

Love the Ones You're With:

Working with existing natives to create stellar pollinator habitat

By Jimmy Giannone - Pollinator Partnership's Ohio Biologist

You don't have to be an expert to get into native plants and to create awesome habitat for wildlife and pollinators in your yard or surrounding marginal lands. A couple of years ago, I was happy mowing acres of lawn. That low cut, uniform looking lawn was appealing to me at the



Monarch chrysalis on
Common Milkweed

time and I always helped my dad get rid of the dandelions which he referred to as "weeds". My interest in the outdoors seemed to be focused on larger wildlife, songbirds, and trees - the things that are pretty easy to see and identify. As I spent more time outdoors, I started to recognize and be intrigued by native plants. Once I started recognizing native plants, I noticed all of the pollinators that were utilizing them. From there, I realized that I could make a change and provide native plants for bees and pollinators in my landscape, yard, and marginal area, and that's when I completely changed my approach.

Where to start:

I began my journey by purchasing a tray of 38 Royal Catchfly plugs in the spring and incorporating them into the landscape and areas around my yard. It was a tough sell to my wife since the plugs were small and did not grow much the first year. That summer and fall, I collected seed from a few different species with plans to convert $\frac{1}{4}$ acre of my 1 acre yard into a pollinator plot surrounding our garden. I wanted to try to work with minimal site preparation to see how it worked so I only applied herbicide in the fall and did not use any other site preparation methods. I was worried about compaction being an issue but multiple freeze and thaw events that winter seemed to open up the soil and exposed plenty of bare ground for the seed. I broadcasted my previously collected seed mixture in January and was excited to see what would germinate in the summer. Unfortunately we ended up selling our house that spring and moving two hours east only to start over. However, this time we have a 2-acre yard and 100 acre family farm as a blank slate!

Planning and site preparation:

When we moved to our new home in May, I knew I had to start planning right away to convert some of the surrounding fescue pasture and yard into pollinator habitat for next summer. An old fescue pasture can be hard to work with since it has such an established seed bank. I began in July with doing some light tillage in my desired areas. Every 2-3 weeks when it would start to green up, I would till it again. On the final green up in October, I applied herbicide to kill the existing cool season grasses. A late fall herbicide is really effective on cool season grasses as the plants are trying to absorb everything they can to survive the winter. This results in fast absorption of the herbicide and a good



Broadcast seeding an area with
Pollinator seed

kill. The herbicide was applied in the evening at low rates to limit harm to any pollinating insects. I had 3 sites that totaled just over 1 acre that I broadcast seeded in early February of this year on a brisk frosty morning. The mix contained about 5 species of native grasses and 30 species of native wildflowers. I am also positioning some brush piles and planting some shrubs nearby for additional habitat!



Some of the native plant species stratifying.

In addition to the actual pollinator seeding, I am also trying to grow my own native plugs. I am now up to 27 species and 1,128 individual plugs that are currently stratifying. Many will be incorporated into our landscape, into the pollinator plots I have seeded, and some will be donated to local projects.

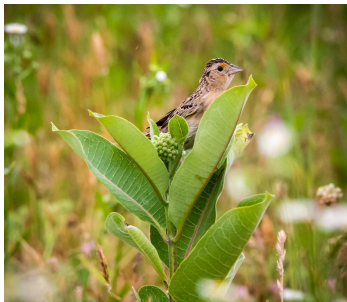
Working with what you have:

Your marginal lands may already be pollinator hotspots! We have a 20-acre hayfield in front of our house. It is pretty degraded as far as hay production goes and it is only cut once a year in early / mid July. We have many nesting meadowlarks, grasshopper sparrows, and bobolinks so we always try to time

the mowing after fledging. Our field is mostly cool season grasses with primarily fescue, orchardgrass, and some timothy and bluegrass. But we also have some very large patches of butterfly milkweed, common milkweed, yarrow, goldenrod, ironweed, and a few clovers. In October/November, my dog, Mallie loves running through the milkweed patches as the pods are busting open. It always seems to be a pretty good seed dispersal event! After the



My Golden Retriever, Mallie happily posing with Butterfly Milkweed.



