

science

Study of whale noises may lead to discourse

by Sue Fberlein

It might be possible for men to have intelligent communication with whales if humans can learn about how whales communicate.

A device with which man can communicate with the mammals is being investigated by Dr. Peter Beamish. He discussed this and the means which whales use to communicate with each other at a seminar sponsored by the Department of Zoology, on Monday.

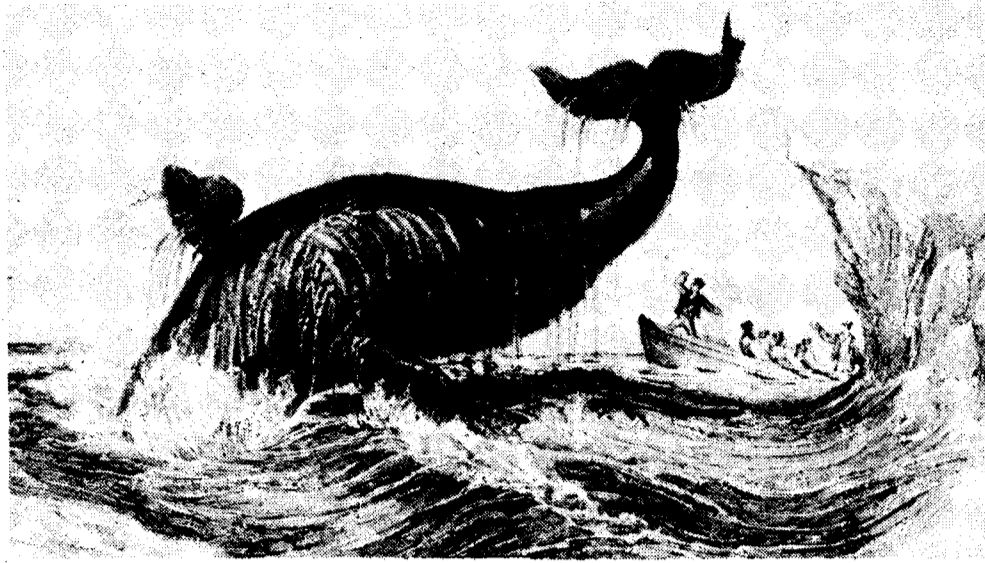
Whales depend on audio and sub-audio sounds to exchange information about food sources and to indicate that they are hungry.

Researchers working with Beamish have found that by recording and broadcasting certain sounds made by whales they can attract these mammals. Some whales have closely approached the sound transmitters and apparently attempted to answer back.

An interesting area of study is the whale song, thought to be produced by males attempting to attract females during mating season. The song is about 20 minutes long and contains 40 to 45 repeated phrases. The song evolves from year to year, due to the competitive nature of the singing, said Beamish. Each whale attempts to make his song more complex in order to gain a mating advantage.

Another type of sound made by whales is called a "20 hertz monster." This is a song loud enough to travel 1000 miles under water.

Before researchers can conclude that this sound actually represents a form of long distance communication however, it will be necessary to show that another whale can hear and



Atlantic great whales rescued

Meeting whales face-to-face may not be your idea of a spiritual encounter.

But for Dr. David Beamish, a well-known Canadian whale scientist, it's "one of the most rewarding experiences of a lifetime."

Beamish told about 100 spectators Sunday about his *Ocean Contact* program during a Whale Society of Edmonton seminar titled "Rescuing Atlantic Great Whales."

Almost 20 great whales are rescued from the nets of Newfoundland commercial fishing vessels every summer, Beamish said. The whales move inland because of depleted food supplies, he said.

Dozens of whales are lost every summer to entrapment, according to Beamish. Of these, it is almost always the younger, more naive whales that

become entangled in the nets.

Freeing the entrapped whales is hazardous, said Beamish. Divers and small boat-goers work for long periods of time cutting away the net around the sometimes struggling 70-ton whales.

Beamish used slides and a film to illustrate the rescue.

A sonic device to warn whales of fishermen's nets is another of Beamish's projects. The problem, he said, is finding a universal signal which will repel all species of whales.

