

# Rounds

Animal Health  
Department

Medical Rounds

"medicine for all"



*Caring for Stranded Marine Animals*

NATIONAL  
MARINE  
L I F E  
CENTER

# Notes

Veterinary Research  
Department

Under the microscope

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Rounds Notes is a report on the health of animals at the National Marine Life Center from Sea Rogers Williams VMD for the staff, volunteers, and community of the center including professionals involved the captive care of similar species, the views expressed are not necessarily that of NMLC. Information in Rounds Notes should be considered confidential and used solely to benefit the health of aquatic animals everywhere.

December 31, 2009

*Rounds Notes*

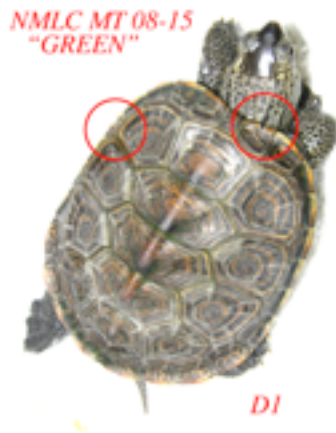
26: 62-65 (2009)

## ANNUAL REPORT 2009

### Animal Health Department, the year in review

The animal health department has remained active and involved with wide array of animals at the center with particular attention to turtles, both semi-aquatic and marine. We experienced the excitement of the release of Fletcher the loggerhead sea turtle and successful satellite tracking following Fletcher's travels to the near shore waters of South Carolina, and the disappointing loss of CaveMan the Kemp's Ridley due to renal failure and systemic Mycobacterial infection. Our continued involvement with Don Lewis has led to further efforts with local Diamondback terrapins in terms of head-start and emergency rehabilitation efforts. Don brought us Patty. We continue an active participation with the Red-bellied cooter head-start program and offer additional assistance with veterinary care as well as expert husbandry with individual cooters in need of additional rehabilitation prior to release. We also had a critter tank set-up for the public and incorporated this under the supervision of the Animal Health Department.

I have used this year to refine our computerized medical records in a FileMaker based database that holds veterinary medical records for all of the animals that have been housed at the National Marine Life Center, and which functions to track expenses, inventory, pharmacy and controlled drugs, and provides computerized medical records of all animals starting in 2009. A



complementary paper record system and weekly treatment sheet used to track daily care was finalized and implemented for all animals in rehabilitation. A new animal ID protocol and image sheet for animals admitted and released was established. Most importantly was the implementation of the National Marine Life Center's Case Summary reporting. Our goal is a complete summary report for every animal in rehabilitation and every group of animals in head-start. These may end up on our web site as a pay-for-download report, an in-house publication, gray-literature publication, fodder for the peer review system, or even the creation of a new journal. Most importantly is that the information is not lost and can be disseminated to other groups with interest in what we do, namely other rehabilitation organizations, state and federal agencies concerned with science

and conservation, the veterinary and comparative medical communities for diseases that may serve as models of human disease, and the basic ocean science and ecology health fields. Rounds Notes is produced biweekly based on case load and available at nmlc.org, and updates and animal blogs are provided on the web-site. Extensive use of the Veterinary Information Network (VIN) has broadened the relevance of our program and brought excellent feedback from a number of veterinarians and veterinary specialists to improve the quality of care we provide and to create another permanent and searchable summary of specific diagnostic challenges to veterinarian members of VIN. Published case reports continues provide a challenge, and I am looking forward to our first submission in 2010. A complete accession and disposition file is also maintained with vital statistics required for state and federal authorities.



### YEAR END: 2009 animal inventory

		admitted 2009	current in- house	total in 2009
<b>TURTLES:</b>				
Northern red-bellied cooters	<i>Pseudemys rubriventris</i>	14	8	20
Diamond back terrapins	<i>Malaclemys terrapin</i>	10	9	14
Loggerhead sea turtles	<i>Caretta caretta</i>	0	0	1
Kemp's Ridley sea turtles	<i>Lepidochelys kempii</i>	1-DOA‡	0	2
Green sea turtles	<i>Chelonia mydas</i>	1-DOA∞	0	1
<b>CRITTERS:</b>				
Green Crab	<i>Carcinus maenas</i>	18	0	18
Long-clawed Hermit Crab	<i>Pagurus longicarpus</i>	15	0	15
Common Spider Crab	<i>Libinia emarginata</i>	2	0	2
Lady Crab	<i>Ovalipes ocellatus</i>	3	0	3
Asian Shore Crab	<i>Hemigrapsus sanguineus</i>	5	0	5
Mud Crab	<i>Rhithropanopeus sp.</i>	1	0	1
Common Grass Shrimp	<i>Palaemonetes sp.</i>	17	0	17
Ribbed Muscle	<i>Mytilus sp.</i>	14	0	14
Oyster	<i>Ostrea edulis</i>	1	0	1
Soft Shelled Clam	<i>Mya arenaria</i>	1	0	1
Common Periwinkle	<i>Littorina littorea</i>	26	0	26
Forbe's sea star	<i>Asterias forbesi</i>	2	0	2
Mummichogs (killifish)	<i>Fundulus heteroclitus</i>	15	0	15

