

Rounds

Animal Health
Department
Medical Rounds

"medicine for all"



NATIONAL
MARINE
L I F E
CENTER

Caring for Stranded Marine Animals

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, 2014

Rounds Notes Year End Summary

41: 317- 320 (2014)

In the 2014 the National Marine Life Center once again increased it's productivity as our rehabilitation program continues to grown with increased importance to the Northeast Stranding Network. The NMLC has a NOAA Standing Agreement for the rehabilitation of seals, and a joint NOAA and USFWS permit for sea turtles; the NMLC is also permitted by the state.

We admitted 64 animals in 2014; 22 endangered Northern Red-bellied Cooters as part of the state head-start program, 6 taken from the class of 2013 that were declined for wild release and needed veterinary evaluation and additional head-start care, 5 diamondback terrapins, a species of special concern in Massachusetts, 3 northern sub-species and 2 southern animals illegally brought into the state and confiscated, 2 state confiscated box turtles now as members of our collection, 42 endangered Kemp's ridley sea turtles, all cold-stunned animals, 6 Harbor seals, and 1 Gray seal.

With the announcement from discontinue their successful decade, the stranded premies, pups, Cod to Aroostook county Maine NMLC. Much thanks to the network knowledge and assistance and the of the animals as we (and the network)



the University of New England to rehabilitation program of over a weanlings and other seals from Cape became potentially patients of the for coming together with their Mystic Aquarium for taking the bulk learn to deal with this change.

Finally we closed the year assisting with the un-presidented cold-stun stranding season. In 2009 when I participated in the multi-institutional published paper on the pathology and parasitology of cold stunned sea turtles (Innis et.al, 2009) we estimated perhaps a few as 2000 Kemp's ridley sea turtles remaining in the world; in 2014, five years later, over 1000 juvenile Kemp's ridley turtles stranded on Cape Cod, an important but perhaps secondary habitat. While this may be a non-scientific indicator of rebound for this endangered species, it did represent a very real logistic issue for the network. With a monumental effort from NOAA and the New England Aquarium along with the Mass. Audubon, all of the animals were collected, triaged and the survivors all found homes in rehabilitation centers from over 20 institutions, we took 32 turtles our current maximum capacity for extended rehabilitation.

I completed a three year Prescott grant in the study of marine mammal parasites by reporting over 500 parasite case reports and 41 Rounds Notes with well over 300 pages, and the NMLC was awarded our first rehabilitation Prescott grant. All in all a remarkable year for the center, thank you for your support.

Harbor Seals (11 admits): 63% released

Premies, Pups, and weanlings suck

We started our first full on pup season without our partner organization MARC caring for the vast majority of pups with problems, as the University of New England ended this successful program. Working with NOAA, IFAW and the Mystic Aquarium who accepted a large number of the seals and the network we had a successful pup season, weanlings however are another matter.

The successes:

Belmont: Premature and sand impacted.

Dr. Lauri Gage has defined premature as harbor seal pups with a silky lanugo coat (normally shed in utero), low body weight, elevated bilirubin, and low globulin levels. A TMMC biologist Denise Greig defines premature as “those stranding underweight with full lanugo early in the season (1/31 to 4/9).

Locally, any pup born before May 15th, which meant that most of those pups came in with lanugo coat, could be considered premature. With some intensive nursing and husbandry, and some psyllium for the sand, Belmont did great.



Barclay: Premature with wounds of unknown origin, Barclay gave us a chance to practice our quarantine procedures with possible rabies exposures. While rabies has never been reported in harbor seals, it's safety first. Wounds healed, and Barclay matured and did well.



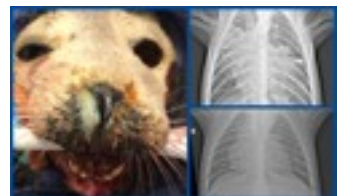
Rose: A minor injury to the eye and post- premature but small, Rose made an uncomplicated rehabilitation and wild release



Scout: Wounds, nasal discharge, and respiratory distress had us concerned that the the same fate awaited Scout as the past 4 weanling admissions and deaths, but Scout was a trouper and did very well. We did discover lungworms with a fecal exam even though the chest films were normal. After a few months of treatment Scout was released.



