

We respond that until very recently that glass was empty. An Australian team made the first contributions to this glass (see Broderick et al., 1994, 1996), we have added a few drops, and we hope that our colleagues in many nations will continue to fill it with field and laboratory studies on marine turtle stock composition. Questions about the geographic scale of recruitment to feeding grounds will not be resolved by our scholarly discussions, but by studies that are underway in Mexico, Japan, Cuba, Australia, and our laboratory at the University of Florida. It will be especially informative to compare haplotype frequencies in foraging grounds from several widely distributed Caribbean locations. If foraging populations in eastern and western Caribbean areas are indistinguishable, this would indicate that turtles recruit at random from throughout the Caribbean. If foraging grounds in separate corners of the Caribbean are genetically distinct, this would favor a model of more localized recruitment. We live in an exciting time for sea turtle research, and we look forward to discussion of future results with Mrosovsky and our many colleagues among the readership of *Chelonian Conservation and Biology*.

Literature Cited

- AVISE, J.C. 1995. Mitochondrial DNA polymorphism and a genetics-demography connection of conservation relevance. *Conserv. Biol.* 9:686-690.
- BASS, A.L., GOOD, D.A., BJORNDALE, K.A., RICHARDSON, J.I., HILLIS, Z.-M., HORROCKS, J.A., AND BOWEN, B.W. 1996. Testing models of female reproductive migratory behaviour and population structure in the Caribbean hawksbill turtle, *Eretmochelys imbricata*, with mtDNA sequences. *Mol. Ecol.* 5:321-328.
- BJORNDALE, K.A., BOLTON, A.B., AND LAGUEUX, C.J. 1993. Decline of the nesting population of hawksbill turtles at Tortuguero, Costa Rica. *Conserv. Biol.* 7(4):925-927.
- BOWEN, B.W., ABREU-GROBOIS, F.A., BALAZS, G.H., KAMEZAKI, N., LIMPUS, C.J., AND FERL, R.J. 1995. Trans-Pacific migrations of the loggerhead sea turtle (*Caretta caretta*) demonstrated with genetic markers. *Proc. Natl. Acad. Sci. USA* 92:3731-3734.
- BOWEN, B.W., BASS, A.L., GARCIA-RODRIGUEZ, A., DIEZ, C.E., VAN DAM, R., BOLTON, A., BJORNDALE, K.A., MIYAMOTO, M.M., AND FERL, R.J. 1996. Origin of hawksbill turtles in a Caribbean feeding area as indicated by genetic markers. *Ecol. Appl.* 6(2):566-572.
- BRODERICK, D., AND MORITZ, C. 1996. Hawksbill breeding and foraging populations in the Indo-Pacific region. In: Bowen, B.W., and Witzell, W.N. (Eds.). *Proceedings of the International Symposium on Sea Turtle Conservation Genetics*. NOAA Technical Memorandum NMFS-SEFSC-396, pp. 119-128.
- BRODERICK, D., MORITZ, C., MILLER, J.D., GUINEA, M., PRINCE, R.J., AND LIMPUS, C.J. 1994. Genetic studies of the hawksbill turtle *Eretmochelys imbricata*: evidence for multiple stocks in Australian waters. *Pac. Conserv. Biol.* 1:123-131.
- BUSTARD, R. 1972. *Sea Turtles, Natural History and Conservation*. Great Britain: William Collins Sons, 220 pp.
- CHAPMAN, R.W. 1996. A mixed stock analysis of the green sea turtle: the need for null hypotheses. In: Bowen, B.W., and Witzell, W.N. (Eds.). *Proceedings of the International Symposium on Sea Turtle Conservation Genetics*. NOAA Technical Memorandum NMFS-SEFSC-396, pp. 137-146.
- FITZSIMMONS, N.N., MORITZ, C., LIMPUS, C.J., MILLER, J.D., PARMENTER, C.J., AND PRINCE, R. 1996. Comparative genetic structure of green, loggerhead, and flatback populations in Australia based on variable mtDNA and nDNA regions. In: Bowen, B.W., and Witzell, W.N. (Eds.). *Proceedings of the International Symposium on Sea Turtle Conservation Genetics*. NOAA Technical Memorandum NMFS-SEFSC-396, pp. 25-33.
- MEYLAN, A. 1989. Status report of the hawksbill turtle. In: Ogren, L., Berry, F., Bjornald, K.A., Kumpf, H., Mast, R., Medina, G., Reichart, H., and Witham, R. (Eds.). *Proceedings of the Second Western Atlantic Turtle Symposium*. NOAA Technical Memorandum NMFS-SEFC-226, pp. 101-115.
- MROSOVSKY, N. 1997. Movement of hawksbill turtles — a different perspective on the DNA data. *Chelonian Conservation and Biology* 2(3):438-439.

