HEALTH ADVISORY FOR FIBROPAPILLOMA DISEASE

Since fibropapilloma may be caused by an infectious agent, adequate precautions are needed to prevent the additional spread of this life-threatening disease through tagging and other research activities. Safeguards especially need to be implemented when using tags that require puncturing of the flipper prior to application. The tool used for pre-punching, as well as any other items that pierce or abrade the skin, should be thoroughly cleaned of residue tissue and sterilized *before using on another turtle*. One recommended method of cold sterilization involves soaking the equipment in activated Glutaraldehyde for as long as possible and practical (for up to 10 hours, but even several minutes is better than nothing). Since activated Glutaraldehyde is irritating to living tissue, soaking must be followed by rinsing in sterile water. In areas where the disease is indigenous, we recommend that two sets of tools be used -- one for obviously diseased animals and one for apparently healthy animals (nonetheless, all tools should be sterilized). Activated Glutaraldehyde, sold under the brand name of Omnicide (catalog no. 25183) can be obtained from Baxter Health Care Co., Hospital Supply Division, Deerfield, Illinois 60015 USA. Until more is known about the etiology of fibropapilloma and other sea turtle diseases in the wild, it would behoove all researchers to incorporate precautionary measures against the inadvertent spread of infection.

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SPANISH EDITION OF THE MARINE TURTLE NEWSLETTER PLANNED

In recognition of the rapidly expanding fields of sea turtle research and conservation in Latin America, an effort is underway to offer the Marine Turtle Newsletter (MTN) in Spanish as well as in English. This new development is made possible through the professional talents of Susana Salas, who is bilingual and has experience translating scientific and technical material. In addition, there are plans to provide recipients of the Spanish edition with an informal "Bulletin", a separate document intended to encourage communication amongst individuals and agencies in Latin America with an interest in sea turtles. If you would like to receive the MTN in Spanish, please convey this information to **SUSANA SALAS, Apartado 335-2300, Curridabat, Costa Rica**. We hope that the Spanish edition will be available by the end of 1990. All readers will continue to receive the MTN in English until the Spanish edition is ready, at which point readers who have so requested will receive the Spanish edition (and will no longer receive the English edition). KLE/SAE

* * THANK YOU * *

It is important to periodically express our gratitude to individuals who consistently take the time to share published items of interest with the MTN, including newspaper articles, legal notes, technical report announcements, book reviews and press releases. These individuals include Dr. George Zug (Smithsonian Institution), Dr. Richard Byles (U. S. Fish and Wildlife Service), George Balazs (National Marine Fisheries Service), Dr. Nicholas Mrosovsky (University of Toronto, Canada) and Jeffrey Canin (Greenpeace-International). The MTN would certainly be impoverished without this kind, unsolicited support. Thank you *very* much! KLE/SAE

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KEMP'S RIDLEYS ARE RARER THAN WE THOUGHT

In 1989, 835 nests of the Kemp's ridley (Lepidochelys kempi) were recorded by the bi-national beach monitoring crew at Rancho Nuevo, Tamaulipas, Mexico (Márquez, personal communication). Despite intensive patrols, it was not possible to encounter all of the nesting turtles; the turtles spent a short time on land (about 45 minutes), showed unusually broad dispersal north of the camp headquarters at Barra Coma, and also a new tendency toward very early morning nesting during the 1989 season. Nevertheless, 201 turtles were tagged with Monel metal tags in 1989, and 74 turtles tagged in previous seasons were encountered. Of the 201, 116 were recorded nesting once, 72 twice, and 13 three times. Of the 74, 47 were seen once, 23 twice, and 4 three times. These data allow the calculation of an estimate of the average number of nests per female per season as follows.

Out of the 835 total nesting events, the turtle was seen (and tagged, or the tag number noted) on 404 occasions. Thus, based on the assumption that beach coverage was consistent throughout the season, there was $404/835 = 0.484$ chance of witnessing a given nesting event and consequently a $(0.484)^3$ probability of witnessing a three-time nester on all three occasions. So, if three-time nesters were observed on $13 + 4 = 17$ occasions, the actual season's total of three-time nesters can be estimated at $17/(0.484)^3 = 150$. Similarly, to estimate the actual total of two-time nesters, I note that the observed total of $72 + 23 = 95$ includes a subset of three-time nesters that were actually observed only twice. The chance of seeing a three-time nester on exactly two of its three nestings (i.e., on nestings 1 and 2, 1 and 3, or 2 and 3) may be estimated as $3x(0.484)^2(1-0.484) = 0.363$. Thus, $150 \times 0.363 = 54.5$ of the three-time nesters would have been seen just twice, leaving $95 - 54.4 = 40.6$ actual double nesters observed both times. This corresponds to a true total (observed + unobserved) of $40.6/(0.484)^2 = 173.3$ double-nesters.

The triple and double nesters together thus produced $(150 \times 3) + (173.3 \times 2) = 796.6$ nests for the season, leaving just 38.4 nests (835-796.6) made by single nesters. So 835 nests were made by $(150 + 173.3 + 38.4) = 361.7$ turtles, giving an average of 2.31 nestings per turtle. This figure is much higher than accepted literature values; for example, Márquez et al. (1982) calculated a value of 1.326. Later this figure was revised upwards to 1.47 (1.45 for neophytes, 1.55 for remigrants); but it is clear in the latter calculation (Márquez et al., 1989) that no correction was made for the diminishing probability of observing a multiple nester on