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PLANS FOR THE DISPOSITION OF THE 1984 YEAR-CLASS
OF HEAD STARTED KEMP'S RIDLEY SEA TURTLES

by

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and

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INTRODUCTION

As of 1 May 1985, there were 1,086 survivors of the 1984 year-class of Kemp's ridley sea turtles, Lepidochelys kempi, being head started out of 1,547 hatchlings received alive from the National Park Service by the NMFS SEFC Galveston Laboratory between 24-27 July 1984. About 1,025 tagged individuals should be in good health and condition for release on 21 May. Not more than 50 tagged turtles of the year-class will be retained in captivity for extended head starting and as a potential brood stock. These will also be available for studies of tag retention and recognition. A few turtles that are abnormal, sick or injured will not be released nor transferred to marine aquaria.

TAGGING

All Kemp's ridleys of the 1984 year-class that were in good condition and health have been marked with a gouge-type living-tag on left coastal scute five (LC5) (Fig. 1). In addition, all these turtles have been tagged with an implanted binary-coded, magnetic metal tag in the tissue of the right front flipper. A monel flipper tag was applied to the trailing edge of the right front flipper of all these turtles during the week beginning 29 April. This allows 2 weeks for observations of monel tag retention and of any tag-related illness or mortality. The monel tags were cleansed with ethanol and

