

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

rwilliams@nmlc.org

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.

June 19th

Rounds Notes

3: 9-11 (2012)

Headlines News: Newton eats

Misery loves company

After three months of supportive tube feeding we finally got Newton to eat, apparently it's the competition. Two more endangered red-bellied cooters from the state run Head-Start program (from different facilities) were admitted to the NMLC. Shell scrapes were sent to Cornell for fungal DNA and identification +/- culture after a cytology confirmed yeast-like buds from the scrapings that were identical to the ones found on Catch 22 and Newton. Since they all appear to have the same superficial fungal infection we decided to put all the small affected cooters together, and wa-la!, he eats! and gains weight !

These three scooters will each receive weekly treatment for their fungal disease: first the shell is scraped with scalpel blade to remove old infected keratin and expose the fungus, then the shell is cleaned with alcohol to remove debris and dry the shell, and then a topical anti-fungal nail polish is applied and allowed to dry forming a medicated and protective water-proof seal [Curanail® with 5% amorolfine]. By-the-way, if you remember we tried just scraping and could not eliminate the fungus.

Catch22 is doing fine, and itching to get outside I image, so if his blood values are normal, the shell appears in good shape and we will arrange a release.

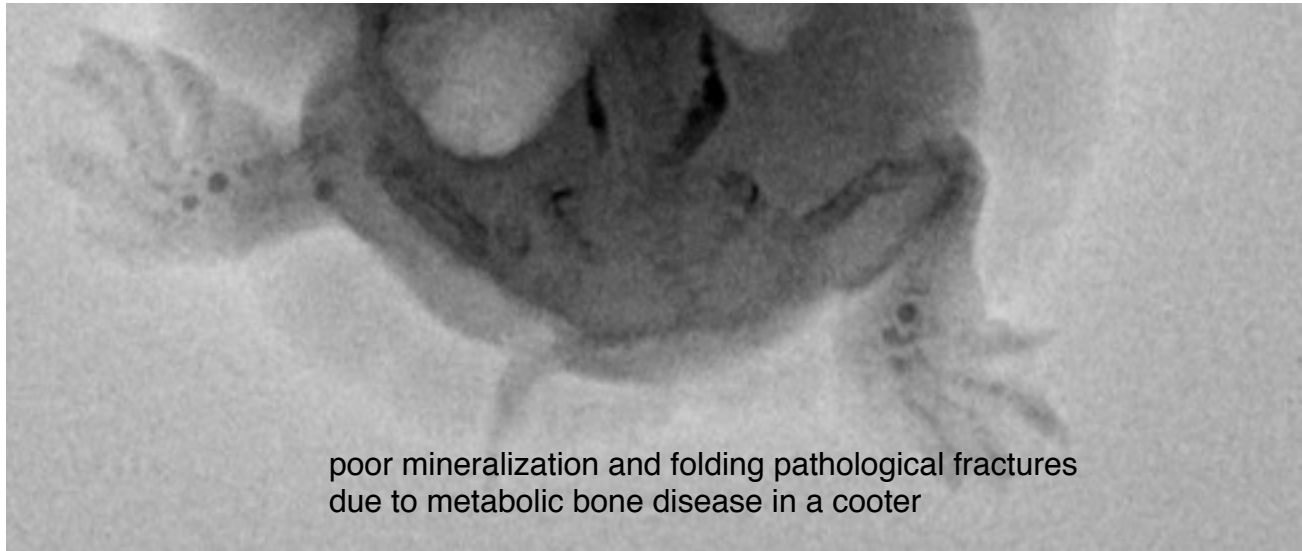
The fungus is new to science (not likely new to cooters) and we will team-up with Cornell University with a formal description of this unique fungus (yes, someone get's to name it) and we'll provide the clinical picture with diagnosis, pathophysiology, and hopefully treatment advice. This is another new and exciting breakthrough for the National Marine Life Center.