## Releases: our successes

### TURTLES:

Northern red-bellied cooters	<i>Pseudemys rubriventris</i>	12 (state coordinated release)
(Williams, Nicholson et al. 2009; Williams, Nicholson et al. 2009)		
Diamond back terrapins	<i>Malaclemys terrapin</i>	4
Loggerhead sea turtles	<i>Caretta caretta</i>	1

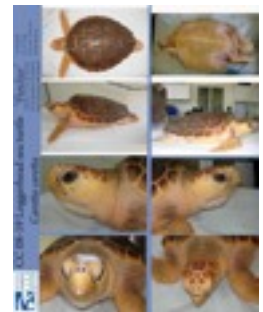
### CRITTERS:

All surviving critters were released locally except for invasive species such as Asian shore crabs and green crabs. Surviving invasive species were not released and were either fed to animals in rehabilitation or disposed of in a humane manner.

## Deaths: lesions from the bone pile

### TURTLES:

Diamond back terrapins	<i>Malaclemys terrapin</i>	1
(Williams, Don Lewis et al. 2009)		
Kemp's Ridley sea turtles	<i>Lepidochelys kempii</i>	1
(Williams, Dunnigan et al. 2009)-pending molecular studies and final results		



DOA= dead on arrival.

‡A dead Kemp's Ridley was collected on Martha's Vineyard, pronounced dead, and held briefly at the center until it could be collected and brought to the New England Aquarium for necropsy

∞ A dead green sea turtle was collected from Martha's Vineyard and a full necropsy performed. A report was started. The tissues were forwarded to Dr. Brian Stacy for histopathology; the results are pending.



*C. Rogers Williams VMD*

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attending veterinarian and director of science



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## Bibliography

- Williams, S. R., Don Lewis, et al. (2009). Death of a northern diamond-back terrapin (*Malaclemys terrapin*) following trauma to the marginal scutes and exposure of the coelum. National Marine Life Center, Case Summaries. S. R. Williams. Buzzards Bay, MA, National Marine Life Center: 28.
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- Williams, S. R., J. Nicholson, et al. (2009). Additional headstart maintenance of northern (Plymouth) red-bellied cooters (*Pseudemys rubriventris bangsi*), held-back class of 2009. National Marine Life Center, Case Summaries. S. R. Williams. Buzzards Bay, MA, National Marine Life Center: 14.
- Williams, S. R., J. Nicholson, et al. (2009). Successful headstart of northern (Plymouth) red-bellied cooters (*Pseudemys rubriventris bangsi*), class of 2009. National Marine Life Center, Case Summaries. S. R. Williams. Buzzards Bay, National Marine Life Center: 10.