Grasshopper Sparrow on Common Milkweed

seed is dispersed, I run over the areas with a cultipacker to try and make sure a lot of milkweed seed reaches the soil to help with establishment. It is amazing how quickly the milkweed species rebound after being cut in July. The grasses always slow down in growth but those milkweed species take off and tower above the grasses and still end up flowering and producing seed by the end of the year!

I initially wanted to convert this entire 20-acre field to a diverse pollinator mixture but financially, the cost and time involved in site preparation and a diverse seed mix was not something I am able to tackle right now. So, focusing on naturally expanding from the current seed source of beneficial plant species is providing many benefits to pollinators. Additionally, the species of grassland nesting birds that have been utilizing this field for countless years also prefer the short grass habitat that is available. With grassland bird populations in decline due to habitat loss, I don't want to take away from them and feel that



Male Bobolinks in the pasture area

I can slowly enhance what I have to benefit both birds and pollinators!

Available assistance:

With cost in mind and pollinator seed mixes being pretty expensive per acre, there are some programs available to landowners from the Farm Bill that can assist with that. The Conservation Reserve Program, also known as CRP, provides cost share opportunities to establish pollinator habitat and provide an annual rental rate for the life of your contract which is generally 10-15 years. That rental rate is determined by the productivity of your soils. If you're not looking to commit to a 10-15 year contract, you can also receive assistance from the Environmental Quality Incentives Program, also known as EQIP. EQIP helps with the cost of establishment and can be anywhere from 1-5 year contracts. For more information on these farm bill programs, contact your local USDA service center. There are opportunities for assistance from large scale Ag productions down to very small-scale Urban Ag settings. If a farm bill program such as CRP or EQIP is not desirable, there are staff available to simply provide free technical assistance and advice to help you reach your goals. If you live in Ohio, Michigan, California, Wisconsin, Illinois, Indiana, or Arkansas, [visit this link](#) to find your local NRCS Liaison and we are happy to connect you with your local biologist. If you live in Ohio or Indiana, you can also contact your Pollinator Partnership Biologist directly.



Monarch on Clover

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Some challenges and things to consider:

When preparing for planting around my house, I needed to add some soil to the area to slope water away from the structure. We had an old dirt pile on the farm which was from the township road crew who dumped it when they were doing some work nearby. I added it around my house without thinking much about it and the first thing that instantly started popping up was Canada thistle. This put a damper on any planting plans we had that year. I spent all summer using a combination of hand weeding, selective herbicide, smothering, etc. to try and combat the thistle. I am hopeful that we did some damage to it but we will see what this spring brings. Be cautious of the existing seed bank that may germinate after any disturbance, and if you are bringing soil in from an outside source, be prepared for the unknown! Another thing to be cautious of when planting



Tiger Swallowtails on Common Milkweed

around your house is the location of your home drainage and septic system. I avoid planting natives with deep roots directly



Bumble Bee on Purple Coneflower

over top of my leach field, septic lines, or drain lines to prevent any future clogging of those pipes from the roots. There are conflicting studies on whether the roots infiltrate pipes, so I choose to take the safe route and not give them a chance.

Conclusion:

Big or small, your project has all the potential to make a difference for pollinators. There will be lots of trial and error and lots of successes as well. I had an area where many plugs did not survive being transplanted but I had one milkweed plant that did exceptionally well, and I ended up with 7 monarch caterpillars on that one plant. Even for the most experienced gardener, they are learning and noticing new things each growing season and that is a big reason why I enjoy planting natives so much. It provides many learning opportunities, from propagation techniques, plant and pollinator identification, transplanting, plant health, ecosystem

services, and relationships within the environment. The more you learn about something, the more you end up caring about it. The more you care about something, you are able to understand, take action, and share your knowledge. When you do those things, you have all the power in the world to make a difference!

Below are a few additional pictures of pollinators using our landscape plants and milkweed patches in our field.



Common Buckeye on Common Milkweed



Monarch caterpillar eating some Common Milkweed



Fritillary species on Tall Ironweed

