

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.

September 25, 2013

Rounds Notes

20: 70-76 (2013)

Headlines News: Triton released propeller vs shark bite

When last reported in Rounds, Triton was admitted with serial lacerations of the flippers and body with one series of gashes that radiographs showed were near millimeters away from penetrating the chest cavity. A pneumothorax is likely a fatal injury to a seal. We consulted with Brian Sharp of IFAW, and after some deliberation, the wounds may have been shark related after all, but officially are listed as "wounds of unknown origin" and while Triton likely knows what happened, he has remained silent on the matter. From the medical perspective they seemed to heal just fine and Triton was released with the admonishment to stay away from anything sharp.

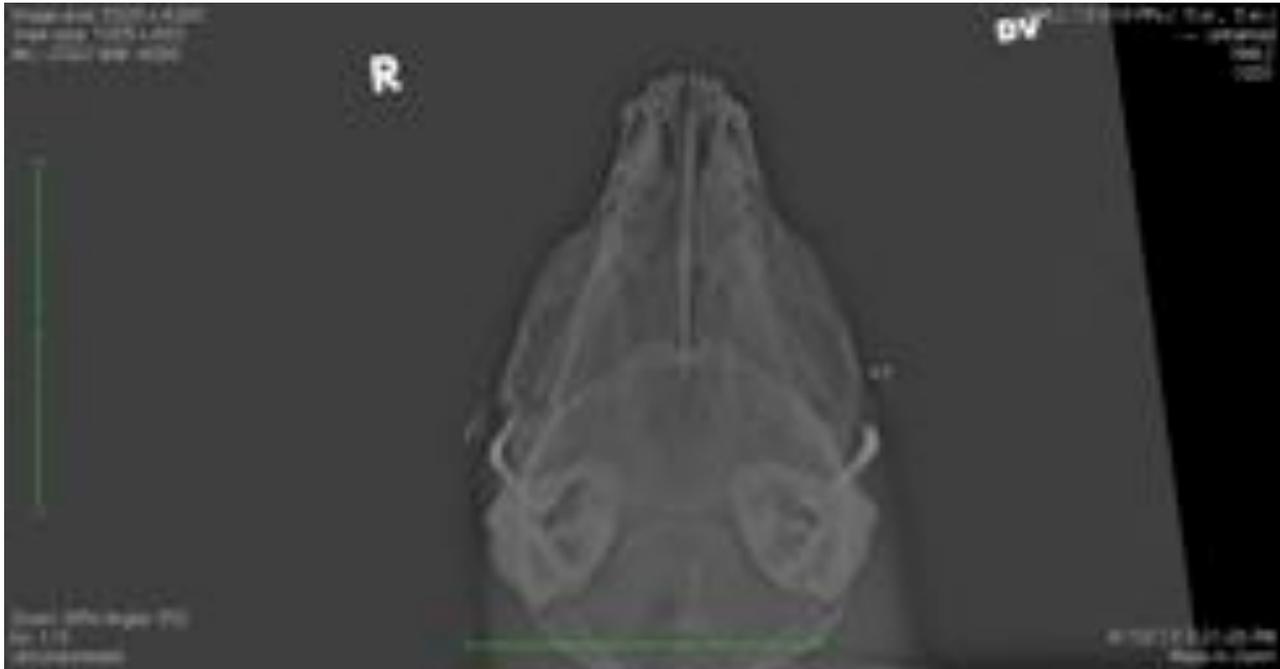


Shark bites are not reportable, as sharks are fish and not mammals, as such they can not carry rabies and thus the "bite rule" does not apply here. Triton, who was not very nice like a good grey seal, did bite a staff member, this time the 'bite rule' did apply and Triton completed a 10 day guarantee period at the center, he also tested negative for Morbillivirus prior to release. Wound care, antibiotics, anti-inflammatories and pain meds assisted the natural healing and a good outcome in this case.

Phocids, the true seals: Francis, of the tilted head

Harbor seal transferred from UNE, with ulcerative dermatitis, stomatitis, and a head tilt

This is a feisty little Harbor seal, who thrashes about with restraint and may have hit his head on the floor during an exam, but the head tilt is not always obvious and does not appear to be getting worse. Since a head tilt can be seen with inner ear disease, and since we've seen external ear disease (otitis externa-Incus), middle ear disease (otitis media-Malleus), why not. The first step was to see if the ear drum (tympanic membrane is ruptured), so we preformed canalography, which showed two intact ear drums. With no progression of the condition and no discharge, we held on further imaging studies (CT/MRI) and Francis seems to be doing well.

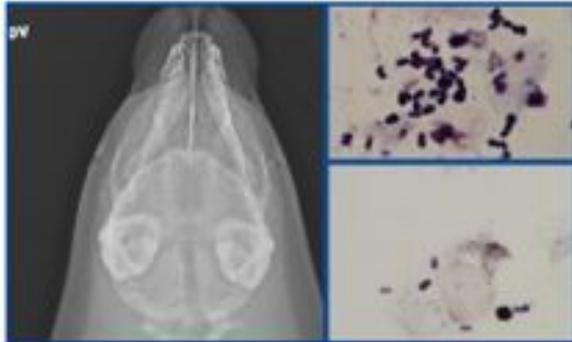


This the first case of 'weanling mouth' I have seen, apparently a common condition of harbor seals in this age group. From a veterinary standpoint it is an ulcerative stomatitis. We put him of Clavamox [13 mg/kg PO q12hr 7 d] and meloxicam [0.1 mg/kg PO q 24h], and both the skin and oral lesions have healed. At 16 kg he is still too little to be released but he is in the big pool, weaned and eating fish, so eat up Francis!

