

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, 2013

*Rounds Notes*

**28: 123- 126 (2013)**

Many, Many thanks to all the volunteers and everyone who helped us accomplish our mission this year. In many ways this was the most productive year at the National Marine Life Center. We started seal rehabilitation late in 2012, but had all of our releases in 2013. We have cared for 59 animals in 2013, 12 seals, 19 sea turtles, 26 cooters, and 2 diamondback terrapins. I extended my Prescott grant and continued to work up cases of parasites in marine mammals with 166 cases, more then twice the number of cases last year, and I have complete over 300 parasite cases and dozens of fecal and cytology analysis cases. Over 100 pages of Rounds Notes and 28 issues, almost three times as many as last year and the greater number since I have been with the NMLC. We achieved our goal of being a fully functional marine mammal and sea turtle rehabilitation center with funded research, and a healthy science program. We have many challenges ahead of ourselves: a stand-alone stranding agreement with NOAA, improved water quality, seal holding build-out, and exploring new sources of funding our science program, but the challenge is in the doing, today we're looking back to see what we accomplished in 2013.

## **Harbor Seals (8): 63% released** *Otitis Media, pneumonia, and more*

### **The successes:**

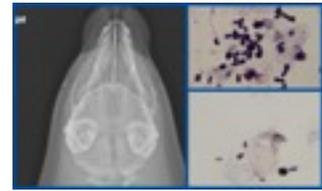
**Towsend:** Towsend is in many ways the culmination and overcoming of a decade of frustration and disappointment in the treatment of otitis media in seals. Towsend, was diagnosed with the canalography we developed and confirmed with CT thanks to WHOI CSI. It took 2 surgeries and the expertise of Dr. Ed Kochin and the whole CCVS team, but we were able to successfully treat the otitis media and osteomyelitis and release this seal, a remarkable case.



**Hotlips:** While the exact cause of the wounds in this cases were not known, I suspect getting her face trapped in some fishing gear. This case demonstrates the healing power of seals with proper wound management, and teaches not to jump to a snap prognosis and give even severely injured seals a chance.



Incus: This seal demonstrated that yeast otitis externa is a disease of harbor seals, and that not all seals with an aural discharge have otitis media (although most do). Treatment was straight forward, but concern about post release sighting of a seal that could have been Incus who was looking thin, but he was never recovered.



Francis: What a firecracker, with weanling mouth and all, it was hard to rehabilitate Francis quick enough. His wounds healed quickly and he may have been a bit touched in the head, but he is better off in the wild by far.

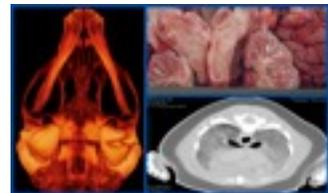


Ichabod: lacerations, verminous pneumonia and corneal edema presented some challenges. While the cause of the ocular problems were never discovered nor completely resolved, Ichabod may a good release candidate and we think he will do well.



#### **Our losses:**

Malleus: In the last post anesthetic recovery period from our second TECA surgery for persistent otitis media, Malleus died of respiratory failure associated with CNS swelling and pulmonary edema. The trigger for the complication may have been a post anesthetic upper air-way obstruction and illustrates the anesthetic risks in phocids.



Toby: Now this was one sick pup, literally. Toby died shortly after arrival of respiratory failure associated with sever verminous pneumonia, with airway obstruction, pulmonary edema, and overwhelming infection/infestation.



Abraham: A shark bite that went bad. A deep caudal abscess lead to sepsis and death. While this case for argue for aggressive surgical exploration and debridement of wounds, but this type of surgical management requires another level of facility and many of these attacked seals can do very well with good medical management.



## Gray Seals (4): 25% transferred, 75% released *Wounded, Parasites, and Sick*

All three of the gray seals we rehabilitated were released. We started in gray seal rehabilitation with the temporary holding of Cadbury was transferred to Mystic but did not make it due to renal failure. We took on the challenge with the next gray seals to come our way, and yes, they were challenging and sometimes aggressive. But, Howland, Lucky, and Triton were all successfully rehabilitated.

**Howland:** Howland presented as a severely malnourished, hypoglycemic, and dehydrated gray seal weanling with non-specific respiratory disease and evidence of intestinal flukes (*Cryptocotyle* species). He experienced bouts of hypoglycemia, and was supported with antibiotics, dextrose, fluids, and tube feeding. Chest radiographs did not support pneumonia, and after he was stabilized he was dewormed. A lice infestation was discovered and treated with two doses of ivermectin.



**Lucky:** The rehabilitation of a gray seal with traumatic amputation of a phlange from the left hind flipper and parasitism. Verminous pneumonia was identified radiographically, and two type of fecal metastrongyloid larva (*Otostrongylus circumlitus* and presumed *Parafilaroides* sp) were observed. Anisakidiasis with *Pseudoternova* sp. worms and eggs were passed, along with whole *Corynosoma wegneri* acanthocephalans. Eggs of trematode *Cryptocotyle lingua* were numerous and small number of the seal louse *Echinophthirus horridus* were removed. Supportive medical care and anti-parasitic medications were used to good effect.



**Triton:** An immature gray seal sustained significant lacerations likely due to a shark attack, but a propeller wound could not be ruled out entirely. The wounds were clipped and cleaned under sedation and treated daily. Pain medications, anti-inflammatories and antibiotics were used to treat the wounds. The seal was diagnosed with intestinal trematodes and gastric nematodes, and treated for parasites. The wounds healed and the seal was released.



## Kemp's Ridley Sea Turtles (18): 100% released

*warming up cold-stuns*

Eight last year and ten this year. So far we have the standard metabolic consequences, a turtle with a fractured tibula and fibula that we are managing conservatively, and an early case of osteolytic syndrome.



## Loggerhead Sea Turtles (1): 1 case active

*ST 2, what it was made for.*

We've back in the loggerhead business with one of the large tanks, ideal for loggerheads.

## Northern Red-bellied Cooters (26):

*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 (2): 1 released, 1 active

*wildup, and the return of shell disease*

We took on two locally threatened diamondback terrapins as transfers to ready the turtles for return to the wild in Welfleet. The first of which, Olive, went very well. In order to be returned to the wild they have to be acclimated to the conditions they will face in their native habitat, including local temperatures and brackish to saltwater. Water quality is particularly important if they have been rehabilitated in fresh water.



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