

FISH AND WILDLIFE SERVICE

UNITED STATES DEPARTMENT OF THE INTERIOR

**REPORT ON THE MEXICO / UNITED STATES OF
AMERICA POPULATION RESTORATION PROJECT
FOR THE KEMP'S RIDLEY SEA TURTLE, *Lepidochelys
kempii*, ON THE COASTS OF TAMAULIPAS AND
VERACRUZ, MEXICO
2001**



GLADYS PORTER ZOO

TEXAS PARKS & WILDLIFE

INSTITUTO NACIONAL DE LA PESCA

**GOBIERNO DEL ESTADO DE
TAMAULIPAS
SECRETARIA DE DESARROLLO
URBANO Y ECOLOGIA**

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MEXICO. 2001.**

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**UNITED STATES DEPARTMENT OF THE INTERIOR
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PERMITS

This work was conducted under the auspices, and in coordination with Mexico's Foreign Relations Secretariat (Secretaría de Relaciones Exteriores); the Environment, Natural Resources and Fisheries Secretariat (Secretaría de Medio Ambiente, Recursos Naturales y Pesca); and the Public Treasury and Credit Secretariat (Secretaría de Hacienda y Crédito Público) Customs (Aduana) Branch.

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**For the exportation of blood and tissue samples of Kemp's ridley sea turtle
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U.S. CITES Import Permit No. 01US841026 / 9

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LIST OF ORGANIZATIONS AND THEIR ACRONYMS

CANAINPES	Camara Nacional de la Industria Pesquera (<i>National Chamber of the Fisheries Industry</i>) - Mexico
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora - U.S.
CRIP	Centro Regional de Investigacion Pesquera (<i>Regional Center for Fisheries Research</i>) - Mexico
GPZ	Gladys Porter Zoo - U.S.
INE	Instituto Nacional de Ecologia (<i>National Ecology Institute</i>) - Mexico
INP	Instituto Nacional de la Pesca (<i>National Fisheries Institute</i>) - Mexico
NMFS	National Marine Fisheries Service
PEMEX	Petroleos Mexicanos (<i>Mexican Oil</i>) - Mexico
PROFEPA	Procuraduria Federal de Proteccion del Ambiente (<i>Environmental Protection Agency</i>) - Mexico
SEMARNAP	Secretaria de Medio Ambiente, Recursos Naturales y Pesca (<i>Environment, Natural Resources and Fisheries Secretariat</i>) - Mexico
SHCP	Secretaria de Hacienda y Credito Publico (<i>Public Treasury and Credit Secretariat</i>) - Mexico
SRE	Secretaria de Relaciones Exteriores (<i>Foreign Relations Secretariat</i>) - Mexico
STI	Sea Turtles Incorporated - U.S.
UAB	University of Alabama at Birmingham - U.S.
UMSNH	Universidad Michoacana de San Nicolas de Hidalgo (<i>San Nicolas de Hidalgo Michoacan University</i>) - Mexico
UNE	Universidad del Noreste (<i>Northeast University</i>) - Mexico
USFWS	United States Fish and Wildlife Service - U.S.

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2001 KEMP'S RIDLEY SEA TURTLE (*Lepidochelys kempii*) POPULATION RESTORATION PROJECT

2001 was the Twenty-fourth year of a binational program in which Mexico and the United States of America cooperated in an attempt to recover the nesting population of the world's most endangered sea turtle, the Kemp's ridley, *Lepidochelys kempii*.

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INTRODUCTION

Over the last twenty-four years, the Mexican and U.S. biologists working with the Kemp's ridley sea turtle have learned a lot about the biology of nesting sea turtles. When the project began, it basically was at ground zero. We now know that although some turtles nest in subsequent seasons, the majority of them nest every other year. We know that each female nests on average from 2.6 to three times per female per season, laying a clutch of one hundred or so eggs which require from forty-two to sixty-two days incubation depending on the temperatures.

We have now verified turtles which were originally tagged on the Eastern seaboard of the U.S. as having returned to Mexico to lay their eggs. We have recorded experimentally head-started turtles nesting on Padre Island National Seashore, USA, and the same turtles at Rancho Nuevo in Mexico during the same nesting season. Apparently, the experimentally imprinted head-started turtles were able to navigate to Padre island National Seashore and were also able to socially facilitate with wild ridleys returning to the Tamaulipas coastline's historic nesting grounds.

The Kemp's ridley or "tortuga lora", begins nesting around the second week in April, the first Kemp's ridley nest of the 2001 nesting season was recorded on April 5.

Kemp's ridley turtles will return to nearly the same spot on the beach where they nested in previous seasons, however, if they are disturbed, they possess the behavioral "plasticity" to move several kilometers up or down the beach to a new nest site.

In past years we were unaware that a few ridleys will and do nest at night even though the norm for this species is diurnal (or daytime) nesting. Our first beach patrol or "recorrido" as it is called in Spanish, began at 8:00 am C.S.T. for years and years and that was early enough to find the first nesting turtles of the day. Two years ago, our first beach patrol began encountering crawls (tracks) and nests which were apparently from late in the afternoon of the previous day or perhaps from the night time or early morning hours. The first "recorrido" kept being moved to an earlier and earlier hour and eventually turtles were found nesting at 5:30 am during the cover of darkness. Needless to say, this has caused us to readjust our thinking and our patrol schedules. It is critical to our effort to see as many turtles as is humanly possible given the constraints of manpower and equipment. We have to actually encounter the turtles in order to check for tags or tag returns, or to tag the turtles, and to determine interesting intervals. This tagging information also helps us to know how often the individual turtle nests each season, the fertility rate of the eggs, the nest site fidelity and an entire suite of other data.

