Psychological Aspects of Working with 'Invasive' Plants
– Release the Natives, Don't Demonize the Invasives

Working with invasive plants is hard. Physically it is hard work and it is hard on decision making too – choosing which areas to work on and how. It is hard on emotions and soul and spirit because we know that invasive plants are major contributors to rapid change in habitats leading to species extinction, loss of bio-diversity and the homogenization of Earth. It is especially hard because the plants keep increasing and often the work seems hopeless.

So working with invasives is daunting and overwhelming. It is scary and sad. Ironically among the many problems facing us, it is something we can do things about, yet all too often people do not take action. Why is this, and what can be done about it?

I have come to see that recognizing our attitudes about invasives and paying attention to the native plants they are replacing are the most important aspects of invasives work.

The People Part of the Work. I live in central Vermont where for about 12 years I have been involved with wild chervil (*Anthriscus sylvestris*), a relatively unknown, but fast-spreading, invasive plant which resembles Queen Anne's Lace on steroids. Years of weeding out chervil and other invasive plants, watching them spread and talking with people about invasives has given me time to notice the people side of the work.

I am not a psychologist, but I think that if we are to be at all effective with invasive plants, we must take human nature into account. We must notice and become aware of different attitudes, different feelings, different trappings that come along with invasive plants. They have a great deal to do with how we act and whether we are successful.

Demonizing invasive plants by casting them as devils, cancers and evil aliens imbues them with a raft of explosive, unexamined and undefined feelings which cut us off from nature and natural processes of life and growth.

To start, get a sense of your own history and assumptions:

- Recall how you were first drawn into being interested in the plants we call 'invasive'. What was the trigger?
- Are you involved because your work includes invasives, or is it a personal choice?
- How long have you been at it? 5 years or less? More years?
- How have your assumptions, attitudes and goals changed over time?
- How do you feel about invasives these days? The term I hear most often here is 'overwhelmed'.

We need to identify and then manage the way we think – and feel – about the invasive plants we are working with.

A New Topic

First off, invasives work is a new endeavor, a new topic, a new discipline. The field of study now called 'Invasion Biology' began in the 1980's, so it is a burgeoning discipline, as well as being about burgeoning organisms. Where shall we place it? How shall we fit it into our lives and into other divisions of knowledge and endeavor? Consider:

- Who is in charge of invasives, and who is responsible for doing something about them?
- What should be done? What can be done?
- What is the goal? Eradication?
- What other goals besides eradication might we have?
- Is it possible to eradicate these plants, once established? If not, should we even try? Who should try? (If we don't try, we will never know if we can eradicate them.)

- How do invasive plants really affect ecosystems?
- Is this just evolution? Do we want to alter evolution?
- What do we really want?

All this is unclear. There is a vacuum of knowledge and responsibility/ownership.

Attitudes are Affixed to Us: Advertisements and Headlines

Attitudes become affixed to us from our own experiences and from headlines and ads where others label things for us. If we don't have our own knowledge, if there is a vacuum, we unconsciously accept what others label for us.

Advertisements For years I have noticed how herbicide ads feature war images such as men attacking dandelions with herbicide guns. Herbicides have names like Arsenal, Combat, Vanquish, Chaser, Battleship, Confront, and Stalker. Advertisers are professional labelers and they use psychology to intentionally influence people's behavior.

Headlines Every article or book informing the public has a headline or title. The purpose of headlines is to get attention, and too often they are sensationalist. Attention grabbing headlines are trying to garner attention and energy and to whip people up to pay attention and take immediate action. Invasives book titles and headlines include: *Killer Algae, Mutants, A Plague of Rats and Rubber Vines, Alien Invasion,* and *Killer Weeds.*

These labels bring up unconscious feelings and images from horror and sci fi movies about creepy aliens intent on taking over our society.

War on Weeds Then there are the war terms – 'onslaught', 'combat', 'attack', 'kill', 'battle', 'war on weeds'. These war analogies imply we can and must aggressively eradicate certain plants. The reality is that wars are almost never 'won', and they create huge amounts of unintended consequences and collateral damage that last a long time.

Other labels affixed to invasives include 'criminals', 'thugs', 'demons', 'spawn of the devil', and medical images like 'diseases', 'plagues', and 'cancers'.

Indeed, these terms imply that these organisms intend to do us evil – that they are consciously setting out to hurt us. But plants which behave invasively are not evil. They are simply highly vital plants which out-compete native plants due to natural strategies like leaves which open earlier and hold longer than natives' leaves, multiple reproductive methods and lack of limiting insects, animals and diseases which co-evolved with them but remained behind in their homelands.

Counter productive Generating rage and the rash, stomp-'em-out actions that inflammatory and demonizing labels encourage almost always fails in the long run. The disturbances created by heavy, single-minded, slash and burn techniques lead to other invasions. After the initial satisfaction of scouring an area, the weed warriors see that the same or other weeds quickly return because their actions have injured the existing plant cover and disturbed the soil. Typically they burn out, lose interest, and stop trying.

