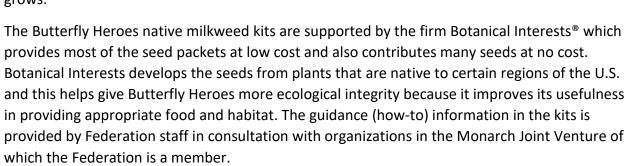


Butterfly Heroes 2017 Results Report

Description:

The National Wildlife Federation Butterfly Heroes program is designed to help children, families, schools and youth organizations to: a) create habitat for the declining monarch butterfly species and b) engage families and young people in planting and caring for a pollinator garden as an approach to keeping them connected to nature and the outdoors. We do this by providing free Butterfly Heroes native milkweed seeds and a garden planting/care information kit to thousands of families, school groups and others provided they make a serious pledge to plant the seeds and to care for the garden plot as it grows.



Botanical Interests provide an in-kind seed contribution (free and discounted seeds) worth an estimated retail value close to \$150,000.

2017 Results:

In 2017, with anchor funding from the Disney Conservation Fund, we distributed 68,000 Butterfly Heroes kits. We placed more emphasis this year on reaching organized youth groups so that the children involved would have more instruction and more opportunities to participate in a garden care schedule that would increase their time in nature. This resulted in 56,000 actual native milkweed kits being planted and the creation of 32,900 gardens of various sizes. 12,500



of these garden plots were planted by individual families and involved 30,000 people in outdoor nature gardening activity. 20,400 of these garden plots were planted by schools and youth groups and community groups (such as scout groups) and involved an additional 200,000 people in outdoor nature activity. An estimated total of 230,000 people were engaged in 2017. This information (informed estimates) comes knowing how many and where the kits were sent (and to whom) supplemented by three sets of surveys that were sent to Butterfly Heroes recipients during the year. By emphasizing the seriousness of the pledge and its conservation value and placing less emphasis on the prize of a sweepstakes trip, we also found that the kit recipients were much more likely to plant. In 2017, we also put concentrated effort into identifying organizations and institutions that worked with children and reflected diverse socio economic areas, faith based organizations, scouts, 4H and other youth serving organizations across the U.S. This targeted approach resulted in unprecedented demand for kits from groups within the first 72 hours of the campaign committing the original 45,000 kit supply. Botanical Interests' responsiveness and support allowed us to reach many more groups with an additional 23,000 kits.

We estimate that the planting and caring for each of the native milkweed/pollinator garden plots involves about 10 hours of outdoor/nature time (an hour for the initial planting, watering etc. and 18 to 20 30-minute outings over the course of a season to care for the plot, observe pollinators and monitor for Monarch larvae, etc.). Overall, the program produced 2.3 million hours (230,000 participants times 10) of recurring nature and outdoor



time for children and adults engaging in the creation of habitat for an important and declining species, the Monarch butterfly. In surveys we conducted of seed recipients, 71% said that the Butterfly Heroes program increased the amount of time they and their children were spending outdoors in nature and 28% said (because they are already gardeners) that the amount of outdoor time was the same. Fully 100% said they saw wildlife such as birds and pollinators and many saw monarchs.

2017 program at a glance:

- 68,000 BH kits distributed
- 56,000 BH kits planted
- 32,900 milkweed/pollinator gardens created or enhanced
- 230,000 people engaged in nature gardening
- 2.3 million hours of recurring time in nature (18 to 20 outings)
- 71% of the participants experienced more time outdoors

NWF's longstanding partner, the Natural learning Initiative, has done extensive research on the importance of small, natural areas, where children can be outdoors, play, observe nature and engage in hands-on activities while connecting to nature and the outdoors. These activities also support children in multiple developmental domains including: learning and cognition, health and skill development. Gardens are a particularly good way to connect children to nature because they nearby and accessible and they demonstrate the relationship between planting activity (requiring knowledge and skill) and the creation



of habitat. They also produce results (more monarchs and pollinators) and they make children aware of the natural world and its processes with greater specificity. As children get to know nature and its complexity they grow appreciate it more and recognize they can make a difference. Research, such as that compiled by Dr. Louise Chawla, shows that this increases their sense of conservation stewardship and overall leaning toward nature and environmental protection. The Butterfly Heroes program is a way to insert a powerful nature experience directly into the lives and children, families and caregivers where the live, play and learn. To that end, the support of the Disney Conservation Fund also allowed the Federation to work in partnership with the Natural Learning Initiative and provide the Butterfly Heroes Nature Play Guide to support adults foster deep nature engagement with children. To date over, 6,000 participants have visited this Butterfly Heroes resource area online.

Another aspect of gardening as a way to connect children to nature can be found in how it promotes group activity and team work. This is true, whether a child is collaborating on a garden with parents and siblings or whether they are engaged with peers on a group basis.

In addition, gardens allow for an ongoing relationship with nature. Because milkweed is a perennial plant, it offers a nature place for kids to work, play and learning in subsequent years. Some 200,000 kits have been distributed since the program began in 2015. Not all of these kits were planted, particularly when we were just initiating the program. We have made

adjustments to be able to increase planting rates and thus foster more nature experiences and estimate there are some 60,000 to 75,000 garden plots in existence since the inception of the Butterfly Heroes program.