tube feeding a critically ill  
Kemps sea turtle



CT of a loggerhead sea turtle prior  
to release



ultrasound on a Diamondback  
terrapin



# National Marine Life Center: Annual Report: Animal Accession & Disposition

#	Stranding Date	Stranding Location	Admission Date	Common Name	Taxon	NMLC Code	"Name" NUMBER	ID 1 (MH)	ID 2 (ST)	Admission weight (kg)	Admission length (cm)	sex	primary problem	Source Contact	NMLC DX	Disposition	Disposition date	Disposition length (cm)	Disposition weight (kg)	case summary	note		
1	unknown		24-Sep-08	Northern Red-bellied Cooter	TERP	PR 08 09	255	2255	0.0338	0.0071	unknown	State Headstart	Tom French/Dave Taylor	head start	released	28-May-09	9.60	0.16	working	Middleborow			
2	unknown		24-Sep-08	Northern Red-bellied Cooter	TERP	PR 08 10	256	2256	0.0333	0.0065	unknown	State Headstart	Tom French/Dave Taylor	head start	released	28-May-09	10.50	0.20	working	Middleborow			
3	unknown		24-Sep-08	Northern Red-bellied Cooter	TERP	PR 08 11	257	2257	0.0323	0.0066	unknown	State Headstart	Tom French/Dave Taylor	head start	released	28-May-09	10.20	0.18	working	Middleborow			
4	unknown		24-Sep-08	Northern Red-bellied Cooter	TERP	PR 08 12	258	2258	0.0335	0.0075	unknown	State Headstart	Tom French/Dave Taylor	head start	released	28-May-09	9.90	0.18	working	Middleborow			
5	unknown		24-Sep-08	Northern Red-bellied Cooter	TERP	PR 08 13	259	2259	0.034	0.0081	unknown	State Headstart	Tom French/Dave Taylor	head start	released	28-May-09	9.50	0.14	working	Middleborow			
6	unknown		24-Sep-08	Northern Red-bellied Cooter	TERP	PR 08 14	260	2260	0.0075	unknown	State Headstart	Tom French/Dave Taylor	head start	released	28-May-09	9.50	0.15	working	Middleborow				
7	14-Oct-08		23-Oct-09	Diamond Back Terrapin	TERP	MT 08 15	Mr. Green Jeans	green	D1	0.028	0.008	unknown	late hatchling	Don Lewis	overwinter support	released	25-Jun-09	6.00	0.05	working			
8	14-Oct-08		23-Oct-09	Diamond Back Terrapin	TERP	MT 08 16	Blueberry	blue	D2	0.029	0.008	unknown	late hatchling	Don Lewis	overwinter support	released	25-Jun-09	5.00	0.03	working			
9	14-Oct-08		23-Oct-09	Diamond Back Terrapin	TERP	MT 08 17	Blackie	black	D3	0.027	0.005	unknown	late hatchling	Don Lewis	overwinter support	released	25-Jun-09	7.00	0.08	working			
10	14-Oct-08		23-Oct-09	Diamond Back Terrapin	TERP	MT 08 18	Brownie	brown	D4	0.027	0.006	unknown	late hatchling	Don Lewis	overwinter support	released	25-Jun-09	6.00	0.05	working			
11	29-Nov-08		4-Dec-08	Loosehead sea turtle	ST	CC 08 19	Fletcher		MH 08-177-CC	ST 08-109	52.5	23.7	unknown	cold-stun	NEAe-Dr. Iris	cold-stun	released	8-Apr-09	55.40	32.30	working	to Virginia Aquarium the NC	
12	23-Nov-08		8-Dec-08	Kermadec ridley sea turtle	ST	LX 08-20	Cacti Caveman		MH 08-165 LK	ST 08-102	27.3	2.9	unknown	cold-stun	NEAe-Dr. Iris	cold-stun	died	28-Jan-09	27.50	2.70	working	sepsis and renal failure an outomnar abscess	
<b>Jan 1, 2009</b>																							
<small>raw format</small>																							
	26-Apr-09		28-Apr-09	Diamond Back Terrapin	TERP	09-001 TMT	Amelia			0.4	0.0195	unknown	preditor trauma	Don Lewis	fractured carapace	died	12-May-09	4.00	0.02	final draft	sepsis confirmed by histo		
	17-Mar-09		28-May-09	Diamond Back Terrapin	TERP	09-002 TMT	Patty			19.1	1.3	unknown	thermal injury	Don Lewis	hypelma, hind limb paresis	active							
unknown			28-May-09	Northern Red-bellied Cooter	TERP	09-003 TPR		203	203	7.4	0.082	unknown	slow growth head start	Tom French/Dave Taylor	slow growth	released	18-Aug-09	9.40	0.17		Middleborow		