Steady, long term action works better. I call this planned persistence. It is slower, but more effective in the long term. We need informed, strategic and subtle approaches such as the Bradley Method (see *Resources* at end).

Remedies

We need to recognize the labels and attitudes that advertisers and the media tag invasive plants with and we need to consciously decide what we are going to believe and accept.

Most of the messages from journalists and advertisements add up to, or trigger, fear. Social scientists tell us we are living in a "culture of fear" and invasives are just one more thing to fear along with terrorists, bird flu, anthrax, natural disasters, foods that make us sick, financial ruin, etc. Fear keeps us tense, untrusting, helpless and frozen.

It seems to me that taking action is the antidote to fear-based attitudes which are designed to paralyze us. Action and restoration are remedies for fear, as is knowledge.

The 'other plants', the natives, are the real reason we are engaged in work with invasive plants. The actual task is to shift our focus from the invasive plants to the plants and ecosystems being displaced by them. We need to think like them, to identify what they need to survive and thrive, and then to try to provide it.

Over-Urgency

Another psychological aspect about invasives is how we hear people talking about them, how messages are delivered and how we react to the tone of those messages.

Have you ever been at a meeting or hearing where someone speaks, and their tone of voice rises, they become intense, and sometimes critical? What do others do in these situations? They look down, draw in, feel embarrassed and wait for it to be over. And often enough they never listen to that person again!!!

If a message is presented too urgently listeners often shut down. This may be especially true of people from families that are generally turned off by animation, gestures, emphasis, tone of voice, rate of speech, or anything they view as hysteria. So watch how other people's delivery affects you and how your own level of urgency may affect others.

Activism is similar. For some people invasives are part of their job and they proceed in a workmanlike fashion. For others invasives work becomes a calling. Notice how you and others deal with what may look like extremes of feelings and of action. How do people deal with too much urgency? This is especially important when trying to get people involved, particularly in all-important preventative action.

What about the OVERWHELMINGNESS of all this?

Feeling overwhelmed is the most pervasive emotion connected with invasives, so we must address it head-on.

Ask yourself: How does feeling overwhelmed make you act? Do you take more action, sometimes even frantic action? Do you tell yourself there really isn't a problem, or it isn't serious enough to involve you? Or do you take no action, turn away, shut down, give up, 'put your head in the sand'?

I think it is important to realize that feeling overwhelmed is part of **Environmental despair**. Environmental despair is grief for our planet, grief for our home and grief for ourselves and our children because we are part of Earth. Environmental despair is the experience of loss – the loss of species, of diversity, of possibilities, the loss of natural places and processes. The loss of home. Aldo Leopold said, "One of the penalties of an ecological education is that one lives in a world of wounds. Much of the damage inflicted on land is quite invisible to laymen." Being aware of all the different types of environmental degradation hurts!!

There is a taboo in our society against experiencing grief, including environmental grief and despair. But it does not help to deny the feeling. Instead we need to consciously NOT run away from it or avoid it. We need to sit down with it, be with it, feel it and let it pass on through us. We can utilize the excellent work of people like Joanna Macy and John Seed and the ritual called **Council of All Beings** (see *Resources* page).

We can also practice **planned persistence**. Taking steady action is the antidote to fear, to feeling overwhelmed and to environmental despair.

What else can we do? What techniques work?

Techniques that do the work and also address the feelings we have about invasive plants

Overcome Procrastination and take Preventative Action

- Learn to recognize invasive plants.
- When you see them Act Immediately to remove them.
- Recognizing and stopping a new invasive plant before it is established is the single most effective thing any of us can do.

Choose where you will work

- You cannot work everywhere, so Identify areas that are top priority to work on.
- These may be places where invasives are seriously encroaching on rare or endangered native plants and animals.
- They may also include individual plants or small patches. It is often more effective to weed out the single plant which will become a larger patch, rather than focusing on large, dense, well-established infestations.

Acceptance

- Accept that wild chervil – for example – will still exist despite your efforts, that it won't be eradicated.
- Recognizing this may help us identify areas we will keep 'chervil free', places we can call 'refuge areas'.
- We can succeed in keeping the refuge places we commit to chervil-free, and therefore we will not feel like failures for not keeping it from everywhere.
- So accepting that wild chervil will live in some places, we can effectively work to keep it from some other, ecologically important, places.

Avoid Disturbance

- Don't remove natural mulch, open soil to light, or compact soil.
- Step lightly, act carefully.
- Try the Bradley Method (on *Resources* page).

Spend more time in Nature, focus on the Natives

- Pay attention to Nature's processes.
- Focus not on the invasive plants, but on the natives around them.
- Appreciate and enjoy the natives. Don't trample them.
- Ask the natives what will help them. To do this, simply pose a specific question in your mind and keep working. An answer will often pop into your head. Then do it. (That's the most important part – if you have asked you must follow through with whatever answer you are given.)

