Under the MicroScope:  
*trematodes, cestodes, and nematodes... oh my*

While organizing the bulk of samples for future analysis, it’s hard not to put some of these under the scope, and the three that caught my eye this week were the following: About 20 of the common liver/intestinal fluke of the Atlantic white-sided dolphin *Ochmarinella laevicaeum* were examined. If occluding the common bile duct or infiltrating the pancreas this fluke can be pathogenic. The very large tapeworm examined with a single genital pore is likely in the genus *Diphyllobothrium*, however, the scolex was not collected and further morphological identification is not possible. I have seen cases where the small intestine becomes obstructed in a liner-foreign body effect with this parasite. Lastly, was the seal heartworm *Acanthocheilonema spirocauda*, morphology of the male spicules is sufficient to distinguish this parasite from the dog hearworm, which has also been reported from some species of phocids, both are capable of causing disease.
Sea Turtles: #31 Cherry
fractured Left TIB/FIB, possible pneumonia
wt=3.3 kg, SCL=26.8, SCW=22.5, TPR=n/a, 50, ?, BS = 3/5
CC: strand 11/9/13 Orleans, left carapace instability, bilateral
lung lesions, skull lesions, dysphagia
Last Rads: 12/3/13: 2/18/14
Last Blood: 11/25/13; 1/4/14
HIGH: WBC - lymphocytosis, ALKP (1884), CK (2070)
GLOB, UA(0.5)
A: mild lymphocytosis
PE: carapace instability improved, fractured and swollen left
hind with soft callus and stable, exposed dermal bone has
healed over and plastron looks good.
A: Stability of the caudal carapace is improved, soft callus with
left hind, good function, continues to imporve
TX:
1- vit B1, sea tabs, and calcium (oral)
2-- SSD to lesions

Sea Turtles: #32 Pearl
smallest sea turtle, sunken
wt=2.5 kg, SCL=24.4, SCW=22.4, TPR=n/a, 50, ? BS = 3/5
CC: strand 11/13/13 Brewster
Last Blood: 12/3/13
CBC = WNL (monitor low normal PCV)
HIGH: ALKP, LDH, CHOL, GLU, UA
LOW: ALB, TP, ALT, PCV (low normal)
Last Rads: 11/16/13 mineral density in coelum; 1/28/14
PE: minor ulcerative abrasion over left eye, scab on rostral
aspect of right globe,
A: minor lesions with good growth and activity, likely minor
intra-specific interactions.
TX: SSD applied
1- vit. B1, sea tabs, and calcium (oral)
**Sea Turtles: #33- Gage**
pneumonia, skin separation at nuchial area, flipper tip lesions RIGHT, nematode larvae
wt=5.5 kg, SCL=31.7, SCW=29.4, TPR=n/a, 50, ?, BS = 3/5
CC: strand 11/13/13 Brewster
Last Blood:12/3/13; 1/6/14, 17/14
HI: LDH, WBC
A: improved labs d/c ABX
Last Rads:11/16/13-ovoid gas in LEFT coelum, small mineral densities, BI pattern cranial lungs bilateral; 1/21/14, monitor
Left lung field, as seen in AP - most likely normal.
PE: still has residue of the pink discoloration to oral cavity, proliferative and active healing with flipper tip lesions
A: minor flipper tip lesions, slowly healing
TX:
1- vit B1, sea tabs, and calcium (oral)
2- SSD as needed

**Sea Turtles: #34 Raphael**
possible pneumonia
wt=2.9 kg, SCL=26.1, SCW=23.7, TPR= n/a, 50, ?, BS = 3/5
CC: strand 11/13/13 Brewster, R eye + corneal ulcer
Last Blood:11/25/13; 1/6/14
HI:WBC (9.6), ALP, GLU,AST, LDH
A: improved ok to d/c ABX
Last Rads: 11/16/13; marked BI pattern reduced right lung lobe volume 0.6 x 3 cm soft tissue density in R lung, linear densities left coelum 12/10/13; possible mild left lung minor increase BI density.
PE:blue discoloration to upper eye lids
A:possible bruising, no treatment required at this time but continued observation, could of swam into tank or intra-specific aggression
TX
1- vit B, sea tabs, and calcium (oral)
2- SSD when pulled
Sea Turtles: #35 Julia

carapace lesions
wt=4.4 kg, SCL=30.1, SCW=28.3, TPR=n/a, 50, BS = 3/5
CC: strand 11/16/13 Fisher Beach
Last Blood: 12/3/13; 1/6/14
HI: ALKP (1674), LDH (3000), GLU (118)
A: improved CBC normal
Last Rads: 12/19/13: 1cm mineral and gas densities in coleum;
PE: looks great, no active lesions.
A: doing well off antibiotics, good growth, no active lesions
TX:
1- vit B1, sea tabs, and calcium