Ocean Contact, Beamish's vacation package, arranges human-whale "contact experiences" which allow people to meet whales first-hand. Fresh seafood and enormous quantities of beer are also promised.

More information is available from the Whale Society of Edmonton, P.O. Box 476. Substation 11, Edmonton.

respond to the 20 hertz monster. Beamish said he hopes to investigate this phenomenon by placing two whales in separate fjords in Newfoundland and monitoring their behaviour.

Beamish said he does not believe that whales use language as we understand the term. They are capable of transmitting large amounts of information very rapidly, in a manner which is not entirely understood, he said.

An example of a complex message sent in a mystical manner is one whale's communication with another. He can do this at some distance by slapping his tail on the water surface. The slap actually produces two effects; a water wave which travels at one mile per second and an air wave which travels at one-quarter mile per second. By comparing the times at which the sounds are received, the recipient whale determines the location of the sender.

One anticipated result of Beamish's research is the development of techniques to avoid the entrapment of whales in fishing nets, a problem that causes the deaths of several of the mammals each year. Researchers are presently working on devices to attach to nets which transmit a warning sound to approaching whales. Beamish hopes to have some such devices working by this summer.

Beamish is director of Ceta-Research/Rescue, a Newfoundland based organization dedicated to the study and rescue of whales.

Column will resume

The regular science column, *Relative Perspectives*, could not be printed this week because of a shortage of space. The column will return March 6, beginning a series on what went wrong at Three Mile Island.

The University of Alberta 1980

Spring Session & Summer Session

The University of Alberta is planning to offer a number of degree credit courses on campus in the 1980 Spring Session and the 1980 Summer Session. Courses are planned for the following areas although not all courses will be offered in both sessions. Students should consult the 1980-81 Special Sessions Calendar before registering.

Accounting	Engineering	Physical Education
Agricultural Economics	English	Philosophy
Animal Science	Family Studies	Physiology
Anthropology	Foods & Nutrition	Political Science
Art & Design	Food Science	Psychology
Bacteriology	Finance	Recreation Administration
Biology	Forest Science	Religious Studies
Botany	French	Russian
Business	Genetics	Sociology
Canadian French	Geography	Soil Science
Cartography	Geology	Speech Pathology & Audiology
Chemistry	History	Spanish
Christian Theology	Interdisciplinary Studies	Statistics
Civic Engineering	Latin	Statistics
Classics	Law	Ukrainian
Clothing & Textiles	Library Science	Zoology
Computing Science	Linguistics	
Drama	Managerial Economics	
Economics	Management Science	
Education — Administration	Marketing	
Education — Adult	Mathematics	
Education — Audio Visual	Movement Education	
Education — Curriculum & Instruction	Music	
Education — Foundations	Nursing	
Education — Industrial Arts	Occupational Therapy	
Education — Practicum	Organizational Analysis	
Education — Psychology	Organizational Theory	

Spring Session 1980 is scheduled as follows:

Full Session: May 5 — June 13

1st Term: May 5 — May 23 with classes held on Saturday May 10 in lieu of the Victoria Holiday (May 19)

2nd Term: May 26 — June 13

Students who have never attended the University of Alberta, must submit an Application for Admission form along with complete and official transcripts of academic records by **March 3**. The Registration Form must be returned to the students' Faculty Office before the deadline date of **April 1**. As registration in some courses are limited students are urged to submit all appropriate forms as early as possible.

Summer Session 1980 is scheduled as follows:

Full Session: July 7 — August 15

1st Term: July 7 — July 25

2nd Term: July 28 — August 15 with classes held on Saturday August 9 in lieu of the Civic Holiday (August 4)

Students who have never attended the University of Alberta, must submit an Application for Admission form along with complete and official transcripts of academic records by **April 1**. The Registration form must be returned to the students' Faculty Office before the deadline date of **April 30**. As registration in some courses are limited students are urged to submit all appropriate forms as early as possible.

To obtain a Calendar and Registration Forms write the **OFFICE OF THE REGISTRAR**, University of Alberta, or phone 432-3113.

WATCH FOR Students' Rights Week

March 4-7

March 5 - Accessibility Theatre CAB: 11-1

March 7 - Education, CAB, HUB, SUB

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