

## Editorial

At last it would appear that the EEC Regulations for the issuing of import permits for live cetaceans has reached its final stage of discussion. The much adapted draft will be put before the July meeting for final promulgation. Much of the English in the document is vague, and the use of such terms as 'adequate', 'satisfaction' or 'slight', will lead to endless differences in interpretation. Indeed even where definite limits are proposed, as in the case of the sound limits allowable, a complete misunderstanding of the physics involved makes the figures meaningless. For example, no mention is made as to how far from the sound the approved level must be measured or not exceeded. Indeed the lower end of the spectrum might even be below the animal's own perception! It is surprising, at least to this author, that dolphins in the wild commonly swim very close to the propellers of ships for long periods under conditions where the sound levels are astronomically higher than in these regulations. Even if they do not chose to be harrassed by this noise level, they certainly do not seem deterred by long subjection to it!

To some of us much of the legislation arising out of Brussels fits into the same category, i.e. the person drafting the rules appears to have no knowledge of what he, or she, means by the language used but, once enacted, possibly following a vote by a minority of disinterested representatives attending that particular meeting, all signatories of the Treaty of Rome, and therefore all members of the EEC, are bound to enact their own legislation, the standards in which must be at least as severe as those in the EEC directive.

Apart from the details of pool dimensions, other pertinent clauses, affecting the public display of dolphins, include the performance of shows by 'non-identical groups of animals' and the continuance of the same level of shows during the periods out of season, when the establishment is closed, as take place during the rest of the year.

Unfortunately, the linking of all species of dolphins, other than *Tursiops truncatus*, together "in the interest of conservation" makes a nonsense, with common and unthreatened species being accorded the same level of protection as highly endangered species such as *Lipotes vexillifer*.

On another subject, it was very interesting to see in print, at last, a comparison, by Deborah Duffield and Randall Wells, of the longevity of a freeliving group of dolphins in the wild when compared with animals in captivity. The authors make the point that the studied population (in Sarasota Bay, Florida) may not be typical of all other animals but, as it is the only one for which comparative demographic data is presently available, it is encouraging to see similarities with data for the captive animal. Indeed, in this study, the reproductive parameters in the captive population exceed those of the wild population.

V. J. A. Manton

## Erratum

In Volume 16, no. 3, an acknowledgement was omitted from Figure 1 on page 146 of the article by Brouwers, Kamminga, Klooswijk and Terry on "The use of computed tomography in cetacean research". The photograph was indeed taken from the reference quoted—Green, R. F., Ridgway, S. H. and Evans, W. E. (1980) In: Animal Sonar Systems, ed. R. G. Busnel and J. F. Fish, Plenum Press, New York: 204. The authors correctly acknowledged this in an earlier draft of the paper and this Editor must take full responsibility for its omission in the final draft. He offers his full and unequivocal apologies to both the authors of this article and the authors of the book from which the photograph was taken.

V. J. A. Manton

## News and Views

*The Siren*, The United Nations Environment Programme Report, lists a number of forthcoming meetings on conservation, the subjects including:—

- Coordination of the Marine Mammal Action Plan
- The Mediterranean Action Plan
- A Symposium on Coastal Zone Management
- An Intergovernmental Meeting on sea level rise in the South Pacific, and
- A Workshop to be held in Seoul in July on the Yellow and East China Seas.

*Beluga* records that the number of beached Beluga carcasses recovered in the Quebec portion of the S Lawrence river in 1989 (20) was similar to the number recovered in 1988 (21) but that, however, only one of these was a calf. During the period 1983–1988 the average number of calf carcasses recovered averaged 20% of the total. The article wonders if this was related to the finding, in 63% of the females, that the cervix was blocked by a thick mass of mucus. In previous years this was only found in 18% of non-pregnant animals. Regret is expressed that the study of Beluga carcasses will end in 1991 but a final report will be issued for the period 1988–1991.

*The Federal Register* of 26 November, in the States, listed the Steller sea lion as a threatened species. The populations on certain rookeries have declined by as much as 63% since 1985 and by 82% since 1960. The factors contributing to this decline include: alteration of habitat, over-utilization from fishing, scientific and/or educational purposes, disease or predation, inadequate regulatory enforcement and other natural and man-made factors. NMFS has adopted the following measures: the prohibition of any shooting within 100 yards of the animals, a 3 mile buffer zone to be established around the principal rookeries, the establishment and monitoring of incidental kill quotas (less than 675/year), the protection of 'critical habitat areas and 'conservation measures'. Further details may be obtained from Herbert Kaufman, Protected Resources and Habitat Programs, NMFS, 1335 East-West Highway, Silver Springs, Maryland 20910, USA.

