

- (4) expenditures to be paid out of moneys appropriated by Parliament or received through donation or bequest for the purposes of the Act;
- (5) designation of the Canadian Wildlife Service as the agency of the Government of Canada responsible for carrying out activities subject to the Act.

#### MIGRATORY-BIRD PROGRAMME

Major activities basic to an improvement of our management of migratory birds are as follows:

##### (1) *Preservation of waterfowl habitat*

(a) by entering into agreements with landowners whereby they agree not to drain or fill the wetlands which they own, or burn the vegetation around them, in return for a payment based on the value of the surrounding land discounted at five per cent for a 20-year period... A ten-year programme, beginning in 1967-68, costing \$5.1 million a year, is proposed.

(b) By purchase or long-term lease. This procedure is most practical for the maintenance of large marshes of which a number of landowners each own a part. Large marshes are important not only as breeding areas but also as areas where the birds may winter or rest during migration. They are also the areas where much of the hunting takes place.... We should begin to acquire those larger wetland areas in 1965-66. An annual expenditure of \$400,000 for five years thereafter is proposed....

##### (2) *An intensification of waterfowl research, including:*

(a) Inauguration of an annual kill survey. A federal migratory-bird hunting licence is required to provide a means of obtaining names and addresses of all migratory-bird hunters so that from among that group a sample may be selected each year for a survey of the numbers and kinds of migratory birds harvested. We can no longer properly manage the resource without an accurate measure of our use of it....

(b) Gradual assumption of responsibility for annual aerial surveys of waterfowl now conducted in Canada by the United States to provide the information needed for setting hunting regulations in both countries... Annual cost would approximate \$100,000.

(c) A modest increase in the amount of basic research on factors affecting the abundance, distribution and behaviour of the important species of migratory birds and on the attributes of high-quality habitat. Over a five-year period, the cost of this work would be increased from \$185,000 to \$500,000 a year.

#### GENERAL WILDLIFE RESEARCH

It seems apparent that some research related to other wildlife may advantageously be supported by the Federal Government. If the proposed federal wildlife legislation becomes law, other sorts of research may be suggested by the provinces as proper areas for

federal support but, for the moment, the following are proposed:

- (1) A systematic assessment of the occurrence and significance of diseases and parasites affecting Canadian wildlife populations (some of which indirectly affect humans as well).
- (2) Determination of the effects of pesticide-use programmes on wildlife populations.
- (3) Maintenance of a central registry of information on pesticides, diseases, and parasites as they relate to wildlife.
- (4) Support of the training of wildlife biologists (now in short supply) and aid to university research in wildlife biology by:
  - (a) providing for contracts with universities in amounts totalling up to \$50,000 a year;
  - (b) increasing funds available for scholarships (from present \$3,600 to about \$20,000 a year).

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#### DRB ATLANTIC RESEARCH SHIP

Approval has been given for the construction of a large research ship for operation in the Atlantic Ocean by the Defence Research Board's Naval Research Establishment, Dartmouth, Nova Scotia. It is expected that tenders will be called this autumn and that construction will begin next year. Completion is scheduled for 1968; the costs are estimated at \$7 million.

The vessel's chief purpose will be to carry out oceanographic research in its bearing on anti-submarine warfare. It will also contribute significantly to general scientific knowledge of the waters off Canada's east coast.

The AGOR 172, as it is now called, will be larger than the CNAV "Endeavour", which came into service on the west coast in March. It will be 17 feet longer than the 236-foot "Endeavour", will draw approximately 15 feet of water and will have a displacement of 2,080 tons compared to 1,564 for the "Endeavour".

#### NOISELESS DESIGN

Because most of its work will be concerned with underwater acoustics, particular care will be taken in the design to make the new vessel as quiet as possible. The hull will be constructed to minimize water noise, and machinery, including the generators supplying power for the electric propulsion motors, are provided with resilient mounting to cut hull vibration and underwater noise to a minimum.

Research facilities aboard AGOR 172 will include three laboratories, a scientific plotting room, a handling room for the explosives used in underwater acoustic research, as well as a wide variety of special equipment.

Anti-roll tanks will facilitate precise scientific measurements and operations from a helicopter landing platform astern. The hull will be reinforced to permit operations in ice.

The vessel will be manned by a crew of 36 civilian officers and men, who will support the activities of up to 15 scientists.