

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.

April 10, 2012

Rounds Notes

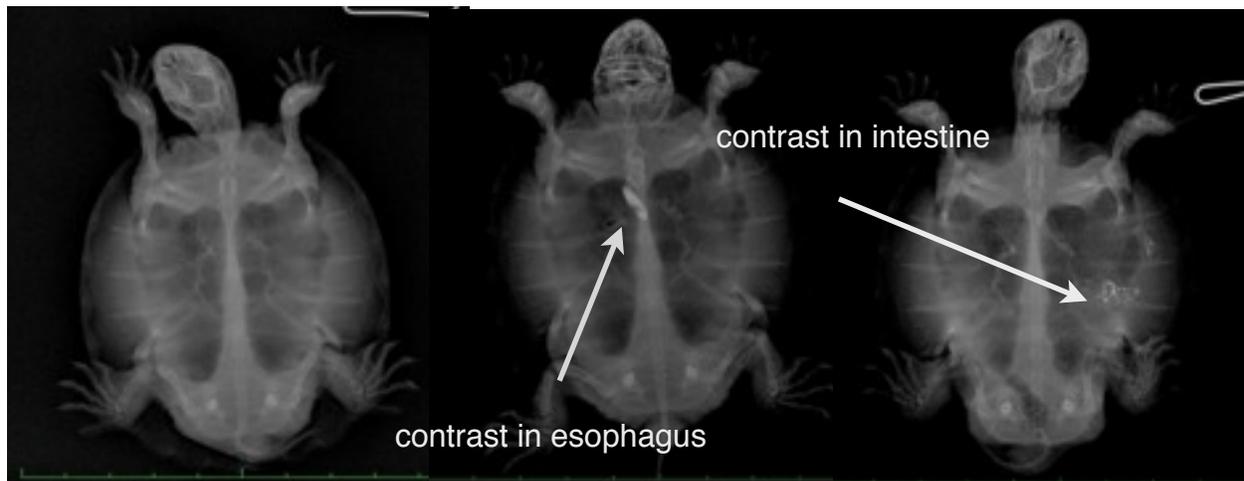
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Headlines News: Sir Isaac Newton

another new cooter with shell disease

A new small red bellied cooter with "white-patch" lesions was admitted to the NMLC from the head-start program to evaluate white patches on the shell, and see if this could be the same disease that Catch-22 has (had). The shell was scraped and cytology found similar fungal elements, samples of the fungus were sent to Cornell for a DNA match with the fungus isolated from Catch.

We were hoping to get a head-start (sorry) on treatment but the little one has still not adjusted to life at the NMLC. Likely being all alone and in a new pool are factors but other conditions can play a role. Water quality has been excellent and thanks to Kate and company for making the new tank more private. Despite 2 brands of pellets and a flood of lettuce the little one only has nibbled food and has even lost weight. We have postponed treatment until the cooter is stable and gaining weight. Blood work was normal and we've taken some radiographs and an upper GI series to evaluate for problems. Results were normal (see below). We have been tube feeding for the past several weeks to help fluids and nourishment going and to hopefully stimulate the little cooters appetite, The role of the shell disease in the slow acclimation is now known, nor is known if effected cooters would be slow to adapt in the wild.



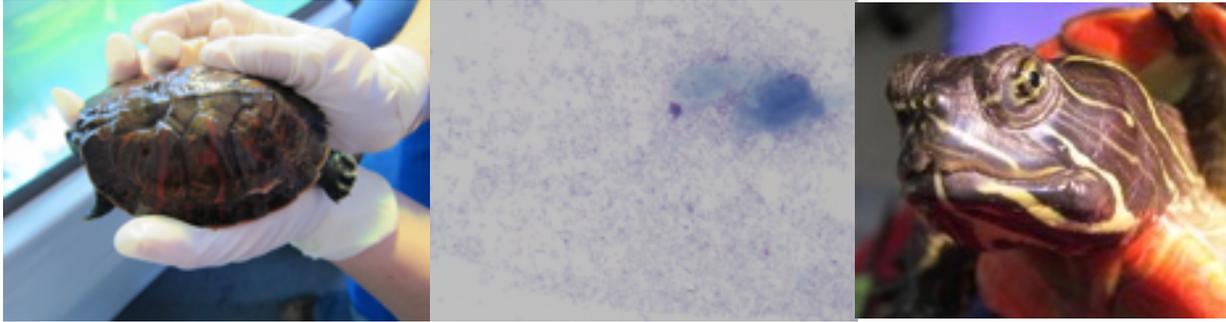
Clinical Update: Catch 22 update, the ups and downs of treatment



