

# MonarchLIVE: Little Spaces, Big Results

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May 19, 2009  
Eden Place Nature Center  
Chicago, Illinois  
Noon to 1 p.m. Eastern Time

## **[Welcome and Introductions]**

### **[Host: Mike Rizo]**

Welcome to *Monarch Live A Distance Learning Adventure*. My name is Mike Rizo, and I work for the U.S. Forest Service. I'll be your host for today's broadcast here at Eden Place Nature Center in Chicago. I'm so glad you could join us. Thousands of students in the United States and Canada are watching this webcast. We've even got some students registered from Costa Rica, Brazil and the United Kingdom and we welcome you all. Monarch Live is a program that is following the migration of monarch butterflies throughout the school year. You can find more information about the project at the web address on your screen.

Let's bring you up to date about what we've been doing over the past school year. We kicked off MonarchLIVE last year in October with a program featuring Dr. Karen Oberhauser, who is an expert in monarch butterflies. In February, MonarchLIVE visited Mexico and broadcast from the Monarch Butterfly Biosphere Reserve in the mountains about 110 miles northwest of Mexico City where the monarchs overwinter. AND we also broadcast and webcast from Alternare, which is a center in the Biosphere Reserve which is training small farmers in the area how to conserve their land and in sustainable farming practices so that they can have a higher standard of living as well as help preserve the mountains where the monarchs overwinter. If you weren't able to watch those programs, they are available on the web site as streaming video and you can watch them any time.

TODAY, we are webcasting from Eden Place Nature Center, an urban garden in the middle of Chicago, which is doing great things. The title of this program is "Little Spaces; Big Results" and gardens like this can have a big impact. Butterflies, pollinators, and other plants and animals not only SURVIVE in small places like this but can THRIVE. I just want to show you that we are right here next to houses in the neighborhood and some train tracks are located along the boundary of this property right over here behind me. So you can see that it's possible to have a refuge for all kinds of wildlife in a space right in the middle of the city.

Just to show you specifically where we are we have these maps to show you. Chicago is in Illinois. It's a beautiful city on Lake Michigan. We'll zoom in a little and you can see that Eden Place is located in the heart of southside Chicago. So this green space IS a little garden of Eden among the houses and businesses and concrete.

Today it's [comment on weather.] We haven't seen many monarch butterflies yet this season, but we hope to soon.

Great! Okay, during the next hour, we are going to learn about:

- How Eden Place was turned into a habitat for plants, animals, and people
- What Chicago is doing to make the environment healthier
- How to create an urban garden by composting, container gardening, and selecting plants for monarchs,
- How to conduct a bioblitz, and
- The latest research about endangered populations of butterflies.

We are also going to have some time to answer your e-mails. Please send them to us at the e-mail address on your screen. We may not have time to answer all of your questions, but we will get around to as many as possible.

## **Special Welcome from Illinois Governor Pat Quinn**

### **[Host: Mike Rizo]**

Illinois Governor Pat Quinn has been a supporter of MonarchLIVE. Before we begin our tour of Eden Place, Gov. Quinn has a short welcome to you all.

[Roll-in]

Thank you Gov. Quinn.

## **DESCRIBE ELECTRONIC FIELD TRIP TECHNOLOGY**

**[Host: Mike Rizo]**

Before we get underway with our electronic field trip, we wanted to show you how we are able to bring this program to you. This program is being webcast to you using the latest technology. We call these **electronic** field trips. We wish you could get on a bus and join us here at Battle Creek Elementary School in person. But until then, you can be with us today on this live electronic field trip. Let's see a little bit more about how we are bringing this program to you.

[Roll-in]

**[Josh]**

The garden today is sort of like our studio. We've got three cameras that feed into a truck that is serving as our control room. The program is then encoded into computer data, compressed and uplinked by satellite to the Internet. Everything is going great. We're up and running, which is sort of obvious since you are watching this program! From this data that is transmitted over the Internet, you are able to watch on your computer. We're glad that this technology allows us to share this experience with you.

**[Host: Mike Rizo]**

Yes, that is amazing. Thanks for helping us with the technical aspects of this webcast.

## **EDEN PLACE**

**[Host: Mike Rizo]**

Okay, let's find out a little bit more about this wonderful garden and the person who brought this patch of concrete to life. I'd like to introduce Michael Howard, founder and CEO of Eden Place Nature Center. Hi Michael. Please tell us about what was here before it was turned into Eden Place. What did it look like?

**[Michael Howard]**

In a word, it looked horrible. Eden Place recaptured a 35-year-old illegal dump site. In 1996, the neighborhood decided that it had had enough of being dumped on by various illegal dumpers. The debris was as tall as 2 stories. We started with Saturday neighborhood cleanups and started to garner as much support as we could to clean up the site. The city eventually became involved and helped by taking away debris. They even used a hidden camera and started fining the illegal dumpers.

