

lian than reptilian communities, population densities of predators are often substantially smaller than those of herbivores, and this also seems to hold within this turtle community. Even in fossil sites where *Deirochelys* is well represented (e.g., Miocene Love Bone Bed, Alachua County, Florida [Jackson, 1978; Webb et al., 1981]), it is still outnumbered roughly 4:1 by *Pseudemys*. And finally, though a confirmed basker, *Deirochelys* seems to spend less time engaged in this activity than herbivorous species, perhaps reflective of a difference in the relative digestibility of plant and animal matter.

*Acknowledgments.* — Dick Franz and Ken Tennessen assisted with generic identifications of crayfishes and insects, respectively. Laboratory space was provided by the Florida Museum of Natural History and the University of Florida Department of Zoology. The manuscript was enhanced substantially by the thoughtful comments of reviewers and editors.

### Literature Cited

- BLEAKNEY, J.S. 1963. Notes on the distribution and life histories of turtles in Nova Scotia. *Canadian Field-Nat.* 77:67-76.
- BRAMBLE, D.M. 1973. Media dependent feeding in turtles. *Amer. Zool.* 13:1342.
- BRAMBLE, D.M. 1974. Emydid shell kinesis: biomechanics and evolution. *Copeia* 1974:707-727.
- CAGLE, F.R. 1950. The life history of the slider turtle, *Pseudemys scripta troostii* (Holbrook). *Ecol. Monogr.* 20:31-54.
- CAMPBELL, H.W. 1969. The unsung chicken turtle. *Int. Turtle Tort. Soc. J.* 3(5):22-24, 36.
- CARR, A.F. 1952. *Handbook of Turtles*. Ithaca, New York: Cornell Univ. Press, 542 pp.
- ERNST, C.H., LOVICH, J.E., AND BARBOUR, R.W. 1994. *Turtles of the United States and Canada*. Washington, DC: Smithsonian Inst. Press, 578 pp.
- GEORGES, A. 1982. Diet of the Australian freshwater turtle *Emydura krefftii* (Chelonia: Chelidae), in an unproductive lentic environment. *Copeia* 1982:331-336.
- GREGORY, P.T., AND STEWART, K.W. 1975. Long-distance dispersal and feeding strategy of the red-sided garter snake (*Thamnophis elegans*) in the Interlake of Manitoba. *Canad. J. Zool.* 53:238-245.
- JACKSON, D.R. 1978. Evolution and fossil record of the chicken turtle *Deirochelys*, with a re-evaluation of the genus. *Tulane Stud. Zool. Bot.* 20:35-55.
- JACKSON, D.R. 1988. Reproductive strategies of sympatric freshwater emydid turtles in northern peninsular Florida. *Bull. Florida State Mus., Biol. Sci.* 33(3):113-158.
- MARCHAND, L.J. 1942. A contribution to a knowledge of the natural history of certain freshwater turtles. M.S. Thesis, Univ. Florida, Gainesville.
- MITCHELL, J.C. 1994. *The Reptiles of Virginia*. Washington, DC: Smithsonian Inst. Press, 352 pp.
- PRITCHARD, P.C.H. 1979. *Encyclopedia of Turtles*. Neptune, NJ: T.F.H. Publications, Inc., 895 pp.
- PRITCHARD, P.C.H. 1984. Piscivory in turtles, and evolution of the long-necked Chelidae. *Symp. Zool. Soc. London* 52:87-110.
- SHINE, R. 1980. "Costs" of reproduction in reptiles. *Oecologia (Berlin)* 46:92-100.
- SOUZA, F.L., AND ABE, A.S. 1995. Observations on feeding habits of

*Hydromedusa maximiliani* (Testudines: Chelidae) in southeastern Brazil. *Chelon. Conserv. Biol.* 1(4):320-322.

WEBB, S.D., MACFADDEN, B.J., AND BASKIN, J.A. 1981. Geology and paleontology of the Love Bone Bed from the Late Miocene of Florida. *Amer. J. Sci.* 281:513-544.

Received: 2 September 1995. Accepted: 5 November 1995.