Received: 19 December 1996

Reviewed: 4 March 1997

Revised and Accepted: 18 March 1997

Chelonian Conservation and Biology, 1997, 2(3):442-444
© 1997 by Chelonian Research Foundation

Resolutions of the Participants at the 17th Annual Symposium on Sea Turtle Biology and Conservation

Compiled by

JEANETTE WYNEKEN¹ AND DEBORAH T. CROUSE²

¹President, 17th Annual Symposium on Sea Turtle Biology and Conservation, Department of Biological Sciences, Florida Atlantic University, 777 Glades Road, Boca Raton, Florida 33431-0991 USA [Fax: 561-367-2749; E-mail: jwyneken@acc.fau.edu];

²Resolutions Committee Chair, 17th Annual Symposium on Sea Turtle Biology and Conservation, Center for Marine Conservation, 1725 DeSales Street, NW, Suite 600, Washington, D.C. 20036 USA

The following is a compilation of five of the six resolutions passed by the approximately 720 assembled participants attending the 17th Annual Symposium on Sea Turtle Biology and Conservation at Orlando, Florida, USA, on 6 March 1997.

Resolution on the Interamerican Convention for the Protection and Conservation of Sea Turtles

To: All governments of the Americas; FAO, UNEP, UNDP, OAS, OLDEPESCA, ALEP, IUCN, WWF, sea turtle specialists and managers, and all other concerned parties.

Whereas the assembled members of the 16th Annual Symposium on Sea Turtle Biology and Conservation (1996) passed a resolution supporting the adoption of the measures outlined in the *Interamerican Convention for the Protection and Conservation of Sea Turtles*;

Whereas information regarding this convention has been somewhat slow in reaching many sectors of society which should be involved in its implementation;

Whereas the limited knowledge about and appreciation of the *Interamerican Convention for the Protection and Conservation of Sea Turtles* has resulted in a lack of support from many sectors of society which should be involved in its implementation;

Whereas there is a pressing need to inform these sectors of society about this Convention;

We therefore urge that members of the conservation, academic, scientific, and management communities — and in particular sea turtle specialists — identify and make use of all mechanisms of communication to ensure that there is greater knowledge of that Convention in all sectors of society.

Whereas the acceptance and ratification of the *Interamerican Convention for the Protection and Conservation of Sea Turtles* has been open for signature by all Parties in the Americas since December 1996;

Whereas to date (February 1997) six countries have already signed the Convention, and the minimum number needed for this Convention to enter into force is eight;

We strongly urge all concerned Parties to sign and ratify the Convention at the earliest possible opportunity.

Resolution on the FAO Code of Conduct for Responsible Fisheries

To: Governments represented in these annual symposia; FAO, UNEP, UNDP, OAS, OLDEPESCA, ALEP, IUCN, WWF, sea turtle specialists and managers, and all other concerned parties.

The assembled members of the 17th Annual Symposium on Sea Turtle Biology and Conservation strongly support the concepts and procedures described in the Code of Conduct for Responsible Fisheries published by the Food and Agriculture Organization of the United Nations, Rome, in 1995.