The scope of the project this year was essentially the same as in preceding seasons. The United States field assistance group, the INP and Tamaulipas' State Government crews, under the supervision of trained sea turtle biologists aided in beach patrols ("recorridos"). Relevant data were recorded; subsequently, most of the egg clutches were translocated to facsimile nests within protective corrals.

This season, 5,369 nests were protected, 5,023 in corral, 241 in Styrofoam boxes and 105 *in situ* for a total of 509,853 protected eggs. 317,127 hatchlings were released from the coasts of Tamaulipas and Veracruz into the Gulf of Mexico.

At present, nesting aggregations (arribadas), number in the hundreds, not the thousands which are necessary for the species to survive without man's intervention. This season, the biggest aggregation occurred in the Rancho Nuevo area on May 8th, with a total of 826 nests recorded. We are going in the right direction but we cannot diminish our present effort if we are to succeed.

KEMP'S RIDLEY TURTLE CONSERVATION CAMPS SUMMARY, 1978 - 2001
(USFWS / NMFS / INP DATA, R. MARQUEZ, P. BURCHFIELD)

Includes all known nests from Tamaulipas and Veracruz: nests protected, nests taken by predators,
and nests poached (see graphics for detailed data on years and locations)

YEAR	NESTS	EGGS	HATCHLINGS	PERCENT HATCH
1978	924	85,217	48,009	56
1979	954	98,211	63,996	65
1980	868	82,374	37,378	45
1981	897	89,906	53,282	59
1982	750	77,745	48,007	62
1983	746	77,432	32,921	43
1984	798	80,798	58,124	72
1985	702	67,633	51,033	75
1986	744	65,357	48,818	75
1987	737	72,182	44,634	62
1988	842	83,229	62,218	75
1989	828	84,516	66,802	79
1990	992	93,937	74,339	79
1991	1,178	114,992	79,749	69
1992	1,275	120,964	92,116	76
1993	1,241	113,648	84,605	74
1994	1,562	150,169	107,687	72
1995	1,930	174,489	120,038	68
1996	2,080	191,974	119,196	62
1997	2,387	229,802	149,567	65
1998	3,845	346,309	183,920	53
1999	3,640	349,033	227,040	65
2000	6,277	590,055	395,150	67
2001	5,442	509,853	317,127	62

