An improving harbor seal in rehabilitation (Oregano) who had no skin lesions was geld in isolation, but frequently handled prior to Onion, who was very sick and placed at the ‘end of the rotation’ for handling. We used standard precautions of disposable gloves, foot baths between animals, and animal unique equipment (stethoscope, thermometer, tubes, etc), but atlas Onion has developed a lesion consistent with pox.
**Harbor Seals**: Lemongrass NMLC 15-030 PPv weanling
resolved dehydration, lethargic and rectal prolapse
female [admit] wt=14.5 kg, SL = 97.5 cm; [current] 15.0 kg BS=2.5/5

stranded Biddeford ME 8/29/15; admit: 9/3/15;
last blood: 11/7/15 mild increase in neutrophils, decrease in lymphocytes
last rads: barium study 10/30/15: 6 exposures: 200 ml barium diluted in water, excellent stomach
filling with prominate rural folds, immediate filling of the small intestine. By 1 hour the seal was
passing barium, by 6 hours there was no barium retained. No obstructive lesion was determined.
Consistent with hyper motility but the cause of hyper motility was not discovered
last fecal: 10/30/15 NPS-CRW
PE: [Williams 11/3/15] marked rectal prolapse, develops strong abdominal contraction with
abdominal palpation, can be manually reduced, seal is thin both no other lesions, nor is the cause
of the prolapse apparent.
PE: [Voorhis 11-11-15] TPR= 100.2, 130, 40, BAR, thin, slight hydration rings, small prolapsed
not easily reduced, a firm ring tissue and edema. No external wounds.
A/P: Tramadol and loperamide has helped, d/c loperamide after 1 week (slows GI motility and may
have an adverse effect on Acanthocephalans. Parasites are a cause of hyper motility and rectal
prolapse in other species. General deworming with fenbendazole followed by ivermectin and
praziquantel. 1 week of metranidizole 125 mg PO BID to cover colitis signs and possible
protozoal infection. Start topical antibiotic/steroid cream to prolapse. Consider anti-edema
therapy (sugar / honey / preparation H) with manual reduction and purse string suture application
once the straining and hyper motility has diminished. Surgery of the prolapse may become
necessary in the future, but would likely be a high risk procedure.
Harbor Seals: Onion Flake NMLC 15-034 PPv weanling
male [admit] wt=11.8 kg, SL= 96.5 cm; [current] 16.2 kg BS=2/5
CC: otitis media (left), corneal edema (right), pox
stranded Province town 9/17/15; admit:9/17/15;
last blood: 11/5/15; electrolytes are improved and now normal
last rads:10-20-15 canalography DV skull, improved lungs (normal) but ruptured ear drum
last ultrasound: 10-20-15
last fecal 9-22-15 (post 25 mg/kg fenbendaole) 2 samples NPF-CRW
PE:{Berridge & Voorhis 11/3/15]  Small bump on head between eyes, no ulcer, cause is unclear
R/O very early pox.  Right eye with corneal edema, irregular surface and central pink area may be syecheia.
PE:[Williams 11-11-15]: TPR= 99.7, 120, 14; BAR more active.  Thin.  Right eye with dense
corneal edema but smoother and no lipping edges, central pink area is regressing, but the eye is
non - functional and visual assessment of the anterior chamber and posterior segment is not
possible.  Menance response is difficult to assess.  The left eye appears normal.  There is no
discharge from the left ear, sterile saline flushing does not result in saline in the mouth or nares.
Lungs sound normal.  A raised pigmented 1 cm oval lesion is present between the eyes and is
consistent with an early pox lesion.  Extra-quarantine procedures are currently being taken.
P: wean off fluinef, decrease flushing of the ear but continue with mediation, continue with
hypertonic 5% saline topical treatment of the eye (it is non-functional).  Monitor the course of
pox, approved to be housed with Oregano.

Harbor Seals: Tarragon NMLC 15-037 PPv weanling
female [admit] wt=22 kg, SL= x cm; [current] 19.1 kg, 97 cm BS=2.5/5
CC: no active problems, stranded @ sea, stressed in captivity
stranded at sea: 9/27/15; admit: 9/27/15;
last blood: 11/11/15 pre-release, lymphocyte count is still a little low, but acceptable
last rads: (2 views- chest) no lesions
last fecal: passed: *Diplogonoporus terrapterus.* Treated with 20 mg/kg praziquantel PO once
AC: very skittish seal, does poorly in captivity
Visual Inspection [group 11/3/15] removed tapeworm form tank, seal is nervous and negatively impacted by human interaction and presence but this is not a negative trait for wild seals in captivity. P: deworm and push forward for pre-release evaluation, may be thin.
PE: pre-release [Berridge 11-11-15] TPR=99.0, 128, 12 eyes are clear and bright, no aural or nasal d/c, breathing is easy, chest osculates normally, skin lesions are healed, body.
A: no active medical problems, exact cause of capture at sea is unknown. It is our opinion that further captivity will not benefit Tarragon, she is very stressed with captivity and is unlikely yo gain weight quickly. While Tarragon has been and continues to be isolated, there are seals with pox lesions in the building, and further captivity may eventually result in her infection. Tarragon is showing no signs of infectious disease, and further captivity is unlikely to result in a quick weight gain as her eating habits are interfered by human activities. It is our opinion that Tarragon would be better in the wild, and poses no know risk to the wild population at this time.
Tagged: Right Hind White 28

**Harbor Seals: Oregano NMLC 15-046 PPv weanling**

female [admit] wt=13.5 kg, SL= 80 cm; [current] x kg BS=1/5

**CC: advanced pox [isolated]**

stranded SeaBrook NH: 10/2/15; admit: 10/3/15;
last blood: 10/20/15 CBC, PHV-1 ELISA, Bx to IDEXX
last rads: 10/20/15 DV skull canalography = no contrast in middle ear = TM intact
last fecal: 10-13-15: FF single tape worm ova
ON LOCK DOWN, ISOLATION and zoonotic disease

Oregano’s primary problem now is the lack of company, but we’ll let the early phases of this contagious disease go by while Oregano is isolated. Pox is not a fatal disease of weanling seals, but as we have seen, it’s the multiple combination of problems that makes the case.

BX [IDEXX] ballooning degeneration but no viral inclusions, but with the now apparent clinical picture this is face of pox. [update Dr. Lipcomb has found eosinophilic intra-cytoplasmic inclusion bodies in ballooning degeneration of skin cells.

Visual Inspection [group 11/3/15; 11/11/15] Advanced pox lesions, some bleeding on the head and shoulders, the lesions continue to increase at this time.

AC: Oregano continues to be vital and eats well, the only thing holding her back is the need for strict isolation in a seal pod, and the disfiguring but non-lethal active pox lesions, which take many weeks, to months to resolve.
P: 2 weeks of doxycycline to see if it improves and may shorten the clinical course of seal pox, a viral disease, the doxycycline may help with secondary bacterial infections and exert a mild anti inflammatory affect. Approved to be housed with Onion Flake.

**Under the Microscope**: *Zalophotrema hepaticum*, from the intestine of a California Sea Lion

*Zalophotrema hepaticum* is a common parasite in this host, thanks to our friends at The Maine Mammal Center for submitting these fine examples. A little larger then some of the published ranges, but parasites often have differences in overall size. The intestine, liver, and biliary system are the common habitats of this parasite.

**Under the Microscope**: It’s a clump of worms from the respiratory tract of a Harbor Porpoise, they must all be the same species . . . right?

Nope, both *Torynurus convolutus* and *Stenurus minor* can be found when you poke around, both common but it requires a little investigation to find both

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