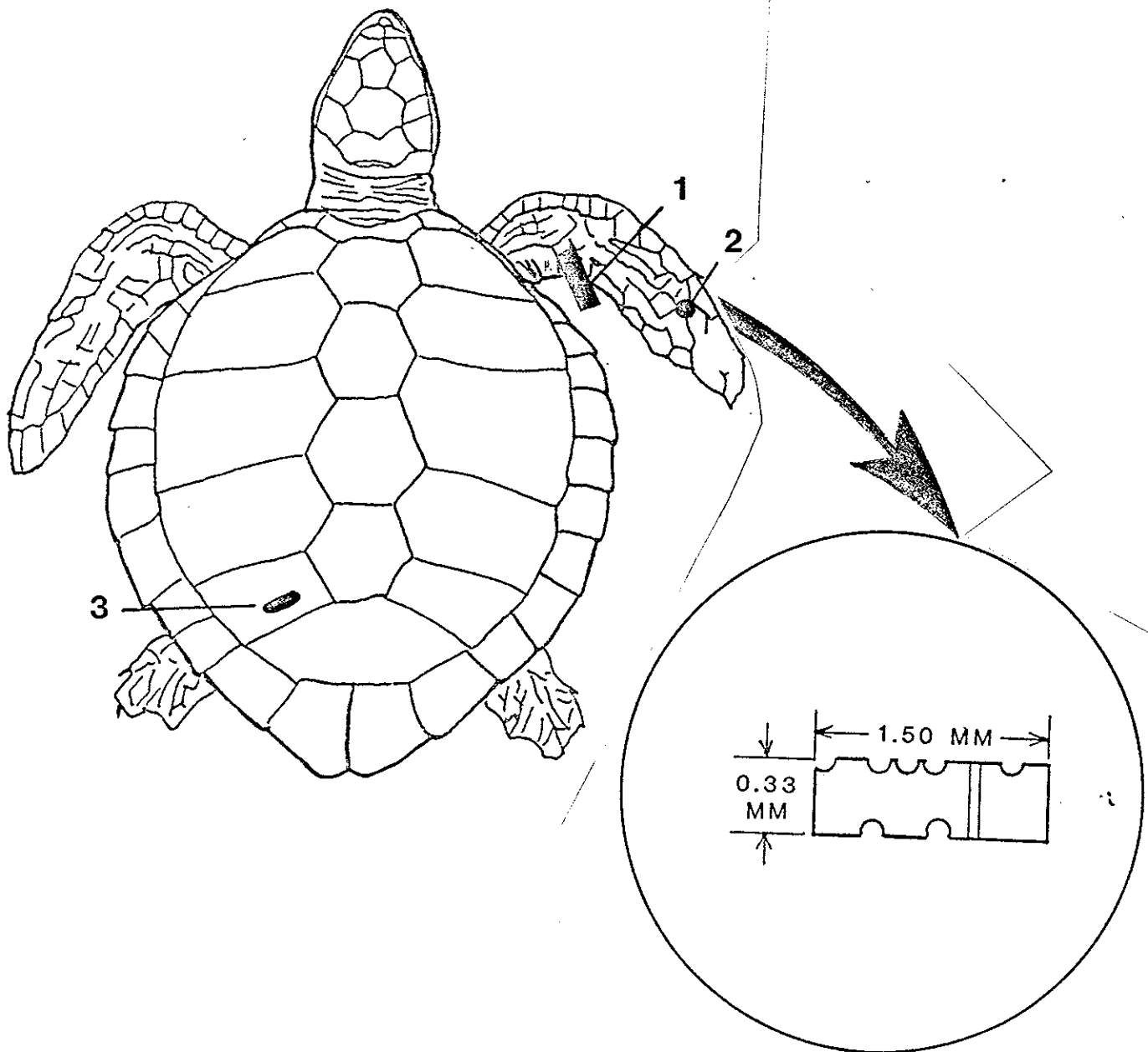


Figure 1. Diagram showing locations of the (1) monel flipper tag, (2) implanted, binary-coded, magnetic metal tag and (3) living-tag (on left costal scute five) on head started Kemp's ridley sea turtles of the 1984 year-class.

autoclaved before tagging. The tagging site was disinfected with tincture of iodine before each tag was applied.

In past years, we observed a high rate of tag loss in flipper-tagged Kemp's ridleys held at marine aquaria beyond their first year of life. While this may have been related to electrolysis, it may have also been a consequence of improper tag application (Larry Ogren, NMFS Panama City Laboratory, personal communication). Therefore, precautions were taken to assure proper crimping of the tags, with pliers as necessary, after the tags were applied with the tagging tool supplied by the tag manufacturer. The tagging tool also was modified to improve the crimping of the tag.

We do not plan to double-tag with monel tags this year as was done with some turtles in the past. It was our experience with the 1982 year-class that simultaneous double-tagging with the monel flipper tag created more trauma than was warranted by the potential benefit of double-tagging (i.e., better chance of retention of one tag). Leaving an interval between first and second tagging would be less traumatic.

TURTLES DETERMINED TO BE IN POOR HEALTH

Turtles suffering from a diagnosed pathological condition, illness, or injury will not be released or transferred elsewhere for extended head starting or captive breeding. The determination of health and condition is the responsibility of the Team Leader, Sea Turtle Head Start Operations, and will be made no later than Friday, 17 May 1985. Sick or injured turtles held past the release time will be transferred to other investigators or disposed of in a humane manner, in compliance with USFWS Threatened and Endangered Species permit no. PRT-676379.

TURTLES DETERMINED TO BE MORPHOLOGICALLY ABNORMAL

Turtles recognized as being morphologically abnormal, such as those exhibiting stunting or insufficient flipper size, cross beaks, etc. will not be released or transferred for extended head starting or

captive breeding. These turtles will be transferred to other investigators or will be humanely disposed of in compliance with USFWS permit no. PRT-676379. The identification of abnormal turtles is the responsibility of the Team Leader, Sea Turtle Head Start Operations, and will take place no later than Friday, 17 May 1985.

We have notified Dr. David Owens of Texas A&M University and others of the need for precautions in holding such animals, so they are not released into the wild, either deliberately or accidentally. Consideration should be given to sterilizing such turtles so that there is no risk of their contributing to the natural gene pool.

TURTLES TO BE DISTRIBUTED FOR EXTENDED HEAD STARTING OR CAPTIVE BREEDING

The 50 Kemp's ridleys to be transferred to other organizations will be chosen by Dr. Andre Landry of Texas A&M University in Galveston from a group of 100 turtles (Table 1) he used for morphometric studies during the head starting period. Retention of these turtles in captivity will allow continued observations on morphometry and on tag retention and recognition. Candidate organizations that may receive turtles from the year-class are listed in Table 2.