Sea Turtles: #36 - Thetis

carapace ulcers & abrasions
wt=4.4 kg, SCL=29.1, SCW=26.9, TPR=n/a, x, BS = 3/5
CC: strand 11/12/13 Brewster
Last Blood: 12/3/13
CBC = mild lymphocytosis (5880)
HI: CHOL, GLU
A: doing very well.
Last Rads: 12/17/13; lungs improved, WNL
PE: Carapace looks great, very minor cranial marginal scute
scrapes (from pool- tank abrasions).
A: doing well
TX:
1- vit B1, sea tabs, and calcium (oral)
Sea Turtles: #37 Marina
flipper lesions
wt=3.2 kg, SCL=27.7, SCW=24.6, TPR=n/a, x, ? BS = 3/5
CC: strand 11/13/13 Brewster, right eye slight opacity, Left eye central opacity
Last Blood:11/25/13; 1/4/14
HI: WBC (10K) lymphocytosis, ALP, GLU (120), UA (0.4)
A: improved ok to d/c ABX
Last Rads:11/15/13; 12/31/13- WNL, AP exposure failure
PE: no active lesions, looks good
A: good progress doing well
TX
1- vit B, sea tabs, and calcium (oral)

Sea Turtles: #38 Shosho
rostral lesion
wt=2.9 kg, SCL=26.8, SCW=24.0, TPR=n/a, x ,? BS = 3/5
CC: strand 11/4/13 Brewster
Last Blood:12/3/13; 1/6/14
HIGH: PCV (31%)-persistent, ALKP, GLOB, CHOL, GLU
A: continued slightly elevated HCT, but improved, OK to d/c ABX
Last Rads:11/22/13; 1/14/14: WNL, monitor left lung fields on AP
PE: Rostral lesion healed but scared, minor head lesions, minor FF tip lesions, minor plastron bruising with poorly defined rash like area, marginal nibbles (from other turtles)
A: everything getting better, good eater
TX:
1- vit B1, sea tabs, and calcium (oral)
Sea Turtles: #39 Squirt
intermittent cloacal prolapse
wt=5.0 kg, SCL= 30.1, SCW=28.1, TPR=n/a, x, ? BS =3/5
CC: strand 11/11/13 Eastham, 3-4 raised barnacle like lesions in oral cavity, slight cloacal prolapse, opacity to LEFT eye minor
Last Blood:11/25/13; 1/4/14
HI: WBC lymphocytosis, ALKP, CK(2445), LDH (4639), GLU (115), K (4.9)
A: improved, ok to d/c ABX
Last Rads:12/19/13 min. BI pattern bilateral, 0.4 cm rectangular density and very small mineral density, no GI obstruction
PE: no change in oral carcicles, minor prolapse today but without welling or hyperemia
A: preparation H seems to be helping but not completely resolved, does not appear as a progressive problem at this time
TX:
1- vit B1, sea tabs, and calcium (oral)
2- Preparation-H small amount topically PRN, check HR
DX: fecal sample collected: Sheathers sugar Sol, cent. NPS

Sea Turtles: #40 North Star
LEFT Front Flipper, early osteolysis D2P1-2 elevated UA with NSAID resolving
wt=3.6 kg, SCL=29.0, SCW=26.1, TPR=n/a, x, ? BS =3/5
CC: strand 11/13/13 Brewster, cloacal prolapse
Last Blood:11/25/13, 1/4/14; 1/21/14; 2/5/14
HIGH: CK (2631)ALKP(771) LDH (3588), GLU (148), UA (0.7)
A: off abx
Last Rads: 12-24-13; 3-4-14
Note the changes from in initial lesion with sub end plate lysis and the late phase lesion with flared epiphysis, erosion of epiphyseal bone, and joint expansion. Minor lesions in RFF D3P4-5, RHF D2 P3-4, lungs look good
PE: Swelling of LFF subjectively better, healing Left side of face bite, minor rostral lesion healed.
A: off specific treatments for osteolysis and cold stun.
P:
TX
1- vit B1, sea tabs, and calcium (oral)
2-SSD when pulled
Sea Turtles: #41 Tide the loggerhead
loss of scutes from flippers
wt=40.8 kg, SCL= 64.3 SCW=54.2, TPR=n/a, 20, 4 BS =3/5
CC: strand 12/8/13 Brewster, cold stun
Last Blood: 12/11/13 @ NEAq
HIGH: CK (19373), LDH (1113), UA (0.8)
LOW: ALB (1.1)
Last Rads: 1/7/14
PE: BAR, with pealing of superficial carapace keratin and loss of the dead tissue on front limbs and peeling carapace over lateral scutes, with normal new vital epidermis exposed, no areas of infection observed, flipper tips raw, Left front flipper tip is the most severely effected
A: Shell and skin improved, but will take a long time to heal completely, function is not affected, which is good, good appetite and weight gain and increase in size.
TX
1- clean flipper tips with dilute chlohexiderm 5min when out.
1- vit B1, sea tabs, and calcium (oral)
2- chlohexiderm and SSD when pulled

Terapins: Penny
flaking out
PE: BAR, active and eating, but dead dermal bone around the margins of the shell are loose and more removed today. The nuchal area has healed nicely with smooth complete scar tissue, so far no coleum exposure and majority of the shell appears vital. Front limb generalized edema is present, we’ve seen this before as well. Overall as the condition progresses slowly Penny is doing as well as can be expected. We’ll clean the areas where the dead dermal bone were removed daily and monitor appetite, and general well being, it is still too soon to know how this will play out.

Sea Rogers Williams VMD
attending veterinarian and director of science

[STAFF: Kathy Zagzebski, Kate Shaffer, Belinda Rubinstein, and Adele Raphael]