

The Oil Drum: Campfire

Discussions about Energy and Our Future

The Chicken Coop Refuge: Or How I Became a Bug Farmer

Posted by [Jason Bradford](#) on July 8, 2009 - 6:40pm in [The Oil Drum: Campfire](#)

Topic: [Environment/Sustainability](#)

I spent about a dozen years as an academic biologist including some period teaching ecology to university students. Often I find this background useful in unexpected ways.

Take my chicken coop as an example. This is an enclosed area where five hens live. They will use their claws and beaks to eat nearly anything that's edible, and while I feed them mixed seeds and kitchen scraps, various live animals much smaller than themselves tend to be preferred, when available.



After satisfying their foraging needs, hens are shown taking a group "dirt bath" during a winter dry spell in the garden. Behind them is a small "chicken tractor" that I use to confine them in places outside of their coop.

I know this because I sometimes let them out to roam the yard, watching to make sure they don't

destroy a newly planted patch of vegetable seedlings or poop on the steps of the back porch. Their enthusiasm for worms, and little arthropods makes it clear that they would like more of them in their diet and that the coop has a shortage.

This brings me around to basic ecology, where population models and experiments have demonstrated the importance of a “prey refuge” in preventing local extirpation of prey in the presence of predators. [Marine reserves](#) are a good example of the application of prey refuges for increasing the populations of both predators and prey, and reducing population volatility.

What I have done is create little faunal refuges in the chicken coop by placing scraps of wood, such as plywood, on the ground. The hens are unable to access anything underneath the wood and after some time a dense population of little critters develops.



Only a few seconds after being turned over, the hens are picking bugs off the board and newly exposed soil. Since it is so dry in CA during the summer, earwigs and pill bugs (known as the wood louse in Britain, and a member of the class Isopoda) are most abundant this time of year, and likely move out to forage at night while the hens sleep.

I haven't done experiments, or even thought about it deeply, to say how these boards should be spatially arranged, how many to place, how large they should be, etc. to optimize my harvest of eggs. But I do enjoy turning a board over and watching the hens go after the hidden riches. And I also enjoy eating eggs for breakfast most days of the week.

This is a Campfire post and I would like our readers to learn from each other. Does my story

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remind you of some “discovery” of your own that has practical significance? Have you found yourself engaged in "lateral" thinking and problem solving where you've applied knowledge and experience gained in one capacity to a new situation?



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