Speaking of Catch, he seems to be doing fine and the fungal disease was knocked back significantly by treatment with oral itraconazole and the topical anti fungal lacquerer Curanail® with 5% amorolfine, however the tissue enzyme LDH, jumped from a baseline value of 158 U/L to 772 U/L, this is the second such fluctuation during treatment. This may indicate the liver was having difficulty with the medications but there are many reasons for tissue enzyme elevations and they are not always associated with organ dysfunction. After the first increase, we stopped the itraconazole but after the blood values started to decrease we treated the plastron with the topical product. Caution argued for a discontinuation of therapy and we plan on rechecking the values next week (after 1 month off all medications). We do not know if this is an individual or species sensitivity, or how serious of a reaction it is, or if the medications are even effective against this type of fungus, but this is often the case in the type of wildlife and wild captive animal medicine we deal with daily here at the center. A spring release is not likely, but I have not given up this summer yet.

Clinical Update: Metabolic Bone Disease Cooters

MBD cooters



Pierce's minor shell lesions healed completely but Vesuvius now has some, again go figure, we've seen these lesions before and they often respond to topical therapy (clean with a beta-dyne scrub, a sterilized toothbrush works well), and SSD ointment applied afterwards. On examination of this lesions at Rounds, Kate noted a swelling on the left jaw. This was lanced and thick caseous material was removed. This is what pus looks like in reptiles, as their white blood cells lack the powerful enzymes to liquify the good. Under the microscope I found bacteria, WBCs and epithelial cells. The area was flushed and cleaned, we will watch to see if it comes back. Bruce is doing fine and all three are still scheduled for release this spring.

Sea Turtles:

While approved for sea turtle rehabilitation we currently do not have any sea turtle patients.

Seals:

The NMLC has been listed as a sub-designee of the University of New England's Marine Animal Rehabilitation Center (UNE MARC), and we are waiting for a NOAA inspection to approve the facility for seal rehabilitation under this agreement, it is scheduled in two weeks.

Terrapins, Cooters, and Turtles, oh my . . . :

HeadStart 2012

Our 8 red bellied cooter head start class are doing well, 1/2 are already above release size (SCL >85mm) and the others soon to follow. Out runt, 'Lucky 13' has signs that the inter-scute lesions could erupt so we preemptively started a shell cleaning protocol.

Under the Microscope: Charismatic Micofauna:

Prescott Grant Update and first 6 month report.

In the first 6 months of the grant we have equipped the lab with microscopes and camera, accessioned over 90 samples, completed analysis reports on 21 and preliminary reports on 48 cases. I've worked with three specialist parasitologists, examined 2 new host-parasite relationships, and announced the development of the lab at a conference and with emails to the

national stranding network. Whales and seals make up the majority of the cases and nematodes and cestodes are the most common specimens examined.

The current status of the lab is converting to a database that will organize and speed the processing of samples, however the development has been slowed and we are in the process of getting the database operational, this is critical for the long-term productivity of the grant and the lab.



DIC optics of eggs from a tissue nematode from a pygmy sperm whale, likely *Crassicaudia* species



Halarchne mite from the nasal cavity of a harbor seal.



The thorny-headed attachment of an acanthocephalan parasite from the intestine of a Harp seal identified as *Corynosoma hadweni* which = *Corynosoma wegeneri*.

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