SUMMARY DATA ANALYSIS

Lepidochelys kempii

2001 Nesting Season

Rancho Nuevo *(In the 2000 Season, Rancho Nuevo recorded 3,778 nests)*

Protected nests: 3,716

Recorded nests: 3,742

Corral: 3,612

Box: 94

In Situ: 10

Taken by predators: 20

Stolen: 6

Protected eggs: 356,362

Average clutch size: 95 eggs

Hatchlings released: 224,850

Emergence rate: 63.09%

Tepehuajes *(In the 2000 Season, Tepehuajes recorded 1,622 nests)*

Protected nests: 695

Recorded nests: 708

Corral: 661

Box: 9

In Situ: 25

Taken by predators: 9

Stolen: 4

Protected eggs: 66,517

Average clutch size: 95 eggs

Hatchlings released: 43,679

Emergence rate: 65.66%

Barra del Tordo *(In the 2000 Season, Barra del Tordo recorded 434 nests)*

Protected nests: 467

Recorded nests: 477

Corral: 445

Box: 8

In Situ: 14

Taken by predators: 6

Stolen: 4

Protected eggs: 43,006

Average clutch size: 92 eggs

Hatchlings released: 22,739

Emergence rate: 52.87%

La Pesca*(In the 2000 Season, La Pesca recorded 144 nests)*

Protected nests: 52

Recorded nests: 57

Corral: 47

Box: 0

In Situ: 5

Taken by predators: 4

Stolen: 1

Protected eggs: 5,258

Average clutch size: 101 eggs

Hatchlings released: 3,839

Emergence rate: 73.0%

Altamira*(In the 2000 Season, Altamira recorded 130 nests)*

Protected nests: 243

Recorded nests: 246

Corral: 220

Box: 20

In Situ: 3

Taken by predators: 0

Stolen: 3

Protected eggs: 22,483

Average clutch size: 92 eggs

Hatchlings released: 10,139

Emergence rate: 45.09%

Tampico*(In the 2000 Season, Tampico recorded 62 nests)*

Protected nests: 56

Recorded nests: 65

Corral: 38

Box: 10

In Situ: 8

Taken by predators: 0

Stolen: 9

Protected eggs: 3,940

Average clutch size: 70 eggs

Hatchlings released: 3,511

Emergence rate: 89.11%

Veracruz*(In the 2000 Season, Veracruz recorded 107 nests)*

Protected nests: 140

Recorded nests: 141

Corral: 0

Box: 100

In Situ: 40

Taken by Predators: 0

Stolen: 1

Protected eggs: 12,287

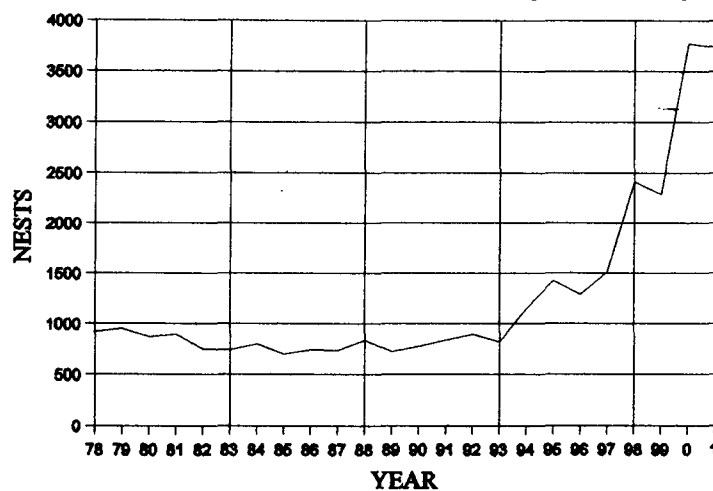
Average clutch size: 87 eggs

Hatchlings released: 8,370

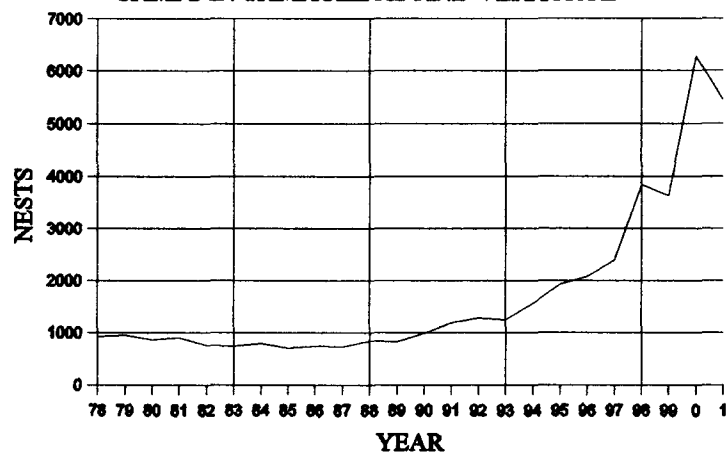
Emergence rate: 68.12%

TOTALS*(In the 2000 Season, a total of 6,277 nests were recorded, 395,150 hatchlings were released and the emergence rate was 66.94%)***Protected nests: 5,369****Recorded nests: 5,442****Corral****5,023****Box****241*****in situ*****105****Taken by Predators****39****Stolen****28****Protected eggs:****509,853****Average clutch size:****95 eggs****Hatchlings released:****317,127****Emergence Rate:****62.19%**

KEMP'S RIDLEY NESTS AT RANCHO NUEVO

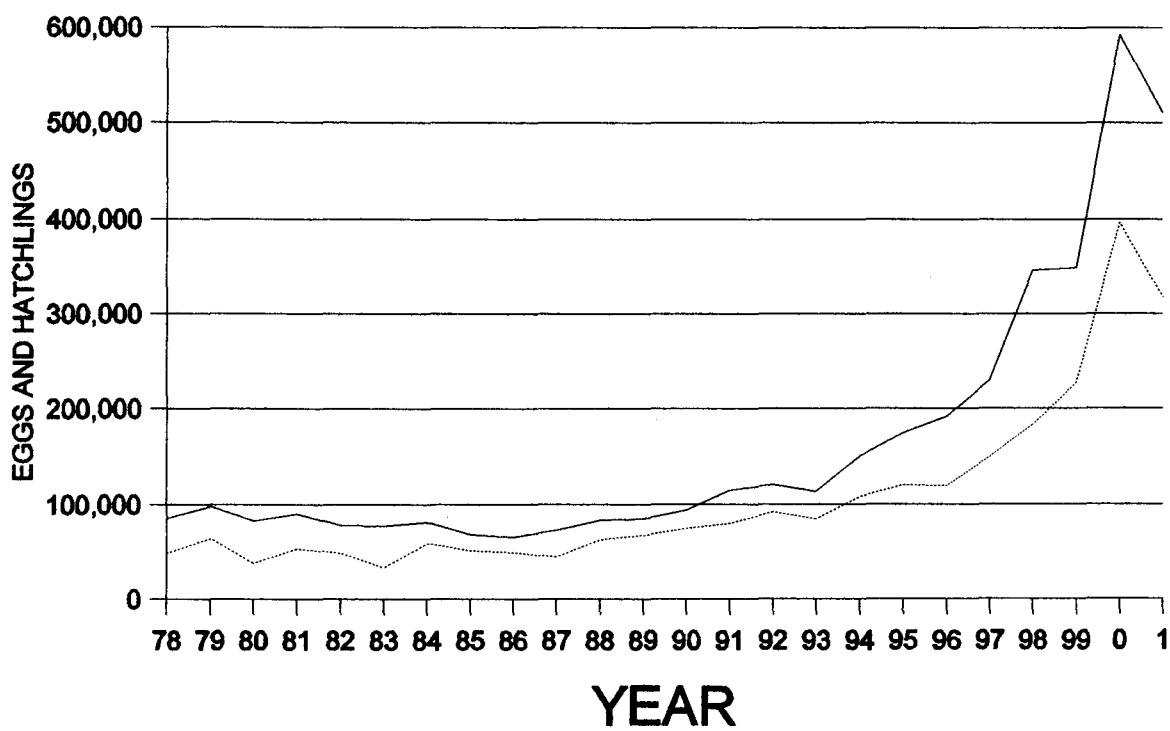


KEMP'S RIDLEY NESTS AT THE SEA TURTLE CAMPS IN TAMAULIPAS AND VERACRUZ



THE BINATIONAL PROJECT WAS INITIATED AT RANCHO NUEVO IN 1978. STARTING IN 1988, DATA INCLUDE NESTS FROM THE SOUTH CAMP, STARTING IN 1989, DATA INCLUDE NESTS FROM THE NORTH CAMP. IN 1996 DATA INCLUDE NESTS RECORDED IN LA PESCA AND ALTAMIRA, AND FROM 1997, NESTS FROM CAMPS LOCATED IN VERACRUZ.