We also got the Chicago Department of Environment to do an environmental study to see if there was anything major to be concerned with. We found out that it was primarily construction debris, but that there were also high concentrations of lead with a minor problem with mercury and asbestos.

Once the site was cleaned up, the city asked us if the neighborhood had any plans with the land. But we found out that the land was in a closed trust and we couldn't contact the owner. The city helped find the owner and we had a meeting in 2000 with the city, owner, and neighborhood.

**[Host: Mike Rizo]**

Wow, looking at Eden Place now, it's hard to image that it was just a dump. What happened then?

**[Michael Howard]**

Once piles removed, we started dreaming about what could be here with community help and support. At the meeting with the city, owner and neighborhood, I introduced concept that if the land were donated, we could use it as an environmental learning site so that students and adults could learn about nature as well as

environmental justice issues. We could teach children and families throughout southside Chicago as well as the world at large.

**[Host: Mike Rizo]**

Well, what happened next?

**[Michael Howard]**

About 2003, we started taking full ownership even though wasn't ours yet officially. We started teaching mothers about lead poisoning while simultaneously, working with officials from the city. Eventually, the owner agreed to donate the property to the Fuller Park Community Development Corporation in perpetuity.

**[Host: Mike Rizo]**

You mentioned "environmental justice" earlier. What do you mean by that?

**[Michael Howard]**

In many places, poor people have been dumped on and even poisoned by local industries and businesses, because since they were in a state of poverty, they had no power to fight back and correct injustices. Environmental justice means that poor people have an equal right to a clean environment.

In some ways the story gets worse before it gets better. This area of Chicago, called Fuller Park, is sandwiched between two major industries that keep engines running all the time. There is a major diesel operation with the trains and a car ignition business that runs 24 hours a day producing pollution that blankets our community. Because of commerce and the way city planned, no one asked about the impact. It was discovered that our area had a high rate of cancer and lead poisoning. It was on the front page of the paper, but nothing happened. My wife and I thought surely after this was discovered that something would happen but it didn't.

We thought that it was unacceptable that we lived in the area of the city with the highest concentration of lead poisoning and that nothing would be done. So we started an awareness campaign and started talking to others in the community, telling them that they lived in a poisoned community.

**[Host: Mike Rizo]**

Where did those efforts lead?

**[Michael Howard]**

The city of Chicago came in to support us once again. We found out that the lead was not in chipped paint, which is the cause in many other communities, but in the water. The water supply was tainted, because of its age which predated the Chicago fire in 1871. This was one of the oldest communities built directly after the fire and some of the water supply was built with scraps that were leftover. Eventually, the city came in and replaced the sewer and water pipes and gave free medical care to all children under 16 for two years.

**[Host: Mike Rizo]**

You had to be very determined!

**[Michael Howard]**

Yes. And at same time, our local school – the Hendricks Academy – was found to have leaking PCBs, which is a very dangerous chemical. The school was built in 1953 and had the same old PCB transformers, one of which was leaking in a classroom. We immediately evacuated that classroom. The children were tested and the entire school was rewired.

**[Host: Mike Rizo]**

You have really had to work hard to create a healthy environment in this area. That's not something that we can just automatically take for granted, is it?

**[Michael Howard]**

That right. Currently, Eden Place is designed to be a place of health for the community. The community can come here and take a fresh breath. Its an environment that is totally opposite to what existed here before. Children can come and run and play.

Our vegetables and flowers are grown without chemicals. Today we have education programs and people come from all over city to learn about nature as well as about the indigenous plants, animals, and people.

Families come and have picnics and reunions and festivals. We have an Earth Day celebration and jazz and gospel festivals as well as a Family Fun Fest and an Autumn Festival.

**[Host: Mike Rizo]**

What is your vision for the future?

**[Michael Howard]**

In the future, we want to erect a permanent structure for classrooms with a coffee shop, so people can come here, work in their garden, sit down with cup of coffee and enjoy the fruits of their labor. We'd like to have an area for a market place, where people can buy fresh fruits and vegetables. With a new facility, we can expand what we offer, expand educational opportunities. We'd like to have an afterschool program so kids can learn about nature.

**[Host: Mike Rizo]**

Where are you going to get fruits and vegetables to sell in a market?

**[Michael Howard]**

We are working with others to have 13 more gardens in this area, where fruits and vegetable can be grown in a safe and sustainable way in the community, mostly in raised beds and using organic soil.

**[Host: Mike Rizo]**

That's very ambitious. How are you going to do all of this?

**[Michael Howard]**

To date, we have accomplished all of this with volunteer labor and time. But we now need to expand our support and do some fund raising to help us achieve our vision to make the building a reality.