These turtles will be flipper-printed by Dickie Revera as part of a study attempting to distinguish and identify individual turtles by such methods.

Table 1. Bucket identification codes^{a/} for the 100 Kemp's ridley sea turtles selected for morphometric study by Texas A&M University^{b/}.

Raceway 1 ^{c/}	Raceway 3 ^{d/}	Raceway 4	Raceway 14
(Clutch 9) A6	(Clutch 4) A3, A5	(Clutch 13) A1	
B1, B3	B1, B6		
C5	C3	C1, C3	
D2	D6	D2, D5	
E1, E6	E1, E2	E2, E5, E6	
F1, F2, F6	F2, F4	F1, F5	
(Clutch 8) G2, G3, G6	(Clutch 10) G3	(Clutch 11) G1, G2, G3	
H5, H6	H1, H3, H4	H4	
I2, I5	I2, I5	I3	
	J4, J6	J1, J2	
K4	K1	K3	
L5, L6	L1	L1, L4	
(Clutch 16) M3	(Clutch 2) M3	(Clutch 17) M5, M6	(Clutch 17) M5, M6
N4	N2, N5	N3, N5	N5
O4	O4	O2	O2, O6
P3, P5	P2, P5, P6	P3, P5, P6	P1, P6
Q2, Q6	Q2, Q6	Q2, Q4, Q6	Q2, Q4
R4, R5, R6	R4	R3	R1

^{a/}Letters designate the bucket row and numbers the bucket column.

^{b/}Conducted by Dr. Andre Landry and assistants, Department of Marine Biology, Texas A&M University, Mitchell Campus, Galveston, Texas.

^{c/}F1 died on 7 January 1985, and F2 on 6 January 1985.

^{d/}M3 died on 11 September 1984, and N5 on 12 February 1985.

Table 2. Organizations identified as potential recipients of Kemp's
ridley sea turtles of the 1984 year-class for extended head
starting or captive breeding.

Audubon Park & Zoological Garden
P. O. Box 4327
New Orleans, LA 70178
(504) 861-2537

Contact: David Anderson, General Curator

Bass Pro Shop
1935 S. Campbell
Springfield, MO 65807
(417) 887-1915

Contact: Chuck Turley

Note: Assisted by
Dr. Don Moll
Department of Biology
Southwest Missouri State University
Springfield, MO 65804-0095
(417) 836-5126

Cayman Turtle Farm [1983] Ltd.,
P. O. Box 645
Georgetown, Grand Cayman
B. W. I.
(809) 949-3894

Contact: Dr. James Wood, General Manager

Marineland, Inc.
Rt. 1, Box 122
St. Augustine, FL 32086
(904) 471-1111

Contact: Joann Lowenstein, D.V.M., Curator

Pan American University
Coastal Studies Laboratory
P. O. Box 2591
S. Padre Island, TX 78597
(512) 943-2644

Contact: Dr. Frank W. Judd, Acting Director

Table 2. continued

Sea World of Florida, Inc.
7007 Sea World Drive
Orlando, FL 32809
(305) 351-3600

Contact: Frank L. Murru, Curator of Fishes

New England Aquarium
Central Warf
Boston, MA 02110
(616) 742-8830

Contact: John Prescott, Curator, and
Paul L. Sieswenda, Associate Curator

Theater of the Sea
P. O. Box 407
Islamorada, FL 33036
(305) 664-2431

Contact: Kenney McKenney

TURTLES TO BE RELEASED INTO THE NATURAL ENVIRONMENT

All remaining tagged turtles will be released into the natural environment. The release has been scheduled in coordination with the U.S. Coast Guard to take place on 21 May 1985, but the actual date may be different depending upon weather conditions. Details are as follows:

1. Release Date: Tuesday, 21 May 1985*

The release date is scheduled earlier this year than in past years, because the Coast Guard cutter POINT BAKER will be unavailable from 28 May to 30 July 1985 as it will be in dry-dock for repairs.