*Chelonian Conservation and Biology*, 1996, 2(1):108-109  
© 1996 by Chelonian Research Foundation

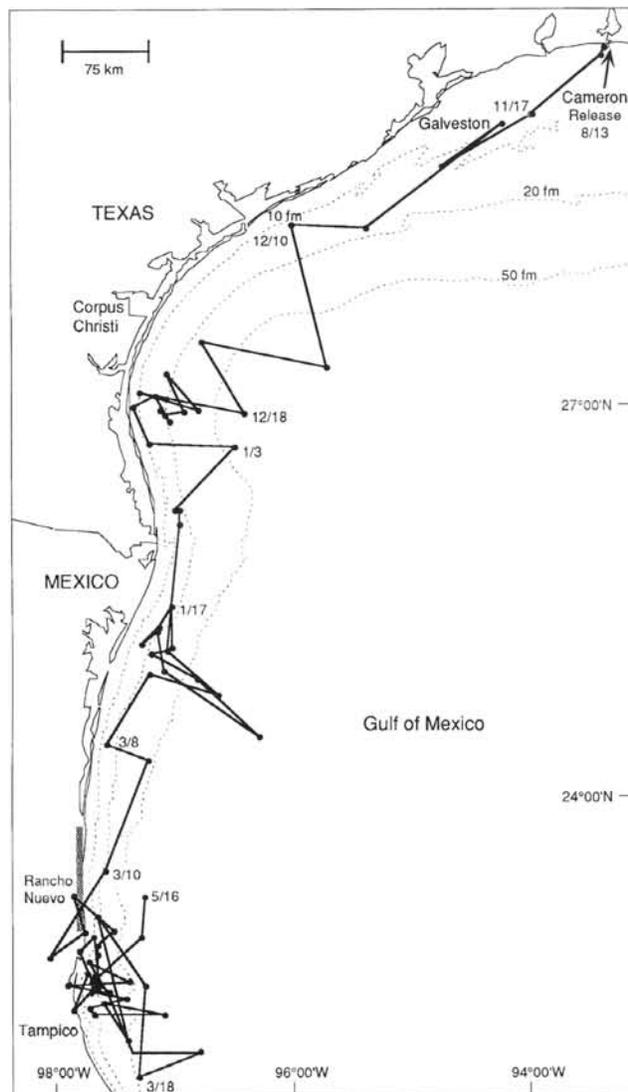
## Kemp's Ridley Sea Turtle (*Lepidochelys kempii*) Tracked by Satellite Telemetry from Louisiana to Nesting Beach at Rancho Nuevo, Tamaulipas, Mexico

MAURICE L. RENAUD<sup>1</sup>, JAMES A. CARPENTER<sup>1</sup>,  
JO A. WILLIAMS<sup>1</sup>, AND ANDRÉ M. LANDRY, JR.<sup>2</sup>

<sup>1</sup>Southwest Fisheries Center, National Marine Fisheries Service, Galveston Laboratory, 4700 Avenue U, Galveston, Texas 77551 USA [Fax: 409-766-3508; E-mail: renaudm@tamug3.tamu.edu]; <sup>2</sup>Department of Marine Biology, Texas A&M University at Galveston, 4700 Avenue U, Building 303, Galveston, Texas 77551 USA

The Kemp's ridley (*Lepidochelys kempii*) is considered the most endangered sea turtle in the world (Groombridge, 1982; Shaver, 1991; U.S. Fish and Wildlife Service, 1992). It is distributed throughout the Gulf of Mexico (Liner, 1954; Carr, 1957; Carr, 1980; Hildebrand, 1982; Manzella and Williams, 1992), but is most abundant in coastal waters from Texas to Florida (Ogren, 1989). It also occurs along the eastern shore of North America to Newfoundland and has been reported in the European Atlantic near the British Isles, Netherlands, and France (Pritchard, 1989). Despite this widespread distribution, almost all nesting occurs on about a 60 km stretch of beach near Rancho Nuevo, Tamaulipas, Mexico.

An adult female Kemp's ridley was tracked from Cameron, Louisiana to Rancho Nuevo, Tamaulipas, Mexico by satellite telemetry for 287 days from 13 August 1994 through 16 May 1995. The turtle measured 65.8 cm straight carapace length, 64.9 cm straight carapace width, and weighed 42.6 kg. The turtle was captured at Cameron, Louisiana in a 91.5 m turtle entanglement net (7.3 m deep, 12.7 cm bar mesh) by Texas A&M University biologists. It was fitted with a Telonics ST-10 satellite transmitter on 13 August 1994 and tracked by National Oceanographic and Atmospheric Administration's National Marine Fisheries Service Galveston Laboratory. It moved offshore of the upper Texas coast in late November 1994 and travelled south along the Texas coast into Mexican waters through early January 1995 (Fig. 1). It was offshore of the Rancho Nuevo nesting beach by 10 March 1995. It moved an additional 100 km to the south before returning to nest on 23 April 1995 and again on 19 May 1995, both nestings being recorded by Rancho



**Figure 1.** Movement (solid line) of satellite-tracked Kemp's ridley (*Lepidochelys kempii*) from Cameron, Louisiana to Rancho Nuevo, Mexico from 13 August 1994 to 16 May 1995. Nesting was recorded on 23 April 1995 and 19 May 1995.