Kennedy: Facial wounds, a broken lower jaw, nasal discharge and aspiration pneumonia, and while a critical admission Kennedy hung in there and has made a lengthy but excellent recovery. We still have Kennedy and she has been cleared for release when she reaches release weight (25 kg).



Our losses:

Only Keenen's histopathology report is back and we're waiting for recuts on all cases so there is lots more to learn about the devastating weanling season, stay tuned for a **special Rounds Notes Edition: Weanlings Don't Suck.**

Keenen: (died < 24 hrs) PHV-1, viral pneumonia with adrenal cortical necrosis and hepatitis.

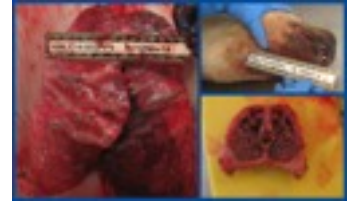
Makensie: (died in 3 days) verminous pneumonia, nasal mites, respiratory failure and other parasites.

Midway: (died 8 days) verminous pneumonia, abscessed hind flipper with septic shock, and a heavy parasite load.

Elise: (died < 24 hours) verminous pneumonia with ulcerated wounds

Herrick: (died < 24 hours), respiratory distress but no lungworms found, nasal cavity occlusion with pulmonary emphysema

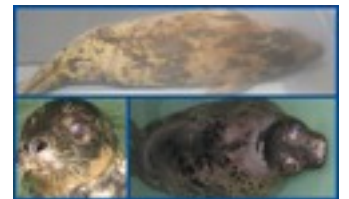
Sagamore: (died < 24 hours) Broken jaw and face wounds, missing the nasal cavity occlusion and pulmonary emphysema



Gray Seals (1 admit and release):

Moult, moulting, Moulded

Mary Arnold: Abnormal molt and anterior uveitis on the left. Moulting is time of great risk for seals, but we provided Mary Arnold with a safe environment and supportive care and she made a nice recovery and was released.



Kemp's Ridley Sea Turtles (10 hold over, 32 admits):

epic cold stun season

Too much to cover here, but over 1000 turtles on the Cape. Metabolic disturbances, pneumonia, fractures, abscess, cloacal prolapse, etc., with the new batch it's also the ICU turtles putting our incubator to good use, and the much used and much appreciated iStat borrowed from IFAW as we look to replace our older and functional but no longer supported unit (what a waste).



Loggerhead Sea Turtles (1 hold over): 1 case

ST 2, what it was made for.

We've back in the loggerhead business with one of the large tanks, ideal for loggerheads, so last season we accepted Tide who was released after a lengthy but mostly uncomplicated rehabilitation for cold stun and wounds and peeling of the superficial keratin of the carapace. This year the sheer number of Kemp's filled all our tanks so we had no room for loggerheads.



Northern Red-bellied Cooters (8 hold over, 14 admits): *2/3 head-start 1/3 medical*

We have our standard 8 cooters, one whose growth rate is lagging behind, had 8 head-starts from last season, and we continue to help the state by providing veterinary assessment for cooters with fungal shell infections and metabolic bone disease to support the head-start effort.

Diamondback Terrapins (1 hold over, 4 admits total 5): 1 released, 1 active *wild-up, and the return of shell disease*

We experienced another case of dermal bone necrosis with lamination and peeling of necrotic shell following exposure to sub-freezing temperatures, fortunately Penny's case was not severe and she made a good recovery and was released in Welfleet. We also accepted two southern animals, that were kept in very poor condition with advanced metabolic bone disease and shell deformities and deep osteomyelitis. Prolonged antibiotic therapy failed to resolve the disease and one is still with us, as these are non-native animals they can never be released.



Eastern Box Turtles (2 admits): *2/3 head-start 1/3 medical*

Two state confiscated animals with hypo-vitaminosis A that were kept in terrible conditions find a good home with us. The typical ocular discharge cleared up with a single injection of vitamin A and of course an improved and appropriate diet, tank, and husbandry support.



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