Clinical Update: Metabolic Bone Disease

not just a calcium disorder

The three turtles with nutritional secondary hyperparathyroidism did very well and all were released into the wild. With the latest release of the class of 2012 head-start cooters, in addition to the two with superficial fungal shell disease, five cooters with shell deformities and metabolic bone disease were referred for additional care. Two of the five have already succumbed to the disease with has a different presentation then last year. First the shells are not as deformed and the cooters' ionized calcium levels are not depleted, which initially lead me to believe that they might not be as severely effected. The cooters will preserve their ionized calcium level in the

blood at the expense of bone stores, so in theory the low calcium levels should represent an end-stage with impending muscle, including cardiac muscle, malfunction. But, the normal calcium levels do not protect from all complications of this devastating condition.



How to prevent Metabolic Bone Disease in Cooters:

- 1) assume adequate UV-B radiation, I recommend mercury-vapor bulbs positioned above a haul-out area, change bulbs for each new class of turtles (bi-annually at least, or consult the manufacture). All full spectrum lights must be dated and changed according to their effective life-span.
- 2) assure sufficient basking areas and use by the cooters
- 3) monitor of turtles that appear soft, domed shells, or weak
- 4) add calcium to the diet (we add a cuttlebone)



Sea Turtles: Phocids, the true seals:

stand-by-line

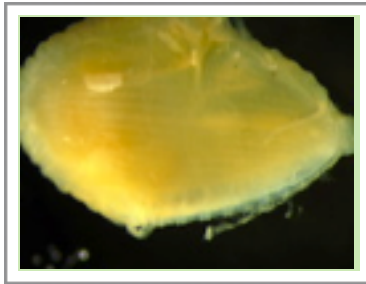
While approved for sea turtle rehabilitation we currently do not have any sea turtle patients. The NMLC has been approved as an authorized seal rehabilitation facility as a sub-designee of the University of New England's Marine Animal Rehabilitation Center, and after some minor details are finalized we will be open to accept our first seal patients in the new facility.

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

Pip, pip, who-ray

A little runt, named "Pip" is clearly 6 months + behind in growth, and suffers from metabolic bone disease, but a surprising finding was a relatively normal blood gas analysis, so it was decided to give the little cooter a chance. We are supplementing his diet with tube feeding, calcium, and consistent and appropriate husbandry and monitoring his progress weekly, the prognosis for this severe growth retardation is however, not good.

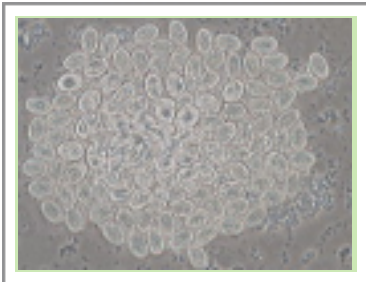
Under the Microscope: Prescott Grant Update and first 10 month report.



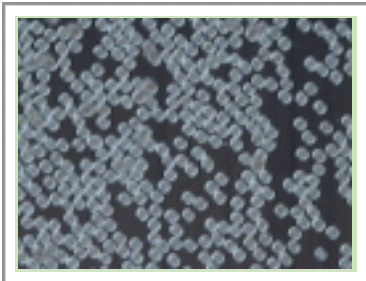
Ogmogaster:
If this specimen can be identified to the species level it will be the first time a species of Ogmogaster has been described from a Humpback whale



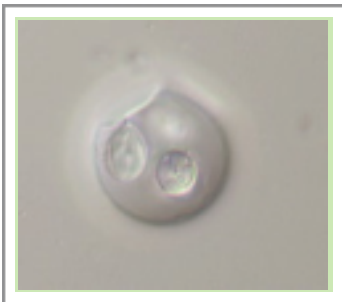
there is no published reports of this parasite host relationship, but a web-based mention of the infection, this report confirms the parasite-host relationship
Anophryocephalus ochotensis in the California sea lion



The eggs of Crassicauda species of nematodes (round worms) are not well described, these were found in pygmy sperm whale



A method of field preservation and concentrating Anasakis eggs from a mass stranding is reported



A coccidia was discovered in a preserved fecal sample from a common dolphin, the specimen is either from the intestines of prey items such as fish or represents a new species of coccidia from a cetacean, they are not common in this group of animals

C. Rogers Williams VMD

Sea Rogers Williams VMD
attending veterinarian and director of science