TOTAL NUMBER OF KEMP'S RIDLEY EGGS AND HATCHLINGS -- 1978 - 2001



—— EGGS
..... HATCHLINGS

**RECORDED CURVED CARAPACE LENGTHS, CLUTCH SIZES AND
INTERESTING INTERVALS IN RANCHO NUEVO**

	Curved Carapace Length (cm)	Clutch Size	Interesting Interval (days)
Maximum	79.8	163	74
Minimum	57.5	18	1
Average	66.0	95	20

RECORDED NESTING FREQUENCY IN RANCHO NUEVO

Turtles recorded nesting one time	898
Turtles recorded nesting two times	355
Turtles recorded nesting three times	60
Turtles recorded nesting four times	6
Nest only (the turtle was not seen nesting)	1930

NESTING DISTRIBUTION BY ZONE

Zone	km	Name	Number of nests
0125	<i>No Data</i>		31
0124	<i>No Data</i>	La Pesca (<i>Field Station</i>)	8
0123	<i>No Data</i>		18
0122	12.5	Soto La Marina	71
0121	6.9	Punta de Piedra	101
0120	9.6	Tepehuajes (<i>Field Station</i>)	207
0119	8.1	Ostionales	329
0118	3.5	Carrizo	290
0117	3.4	Aparejo	305
0116	2.4	San Vicente	235
0115	2.1	Cachimbas	294
0114	1.5	Calabazas	195
0113	1.8	Jarcias	209
0112	2.1	Cementerio	223
0111	1.2	Barra Coma (<i>Main Field Station</i>)	232
0108	2.3	Brasilito	442
0105	10	Brasil	1,317
0104	3.3	Barra del Tordo (<i>Field Station</i>)	69
0103	2.4	Estero	27
0102	2.4	Barrita	25
0101	1.8	La Boya	18
0100	3.6	Punta Piedra	96
0099	3.9	Punta Jerez	68
0098	5.4	Los Troncos	33
0097	4.5	El Arbol	30
0096	5.4	El Camaronero	45
0095	9	Barra de Chavarria	66
Altamira	<i>No Data</i>	Field Station with CRIP Tampico	246
Tampico	<i>No Data</i>	CRIP Tampico Field Station	65
Lechuguillas	<i>No Data</i>	Field Station with CRIP Veracruz	141

DATA FROM OTHER NESTING BEACHES

Kemp's ridley strandings in Texas

From 1 January through 30 October 2001, 20 adult-sized Kemp's ridleys (60.0 cm straight-line carapace length or larger) were found stranded on the Texas coast. All were located dead. When possible, the adults were examined for the presence of PIT, flipper, wire, and living tags. However, some of the turtles were missing scutes or parts of at least one flipper and hence could not be thoroughly investigated for tags. Two of the 20 was found to have tags that had been applied previously at a nesting beach in Mexico and the information for these turtles is as follows:

An adult female tagged with PIT tag 41014B296F was found stranded dead (severely decomposed) on 14 May 2001 on South Padre Island in Cameron County, Texas. This turtle had been tagged previously and recorded nesting at Rancho Nuevo on 21 May 1998 and 14 June 1998.

An adult female tagged with PIT tag 4136111816 and metal flipper tag KC-102 was found stranded dead on 30 October 2001 4.3 mi. SW of Quintana Beach in Brazoria County, Texas.

Kemp's ridley nests on the Texas coast

During 2001, eight Kemp's ridley nests were documented on the Texas coast in conjunction with cooperative projects involving the U.S. Geological Survey, National Park Service, Gladys Porter Zoo, U.S. Fish and Wildlife Service, and a variety of other partners. The eight nests included one found on Mustang Island, four on North Padre Island (including three at Padre Island National Seashore), two on South Padre Island, and one on Boca Chica Beach. Of the eight clutches, four were laid by turtles that were not examined for tags, two were laid by two head-started turtles that had been experimentally imprinted to Padre Island National Seashore, one was laid by a turtle that had no tags, and one was laid by a turtle that was not from the experimental project, but had been tagged while nesting at Padre Island National Seashore in 1999. The 542 eggs from the five nests found on North Padre and Mustang Islands were transferred to the incubation facility on North Padre Island for protected incubation. Hatching and emergence success were 76.94% and the 411 surviving hatchlings were released at Padre Island National Seashore. The 295 eggs from the three nests found on South Padre Island and Boca Chica Beach were transferred to a protective corral on Boca Chica Beach. Hatching and emergence success were 58.64% and the 173 surviving hatchlings were released on Boca Chica Beach.

Kemp's ridley nests on the Alabama coast

During 2001, one Kemp's ridley nest was documented on the Alabama coast in conjunction with a project led by the U.S. Fish and Wildlife Service. The eggs incubated *in-situ*. The hatching success was 24.77% and emergence success was 14.68%. Sixteen hatchlings were released.____

(Information provided by Donna Shaver-Miller)

TAMAULIPAS SEA TURTLE STRANDINGS

1 March, 2001 - 15 August, 2001

During this period of twenty-four weeks, 95 sea turtles were found stranded on the Tamaulipas coast. Species composition includes fifty-one Kemp's ridley, ten green turtle, twenty-four loggerhead, two leatherback, six hawksbill and two specimens in which the species could not be determined. All turtles were found offshore. Twenty turtles were found stranded in La Pesca, thirty-five in Tepehuajes, eighteen in Rancho Nuevo, sixteen in Barra del Tordo, four in Altamira, and two in Tampico.

