

Editorial

I could have hoped that this issue, my last as Editor, would have been not only a memorable number in itself, but also free of mistakes. It is therefore with some chagrin that I have to admit to a misinterpretation in the previous issue (17.2, p. 63) which I hasten to amend by printing the author's full precis below.

This should not detract from the articles in this issue which, after the debacle of the release, and subsequent loss (only temporary or to man's eyes we hope) of the three ex-UK dolphins, from the so-called 'Rest and Retirement Home' on the Turks and Caicos Islands, make topical, pertinent and, I hope, interesting reading. The detailed accounts of Peter Bloom and his team stop short of recording the serious injuries recently suffered by 'Freddy'—caused by the propellers of a carelessly piloted motor boat—and we look forward to future articles on the development of the healing process in the dirty and cold waters off Amble (*Aquatic Mammals*, 13.3, 96 already gives an interesting comparison in warmer waters). Alejandro Acevedo's account of the interactions between dolphins and boats and the comments of Alison Green on the attempts to set up a feeding station are all relevant to further attempts to release dolphins into the wild and, in my opinion, should be required reading before any further such schemes are implemented.

Readers should note that we continue in our efforts to publish on a wide spectrum of subjects—as the articles by Alison Seely, Gregory Silber and our old friend Ron Kastelein show. It is fascinating to read, from Nelio Barros, that we are still analysing stomach contents in our efforts to learn more about the, admittedly already known, catholic tastes in fish of the animals in which we are interested. Gregory Silber adds further to our knowledge of the many and varied acoustic signals emitted by our animals.

Finally, I sign off seven very interesting and enjoyable years as Editor by wishing my successor every success in maintaining 'our' Journal, which I am confident not only will he do successfully, but will go on to improve it.

VALETE

Victor Manton

Erratum

"The Review of Dolphinarium" (M. Klinowska and S. Brown, Dept of the Environment, London, 1986) concluded that annual survivorship rates (ASR) in captive bottlenose dolphins and killer whales were not very different from those in the wild. The simple calculation methods used were (rightly) criticised, but no other analyses of this data could provide any different conclusions.

Recent reports, using much larger data bases and more sophisticated analyses indicate that, for bottlenose dolphins, ASR for animals older than one year are very similar in captivity (0.95 for wild-caught; 0.97 for captive-born—De Master and Drevenak, *Marine Mammal Science* 4(4): 279–311, 1988) and in the wild (0.9531–0.9689, Wells and Scott, *Reports of the International Whaling Commission Special Issue* 12: 407–415, 1990). The ASR for young of the year (0.61 in captivity; maximum 0.7327–0.8733 in the wild) appear to be different, but without the confidence interval for the captive estimate it is not possible to know whether they really are statistically different or not. Further, the wild first year maximum ASR is likely to be an overestimate of the true rate because it is not possible to be sure that all wild births have been reported. I estimate that it would only require approximately one wild birth to be missed every two years for the wild and captive rates to be indistinguishable.

Olesiuk *et al.* (*Reports of the International Whaling Commission Special Issue* 12: 209–243, 1990), taking account of all the difficulties, give a provisional neonatal (to 0.5 years) survivorship rate of 57% for wild killer whales. An independent analysis by Bain in the same volume gives 42%. It is not possible to make definite comparisons with DeMaster and Drevenak's results for captives, because the calculations have been made in very different ways, the results are given differently, no age specific analysis was made and all records of birth were included in their overall figure. Because live-capture operations usually take small (i.e. young) animals and the first killer whale was brought into captivity in 1964, giving a maximum history of killer whale keeping of 26 years, the captive killer whale population is likely to be biased towards the younger age classes in comparison with age distribution in the wild population. For both these reasons a lower ASR is to be expected in the total

captive population than in the adult portion of the wild population (males 0.961 [0.9544–0.9686]; females 0.9886 [0.9852–0.99188]) (Olesiuk *et al.*). DeMaster and Drevenak's 0.93 (0.90–0.96) for overall captive killer whale ASR needs to be viewed in this context.

It must now be accepted that gross differences between annual survivorship in the wild and in captivity do not exist. Therefore headlines like "Dying to entertain us" or statements that "captive animals often live only a fraction of their normal life-span out in the wild" cannot be justified.

Book Review

WHALES AND DOLPHINS OF NEW ZEALAND AND AUSTRALIA: AN IDENTIFICATION GUIDE. Alan N. Baker 1990. 2nd Edition. Victoria University Press, New Zealand. ISBN 0-86473-099-3. Price \$ Australian 17.75.