*Dolphin Data Base News*, Volume 2, no. 6, summarizes the unusually large mass die-offs of marine mammals in the last 2–3 years. Harbour and Grey seals along the European coastline, Steller sea

lions in the North Pacific and coastal bottlenose dolphins in the Atlantic. More recently, in the Gulf of Mexico, approximately 6 times more strandings of bottlenose dolphins are reported to have taken place than ever observed (or recorded) before. Although satisfactory explanations of every case are not available, many consider environmental pollution to be at least a contributory, if not a causative factor in most cases.

*Marine Mammal Science*, Volume 7, no. 1, includes descriptions of a (new?) species of beaked whale, the occurrence of the southern Right whale off Namibia, DNA fingerprinting of a Killer whale in a paternity test case, the accuracy of age determination in the Grey seal, modelling age-specific mortality in marine mammal populations, the cutaneous ridges in Odontocetes and the interaction between Kuri seals and salmon trap net fishery off Japan. The discovery of antibodies to canine distemper virus in crabeater and leopard seals might be of concern, except that the virus itself is distinct from that which caused disease in Harbour seals in 1988–89.

*AAZV Proceedings* of the October 1990 Texas meeting, includes papers on The Handling of Captive Marine Mammals in Mexico and Latin America, the Management of Gastro-Intestinal problems in the Orinoco River dolphin, a 15 year study of the Amazonian Manatee and the interpretation of the Tuberculin Test in Pinnipeds.

*Nature*, Volume 348 of 1 November 1990, describes the microscopic lesions in animals affected by the die-off of striped dolphins in the Mediterranean Sea. These changes are compared to those found in common seals and porpoises during the northern European seal morbillivirus epizootic in 1988. The virus is being studied to compare it with the seal virus and the authors warn of the dangers to the Mediterranean Monk seal. (See page 63 of this issue—Ed.)

*The Dolphin Project* calls for a boycott of all Anheuser-Busch products until Sea World Marine Parks (which they own or control) cease the capture of all cetacea and improve the quality of life for their dolphins by abolishing all petting feeding pools. They comment that the shallowness of some petting

pools "can cause stress". (How about the reported shallowness of the 'dolphin sanctuary' in the Turks and Caicos Islands?) In the States, the Dolphin Protection Consumer Information Act of 1990 requires warning labels to be printed on all cans of tuna containing fish caught in a way that harms dolphins. (At least two superstores in the UK already voluntarily mark their tuna as being caught only in a 'dolphin friendly way').

*The Cetacean Specialist Group Newsletter* number 6, highlighted the situation vis-a-vis gillnet fishing. There is some evidence that the fleet of driftnetters from the Taiwan highseas fleet, displaced from the Pacific by the recent controversies, are now moving into the Atlantic. It points out that the UN called for a world wide moratorium on high seas drift net fishing after 30 June 1992. Taiwan is reported to have agreed to abide by this resolution although it is not a member of the United Nations. The US policy statement on large scale pelagic drift nets is quoted. The US and Canadian Governments produced the results of a recent survey, covering however only 2.5% of the Asian fleet. *Minimum* mortalities between June and December 1989 were calculated as:

Salmonids—79;	Northern Fur seals—208;
Dolphins and Porpoises—	914;
Seabirds—9,662.	Marine Turtles—22;

If these figures apply for the remaining 97.5% of the fleet, the total damage appears to be appalling.

Italy has now banned the use of drift gillnets in Italian waters.

The Newsletter also highlights 45 projects the Captive Specialist Group considers crucial to cetacean conservation. They cover many examples of by-catches—Vaquitas in the Gulf of California; the use of small cetaceans as crab bait in South America; Franciscana in Argentina; incidental kills in Brazil; conservation of Brazilian river dolphins; assessment of the bottlenose dolphin population off South Africa; assess the level of incidental kills in West Africa and gillnet kills in Sri Lanka; carry out work on the Ganges river dolphin and the Baiji in China and take steps to increase the consideration of river faunas worldwide. Quite a tall order as you can appreciate. One small gleam of improvement is the setting up of a whale sanctuary round the waters of the Galapagos by Ecuador. In Japan however, Dall's porpoise is in trouble again. In 1988 the take had risen to 41,455 individuals—and this out of an estimated population of 105,000+—obviously NOT a sustainable level of take. The take was reduced to 29,000 in 1989 and the IWC urged that takes be reduced to pre-1986 levels while assessment of the situation took place.