Location	Date	Species Curved carapace length (CCL), is in millimeters
La Pesca	032801	<i>Caretta caretta</i> . Female. CCL 720.
	040101	<i>Caretta caretta</i> . Female. CCL 880.
	040301	<i>Caretta caretta</i> . Female. CCL 750.
	040301	<i>Caretta caretta</i> . Female. CCL 630.
	040301	<i>Caretta caretta</i> . Female. CCL 800.
	040701	Species, sex and CCL could not be determined.
	040701	Species, sex and CCL could not be determined.
	041501	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 590.
	041701	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 710.
	042001	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 690.
	042101	<i>Caretta caretta</i> . Sex was not determined. CCL 470.
	042101	<i>Caretta caretta</i> . Female. CCL was not reported.
	042801	<i>Caretta caretta</i> . Female. CCL 770.
	050101	<i>Caretta caretta</i> . Female. CCL 710.
	050101	<i>Caretta caretta</i> . Female. CCL 750.
	050501	<i>Lepidochelys kempii</i> . Female. CCL 610.
	051201	<i>Lepidochelys kempii</i> . Female. CCL 610.
	051701	<i>Lepidochelys kempii</i> . Female. CCL was not determined. NMFS metal flipper tag: QQC-138.
	062101	<i>Lepidochelys kempii</i> . Female. CCL 650.
	062201	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 640.

TAMAULIPAS SEA TURTLE STRANDINGS (continued)

Location	Date	Species
		Curved carapace length (CCL), is in millimeters
Tepehuajes	030601	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 710
	031101	<i>Lepidochelys kempii</i> . Sex and CCL were not determined
	032201	<i>Caretta caretta</i> . Female. CCL 670
	032701	<i>Caretta caretta</i> . Sex was not determined. CCL 720.
	033001	<i>Lepidochelys kempii</i> . Male. CCL 670.
	040201	<i>Lepidochelys kempii</i> . Female. CCL 650.
	040601	<i>Lepidochelys kempii</i> . Female. CCL 570.
	040901	<i>Caretta caretta</i> . Female. CCL 780.
	041401	<i>Dermochelys coriacea</i> . Sex was not determined. CCL 1080.
	042301	<i>Lepidochelys kempii</i> . Female. CCL 620.
	042601	<i>Lepidochelys kempii</i> . Male. CCL 680.
	042701	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 650.
	043001	<i>Lepidochelys kempii</i> . Female. CCL 660.
	043001	<i>Lepidochelys kempii</i> . Male. CCL 620.
	043001	<i>Caretta caretta</i> . Female. CCL was not determined.
	043001	<i>Lepidochelys kempii</i> . Female. CCL 560.
	050101	<i>Lepidochelys kempii</i> . Female. CCL 720. INP metal flipper tag: KB-683. PIT tag: 407DOC675A.
	050101	<i>Lepidochelys kempii</i> . Female. CCL 590.
	050101	<i>Lepidochelys kempii</i> . Female. CCL 610.
	050201	<i>Dermochelys coriacea</i> . Female. CCL 1450.
	050201	<i>Lepidochelys kempii</i> . Male. CCL 610.
	050501	<i>Caretta caretta</i> . Male. CCL 760.
	050501	<i>Caretta caretta</i> . Female. CCL 780.
	050701	<i>Lepidochelys kempii</i> . Female. CCL 630.
	051901	<i>Lepidochelys kempii</i> . Female. CCL 650. INP metal flipper tag: KD-022. PIT tag: 1F27314346.
	052601	<i>Eretmochelys imbricata</i> . Sex and CCL were not determined.

TAMAULIPAS SEA TURTLE STRANDINGS (continued)

Location	Date	Species
		Curved carapace length (CCL), is in millimeters
Tepehuajes (continued)	060301	<i>Lepidochelys kempii</i> . Female. CCL undetermined
	060901	<i>Lepidochelys kempii</i> . Female. CCL undetermined.
	060901	<i>Lepidochelys kempii</i> . Female. CCL undetermined
	060901	<i>Caretta caretta</i> . Female. CCL 750.
	070501	<i>Lepidochelys kempii</i> . Female. CCL was not determined. INP metal flipper tag: KD-663.
	070701	<i>Chelonia mydas</i> . Sex was not determined. CCL 340.
	071401	<i>Lepidochelys kempii</i> . Female. CCL 580.
	072901	<i>Lepidochelys kempii</i> . Female. CCL 660.
	080101	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 630.
Rancho Nuevo	031701	<i>Lepidochelys kempii</i> . Female. CCL 600.
	032701	<i>Lepidochelys kempii</i> . Male. CCL 615.
	041101	<i>Chelonia mydas</i> . Male. CCL 960.
	041201	<i>Lepidochelys kempii</i> . Male. CCL 630.
	042401	<i>Chelonia mydas</i> . Sex was not determined. CCL 410.
	042801	<i>Lepidochelys kempii</i> . Female. CCL 700.
	043001	<i>Chelonia mydas</i> . Female. CCL 760.
	043001	<i>Lepidochelys kempii</i> . Female. CCL 650.
	043001	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 580.
	043001	<i>Eretmochelys imbricata</i> . Sex was not determined. CCL 770.
	050101	<i>Lepidochelys kempii</i> . Female. CCL 652.
	051001	<i>Chelonia mydas</i> . Female. CCL 180.
	051401	<i>Eretmochelys imbricata</i> . Sex was not determined. CCL 249.
	051701	<i>Caretta caretta</i> . Female. CCL 842
	053001	<i>Lepidochelys kempii</i> . Female. CCL 651.
	071601	<i>Eretmochelys imbricata</i> . Sex was not determined. CCL 268
	072401	<i>Lepidochelys kempii</i> . Male. CCL 657.
	080801	<i>Chelonia mydas</i> . Male. CCL 327.