The long countries of Australia and New Zealand and their surrounding waters are host to a remarkably rich cetacean fauna of some 45 species. This small book is intended as a field guide for the casual observer at sea or on the beach, and fulfils that role to a certain extent. Short introductory sections cover whaling, the classification and natural history of cetaceans and the care of stranded animals. A species directory provides an identification key to the Australian species, indicating the major anatomical features of size, shape, and number of teeth, and this is followed by a chapter of individual species accounts with drawings, photographs, brief descriptions and an indication of distribution. The format is adapted from Leatherwood's *Whales, Dolphins and Porpoises of the Western North Atlantic*. Finally there is a brief bibliography and a list of local organizations to contact in the event of a stranding. There are a number of colour photographs and the pocket-sized book is presented in a thick plastic slip-cover.

What does one require from a cetacean field guide? Has a good one ever been written? An author can usefully turn to the hundreds of field guides to birds to see how to solve the problems of illustration and

description of key identification features and behaviour (what bird-watchers call the 'jizz' of a bird) but then he has the problem of dealing with the cetacean on the beach. Bird guides are useless for the dead bird in the hand—all the sound, movement and sense of scale are gone, and a detailed anatomical key is needed. Typically cetacean guides tend to be rather beach-oriented; breaking down the small number of species into groups and listing lengths and tooth numbers is quite easy (and well done in Dr Baker's book). But somehow these guides never seem to solve the field problems adequately. There is a tendency to rely on silhouette drawings and photographs of dead animals and a lack of description of behaviour at sea, typical situations in which the animals will be seen, the problems of light and sea conditions and so on, which many experienced observers naturally take into account.

Dr Baker's book has many excellent features—it is the right size, well produced and protected for practical use, does not dwell too much on general physiology (perhaps just as well as some of it is rather woolly). It has an excellent guide to dental characteristics. Anyone lucky enough to be at sea in the Southern Oceans could very usefully carry it as an 'aide-memoire' to species they might see. But I still feel they may be left struggling after the whale has gone.

A. G. Greenwood

14-0.9686]; females
verall captive killer

*I in captivity do not
ils often live only a*

features and behav-
'jizz' of a bird) but
ig with the cetacean
ess for the dead bird
ement and sense of
anatomical key is
es tend to be rather
he small number of
lengths and tooth
done in Dr Baker's
s never seem to solve
here is a tendency to
photographs of dead
of behaviour at sea,
animals will be seen,
nditions and so on,
vers naturally take

ellent features—it is
protected for practi-
h on general physi-
some of it is rather
ide to dental char-
h to be at sea in the
efully carry it as an
night see. But I still
after the whale has

News and Views

Species—the newsletter of the Species Survival Commission of the IUCN—in number 15 of December 1990, announced the granting of the Peter Scott Award for Conservation Merit to the late Didier Marchessaux. This was especially for his work in establishing the Cap Blanc reserve.

There was also an article by Stephen Leatherwood summarising the gillnet 'incidental' dolphin and porpoise death toll. This included the high priority recommendations of the sub group appointed after the 1990 Conference at La Jolla. It was pointed out that cetaceans in general seem unable to sustain rates of kill of more than a small percentage of the population, and even a figure of 2% per year may be too high.

Six species are listed as being unable to sustain the present level of mortality:— Vaquita (*Phocoena sinus*) in the Gulf of California, Baiji (*Lipotes vexillifer*) in the Yangtze River, Striped dolphins (*Stenella coeruleoalba*) in the Mediterranean, Harbour porpoises (*Phocoena phocoena*) in the eastern and western North Atlantic, and Bottlenose dolphins (*Tursiops truncatus*) along the eastern coast of South Africa.

The work of the Cetacean Specialist Group is summarised by Bill Perrin and Stephen Leatherwood.

Beluga of June 1991 discusses the role that eels polluted with chemicals—and particularly with 'Mirex'—play in passing this contamination on to Belugas. It is hoped that, if a link becomes apparent, the provision of more eels either unpolluted or less so could reduce the whales' intake of 'Mirex'.

It also announces the publication of "Oceanography of a Large-Scale Estuarine System: The Saint Lawrence", edited by Mohammed El-Sabh and Norman Silverberg. Including contributions from 26 authors, it covers the physical, chemical, geological and biological knowledge that has been gathered together over the last 20 years about this estuary. Priced \$79, it may be obtained from offices of Springer Verlag.