**[Host: Mike Rizo]**

Let's bring this discussion back to monarch butterflies. It's very pretty here, but do you really get monarch butterflies to come?

**[Michael Howard]**

That saying "If you build it, they will come" is really true here. This has become an oasis for monarch butterflies and all insects. Eden Place has been chosen by them, and they have used the plants and trees during their migration. We've witnessed them two years running on the trees during the fall migration.

**[Host: Mike Rizo]**

What type of plants have you put in?

**[Michael Howard]**

One of great things here is that we have plants for each stage of development. We've put in milkweed that is necessary for monarchs to lay eggs and eat as caterpillars, and we've put in nectar plants, like coneflower, for adults. Nectar keeps insects engaged and energized. In addition, we've established over seven butterfly gardens in the Fuller Park neighborhood and we want to triple that.

**[Host: Mike Rizo]**

Wow, that would be great to have lots of butterfly gardens all around this inner city neighborhood. I'm wondering if our audience knows how many butterfly gardens might be around their neighborhood, either in parks or in yards, and if they have a neighborhood that is inviting to monarch butterflies and other insects.

Thank you so much, Michael, for telling us about how this small space can have a big impact for the people in this neighborhood as well as for monarchs and on all the plants and animals. Is there anything else you want to add?

**[Michael Howard]**

I just want to reiterate that not impossible to make a difference in your own community and that building something from a dream benefits mankind and also creates a habitat so that we can share our globe with butterflies, birds, and all of nature. Eden Place is a haven of rest and comfort.

**[Host: Mike Rizo]**

Thank you again, Michael.

## **INTRODUCE BIOBLITZ**

**[Host: Mike Rizo]**

Okay, I'd like to introduce Shelly Hope, who is an environmental education teacher here at Eden Place, and Devon, a student at Hendricks Community Academy. Michael was just telling us about the many insects, birds and other animals that have come to Eden Place since it has been turned into a garden. Tell us about what you're going to be doing.

**[Devon]**

My crew is doing a bioblitz. A bioblitz is when you take record every living thing in a certain area. The purpose is to find what kinds of plant, animal and insect species are in your area. That's called "biodiversity". In the Santa Monica Mountains National Recreation Area last year, a bioblitz discovered 1,700 unique species in the park, plus several species that haven't been identified yet. Our study will be a "mini-bioblitz" because we will not be conducting it over a 24 hour period. Even though Eden Place is bordered by train tracks and an expressway, we think we will have a lot of biodiversity here.

**[Shelly Hope]**

We'll check back near the end of the webcast with our results.

**[Host: Mike Rizo]**

Okay, that's going to be very interesting. We'll look forward to your report later in the webcast.

## **Chicago Green Initiative**

**[Host: Mike Rizo]**

Okay, we've seen what's been happening on a small scale here at Eden Place. And Michael mentioned that the city of Chicago was very helpful in the effort to clean up and beautify this area. Chicago has actually taken many steps to become more environmentally friendly. The city has planted trees and flowers, put plants on roofs, and installed solar panels on city buildings, among other things. We've got a short video produced by high school students interested in environmental science and involved in an internship program at the Peggy Notebaert Nature Museum. Let's see that video.

[Roll student produced video – SCRIPT]

TEEN 1: Welcome to Chicago! Our city motto is a latin phrase, "urbs in horto" which means city in a garden.

TEEN 2: Right now we're on top of a roof garden at the Peggy A. Notebaert Nature Museum in Lincoln Park, in the north side of Chicago. This is a green roof we're standing on. What's a green roof you ask?

TEEN 1: A green roof is a roof of a building that is partially or totally covered by vegetation and soil planted as a waterproofing surface.

TEEN 2: Chicago is known for its green roofs. Our City Hall has a green roof.

Voiceover: Millennium Park is actually a giant green roof too. It's built over a parking lot, and so, considered a roof. The 24.5-acre green roof contains over 900 trees, shrubs, groundcovers, perennials, annuals and growing medium which absorbs and cleans storm water, cleanses the air and reduces urban heating.

TEEN 3 (near the solar panels): Chicago is a city committed to nature and urban living, and finding a way to integrate the two. It's more than possible! For instance, there's a lot of alternative energy use here. We have solar panels on our roof. Solar is important to Illinois. Solar power is an energy resource that could be used all over the world. It is a great alternative to fossil fuels, because it is a renewable source, clean, and will help lower

greenhouse gas emissions. Wind power is another renewable energy source that we have in Illinois. Mendota Hills Wind Farm was the first utility scale wind farm in the state of Illinois. The teen's program visited the farm in 2006.

