op. cit.

Harwood J., and A. R. Hiby. Competition between British Grey seals and fisheries.

Mansfield and Beck. 1977. The grey seal in eastern Canada Technical Report No. 704, Fisheries and Marine Service, Environment Canada.

Schaughnessy, P. D. Interactions between fisheries and Cape fur seals in southern Africa.

De Master, D. P., J. R. Henderson and J. C. Coe. Conflicts between marine mammals off the coast of California.

2. Loss of fish production through predatory interaction is considered in several of the foregoing studies and also in:

Beverton, R. J. H. The grey seal/fishery problem in the U. K.: science in the cross-fire.

Bowen, W. D. Harp seals and their foods: how do they interact?

Order Paper Questions

Greenwood, J. J. D. Grey seals in Scotland: the management controversy.

Parrish, B. B. 1979. Notes on the scientific basis of the fisheries case. Appendix 5 in Lister-Key, J. 1979. Seal cull, the grey seal controversy. Penguin Books Ltd.

Parrish, B. B. and W. M. Shearer. 1977. Effects of seals on fisheries. ICES CM 1977/M:14.

International Council for the Exploration of the Sea 1978. ICES working group on grey seals, second report. ICES CM 1978/N:3.

International Council for the Exploration of the Sea. ICES ad hoc working group on interaction between grey seal populations ICNAF Res. Doc. 76/X/125 Sergeant, D. E. 1973. Feeding, growth and productivity of Northwest Atlantic harp seals (Pagophilus groenlandicus) J. Fish. Res. Bd. Can. 30: 17-29.

Harwood, J.—Fisheries conflicts and the Pacific walrus population.

Lowry, L. P. and K. J. Frost. Feeding and trophic relationships of phocid seals and walruses in the eastern Bering Sea and: Frost K. J. and L. F. Lowry. Foods and trophic relationships of cetaceans in the Bering Sea.

The eastern Bering sea shelf: Oceanography and resources. D. W. Hood., editor.

Hiby A. R. and J. Harwood.—Killer whales and herring in the North Atlantic.

Kasuya T. and Y. Izumizawa. 1981. The fishery—dolphin conflict in the Iki Island area of Japan. Marine Mammal Commission Report No. MMC-80/02. Washington, D.C.

Holt, Susan. Economic impacts of sea otter migration.

[*English*]

Madam Speaker: The question enumerated by the parliamentary secretary has been answered.

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QUESTIONS PASSED AS ORDERS FOR RETURNS

Mr. David Smith (Parliamentary Secretary to President of the Privy Council): Madam Speaker, if questions Nos. 1,795 and 3,197 could be made orders for returns, these returns would be tabled immediately.

Madam Speaker: Is it the pleasure of the House that questions Nos. 1,795 and 3,197 be deemed to have been made orders for returns?

Some hon. Members: Agreed.

[*Text*]

GRANTS TO PRIVATE ORGANIZATIONS

Question No. 1,795—**Mr. McKenzie:**

1. Are private organizations receiving federal grants for research and development into alternate sources of energy and, if so (a) how many (b) which organizations (c) what are the types of programs currently being pursued by the organizations (d) what was the amount of each grant (e) what was the total amount of grants awarded for each year since such funding began?

2. Is the Department of Energy, Mines and Resources involved in programs for the development of alternate sources of energy and, if so, what are the names and types of programs?

3. How many other ministries give grants for research and development into alternate sources of energy and what is the total amount?

4. Were steps taken by the government to implement the findings of (a) the department (b) other organizations for research into alternate sources of energy and, if so, in each case, what were such steps?

Return tabled.