Recognizing that in general the world's fisheries resources are in decline and that the fate of human societies and cultures is threatened by the scarcity and lack of security from food resources, in particular, fisheries resources, it is critical that these trends not only be stopped, but reversed;

Whereas the *Code of Conduct for Responsible Fisheries* provides numerous and diverse recommendations for meeting this pressing goal, while at the same time respecting the rights of sovereign states, the rights of rarely represented indigenous and other rural peoples, and the needs of artisanal fishermen;

Recognizing that unfortunately relatively few people in the scientific, conservation and fisheries production communities know of the *Code of Conduct for Responsible Fisheries*; and that this lack of familiarity with and appreciation of the value of the document greatly reduces its effectiveness and impact;

We therefore emphatically urge that all governments, all fisheries organizations both governmental and nongovernmental, and all other groups involved in the exploitation, management, conservation, and investigation of marine

living resources and the environments fundamental for the survival of these organisms adopt the *Code of Conduct for Responsible Fisheries* and fully implement the recommendations therein.

In order to accomplish this, we urge that every possible effort be made to identify and make use of all possible means and mechanisms to disperse reliable information about the *Code of Conduct for Responsible Fisheries*. This effort in public education must include all sectors of society, notably: the fishery industry at all levels, fisheries production, processing, and marketing; scientific; academic; educational; conservation; political; judicial; consumer; and all other relevant entities.

Resolution to Mr. Rolland Schmitten, Director, U.S. National Marine Fisheries Service

Dear Mr. Schmitten:

The assembled members of the 17th Annual Symposium on Sea Turtle Biology and Conservation applaud and congratulate the National Marine Fisheries Service (NMFS) for producing *Sea Turtle Conservation; Revisions to Sea Turtle Conservation Requirements; Restrictions to Shrimp Trawling Activities*, published in the *Federal Register*, Vol. 61, No. 245, on 19 December 1996. The implementation of these requirements will facilitate much-needed reduction of sea turtle mortality in the U.S. shrimp fishery, as well as bolster the efforts of conservationists and marine resource managers throughout the world.

This international community of sea turtle conservationists and specialists has followed the continuing problems of the incidental capture and drowning of endangered sea turtles in fishing activities around the world since shrimp trawling was identified as a major source of mortality for sea turtles in U.S. waters, more than a decade ago. During the last ten years, the large numbers of stranded turtles along the U.S. coast has been of great concern to conservationists throughout the world, as these animals are migratory, and as such, are shared resources to many nations of the region.

The persistent capture and drowning of sea turtles in U.S. waters is inconsistent with numerous official positions of the U.S. Government in relation to the conservation of biodiversity, the management of migratory fisheries stocks and living marine resources, and the protection and conservation of sea turtles and their habitats. Moreover, the inefficiency of the U.S. Government to provide adequate protection for these endangered species, especially during fisheries interactions, undermines conservation and management efforts in less developed/prosperous nations.

The *Revisions to Sea Turtle Conservation Requirements* recognize this anomaly and provide concrete and simple mechanisms for reducing this needless killing of endangered migratory species, thereby helping to make U.S. fisheries practices compatible with diverse international treaty agreements. Furthermore, these new regulations will allow the U.S. to continue world class efforts in biological conservation.

We wish to congratulate NMFS for adopting *Revisions to Sea Turtle Conservation Requirements*. We will continue to monitor the progress and implementation of the revisions, and wish to emphasize that this community is eager to collaborate with NMFS in activities related to sea turtle conservation. We wish the agency every success in its important role of conserving the marine resources in U.S. waters, and recognize its continuing efforts to provide adequate conservation measures for those living marine resources that are shared throughout the region.