In 1990 the IWC voted to take a positive attitude to small cetaceans, which may ultimately lead to

this organization becoming responsible for small cetaceans as well as the larger species which they cover at the moment.

Pressure from several sources has resulted in a reduction of dolphin catches incidental to tuna fishing techniques. It is hoped that the 1990 level of takes will be below the 1989 figures of 100,000.

Readers interested in education might like to be reminded that Leandro Stanzani has produced, and is happy to sell, sets of 12 colour posters dealing with cetacean conservation. These may be obtained with the texts in either Italian, English, French, German or Spanish. For details contact Leandro at Fondazione Cetacea, Viale Milano 63, 47036 Riccione, Italy.

*Journal of Zoology* 223 part 2, of February 1991, contains an article by Kovacs, Lavigne and Innes which shows that harp seal females contribute less of their body mass (circa 28%) than most other Phocid species during rearing. The resultant energy savings may be important for females of an ice-breeding species which migrate long distances shortly after weaning their pups.

Part 3, of March 1991 prints the article by J. J. Reilly and M. A. Fedak which shows that three male free-living common seals, measured during the mating season, were in negative energy balance. Using doubly-labelled water, they found that the daily energy expenditure was 52.5 MJ—six times greater than the basal metabolic rate predicted from the allometric equation of Kleiber.

Part 4 shows the results obtained by Thompson, Miller, Diack and Boyle, using faecal analysis, of seasonal variations in the diet of common seals. This confirms the opinion that this species is an ideal opportunistic feeder, making use of the most abundant prey at that location.

*Soundings* Volume 16, no. 1, prints a major article drawing attention to the negative effect that commercial fishing has on the conservation of the Steller sea lion. It quotes calculations that the world's population is in the order of some 60,000+ animals (see the comment in the Federal Register quoted above). Provided effective measures are introduced in the near future, the writers feel it is still possible for the species to survive and indeed prosper. Eating about 6% of their body weight per day, the animals are opportunistic feeders, taking food mainly at night. Although some salmon are indeed taken, they never form a major component of the diet. Indeed it is pointed out that this species has co-existed, with what is now regarded as a commercially valuable fish species, for millions of years.

Number 2 prints the article, given at the 1990 IMATA Conference in Chicago, by Deborah

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Duffield and Randall Wells, and referred to in the Editorial, entitled "Bottlenose dolphins: Comparison of Census Data from dolphins in captivity with a wild population". This follows the paper by Wells and Scott entitled "Estimating bottlenose dolphin population parameters from individual identification and capture-release techniques". This

was published (1990) in *Individual recognition of Cetaceans: Use of Photo-Identification and Other Techniques to Estimate Population Parameters*. Eds P. S. Hammond, S. A. Mizroch and G. P. Donovan, as part of the Report of the International Whaling Commission, Special Issue 12, Cambridge, UK, pp. 407-415.

### Professor Robert Lowry Turner M.B.Ch.B.M.D., D.Sc., F.R.G.Path



Professor 'Bob' Turner, Emeritus Professor of Research in Medicine at the University of Bradford, died just before Christmas 1990, following an operation for cancer. He had suffered ill health for a number of years.

Bob Turner, as he was known to everyone, was a native of Northern Ireland and qualified in medicine at the Queen's University, Belfast in 1947. His distinguished career in pathology began at the University of Bradford, took him to Sheffield and

then Manchester Universities and finally back to Bradford as head of a research oncology unit and Professor of Research in Medicine. His research interests were wide and had a strong comparative component. He worked mainly in the fields of Molecular Biology, particularly of connective tissues and blood, and in Cancer Chemotherapy, where he pioneered the successful chemotherapy of solid tumours and the development of cytotoxic drugs for the treatment of leukaemia. He enjoyed supervising a wide range of PhD students and lectured widely in Britain and overseas. The latter part of his career was particularly devoted to the treatment of cancer patients, and he took especial interest in the relief of pain in the terminally ill.

It was also in the last decade of his life that he was really to become interested in animal pathology, although he had autopsied a black rhinoceros as long ago as 1956! Bob undertook the study of haematology and pathology of marine mammals as consultant to the International Zoo Veterinary Group and made outstanding and unique observations particularly in the field of cetacean haematology, many of which were communicated to the EAAM at annual meetings, which he attended regularly and with great enthusiasm.

Bob was a person both demanding and generous at the same time. Scientists with this encyclopaedic knowledge, humour and caring nature are very rare nowadays—he is greatly missed by his friends and colleagues and we extend our sympathies to his devoted wife Mary.

Andrew G. Greenwood