TAMAULIPAS SEA TURTLE STRANDINGS (continued)

Location	Date	Species
		Curved carapace length (CCL), is in millimeters
Barra del Tordo	030801	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 680.
	040501	<i>Caretta caretta</i> . Sex was not determined. CCL 860.
	040601	<i>Caretta caretta</i> . Sex was not determined. CCL 710.
	042901	<i>Eretmochelys imbricata</i> . Sex was not determined. CCL 530.
	050101	<i>Chelonia mydas</i> . Male. CCL 1050.
	050101	<i>Caretta caretta</i> . Female. CCL 910.
	050401	<i>Lepidochelys kempii</i> . Female. CCL 690. INP metal flipper tag: FA-649.
	050501	<i>Lepidochelys kempii</i> . Female. CCL 670.
	050501	<i>Caretta caretta</i> . Female. CCL 800.
	051401	<i>Lepidochelys kempii</i> . Sex was not determined. CCL 590.
	052301	<i>Chelonia mydas</i> . Sex was not determined. CCL 330.
	061301	<i>Eretmochelys imbricata</i> . Sex was not determined. CCL 470.
	062201	<i>Chelonia mydas</i> . Sex and carapace length were not determined.
	071201	<i>Chelonia mydas</i> . Sex was not determined. CCL 310.
	071301	<i>Lepidochelys kempii</i> . Female. CCL 690.
	071501	<i>Lepidochelys kempii</i> . Male. CCL 700.
Altamira	042101	<i>Caretta caretta</i> . Sex was not determined. CCL 620.
	042401	<i>Lepidochelys kempii</i> . Female. CCL 670.
	050201	<i>Caretta caretta</i> . Female. CCL 810.
	060301	<i>Lepidochelys kempii</i> . Female. CCL 675.
Tampico	042501	<i>Lepidochelys kempii</i> . Female. CCL 750.
	052801	<i>Lepidochelys kempii</i> . No measurements were taken and sex was not determined.

STRANDING TABLES

LA PESCA

WEEK	DATES		SPECIES					TOTAL	
			Lk	Cm	Cc	Dc	Ei		unknown
1	March 1	March 7	0	0	0	0	0	0	0
2	March 8	March 14	0	0	0	0	0	0	0
3	March 15	March 21	0	0	0	0	0	0	0
4	March 22	March 28	0	0	1	0	0	0	1
5	March 29	April 4	0	0	4	0	0	0	4
6	April 5	April 11	0	0	0	0	0	2	2
7	April 12	April 18	2	0	0	0	0	0	2
8	April 19	April 25	1	0	2	0	0	0	3
9	April 26	May 2	0	0	3	0	0	0	3
10	May 3	May 9	1	0	0	0	0	0	1
11	May 10	May 16	1	0	0	0	0	0	1
12	May 17	May 23	1	0	0	0	0	0	1
13	May 24	May 30	0	0	0	0	0	0	0
14	May 31	June 6	0	0	0	0	0	0	0
15	June 7	June 13	0	0	0	0	0	0	0
16	June 14	June 20	0	0	0	0	0	0	0
17	June 21	June 27	2	0	0	0	0	0	2
18	June 28	July 4	0	0	0	0	0	0	0
19	July 5	July 11	0	0	0	0	0	0	0
20	July 12	July 18	0	0	0	0	0	0	0
21	July 19	July 25	0	0	0	0	0	0	0
22	July 26	August 1	0	0	0	0	0	0	0
23	August 2	August 8	0	0	0	0	0	0	0
24	August 9	August 15	0	0	0	0	0	0	0
TOTALS			8	0	10	0	0	2	20

TEPEHUAJES

WEEK	DATES		SPECIES					TOTAL
			Lk	Cm	Cc	Dc	Ei	
1	March 1	March 7	1	0	0	0	0	1
2	March 8	March 14	1	0	0	0	0	1
3	March 15	March 21	0	0	0	0	0	0
4	March 22	March 28	0	0	2	0	0	2
5	March 29	April 4	2	0	0	0	0	2
6	April 5	April 11	1	0	1	0	0	2
7	April 12	April 18	0	0	0	1	0	1
8	April 19	April 25	1	0	0	0	0	1
9	April 26	May 2	9	0	1	1	0	11
10	May 3	May 9	1	0	2	0	0	3
11	May 10	May 16	0	0	0	0	0	0
12	May 17	May 23	1	0	0	0	0	1
13	May 24	May 30	0	0	0	0	1	1
14	May 31	June 6	1	0	0	0	0	1
15	June 7	June 13	2	0	1	0	0	3
16	June 14	June 20	0	0	0	0	0	0
17	June 21	June 27	0	0	0	0	0	0
18	June 28	July 4	0	0	0	0	0	0
19	July 5	July 11	1	1	0	0	0	2
20	July 12	July 18	1	0	0	0	0	1
21	July 19	July 25	0	0	0	0	0	0
22	July 26	August 1	2	0	0	0	0	2
23	August 2	August 8	0	0	0	0	0	0
24	August 9	August 15	0	0	0	0	0	0
TOTALS			24	1	7	2	1	35