2. Release Site: Gulf of Mexico, 20-25 nautical miles offshore of North Padre Island and/or Mustang Island, Texas. Sargassum weed beds, oil slicks, and flotsam zones will be avoided as release sites.

3. Activity Schedule:

21 May

12:01 to 3:00 a.m.	turtles packed
3:00-4:00 a.m.	release crew departs for Port Aransas in two trucks and a van
8:00-9:00 a.m.	release crew arrives Port Aransas
10:00-11:00 a.m.	release vessel departs dock
4:00-5:00 p.m.	vessel returns to dock
5:00-6:00 p.m.	crew disposes of release boxes

*Subject to change if inclement weather is forecast for the coastal area off Corpus Christi, Texas. The weather situation will be monitored by the Team Leader, Sea Turtle Head Start Operations, who will make the decision and notify all parties of any changes necessary.

22 May

9:00 a.m. release crew departs Port Aransas
by van (only if rented trucks can
be left in Corpus Christi)

2:00 p.m. release crew arrives Galveston

4. Packing and Release crews:

(a) Packing crew: C. T. Fontaine, Team Leader and Party Chief
T. D. Williams, Alternate Party Chief
S. Manzella
M. Tyree
D. Revera
M. Olivarez
F. Mattes
J. Von Cannon
D. Patlan (video photographer)
C. Olguin (SER Employee - no cost
to gov't)

(b) Release crew: C. T. Fontaine, Team Leader and Party Chief
T. D. Williams, Alternate Party Chief
S. Manzella
M. Tyree
D. Patlan (video photographer)
C. Olguin (SER employee - no cost
to gov't)

5. Method of release:

Distance from shore and depth, speed, and direction used for the
release will be discussed and coordinated by the Team Leader, Sea
Turtle Head Start Operations, with the U.S. Coast Guard cutter

Commander prior to the release date. The Team Leader, Sea Turtle Head Start Operations, will request a release transect heading parallel to the shoreline in an area 20-25 nautical miles from shore. The turtles will be released singly along this transect. Releasing groups of turtles at one time will be avoided to spread the risk of loss due to predation over a wider area. Sargassum weed patches, oil slicks, and flotsam zones will be avoided as points for release of turtles. LORAN readings will be recorded at the beginning and end of the release transect, and all pertinent environmental conditions such as sea condition, sea surface temperature, and wind direction and speed likewise will be recorded.

6. Beach monitoring after release:

This will be carried out by the NPS and coordinated by Robert King.

7. Transportation:

Ground - Two trucks (rented) and one government vehicle (utility van preferred).

Sea - U.S. Coast Guard cutter POINT BAKER docking at U.S. Coast Guard Station, Port Aransas, Texas

8. Estimated cost to NMFS:

Truck rental =	\$	500.00
Per diem =		260.00
Overtime pay =		150.00
Misc. =		<u>90.00</u>
Total		\$1,000.00

9. Contingency plans after arrival in Port Aransas**:

If unanticipated inclement weather conditions develop off-shore at the time the release crew arrives at Port Aransas, the turtles will be taken to the University of Texas, Institute of Marine Science, Port Aransas, Texas. There the turtles will be placed in seawater tanks. If inclement weather persists for more than 48 hours, the release will be rescheduled and five release crew members will return to Galveston until the new release date. Dr. Connie Arnold, University of Texas IMS, has been contacted to make arrangements.

One release crew member will remain to care for sea turtles until the new release date, unless this is cost-prohibitive.

In case the Coast Guard cutter is called into emergency rescue activities after departing with the turtles, alternative planning will have to be done. This will be handled by the Team Leader, Sea Turtle Head Start Operations, in coordination with the vessel commander.

