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Subject: PABIODIV: Coyote Issue Questions  
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The coyote conversation is of great interest to me. I have several questions, the first of which is do predators control prey populations, or do prey populations control predator populations. My understanding is that science research supports the claim that prey populations generally control predator populations, not the other way around. In a classic predator-prey activity I've used many times with children, a graph showing the lynx-snowshoe hare relationship indicates that when snowshoe hare populations crash, the lynx population follows, and as the snowshoe hare numbers recover, the lynx population climbs - always lagging behind by a year or so. When lynx can't find food for their young, the lynx loses many if not all of the kittens that year. As snowshoe hare populations recover, more lynx offspring survive and their populations grow with the hare population growth. I remember reading of a study where on one island the wolves did control the moose population, but my recollection is that in most cases, and I would assume that this would be similar, prey populations act as limiting factors for the predator, thus making the introduction of a predator to "control" the prey species a mute point especially when so many other food sources would be available (urban wildlife, not just pets) and perhaps easier and safer to capture for the predator. I hope someone can set me straight on this.

My second question is, what evidence exists that coyotes aren't already present in this area? I've heard anecdotal evidence of coyotes being sighted in downtown Scranton, Erie, Pittsburgh, and Philadelphia. I believe that coyotes will be (and are) clever enough to find unexploited food sources without any assistance and will live secretly under our noses.

A third question (in two parts) I would ask is how does one distinguish coyote-killed and fed upon deer carcasses from domestic or feral dog-killed and fed upon deer carcasses? And what peer-reviewed research articles in reputable science journals are there to indicate the limiting factor in deer populations is their predators, instead of available food quantity (or quality), road kill, disease, or some other cause? It might make more sense to fence deer out of areas to allow for regeneration or to protect landscaping, introduce a viral or bacterial control as we do for gypsy moth, black fly, and mosquitoes, or maybe even fine people heavily for feeding them.

Thanks for any insight you might have into these questions. If you have any good sources of information about this, I would appreciate the references and would be happy to credit the source in any teacher workshops or classes I teach.

Roy

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"Unless we change the direction in which we are headed, we might wind up where we are going." - Chinese Proverb [In Uhl, (2004). Path to a Sustainable World. Developing Ecological Consciousness]

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