Nuevo workers. This is the only time a Kemp's ridley has been remotely tracked to a nesting beach. The satellite transmitter was in its non-transmit mode during the first nesting, and was no longer functional during the second nesting, the last transmission having been recorded just offshore three days earlier on 16 May 1995 (Fig. 1).

A total of 121 eggs were deposited in the first nest; 103 (85%) successfully hatched on 14 June 1995. One hundred twenty-nine eggs were laid in the second nest; 98 (76%) hatchlings emerged from the nest on 5 July 1995.

**Acknowledgments.** — We would like to thank Richard Byles, (USFWS, Albuquerque, NM) and Pat Burchfield (Curator, Gladys Porter Zoo, Brownsville, TX) for notifying personnel at Rancho Nuevo that the monitored turtle was in the vicinity of the nesting beach. We are especially grateful to those who found the turtle nesting and collected nesting data which was provided to us by Pat Burchfield.

## Literature Cited

- CARR, A. 1957. Notes on the zoogeography of the Atlantic sea turtles of the genus *Lepidochelys*. *Rev. Biol. Trop.* 5(1):45-61.
- CARR, A. 1980. Some problems of sea turtle ecology. *Amer. Zool.* 20:489-498.
- GROOMBRIDGE, B. 1982. The IUCN Amphibia - Reptilia Red Data Book. Part 1. Testudines, Crocodylia, Rhynchocephalia. Gland, Switzerland: IUCN, 426 pp.
- HILDEBRAND, H.H. 1982. A historical review of the status of sea turtle populations in the western Gulf of Mexico. In: Bjorndal, K.A. (Ed.), *Proceedings of the World Conference on Sea Turtle Conservation*. Washington, DC: Smithsonian Institution Press, pp. 447-453.
- LINER, E.A. 1954. The herpetofauna of Lafayette, Terrebonne and Vermilion Parishes, Louisiana. *La. Acad. Sci.* 17:65-85.
- MANZELLA, S.A., AND WILLIAMS, J.A. 1992. The distribution of Kemp's ridley sea turtles (*Lepidochelys kempi*) along the Texas coast: an atlas. NOAA Tech. Rpt. NMFS 110, 52 pp.
- OGREN, L.H. 1989. Distribution of juvenile and subadult Kemp's ridley turtles: preliminary results from the 1984-1987 surveys. In: Caillouet, C.W., Jr., and Landry, A.M., Jr. (Eds.), *Proc. 1st Internatl. Symp. Kemp's Ridley Sea Turtle Biol. Cons. Mgmt.*, Oct. 1-4, 1985, Galveston, Texas. Texas A&M University Sea Grant College Publication TAMU-SG-89-105, pp. 116-123.
- PRITCHARD, P.C.H. 1989. Evolutionary relationships, osteology, morphology and zoogeography of Kemp's ridley sea turtles. In: Caillouet, C.W., Jr., and Landry, A.M., Jr. (Eds.), *Proc. 1st Internatl. Symp. Kemp's Ridley Sea Turtle Biol. Cons. Mgmt.*, Oct. 1-4, 1985, Galveston, Texas. Texas A&M University Sea Grant College Publication TAMU-SG-89-105, pp. 157-164.
- SHAVER, D. 1991. Feeding ecology of wild and head-started Kemp's ridley sea turtles in south Texas waters. *J. Herpetol.* 25(3):327-334.
- U.S. FISH AND WILDLIFE SERVICE AND NATIONAL MARINE FISHERIES SERVICE. 1992. Recovery plan for the Kemp's ridley sea turtle *Lepidochelys kempii*. St. Petersburg, Florida: National Marine Fisheries Service, 40 pp.

Received: 28 September 1995. Accepted: 8 November 1995.

*Chelonian Conservation and Biology*, 1996, 2(1):109-113  
© 1996 by Chelonian Research Foundation

## Observations on *Manouria impressa* at Phu Luang Wildlife Sanctuary, Northeastern Thailand

TANYA CHAN-ARD<sup>1</sup>, KUMTHORN THIRAKHUPT<sup>2</sup>,  
AND PETER PAUL VAN DIJK<sup>2,3</sup>

<sup>1</sup>Phu Luang Wildlife Research Center, Wildlife Research Division, Royal Forest Department, P.O. Box 37, Loei 42000 Thailand; <sup>2</sup>Department of Biology, Faculty of Science, Chulalongkorn University, Phya Thai Road, Bangkok 10330 Thailand [Fax: 66-2-253-0337]; <sup>3</sup>Department of Zoology, University College Galway, Galway, Ireland

The impressed tortoise, *Manouria impressa*, is one of the world's most beautiful tortoises, and at the same time one of the least known. Many authors (Günther, 1882; Boulenger, 1889, 1903; Smith, 1922, 1931; Bourret, 1941; Bour, 1980;