unknown			28-May-09	Northern Red-bellied Cooter	TERP	09-004 TPR		204	204	7.7	0.092	unknown	slow growth head start	Tom French/Dave Taylor	slow growth	released	18-Aug-09	9.50	0.16		Middleborow		
unknown			28-May-09	Northern Red-bellied Cooter	TERP	09-005 TPR		192	192	7.8	0.095	unknown	slow growth head start	Tom French/Dave Taylor	slow growth	released	18-Aug-09	9.70	0.16		Middleborow		
unknown			28-May-09	Northern Red-bellied Cooter	TERP	09-006 TPR		198	193	7	0.068	unknown	slow growth head start	Tom French/Dave Taylor	slow growth	active	30-Sep-09	7.80	0.08		Middleborow		
unknown			28-May-09	Northern Red-bellied Cooter	TERP	09-007 TPR		196	196	7.3	0.071	unknown	slow growth head start	Tom French/Dave Taylor	slow growth	released	18-Aug-09	8.70	0.12		Middleborow		
unknown			28-May-09	Northern Red-bellied Cooter	TERP	09-008 TPR		197	197	7.6	0.087	unknown	slow growth head start	Tom French/Dave Taylor	slow growth	released	18-Aug-09	9.00	0.13		Middleborow		
1	2-Jul-09	Pocasset River	2-Jul-09	Green Crab	CRITTER	09-009 CRI		2				unknown	critter tank collection	Jeanne Nicholson	wild collection								
2	2-Jul-09	Pocasset River	2-Jul-09	Common Grass Shrimp	CRITTER	09-010 CRI		8				unknown	critter tank collection	Jeanne Nicholson	wild collection	dead							
3	2-Jul-09	Pocasset River	2-Jul-09	Common Soldier Crab	CRITTER	09-011 CRI		1				unknown	critter tank collection	Jeanne Nicholson	wild collection	dead		7/13/09					
4	2-Jul-09	Pocasset River	2-Jul-09	Ribbed Muscle	CRITTER	09-012 CRI		1				unknown	critter tank collection	Jeanne Nicholson	wild collection								
5	2-Jul-09	Pocasset River	2-Jul-09	Long-clawed Hermit Crab	CRITTER	09-013 CRI		10				unknown	critter tank collection	Jeanne Nicholson	wild collection								
6	2-Jul-09	Pocasset River	2-Jul-09	Periwinkles	CRITTER	09-014 CRI		13				unknown	critter tank collection	Jeanne Nicholson	wild collection								
7	2-Jul-09	Cape Cod Canal	2-Jul-09	Forbe's sea star	CRITTER	09-015 CRI		2				unknown	critter tank collection	Amanda Chilson	wild collection	dead		7/8, 7/14					
8	2-Jul-09	Cape Cod Canal	2-Jul-09	Common Grass Shrimp	CRITTER	09-016 CRI		9				unknown	critter tank collection	Amanda Chilson	wild collection	eaten		7/20/09					
19	2-Jul-09	Cape Cod Canal	2-Jul-09	Common Soldier Crab	CRITTER	09-017 CRI		1				unknown	critter tank collection	Amanda Chilson	wild collection	dead		7/27/09					
10	2-Jul-09	Cape Cod Canal	2-Jul-09	Long-clawed Hermit Crab	CRITTER	09-018 CRI		5				unknown	critter tank collection	Amanda Chilson	wild collection	3 left							
11	2-Jul-09	Cape Cod Canal	2-Jul-09	Lady Crab	CRITTER	09-019 CRI		2				male/female	critter tank collection	Amanda Chilson	wild collection	died		7/8/09					
12	2-Jul-09	Cape Cod Canal	2-Jul-09	Green Crab	CRITTER	09-020 CRI		7				5 male / 2	critter tank collection	Amanda Chilson	wild collection	3 left							
13	2-Jul-09	Cape Cod Canal	2-Jul-09	Periwinkles	CRITTER	09-021 CRI		4				unknown	critter tank collection	Amanda Chilson	wild collection	died/eaten							
14	2-Jul-09	Cape Cod Canal	2-Jul-09	Ovster	CRITTER	09-022 CRI		1				unknown	critter tank collection	Amanda Chilson	wild collection								
15	2-Jul-09	Southeast	2-Jul-09	Ribbed Muscle	CRITTER	09-023 CRI		13				unknown	critter tank collection	Amanda Chilson	wild collection	1 left							
17	17-Jul-09	Buttermilk Bay	17-Jul-09	Mud Crab	CRITTER	09-024 CRI		1				unknown	critter tank collection	Amy Goodwin 508 759-0056	wild collection								
