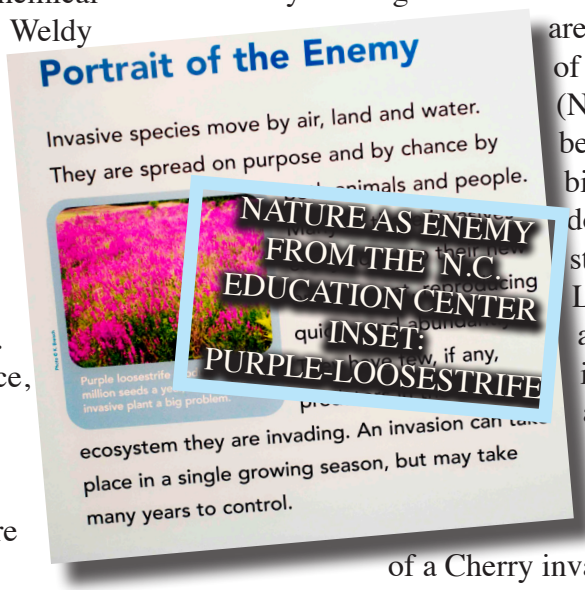
The New Environmentalists
Will The Environment Survive?

BY PAUL JOFFE 01.17.08

Tuff Love For NY's Eco-System

It's not your father's environmentalism. Today's environmentalists are in a war against plants and trees. Invasives, Interlopers, foreign invaders and aliens who take space and sunlight from our shy, pure bred, less aggressive, domestic, varieties. Fragmites, Purple-loosestrife, knotweed, autumn olive, and English ivy. These are just some of the enemies of the new environmentalists. Their weapons: Clear cutting, burning, and chemical and biological warfare. To quote Troy Weldy from the nature conservancy "Herbicides are one of the tools in our toolbox, we wouldn't be able to do our work without them."

As is often the case in war friend and foe are hard to tell apart. In many cases it takes a scientist to distinguish between native and non-native species. The endangered Indiana Bat for instance, is so similar to the common brown bat that the major difference is the length of its toe hair. Interestingly, one of the reasons that it is endangered is exposure to pesticides, but more on that later.



Purple-loosestrife, home of The American Goldfinch

Purple-loosestrife, is a beautiful tall plant with purple flowers as the name implies. It may have arrived from Europe, Asia or Africa aboard ships 200 or possibly as many as 400 years ago and serves as food for bees and butterflies as well as a natural remedy for diarrhea and dysentery. Some Scientists disagree on whether Purple-loosestrife is a danger to the eco-system and this area of study is relatively young, but there is one man who has been studying this plant for more than 35 years. Dr. Erik Kiviat, Executive Director and Co-Founder of Hudsonia a non-profit environmental research institute which educates and provides technical assistance in the environmental sciences. (www.Hudsonia.org.) He says Purple-loosestrife is food, shelter and hunting ground for many animals including birds, bees and small mammals. A study in the Canadian Journal of Botany unexpectedly concluded that plant diversity was higher in invaded than in un-invaded areas. (Canadian Journal of Botany, 2004 (Vol. 82) (No. 6) 763-773). It may be a muddy area. How big a piece of real estate do you include in your study? Just the stand of Loosestrife, or the other adjacent areas where it hasn't colonized. Is a blueberry patch a growing monoculture of aggressive blueberries? Is a cherry tree the start of a Cherry invasion? They do spread. Is it that the grasses in question are recent arrivals, like Lou Dobbs' "aliens"? There is a social and aesthetic component to the demonization of recently introduced plants and trees that taxes a logical mind. Unlike corn, a species of grass, not native to the US which grows in toxic monocultures, nobody makes money from Purple-loosestrife so there is no pay-off for saying good things about it. Just the opposite, government grants mean that it pays to kill this immigrant. The Nature Conservancy, who's trademarked motto is "protecting nature, preserving life." Just received a grant from New York State to do just that (no, the other thing, kill Purple-loosestrife).

BIO-WEAPONS-

So back to the toolbox. How do you kill a weed to protect American nature? Well unlike the organic gardener you don't just pull it, you turn to an arsenal of biological weapons, or "control agents" in eco-speak. The Nature Conservancy in cooperation with researchers at Cornell University are turning the tables on their own mission by introducing another invasive species to eat the Loosestrife. Beetles and Weevils imported from Europe have been let loose in stands of Purple-loosestrife to eat their hearts out (the hearts of the Loosestrife, they like it). Scientists at Cornell University assure us that they'll cause no harm. Ever. And in fact no documentation of those vermin causing problems of their own has been documented. On the other hand it took almost 200 years after its introduction for Purple-loosestrife to be seen as a problem, what generation might have a problem with the bettle? Dr. Kiviat warns of the future of the introduced beetles (gallurcella.) "One has to assess the likelihood that they will evolve and change after their release because insects do this all the time in nature. It's very common for insects to evolve and change and switch host plant to a different type." In fact just like the beetle, many "invasive" species were purposely imported by agricultural scientists to combat a perceived problem. Like African Honey Bees, which were brought to this continent to increase honey production.


IMPORTED BEETLE

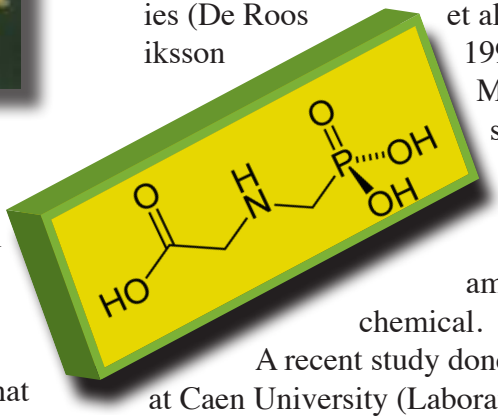
CHEMICAL WEAPONS

Speaking of chronologically distant cause and effect, its not just biological weapons that will be engaged in the battle against the spreading purple plague (not barney, the loosestrife). Chemical weapons will also be employed to tackle the "worst infestations".