Other supportive NWF activity:

The National Wildlife Federation Mayor's Monarch Pledge and Community Wildlife Habitat programs also supported the distribution of seeds to quality community and youth groups likely to plant the seeds. These two programs combined are active in over 300 cities, towns and counties ranging in size from Houston and Broward County to small towns. These jurisdictions are engaging schools, recreation departments and others in promoting nature gardening for pollinators.



The Million pollinator Garden Challenge is also a program the Federation helped to form. It is a coalition of 45 organizations that have committed to supporting pollinators via gardening and landscaping programs. To date some 650,000 pollinator gardens have been developed or enhanced and Butterfly Heroes has contributed from 10% to 12% of them.

The Federation's <u>Monarch Mission curriculum</u> designed to support schools and other groups with educational support when they are creating pollinator gardens to support the monarch butterfly.

Quotes and feedback:

In addition to basic statistics and assessment of the program, we placed more focus on getting feedback from the participants. We discovered that they were avid, that they took the pledge seriously and that they spent significant time outdoors tending the gardens. We also learned more about how children interact with the gardens, fostering larvae and plants and some even developing their own hatcheries. Examples:

- * My son Asheton is 6 years old and ... tends to his garden every day and wrote a book for his Kindergarten class last Spring to share his story.
- * I have been wanting my kids to have more opportunities to be outside interacting with nature, so this was a fun activity to do together and talk about why preserving wildlife is important,
- * It was beautiful to see the butterflies, wasps, bees and moths just hopping around from planting our seeds.
- * Our family is new to gardening but we're learning as we go. My 3 year old daughter is so excited to water her plants every day and the joy she shows as things are sprouting warms my heart



- * When we got our butterfly starter kits we [planted them] together as a family. We can't wait to see all the beautiful butterflies around our garden.
- * The boys have really enjoyed watching the caterpillars form chrysalides and become butterflies we've released 13 to date and currently have another 15 caterpillars.
- * We planted all kinds of butterfly host plants and nectar plants including the milkweed we received from this pledge. Much to our children's delight, we were even able to raise and release both painted ladies and monarchs into our garden
- * Creating a pollination garden was informative and fun. It was a great accomplishment to me to involve my teenage son whose only interest is technology
- * We put the middle school to work and created phase one of our garden. In our first two months we have gotten sphinx moth caterpillars and even our first monarch caterpillar!! It is a great outdoor classroom for the whole school!
- *My kids and my niece and nephew thoroughly enjoyed planting milkweed seeds and watching them grow! We live in a city so we don't have much space for a large garden but have enjoyed planting in pots and a raised bed.



- * My dad saw that we were growing milkweed with our kids and he went and planted a whole row in his vegetable garden! 150 seeds! Thank you for the seeds!
- * We planted several large pots of wildflowers to attract butterflies and bees, and it's been a success! Thank you for the seeds!
- * WE LOVE BUTTERFLIES! This last year we have been planting beautiful plants that attract butterflies! We love our milk week and the pretty flowers that bloom from it! We were so excited to get more seeds and our Adventure book!
- * We planted milkweed right next to our front door. We collected five Monarch eggs from the milkweed and got to watch them hatch into caterpillars ... then become beautiful butterflies!
- * My 2 year old had a great time planting a small native garden with milkweed and beebalm! We were so excited to find monarch caterpillars enjoying our milkweed. We look forward to growing our native garden even bigger next year!
- *We planted milkweed in the school garden as a troop. We've seen more butterflies already!



- * My son Jack raised these 50 pots of milkweed and they will be planted all over Germantown!
- * We planted the Milkweed seeds today and marked the calendar for watering duty and counting down to see the plants grow so that butterflies will come to our yard. Thank you for the seeds!

* Started with milkweed seeds from Butterfly Heroes. Feels good to help so many butterflies!

This year we have added milkweed and zinnias to the mix of plants we host. Here is a picture of my daughter enjoying a one of the black swallowtail butterflies that we raised from caterpillars.

- *When [5 year old] James saw a wasp eat one of the caterpillars we started bringing the caterpillars into our two net butterfly habitats to keep them safe. The boys check on them daily. Besides planting and watering the milkweed outside we bring some in for the hungry, hungry caterpillars
- * It may be small, but it was planted with love. I love that my grown college boys took part in the preparation and planting. I love being a Butterfly Hero!
- *My daughters are having a blast seeing the different butterflies that have been visiting our yard in western PA.
- * My five and nine year olds were very excited to start their butterfly garden this year. We used our pledge seed packet plus picked up an additional native seed packet. Neighbors also shared some plants they had had ample amounts off. We have loved seeing the flowers emerge. It's a surprise each week!
- * My daughter loves to show her new baby brother how to care for her butterfly garden by watering the flowers and watching the butterflies come to them!
- * My sons loved helping tending to our garden, planting seeds and watching them grow! This has been a wonderful family experience!
- * We loved receiving the free seeds for our butterfly garden, we live in the city and don't see a lot of butterflies. But since we planted the flowers there have been many more! * Our nature center had a day dedicated to studying pollinators and used the Butterfly Heroes program to supplement it.

Conclusion:

2017 was a good year for the Butterfly Heroes program and for helping children and families make a real and valuable connection to nature and the outdoors. In addition, Butterfly Heroes has provided a valued resource that introduced increased numbers of urban programs, such as diverse faith based youth programs, mentoring, scouting, 4H, community centers, and botanic gardens, to a direct nature engagement strategy for the youth in their programs. The Program exceeded our expectations this year and we know, deeply, that Botanical Interests along with the Disney Conservation Fund anchor funding made this possible.