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## Owls Under the Beaver Moon

For those (like me) who love words, especially those from a good myth, the sources of names of full moons are welcome. Moon names are largely from tribal Indian lore, primarily from the Algonquin. Worm Moon, Pink Moon, Harvest Moon, Hunter Moon and November's Beaver Moon are just a few of my favorites. The forests and wetlands on Maryland's Eastern Shore were long-time Algonquin tribal grounds with the Beach to Bay Trail tracing the movement of local tribes in summer and fall. In nearby Snow Hill, the Algonquin Trail is the current name for the North to South (and vice-versa) trading routes of many native American tribes.

It is November; we still have beaver activity in Worcester County. They live here. As the cold tones of the failing light of winter to come replaces the bright contrasts of October, now is the time for beavers to build their dams and stock up on submerged branches they will store adjacent to their lodges before winter's freeze stops new construction. Beavers won't budge much from their secure lodges as the water chills, though they won't hibernate. Inside the warmer lodge, winter is breeding time.

This is also the time of year we always hear the haunting notes of the great horned owls. The timing of mating rituals of owls coincides with the time that older owls chase out the juveniles. I guess it makes sense that with winter around the corner, aggressive carnivores like owls don't need competition from junior. Wise decision.

So it was not surprising to hear not one but a chorus of great horned owls the other night and then for the full week that followed. Now that our forest has grown up in the East, our loblollies are a preferred vantage point for crows in the morning, eagles in the afternoon and once again, under the Beaver Moon, owls.

In the still of the night, the calls of a pair of great horned owls in trees just a hundred feet away are breath-taking, as they magically commanding attention. Owls feature prominently in Indian folklore too, as they do in countless cultures of North and South America. The great horned owl range and habitat is incredibly diverse so readers from Manitoba to Argentina have probably been entranced in fall by owl calls just as I am.

In spring and summer we hear the barred owl most commonly. "Who, who who are you," it seems to call. The greats simply demand "who, who, who, who" though there is some modulation of later whos in the sequence and timing of the phrasing changes from beginning of the call to the end.

When the owls are so close, we make sure our cat stays in. A 12-pound cat is a bed time snack for Poppa Owl after a night of hooting, carousing and hollering. Many people know that owls are often roused by crows during the day. The pursuit of a flock of crows (find collective term\*) seems so unfair. "Poor owl. Let him sleep."

Poor owls indeed: eating crow is a favorite pastime. There isn't much meat a great won't eat!

We used to have mute swans and Australian black swans on our ponds. One died of *Aspergillus fumigatus* (confirmed on autopsy; this fungus is big killer of larger birds). Another died of microcystin (from a bloom of cyanobacteria) poisoning. A third and a fourth vanished just as the owls starting calling. Could a great horned carry away a 20 pound swan? You bet. How about a 45 pound beaver? Not likely but a cat or a beaver kit doesn't weight that much. Young'uns must stay in at night!

We can only wonder what is so attractive to owls about these tall loblollies with their views out over stubble of the corn field. Bunnies and more bunnies. Owls say yum. Why not be here all year long?

We have woodpeckers all around us. Downies will be on the same trees as the owls. Pileateds feed on dead wood making their distinctive oblong nest cavities a delightful find in the woods. Red-bellieds work on living hardwoods. Sapsuckers prefer conifers yet leave their rune-like signatures chiseled on elms, autumn olives and maples (among others) as well. We can tell a lot about what makes organisms unique by how they live and where they live too.

Ecology is all around us. We can tell the water-saturation of swamp soils by the mosses and ferns that grow there. Forest edge plants don't grow under the canopy of cypress and gums, but thrive just a few feet away from the shadow line and with just a slightly lower water saturation. The activity of water  $a(w)$  doesn't get much publicity but is vital to life and death of loblollies and cypress just like it is for creatures like greats; and smalls like fungi.

My November morning walk in the forest is so peaceful and quiet, but then whoosh! I am thrilled even as I am startled by a woodcock flushed out of the moist bottom of a down-sloping thicket of laurels and sweet pepper bush. I marvel at the hardy mountain laurels living here as if the laws of ecology and cold weather somehow don't apply to these odd denizens of dense groves of spring blooms and spiraled trunks. I am missing something about these swamps: what are the laurels doing here? Winter temps, summer temps and more are wrong. Yet the acidity and  $a(w)$  is right. And there are the laurels.

I am unsettled today but not by the glorious display of the woodcock. I am hearing some details from a lecture given by a doctor about fungi. I have no idea where he has obtained what he considers to be facts but he is trying to say that fungi found in nasal washings make toxins that show up in urine. Nope, that ignores the ecology of fungi and just about everything we know about fungal habitat in people.

And then I read comments attributed to a friend from the CFS community that fungi make toxins simply for defense mechanisms to be directed against bacteria and other fungi. Nope. Not true. The best known mycotoxin found on food (and therefore in us when we eat the food), deoxynavenolol\*, simply uses its very expensive secondary

product of metabolism to defeat the chitinases and peroxidases made by plants as they try to defend themselves from being digested by fungi. Call it counter-terrorism, if you will. Not a primary offensive weapon.

Sure the science I am hearing is fundamentally flawed and sure there usually is something going on behind the scenes but I just don't know