RANCHO NUEVO

WEEK	DATES		SPECIES					TOTAL
			Lk	Cm	Cc	Dc	Ei	
1	March 1	March 7	0	0	0	0	0	0
2	March 8	March 14	0	0	0	0	0	0
3	March 15	March 21	1	0	0	0	0	1
4	March 22	March 28	1	0	0	0	0	1
5	March 29	April 4	0	0	0	0	0	0
6	April 5	April 11	0	1	0	0	0	1
7	April 12	April 18	1	0	0	0	0	1
8	April 19	April 25	0	1	0	0	0	1
9	April 26	May 2	4	1	0	0	1	6
10	May 3	May 9	0	0	0	0	0	0
11	May 10	May 16	0	1	0	0	1	2
12	May 17	May 23	0	0	1	0	0	1
13	May 24	May 30	1	0	0	0	0	1
14	May 31	June 6	0	0	0	0	0	0
15	June 7	June 13	0	0	0	0	0	0
16	June 14	June 20	0	0	0	0	1	1
17	June 21	June 27	0	0	0	0	0	0
18	June 28	July 4	0	0	0	0	0	0
19	July 5	July 11	0	0	0	0	0	0
20	July 12	July 18	0	0	0	0	0	0
21	July 19	July 25	1	0	0	0	0	1
22	July 26	August 1	0	0	0	0	0	0
23	August 2	August 8	0	1	0	0	0	1
24	August 9	August 15	0	0	0	0	0	0
TOTALS			9	5	1	0	3	18

BARRA DEL TORDO

WEEK	DATES		SPECIES					TOTAL
			Lk	Cm	Cc	Dc	Ei	
1	March 1	March 7	0	0	0	0	0	0
2	March 8	March 14	1	0	0	0	0	1
3	March 15	March 21	0	0	0	0	0	0
4	March 22	March 28	0	0	0	0	0	0
5	March 29	April 4	0	0	0	0	0	0
6	April 5	April 11	0	0	2	0	0	2
7	April 12	April 18	0	0	0	0	0	0
8	April 19	April 25	0	0	0	0	0	0
9	April 26	May 2	0	1	1	0	1	3
10	May 3	May 9	2	0	1	0	0	3
11	May 10	May 16	1	0	0	0	0	1
12	May 17	May 23	0	1	0	0	0	1
13	May 24	May 30	0	0	0	0	0	0
14	May 31	June 6	0	0	0	0	0	0
15	June 7	June 13	0	0	0	0	1	1
16	June 14	June 20	0	0	0	0	0	0
17	June 21	June 27	0	1	0	0	0	1
18	June 28	July 4	0	0	0	0	0	0
19	July 5	July 11	0	0	0	0	0	0
20	July 12	July 18	2	1	0	0	0	3
21	July 19	July 25	0	0	0	0	0	0
22	July 26	August 1	0	0	0	0	0	0
23	August 2	August 8	0	0	0	0	0	0
24	August 9	August 15	0	0	0	0	0	0
TOTALS			6	4	4	0	2	16

ALTAMIRA

WEEK	DATES		SPECIES					TOTAL
			Lk	Cm	Cc	Dc	Ei	
1	March 1	March 7	0	0	0	0	0	0
2	March 8	March 14	0	0	0	0	0	0
3	March 15	March 21	0	0	0	0	0	0
4	March 22	March 28	0	0	0	0	0	0
5	March 29	April 4	0	0	0	0	0	0
6	April 5	April 11	0	0	0	0	0	0
7	April 12	April 18	0	0	0	0	0	0
8	April 19	April 25	0	0	1	0	0	1
9	April 26	May 2	0	0	1	0	0	1
10	May 3	May 9	0	0	0	0	0	0
11	May 10	May 16	0	0	0	0	0	0
12	May 17	May 23	0	0	0	0	0	0
13	May 24	May 30	1	0	0	0	0	1
14	May 31	June 6	1	0	0	0	0	1
15	June 7	June 13	0	0	0	0	0	0
16	June 14	June 20	0	0	0	0	0	0
17	June 21	June 27	0	0	0	0	0	0
18	June 28	July 4	0	0	0	0	0	0
19	July 5	July 11	0	0	0	0	0	0
20	July 12	July 18	0	0	0	0	0	0
21	July 19	July 25	0	0	0	0	0	0
22	July 26	August 1	0	0	0	0	0	0
23	August 2	August 8	0	0	0	0	0	0
24	August 9	August 15	0	0	0	0	0	0
TOTALS			2	0	2	0	0	4

TAMPICO

WEEK	DATES		SPECIES					TOTAL
			Lk	Cm	Cc	Dc	Ei	
1	March 1	March 7	0	0	0	0	0	0
2	March 8	March 14	0	0	0	0	0	0
3	March 15	March 21	0	0	0	0	0	0
4	March 22	March 28	0	0	0	0	0	0
5	March 29	April 4	0	0	0	0	0	0
6	April 5	April 11	0	0	0	0	0	0
7	April 12	April 18	0	0	0	0	0	0
8	April 19	April 25	1	0	0	0	0	1
9	April 26	May 2	0	0	0	0	0	0
10	May 3	May 9	0	0	0	0	0	0
11	May 10	May 16	0	0	0	0	0	0
12	May 17	May 23	0	0	0	0	0	0
13	May 24	May 30	1	0	0	0	0	1
14	May 31	June 6	0	0	0	0	0	0
15	June 7	June 13	0	0	0	0	0	0
16	June 14	June 20	0	0	0	0	0	0
17	June 21	June 27	0	0	0	0	0	0
18	June 28	July 4	0	0	0	0	0	0
19	July 5	July 11	0	0	0	0	0	0
20	July 12	July 18	0	0	0	0	0	0
21	July 19	July 25	0	0	0	0	0	0
22	July 26	August 1	0	0	0	0	0	0
23	August 2	August 8	0	0	0	0	0	0
24	August 9	August 15	0	0	0	0	0	0
TOTALS			2	0	0	0	0	2

