Under the MicroScope: it’s all in the jeans, or at least in the Genus

Two samples that came across the lab this week were relatively easy to identify to Genus, and a species ID has not only eluded me, but parasitologists and researchers alike. The identification of *Crassicauda* species in the muscle of a Harbor porpoise has been previously reported, and seen before in our lab, however, no one has been able to identify the species of *Crassicauda* that infects harbor porpoise muscle tissue.

Likewise, the identification of an *Anisakis* species nematode from Cuvier’s beaked whale is nothing unusual, but again, no one has ever discovered the exact species. And to make a morphological diagnosis of the species you need adult male and female worms. These would also be necessary for a new species description. And, that is exactly what I have. While I can confirm the genus, and while most of the worms were immature L4’s I found some adults in this nicely preserved set of gastric nematodes from Cuvier’s beaked whale stranded in Ocean Shores, WA USA. Perhaps I can find a parasitologist to determine the identify once and for all, and I can do some of the leg-work here, a very interesting sample.

Turtle Notes: We are looking at a first round release decision for possible transfer and release in Florida at the end of March, we have several candidates:
**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 improve

TX:

1- vit B1, sea tabs, and calcium (oral)

2-- SSD to lesions

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**Sea Turtles: #32 Pearl**

Pre-release approved-CRW

wt=2.6 kg, SCL=25.1, SCW=23.0, TPR=n/a, 48, ? BS = 3/5

CC: strand 11/13/13 Brewster

Last Blood: 12/3/13; 3/11/14

CBC & SCP: acceptable for release.

Last Rads: 11/16/13 mineral density in coelum; 1/28/14, no specific lesions

PE: WNL ok for release

A: no active lesions with good growth and activity

TX: none

1- vit. B1, sea tabs, and calcium (oral)
Sea Turtles: #33- Gage
elevated tissue enzymes, flipper tip lesions 
RIGHT, nematode larvae ?
wt=5.8 kg, SCL=32.3, SCW=29.7, TPR=n/a, 60, ?, BS = 3/5
CC: strand 11/13/13 Brewster
Last Blood: 12/3/13; 1/6/14, 1/7/14; 3/11/14
HI: ALT(67), AST(1285), CK(3355), LDH(6286)
CBC; WNL
A: elevated tissue possible liver enzymes, or other
Last Rads: 11/16/13; 3/11/14-resolving flipper tip lesions, very
mild phalange reaction, should not interfere with release, lungs on
AP look good
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)

Sea Turtles: #34 Raphael
pre-release hold due to elevated LDH
wt=3.2 kg, SCL=26.7, SCW=23.9, TPR= n/a, 48, ?, BS = 3/5
CC: strand 11/13/13 Brewster, R eye + corneal ulcer
Last Blood: 11/25/13; 1/6/14; 3/11/14
HI: LDH (5014), GLU (134)
CBC: WNL
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: minor abrasion / ulcer to right hind flipper dorsal aspect
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
pre-release approved
wt=4.7 kg, SCL=30.6, SCW=28.7, TPR=n/a, 60, ? BS = 3/5
CC: strand 11/16/13 Fisher Beach
Last Blood: 12/3/13; 1/6/14; 3/11/14
HI: ALKP (1223), LDH (3455), GLU(110)
A: CBC normal, minor elevation of LDH, others resolving, pre-release approved.
Last Rads: 12/19/13: 1 cm mineral and gas densities in coleum;
PE: looks great, no active lesions.
A: good growth, no active lesions
TX:
1- vit B1, sea tabs, and calcium

Sea Turtles: #36 - Thetis
pre-release hold due to elevated LDH
wt=4.6 kg, SCL=29.7, SCW=27.1 TPR=n/a, 48, ? BS = 3/5
CC: strand 11/12/13 Brewster
Last Blood: 12/3/13; 3/11/14
CBC WNL
HI: LDH (8931), CK (3061), GLU (129)
A: spike in LDH, unknown cause and significance, plan to repeat
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, good weight gain and growth
TX:
1- vit B1, sea tabs, and calcium (oral)
Sea Turtles: #37 Marina
pre-release hold due to elevated LDH & UA
wt=3.5 kg, SCL=28.0, SCW=24.9, TPR=n/a, 44, ? BS = 3/5
CC: strand 11/13/13 Brewster, right eye slight opacity, Left eye central opacity
HI: LDH (2878), UA (0.9), ALKP (472), AST (444), GLU (110)
CBC WNL
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
pre-release hold due to elevated LDH
wt=3.1 kg, SCL=27.1, SCW=24.4, TPR=n/a, 48, ? BS = 3/5
CC: strand 11/4/13 Brewster
Last Blood: 12/3/13; 1/6/14; 3/11/14
HI: LDH (8488), GLU (114), UA (0.4)
CBC = HCT (31%, high normal ?)
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=5.4 kg, SCL=30.4, SCW=28.3, TPR=n/a, 52, ? 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 carcinics, 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 cholohexderm 5min when out.
1- vit B1, sea tabs, and calcium (oral)
2- cholohexiderm 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 colem 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.

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