Specifically Glyphosate by Monsanto, the active ingredient in the herbicide Roundup which inhibits the production of that famous chemical tryptophan, an essential amino acid in the human diet that is often blamed for sleepiness at thanksgiving. The Environmental Protection Agency reviewed the toxicology of Glyphosate and found it to be non-carcinogenic in 1993, a full seven years before their infamous report following the attacks of 9-11 in which (according to its own senior scientist Cate Jenkins) the EPA lied about health hazards at and around ground zero.

RISK

Employees of The Nature Conservancy interviewed for this article felt they would not be at risk from the poison because they were qualified and would be reading and following label directions and using the herbicide sparingly. Good for them since three studies (De Roos et al. 2003b; Hardell and Eriksson 1999; Hardell et al. 2002; McDuffie et al. 2001) suggested an association between Glyphosate use and the risk of non-Hodgkin lymphoma among those who apply the chemical.

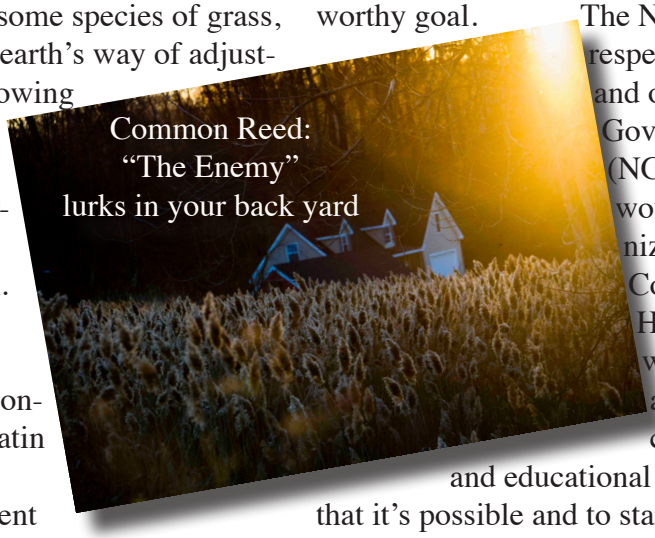


A recent study done at the Biochemical lab at Caen University (Laboratoire de Biochimie et Biologie Moleculaire, USC-INCRA, Université de Caen, Caen, France) found that "Glyphosate is toxic to human placental JEG3 cells within 18 hours at concentrations lower than those found with agricultural use." In other words, it hurts.

Curing The Common Reed

Phragmites or "Common Reed" is slated for destruction too, -

not the native common reed, just the foreign common Reed, but if you have trouble telling them apart don't feel bad, most people can't. And don't bother looking for toe hairs, until recently it took a DNA test to differentiate. Ask Dr. Kiviat, he says its very difficult and he has fourty years in the field, literally. Climate change and changing levels of C02 may play a part in the spreading of some species of grass, in which case they may be the earth's way of adjusting to the new climate. Fast growing grasses eat up and sequester carbon well. Killing a few stands of Reed may be counter-productive. Everyone admits the Loosestrife will come back. In the poisoning and drowning of humanity and the expected climate change, this could be considered Palliative care (from Latin palliare, to cloak) which is any form of medical care or treatment that concentrates on reducing the severity of disease symptoms rather than providing a cure.



But The Nature Conservancy has chosen what they consider to be special areas of unique and diverse plant and animal life that are endangered. Treating them will preserve some unique areas of bio-diversity. I spoke about this with two employees of The Nature conservancy in the pine bush of Albany. "This is Black Locust" one said – pointing to a stand of healthy twenty-year-old trees. "We'll be removing (killing) them." You see the pine bush is a unique environment. Mostly pine trees grow there. Pine bush, its in the name. Its not called the pine and Black Locust bush. Anyway it's a unique eco-system, in Albany. It's an area of deep sand laid down in a glacial lake and water drains through it so fast that many plants and trees native to the area die of thirst. Native is a relative word here since the scrubby pines that grow in the sand are considered native because they have out-competed other trees and plants in the area but they're not native to Albany. You may have seen them in Cape Cod, Martha's Vineyard, Nantucket or the New Jersey Pine Barrens. That's where they're common. But in Albany they're unique.

If the nature Conservancy had not taken control of the property it is likely that the sand would have been trucked off to construction sites all over the northeast and the whole thing would turn into a housing development when the upstate economy booms next. Hey, It's possible. Setting land aside, to be protected from development seems like a worthy goal. The Nature Conservancy is well respected for their good work and one of the Largest Non-Governmental Organizations (NGO) in this country. But wouldn't it be nice if Organizations like The Nature Conservancy and Scenic Hudson went out of their way to avoid and discourage the use of poisons and clear cutting in their work and educational activities. Just to show that it's possible and to stand as an example. After all they own the URL www.nature.org and implore us on their site to change our lifestyles and give up some of our "tools" for the greater good. Who are they to be advising the public on how to help the earth? Are they natural because the word Nature is in their name? should the Nature Conservancy be organic? Here's a trick, go to the nature conservancy's "carbon calculator" that scolds us all for our carbon "footprint," (http://www.nature.org/initiatives/climatechange/calculator/) and try to play along by entering in the carbon footprint of their plant killing spree.