TAMAULIPAS SEA TURTLE STRANDINGS

WEEK	DATES		SPECIES						TOTAL
			Lk	Cm	Cc	Dc	Ei	unknown	
1	March 1	March 7	1	0	0	0	0	0	1
2	March 8	March 14	2	0	0	0	0	0	2
3	March 15	March 21	1	0	0	0	0	0	1
4	March 22	March 28	1	0	3	0	0	0	4
5	March 29	April 4	2	0	4	0	0	0	6
6	April 5	April 11	1	1	3	0	0	2	7
7	April 12	April 18	3	0	0	1	0	0	4
8	April 19	April 25	3	1	3	0	0	0	7
9	April 26	May 2	13	2	6	1	2	0	24
10	May 3	May 9	4	0	3	0	0	0	7
11	May 10	May 16	2	1	0	0	1	0	4
12	May 17	May 23	2	1	1	0	0	0	4
13	May 24	May 30	3	0	0	0	1	0	4
14	May 31	June 6	2	0	0	0	0	0	2
15	June 7	June 13	2	0	1	0	1	0	4
16	June 14	June 20	0	0	0	0	1	0	1
17	June 21	June 27	2	1	0	0	0	0	3
18	June 28	July 4	0	0	0	0	0	0	0
19	July 5	July 11	1	1	0	0	0	0	2
20	July 12	July 18	3	1	0	0	0	0	4
21	July 19	July 25	1	0	0	0	0	0	1
22	July 26	August 1	2	0	0	0	0	0	2
23	August 2	August 8	0	1	0	0	0	0	1
24	August 9	August 15	0	0	0	0	0	0	0
TOTALS			51	10	24	2	6	2	95

SATELLITE MONITORING OF MALE KEMP'S RIDLEY OFF OF COASTAL TAMAULIPAS, MEXICO

In the late 1970's and early 1980's, interviews with local fishermen and ranch workers revealed that several individuals had observed Kemp's ridley sea turtles during the winter months in the waters off of the fishing villages of La Pesca and Barra del Tordo. Further inquiries over the ensuing years continued to result in sustained similar reports including several observations of copulating pairs during the months of October through March. This essentially corresponds to the months in between nesting seasons. Earlier satellite telemetry studies of post-nesting females, indicated that upon completing their nesting cycle, females migrated south to the Bay of Campeche as well as to the east and western coasts of the Yucatan Peninsula feeding grounds. Some specimens migrated north to the Texas coastline.

The reported presence of post-nesting season ridleys in the waters off of the nesting beach in the La Pesca and Barra del Tordo areas posits some interesting questions. First and foremost, are these females and males resident? Or have these females migrated from other feeding grounds and going to nest in the proximate nesting season?. All of the previously monitored females departed the area following nesting to move on to feeding grounds. This might well relate to females which nested two or three years earlier and which are now reproductively ready from a nutritional standpoint. B Second, persisting reports in the winter months of copulating pairs of ridleys or "tortugas loras" as they are called in Mexico, clearly indicates that there are at least some males resident in the area during this time interval. Virtually nothing is known of the migratory patterns or lack thereof, for adult male Kemp's ridleys. Any strategy to recover this species must include data on where, when and what half of the adult breeding population is doing. Aerial surveys have not been particularly successful inasmuch as the waters of the western Gulf of Mexico are turbid much of the time and a further confound is that Kemp's ridleys are wary and dive upon the approach of an aircraft.

Movements of 11 adult male Kemp's ridley turtles (*Lepidochelys kempii*) were monitored using satellite telemetry between 1999 and 2001. Turtles were captured near Rancho Nuevo, Tamaulipas, Mexico, outfitted with ST-14 satellite transmitters, and released there. For various transmitters, locations were obtained from 73 to 233 days and transmissions were received from 89 to 453 days. Transmission duty cycles of 8 hours on/52 hours off and 6 hours on/6 hours off were compared; using the cycle of 8 hours on/52 hours off did not extend the tracking period and resulted in fewer locations. Most identified locations were in near-shore waters, in 37 m (20 fm) water depth or less. One of the 11 traveled northward and was last located offshore from Galveston, Texas, USA. The other 10 remained within waters off Tamaulipas, Mexico. Eight of those 10 moved multi-directionally, primarily within core areas, and the other two moved primarily linearly. In contrast to previous findings for adult female Kemp's ridley turtles, a large proportion of the adult male Kemp's ridley population may reside offshore from nesting beaches year-round. Effective at-sea protection and management of adult Kemp's ridley turtles should incorporate considerations regarding year-round residency of males.

The present study is a beginning point for further study of the migratory or non-migratory patterns of adult male Kemp's ridleys. The small sample size of this study only intensifies the need for further study not only of males but also females habituating waters off of the nesting beach during the seasonal interesting interval.

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