Resolution on the Archie Carr National Wildlife Refuge

Whereas the beaches of the Archie Carr National Wildlife Refuge host a considerable portion of the second largest nesting population of threatened loggerhead sea turtles in the entire world, as well as hundreds of nests of endangered green sea turtles and a number of endangered leatherback nests;

Whereas the beaches in and around the Carr Refuge rapidly are being developed and critical sea turtle nesting habitat is being lost or degraded;

Whereas the Carr Refuge was established to provide protection for this highest U.S. concentration of nests for threatened and endangered sea turtle nests;

Whereas local and state governments and private foundations have provided more than \$80 million for the acquisition of land in and around the refuge and the federal government has only contributed \$8.89 million, or 11 percent, of the total dollars thus far expended;

Whereas the U.S. Fish and Wildlife Service has ranked the Archie Carr Refuge as No. 2 in its acquisition priorities for Fiscal Year 98; and

Whereas the U.S. Congress has failed for two years in a row to provide any additional funding for land acquisition within the Carr Refuge;

Therefore be it resolved that the 17th Annual Symposium on Sea Turtle Biology and Conservation urges the U.S. Congress to appropriate \$5 million toward acquisition for the Archie Carr National Wildlife Refuge in Fiscal Year 98.

Resolution on the Reauthorization of the U.S. Endangered Species Act

Whereas the U.S. Endangered Species Act is one of the most important and fundamental laws globally for the conservation of biological diversity, balancing long-term economic, social, and environmental values with short-term economic interests, and serves as an example to other nations of a commitment to long-term maintenance of natural biotic richness and resources;

Therefore be it resolved that the 17th Annual Symposium on Sea Turtle Biology and Conservation urges the U.S. Congress to reauthorize and strengthen the Endangered Species Act, to provide more effective protection against the loss of species and their habitats, based on the following principles:

I. Prevention. The prevention of endangerment should be encouraged through mechanisms such as consultation and conservation activities for rare and declining species, and ecosystem planning.

II. Recovery. Recovery goals and criteria must be scientifically derived and based, while inclusion of balanced participation of stakeholders may facilitate development of effective implementation strategies for achieving recovery goals. Applicants for incidental take permits should be required to: (1) ensure their activities are consistent with recovery of the species; (2) mitigate fully any adverse impacts of their activities on listed species; and (3) monitor the impacts of their activities and take appropriate action if conservation plans fail to achieve their goals.

III. Science. Federal land management agencies should be required to inventory and monitor the status and trends of listed and rare or declining species and habitats on lands under their jurisdiction. The Secretary should be required, in cooperation with the states, to develop a system for tracking rare and declining species. The Secretary should be authorized to list populations of invertebrates and plants threatened with extinction within the entire USA. Endangered species policy should protect large contiguous, viable tracts of habitat that support a multitude of species wherever possible. Opportunities should be provided for independent scientists to review and offer recommendations on the development, approval, and implementation of Habitat Conservation Plans (HCPs) and other nonfederal land management plans.

IV. Citizen Participation. Opportunities should be provided for citizens to participate in the development of recovery plan implementation strategies, and review and comment on the development, approval, and implementation of HCPs and other nonfederal land management plans. The public should be notified of the initiation of formal Section 7 consultations and the completion of all Section 7 consultations. Documents reflecting Section 7 consultations should be made available for public review.

V. Federal Agency Accountability. Congress should clarify that federal agencies are legally obligated to carry out the "reasonable and prudent measures" identified in Section 7 biological opinions and that federal agency activities outside the U.S. are subject to the requirements of Section 7.

VI. Private Citizen Incentives. Congress should provide monetary and tax credit incentives to landowners to carry out conservation measures that go beyond the Endangered Species Act's requirements. Congress should not pay landowners for carrying out activities required under an incidental take permit and should not authorize incentives to be used as a substitute for incidental take permit requirements.

VII. Funding. Significantly increased Endangered Species Act and Land and Water Conservation Fund funding should be provided for the Act to more effectively conserve species and ecosystems. Additional, non-appropriated funding sources should also be provided.

Received and Accepted: 22 April 1997