Also published in Canada is "Advances in Research on the Beluga Whale", edited by T. G. Smith, D. J. S. Aubin and J. R. Geraci. Costing \$39 this is Canadian Bulletin of Fisheries and Aquatic Sciences number 224, and may be obtained from large booksellers.

IAAAM News announces the 1992 Conference venue as Hong Kong, beginning the week of 16 May. It also

reports the intended release into the wild of the ex-UK dolphins at present in the Turks and Caicos Islands as late March 1991. (Very late March—release took place into the South Caicos seas in the week commencing 8 September and before all the animals were successfully catching sufficient quantities of live fish—Ed.)

The National Marine Fisheries Service (of the USA) has amended the definitions of "take", under the Marine Mammal Protection Act, to include feeding marine mammals in the wild. Resulting from continued pressure from the Center for Marine Conservation, this is intended to make the wild a safer place for dolphins by stopping all dolphin feeding cruises.

IAAAM Proceedings Volume 22, 1991, includes articles on immunisation and immunoglobulin response in bottlenose dolphins, the immune response of marine mammals to bacterial polysaccharides, the medical care of a juvenile stranded Bryde's Whale, a method of moving a stranded humpback whale, the successful treatment of Erysipelas in a Beluga, the management of liver disease in captive dolphins and a wild porpoise, a comparative study of heavy metal concentrations in bottlenose dolphins off the Texas coast, chemical residues in dolphins from the Atlantic Coast of the USA, the establishment and maintenance of successful Breeding Programmes for Whales and Dolphins in a Zoological Park environment and reports of a session on strandings and advances in Marine Mammal Medicine and a session on "Cetacean Facts and Fallacies". The latter included the equation that high intelligence could be equated, in the dolphin, with high adaptability and there is no scientific information, at present, to state that these are "Highly intelligent" species in a *human comparative sense*. (My italics—Ed.)

Marine Mammal Science, Volume 7, number 2, of April, includes an article by Joe Geraci and Sam Ridgway on disease transmission between cetaceans and humans. They point out that there is a fine line between infection and infectious disease, depending on both the virulence of the organism and the susceptibility of the host. An immunologically competent animal would neither be harmed by, nor benefit from, micro-organisms newly introduced by humans—or other sources. Likewise, micro-organisms transferred from cetaceans to humans through distant water connections are of no particular concern.

although the authors point out that 'some closer associations' may be risky. They recommend that "the trainer or patron who contacts a cetacean directly should exercise the same hygienic safeguards—before and after—as one should when dealing with a pet or domestic animal. As a simple rule, attendants and patrons should be encouraged not to place near an animal's mouth anything they would not place in their own".

Other articles cover the rate of increase of Bowhead Whales, the role of predation in the ecology of the ringed seal, the diet of Weddell seals, precise birth timing in captive Harbour seals and Californian sea lions, estimating the mass of large pinnipeds, the feeding behaviour of a Humpback whale and the occurrence of *Lagenorhynchus* in the South Pacific.

Volume 7, number 3, of July, includes a very interesting and topical article, by Whitlow Au and Linda Jones, on the Acoustic Reflectivity of nets and the implications concerning incidental takes of dolphins. It is followed by Stephen Dawson's note on the modification of gillnets to reduce entanglement of cetaceans. The latter author also records the incidental catch of 230 Hector's dolphins (*Cephalorhynchus hectori*) in New Zealand between 1984 and 1988. Other articles include cetacean records for south-

eastern Brazil, the movement of humpback whales between California and Costa Rica and the observation of seven bowhead whales in 1990 off Franz Josef Land.

Journal of Zoology Volume 224, part 1, of May, includes an article on the seasonal developmental changes of the reproductive organs of male ringed seals.

Part 2, of June, has an article on the movements and behaviour of the grey seal, at sea, using radio transmitters to follow the animals. This showed that grey seals have excellent navigational abilities, as illustrated by their rapid and direct swimming between far distant haul-out sites. There is also an article on the evaluation of a method for determining the length of Sperm whales—from their vocalisations! This shows that inter-pulse intervals in click vocalisations are correlated positively with body length, though the article admits that more corroborative data would be desirable. Two further papers discuss prey species of seals by the examination of faecal remnants.

Part 4, of August, includes articles on the relative influence of age and weight on the reproductive behaviour of male grey seals, and the timing of pupping in the Harbour seal.