Phocids, the true seals: Where are they now

Incus update

Incus was determined to have a yeast related otitis externa (*Malassezia otitis externa*). Here is the case summary: **Two seals were transferred to the NMLC from MARC UNE for left sided otic discharge and veterinary evaluation for suspected otitis media, a serious medical condition that may require surgery. Through repeated physical exams and canalographic contrast radiographic study, Incus was determined to have localized mild disease of the external ear with yeast, which responded to topical therapy. The ear drum was intact and otitis media was not found. He was release.**



However, Incus was spotted on the beach north of the cape and looked thin. If an opportunity to recapture Incus presented its self we were prepared to get him back in for further evaluation, but further sighting have not been made. We wish Incus well and if he is indeed in trouble we hope of get him back in for further care if needed.

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

Diamondback skin disease-superficial keratin loss from the carapace

Avascular carapacial dermal bone necrosis is the disease, and I hope we do not have another case on our hands. Penny was found on the cape in February, when all self respecting diamondback terrapins should be in deep brumation and also below the frost line. There were no external signs of problems and she when through a pretty typical rehabilitation at a local wildlife center on the cape and then Tufts for mobility issues and neurological impairment. When transfer to us, she had been anorexic for a long time and held in fresh water. While she is now active, eating very well, and in low salinity water, But she continues to lose superficial keratin exposing the delicate (and pigmented) epithelium below, with some areas of exposed and dull (likely necrotic) dermal bone. She is given a sponge bath daily with chlorhexiderm, and when the keratin is lose, it traps tank water and causes local infection which kills the epithelium so these are removed. But if] the epithelium is not supporting a healthy keratin layer because blood flow to the epithelium from the basement layer of dermal bone is impaired (perhaps my microvascular thrombosis) there is likely little we can do but support the terrapin and hope the entire carapace is not affected.



Terrapins, Cooters, and Turtles, oh my . . . : Olive wild up, the clock is ticking

Another cape diamondback terrapin was treated at Tufts Wildlife clinic for swollen joints, osteomyelitis, a joint fungal infection, and mobility issues, and successful treatment. Being closer to the cape it was hoped we could ‘wild-up’ the little terrapin, to me this means acclimating them to their natural conditions. The cooter was being kept in fresh water in the high 80°F’s, and while this may be good for healing from injury and sickness, it’s not exactly Wellfleet in the fall. We have been slowly increasing the



salinity with a goal to get to at least 15ppt (brackish) and marsh waters are well below 70°F at this point. We may have only another week of a realistic window to get him out, and while Kate has made strides he is not taking natural prey items on his own.

We did our own set of radiographs and found evidence of trauma to the right hind flipper, a loss of bone density in the distal tibia, and perhaps evidence of osteomyelitis or early metabolic bone disease. The right hind has motor and sensory function but a mild paresis can be observed causing the terrapin to drag the right stifle, and there appears to be a lack of a “claw grab” but this does not hinder the turtles ability to move on dry ground and is not an issue at all in the

water. There are some adherent white plaques on the skin which appear to be scars, and we removed the sutures of the stifle exploration that was done, the skin and bones have healed nicely.

We may end up with Olive over the winter and plan a spring release, some it depends on Olive, some on the weather, we'll keep you up to date.

Terrapins, Cooters, and Turtles, oh my . . . : Class of 2014 **cooters arrive**

You'll just have to wait for the next edition for pictures of the cute little cooters.

Under the Microscope: Cut the red tape(worm)

A Cestodes of Risso's dolphins

Trigoncotyle globicephalae



I have been looking at the tapeworms of Risso's dolphins from the western Atlantic for many years and trying to identify them and put some order on the problem, which has been fraught with a confusing back literature. The New England Aquarium sent down some archived marine mammal parasites for evaluation and a tapeworm found in the intestine of a Risso's dolphin from 2002 from Nahant spurred me to action.

The most common tapeworm from Risso's in our neck of the woods is *Trigoncotyle globicephalae*, discovered by Linton right here in woods hole from a pilot whale stranded on Martha's Vineyard. The attachment organ (scolex) has 4 suckers (bothria) each with three little bumps (auricles). So, why this is all well and good, the problem is with synonyms. In parasitology species are originally described and named in the Linnean fashion with a genus and

a species. It was (still is ?) quite an honor to identify a new species of living organism to science, but sometimes the original specimen(s) may have been in poor condition, few in number, and incomplete. Also, it is possible that there could have been a rush to publish the new finding and/or the examination not as thorough or detailed as it could have been. Parasitologists in other locations may find and describe and publish the same parasite under a different name without knowledge of earlier studies (presumably this happened a lot prior to the internet). Also parasitologists are human and mistakes are made. So, things rarely stay the same, paradigms of evolution shift, DNA is analyzed, and parasites are re-described, re-named and placed in different genera with disconcerting regularity. That means the original description of a parasite may have been under a different name, and thus an aspiring researcher has to follow the paper trail as new specimens are described and names shuffled around. So here is the path to *T. globicephalae* that I followed. . . .

Prosthecocotyle monticelli
Trigoncotyl monticelli
Trigoncotyle lintoni
Trigoncotyle globicephalae

May not seem like much, but it took me a while.

Anyway the interesting thing about the new sample (below) was that it was not morphology consistent with *T. globicephalae*, but a different genus, the *Tetrabothrius*. No problem, I checked to see if there was a known species of *Tetrabothrius* found in Grampus, and there was, *T. forsteri*. Great, I looked up *T. forsteri* and noted some important characteristics, like total length, maximum width, and scolex size and shape, unfortunately this specimen does not match *T. forsteri*, so at the very least it's a new host record if only I can identify the species, so back to the stacks once more.