17	17-Jul-09	Buttermilk Bay	17-Jul-09	Periwinkles	CRITTER	09-025 CRI		9				unknown	critter tank collection	Amy Goodwin 508 759-0056	wild collection								
18	23-Jul-09	Scorton Creek	23-Jul-09	Green Crab	CRITTER	09-026 CRI		9				unknown	critter tank collection	Kristen Mowry	wild collection	4 left							
19	23-Jul-09	Scorton Creek	23-Jul-09	Mummichogs (killifish)	CRITTER	09-027 CRI		15				unknown	critter tank collection	Kristen Mowry	wild collection								
20	23-Jul-09	Scorton Creek	23-Jul-09	Lady Crab	CRITTER	09-028 CRI		1				unknown	critter tank collection	Kristen Mowry	wild collection	MIA							
21	23-Jul-09	Cape Cod Canal	23-Jul-09	Asian Shore Crab	CRITTER	09-030 CRI		5				unknown	critter tank collection	Kristen Mowry	wild collection	3 left							
22	23-Jul-09	Scorton Creek	23-Jul-09	Soft Shelled Clam	CRITTER	09-031 CRI		1				unknown	critter tank collection	Kristen Mowry	wild collection								
23	27-Jul-09	Martha's Vineyard	28-Jul-09	Green sea turtle	ST	09-032 TCM			MH-09-103 CM	ST-	4.8	33.7	female	dead animal stranding	Adam- NEAq	intestinal perforation	necropsy	Jul 28, 2009	33.70	4.83	STSSN case		
24	2-Oct-09	unknown	13-Oct-09	Northern Red-bellied Cooter	TERP	09-033 TPR		1	1	1	0.0072	3.21	unknown	State Headstart	Tom French/Dave Taylor	Head start							
24	2-Oct-09	unknown	13-Oct-09	Northern Red-bellied Cooter	TERP	09-034 TPR		2	2	2	0.0092	3.35	unknown	State Headstart	Tom French/Dave Taylor	Head start							
25	2-Oct-09	unknown	13-Oct-09	Northern Red-bellied Cooter	TERP	09-035 TPR		3	3	3	0.01	3.33	unknown	State Headstart	Tom French/Dave Taylor	Head start							
26	2-Oct-09	unknown	13-Oct-09	Northern Red-bellied Cooter	TERP	09-036 TPR		4	4	4	0.0113	3.43	unknown	State Headstart	Tom French/Dave Taylor	Head start							
27	2-Oct-09	unknown	13-Oct-09	Northern Red-bellied Cooter	TERP	09-037 TPR		5	5	5	0.01	3.32	unknown	State Headstart	Tom French/Dave Taylor	Head start							
28	2-Oct-09	unknown	13-Oct-09	Northern Red-bellied Cooter	TERP	09-038 TPR		6	6	6	0.0103	3.35	unknown	State Headstart	Tom French/Dave Taylor	Head start							
29	2-Oct-09	unknown	13-Oct-09	Northern Red-bellied Cooter	TERP	09-039 TPR		7	7	7	0.0101	3.33	unknown	State Headstart	Tom French/Dave Taylor	Head start							
30	2-Oct-09	unknown	13-Oct-09	Northern Red-bellied Cooter	TERP	09-040 TPR		8	8	8	0.0089	3.35	unknown	State Headstart	Tom French/Dave Taylor	Head start							
31	unknown	unknown	18-Nov-09	Diamond Back Terrapin	TERP	09-041 TMT	green 1			1	0.0052	2.7	unknown	State Headstart	Don Lewis	Head start							
32	unknown	unknown	18-Nov-09	Diamond Back Terrapin	TERP	09-042 TMT	green 2			2	0.0046	2.7	unknown	State Headstart	Don Lewis	Head start							
33	unknown	unknown	18-Nov-09	Diamond Back Terrapin	TERP	09-043 TMT	black 3			3	0.0046	2.6	unknown	State Headstart	Don Lewis	Head start							
34	unknown	unknown	18-Nov-09	Diamond Back Terrapin	TERP	09-044 TMT	black 4			4	0.0052	2.7	unknown	State Headstart	Don Lewis	Head start							
35	unknown	unknown	18-Nov-09	Diamond Back Terrapin	TERP	09-045 TMT	blue 5			5	0.0049	2.7	unknown	State Headstart	Don Lewis	Head start							
36	unknown	unknown	18-Nov-09	Diamond Back Terrapin	TERP	09-046 TMT	blue 6			6	0.0047	2.6	unknown	State Headstart	Don Lewis	Head start							
37	unknown	unknown	18-Nov-09	Diamond Back Terrapin	TERP	09-047 TMT	brown 7			7	0.0051	2.7	unknown	State Headstart	Don Lewis	Head start							
38	unknown	unknown	18-Nov-09	Diamond Back Terrapin	TERP	09-048 TMT	brown 8			8	0.0041	2.5	unknown	State Headstart	Don Lewis	Head start							