Visualize the process of invasives work as an athlete would

- Picture the process like a ski racer visualizes every gate and turn in the race. She does not focus on the goal of winning the race, but on every moment of the race.
- Concentrate on the steps, the actions, the process, not on the desired outcome.
- The process will achieve the outcome.
- Enjoy the process.

Watch assumptions, emotions and attitudes

- Where do they come from?
- What do they trigger in us? In others?

Make it social

- Arrange to work with neighbors or friends.
- Invasives are a non-political topic that most neighbors can agree to work on.
- Working with others will accomplish more and seem less daunting. You can also share techniques and teach each other.

Pace yourself

- Work at times of day that fit your own energy cycles.
- Work at the times and seasons that are most advantageous for results, for example
  - Early spring for wild chervil and garlic mustard
  - Fall for woody shrubs

We are the only ones who can make a difference

- Consider the fact that there are things we can do about invasive plants.
- Consider the fact that no one else is going to do it. There is no 'they' who are going to do the work to keep invasive plants in check.
- Really, our own actions are the only things that can make real differences about plant invasions, and our actions will certainly make a difference in our feelings.

Let others see your work

- I am energized and inspired when I see pulled chervil plants in a road indicating someone else has been working on wild chervil.

Planned Persistence

- Even before you begin, commit to:
  - Repeated treatments and on-going monitoring.
  - Schedule when you'll work.
  - Schedule yourself to keep at it.

My goal for myself is to take preventative and sustained action about invasive plants with inner steadiness so that I keep at it. And that is what I want for you too.

Remember:

- **Persistence Pays**
- **Action is the antidote to fear**
- **The tortoise won the race**

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RESOURCES:

Excellent article on attitudes toward invasives:

Invasive Species as Ecological Threat: Is Restoration an Alternative to Fear-based Resource Management? By Paul H. Gobster. Ecological Restoration 23:4 December 2005, pp. 261-270. **I can email you a pdf copy.**

Stunning new book on the role of natives in supporting wildlife and other natural processes:

Bringing Nature Home: How Native Plants Sustain Wildlife in Our Gardens by Douglas W. Tallamy. Timber Press 2007

Identify natives to plant with William Cullina's encyclopedic trilogy: *Wildflowers, Native Trees, Shrubs, and Vines,* and *Native Ferns, Moss and Grasses.*
These large and engaging books offer informative, often humorous descriptions, stunning photographs, growing and propagation information along with a passion for native species.

My chervil documents are posted:

on the **UVM Master Gardener – Invasive Plant Info** at http://www.uvm.edu/mastergardener/invasives/invasivesindex.html

Also at **Vermont Invasive Plants**, the Vermont Invasive Exotic Plant Committee's site at http://www.vtinvasiveplants.org/ under ***Wild Chervil*** in the ***Gallery of Invaders*** section.

And **Wild Chervil Information Center at** http://www.rherald.com/common/Chervill/Chervil.html

Environmental Despair remedies:

Joanna Macy and John Seed co-created a ritual for environmental despair called **Council of All Beings**, described in a book called *Thinking like a Mountain.* See http://www.rainforestinfo.org.au/deep-eco/TLAM%20text.htm
Joanna Macy wrote the seminal article, 'Working for the Earth (without going crazy)', several books, such as *Coming Back to Life*, and has a web site at http://www.joannamacy.net/
John Seed's website is part of http://www.rainforestinfo.org.au/
See the ***John Seed – Essays & Articles*** and also ***Deep Ecology*** sections.

The Bradley Method:

An Australian method of slowly, effectively, removing invasives while allowing native plants to repopulate:

Beginning in the 1950's 2 sisters in Australia developed a simple method that allowed natives to re-generate themselves: they slowly and carefully weeded out the invading plants. The Bradley sisters concentrated on small areas – 12' in diameter maximum, and they were mindful to not tread on natives or remove natural mulch from the ground. They refused to slash through an area quickly. They proceeded slowly enough for the natives to regenerate and it worked!

Their principles were:

1. Work from the areas where the natives are most dense, towards the weed infested areas.
2. Make minimal disturbance. Minimizing the amount of soil disturbance reduces the potential for a fresh weed invasion.
3. Let the rate of native regeneration dictate the rate of weed removal.

Basically they took a long-term view and worked steadily but with care and restraint. And they only had to do it once!

For more information on the Bradley Method see:

- http://casparcommons.org/Gorse/bradley.php
- http://www.rainforestinfo.org.au/deep-eco/bradley.htm
- *Bringing Back the Bush: The Bradley Method of Bush Regeneration.* Joan Bradley. 2002, New Holland Publishers (Australia) isbn 1 876334 89 4. (Try getting it on interlibrary loan.)

Nature does not hurry

Yet everything is accomplished.

….. Lao Tzu