10. Coordination

The coordination of the release will be done by the Team Leader, Sea Turtle Head Start Operations, and his staff. Necessary contacts have been made by telephone during the period 15-19 April,

**Contacts and arrangements made in advance by the Team Leader, Sea Turtle Headstart Operations

and a follow-up will take place on 6-10 May. Agencies/
Organization/Individuals contacted are:

Coast Guard Master Chief Borgier, Captain of the cutter
POINT BAKER, U.S. Coast Guard Station, Port Aransas, Texas;

Robert King, Biologist, U.S. National Park Service, Padre
Island National Seashore, Corpus Christi, Texas;

Dr. Connie Arnold and Dr. Anthony Amos, University of Texas,
Institute of Marine Science, Port Aransas, Texas;

Ed Hegen, Regional Biologist, Texas Parks and Wildlife
Department, Rockport, Texas;

Bob Stone, NMFS Enforcement Agent, Corpus Christi, Texas;

Robert Whistler, Sea Turtle Stranding Network, National Park
Service, Corpus Christi, Texas;

Mr. Brian Gorman, NOAA Public Affairs Office, Washington,
D.C.

News Media:

Galveston Daily News

Houston Chronicle

Radio Station KILE (Galveston)

TV-Channel 11 (CBS) - Houston

TV-Channel 13 (ABC) - Houston

TV-Channel 2 (NBC) - Houston

TV-Channel 39 (IND) - Houston

TV-Channel 8 (PBS) - Houston

As was the case last year, on-site publicity for this release will be handled by the Public Affairs Officer, U.S. Coast Guard, Corpus Christi, Texas, who did an excellent job.

COOPERATIVE RELEASE OF LOGGERHEAD SEA TURTLES

At the request of Dr. David Owens, tagged loggerhead sea turtles will be released at the same time and place as the Kemp's ridleys. The loggerheads were obtained as eggs from L. M. Ehrhart, Melbourne Beach, FL, and hatched in late September-early October 1984. On 1 May 1985, 67 remained alive. Those in good health and condition will be tagged with monel flipper tags by Dr. Owens and his student assistants. They will be packed at Texas A&M University on 21 May and transported to Galveston to be loaded onto trucks for the trip to Port Aransas. Dr. Owens' work with these loggerheads is covered by Florida Department of Natural Resources permit no. 072 and by U.S. Fish and Wildlife Service Threatened and Endangered Species permit no. PRT 2-3456.

CRUISE REPORT

A report on the release will be prepared and distributed within 60 days following the release.

OLIVE RIDLEYS

Six 1984 year-class olive ridley sea turtles (Lepidochelys olivacea) have survived out of the 12 hatchlings received from Ross Witham, Florida Department of Natural Resources, Jensen Beach, FL. These have shown very little growth as compared to the Kemp's ridleys of the same year-class. Final disposition of the olive ridleys has not yet been determined.

ACKNOWLEDGEMENTS

The assistance of Ted Williams, Marty Tyree, Sharon Manzella, Marcel Duronslet, Dickie Revera, Christine Olguin, Julie Ramas, Denise Daley, David Smith, Ausbon Brown, Jr., Zoula Zein-Eldin, Jorge Leong, Medardo Olivarez, Fred Mattes, and John Von Cannon was greatly appreciated.

This work was conducted under permit no. 2534 from the INP (Mexico), FWS Threatened and Endangered species permit no. PRT-676379, TPWD scientific permit no. 73, and FDNR permit no. TP-15.

The Kemp's ridley eggs and hatchlings were made available through the efforts of René Márquez Milan (INP, Mexico), Lawrence Castañares Maddox (SEDUE, Mexico), Jack Woody and David Bowman (FWS, Albuquerque, NM), Milford Fletcher (NPS, Sante Fe, NM), Pat Burchfield (Gladys Porter Zoo, Brownsville, Texas), and Robert King (NPS, Corpus Christi, Texas) and their staffs.

HEART (Help Endangered Animals - Ridley Turtles), a special committee of the Piney Woods Wildlife Society of North Harris County College, chaired by Mrs. Carole Allen, Houston, Texas, provided all the food for the 1984 year-class of Kemp's ridleys.

Dr. John and Mrs. Lupe Hendrickson, University of Arizona, Tucson, Arizona, living-tagged 40% of the hatchlings at the Padre Island National Seashore before they were received by the NMFS.

Beatrice Richardson typed this plan through its many revisions. Daniel Patlan prepared the figure.