TEEN 4 (standing on the North Lawn with the path in the background): Green space is important to making the city beautiful and providing a place for urban wildlife. Such as squirrels, wood ducks, great blue herons, and several other species. Chicago also has a ton of native habitats, like here at the Nature Museum which has many flowers, insects and animals. Some of the flowers are Aster, Compass plant, purple coneflower, and Common milkweed.

TEEN 1: The milkweed is where monarch butterflies must lay their eggs and their caterpillars will hatch, eat and grow!

## **PT2: Segment on constructing an urban butterfly habitat**

### **SCENE ONE: THE ENCOUNTER**

BUTTERFLY: I've just flown over 2,000 miles from Mexico. I'm exhausted! Is there any place to rest and refuel around here?

GARDENER: Hey! Why don't you stop in my garden? I was just about to start planting.

BUTTERFLY: What are you planting?

GARDENER: Well, I was leaning toward the grass...

BUTTERFLY: No! I need native plants like milkweed and lilac to live on. (falters) Please help me...I'm so...tired...

### **SCENE TWO: THE BIG DECISION**

(Close up on gardener. A devil appears on his shoulder)

DEVIL: Psst...Hey, you know you want to plant the grass. Just picture it: open space, parties all summer, first prize for best lawn. What's a little water and fertilizer for all that popularity, huh?

(An angel appears on the gardener's other shoulder)

ANGEL: *But* if you grow native plants, you'll not only save money on water and fertilizer, but you'll attract more butterflies and wildlife. Plus, with all those butterflies, you won't have to work as hard pollinating next year's garden. Besides, the "Best Garden" award is so much more prestigious.

DEVIL: (spluttering) Fine!

ANGEL: (triumphant stance)

GARDENER: Well, I guess planting native and making a butterfly garden makes more sense. Welcome home butterfly!

BUTTERFLY: Yay! Thank you! You won't regret it.

### **[Host: Mike Rizo]**

No, you won't regret planting native plants in your garden. Thanks again to the students who help out at the Peggy Notebaert Nature Museum for producing that video!

## **URBAN HABITATS/GARDENS**

### **[Host: Mike Rizo]**

So at Eden Place we've seen what's happening on a small scale and the video showed us what is happening in Chicago on a larger scale. I'd like to introduce Doug Taron, Curator of Biology for the Peggy Notebaert Nature Museum. Hi, Doug. Please tell us about the types of environments around Chicago and their value.

**[Doug Taron]**

Chicago is a great place for butterflies because there are so many different habitat types. There's a lot of green space right in the city. Outside of the city, there are parks, yards, and forest preserves. About 2/3 of the butterfly species found in the Chicago area thrive in these habitats. The abundance of these spaces helps keep these butterflies from becoming rare or endangered.

Unfortunately, Illinois has lost most of its original vegetation. The native prairies, woodlands, and wetlands that once covered Illinois have been reduced to less than 1% of what they once were. The butterflies that require these specialized habitats have, in many cases, become rare. These rare habitats are very valuable and require special care and protection.

**[Host: Mike Rizo]**

With so much loss of these rare habitats, what can be done?

**[Doug Taron]**

It's vitally important that these remaining bits of prairies, woodlands and wetlands are protected, but that isn't enough. Without proper management, even a protected site can be lost to overgrowth by brush. It's important to support both protection and proper care for these special places. There are lots of volunteer opportunities available throughout the region to help manage these great butterfly spots.

**[Host: Mike Rizo]**

Thanks, Doug. We'll I'm not sure that Eden Place has a rare habitat, but let's take a look at some of the things that can be done to help butterflies.

## **EDEN PLACE ACTIVITIES**

**[Host: Mike Rizo]**

Shelly Hope is here with some of her students. Shelly, what are you going to be showing us?

**[Shelly Hope]**

We're going to be demonstrating three activities that can be done anywhere to make the environment friendlier for people, plants, and animals. We're going to show how to compost, create a container garden, and plant some milkweed. Here are some of our 8th graders demonstrating how to compost. Michael will tell you more about how and why we compost here at Eden Place, and perhaps how and why you could do this at home.

**[COMPOSTING-Michael Airhart]**

My team is demonstrating how to compost. There are 4 things that you need to have successful compost. You need:

- brown stuff that's high in carbon, such as fallen leaves, dried flowers, hay, and sawdust.
- You also need green stuff that's high in nitrogen like grass clippings, rotting fruit, or vegetables. Even banana peels and apple cores left over from your lunch work well.
- The last two things you need are air and water.

With the correct balance of these things, you will have a successful compost pile.

We chop the materials into smaller bits because that helps them break down faster. We will then layer the browns and greens into our Earth Machine. We will check on our compost pile, turning it every once and a while and we also want to make sure it's moist enough. It should be as damp as a wrung out sponge. Depending on how happy the microbes in your compost pile are, you could have compost within several weeks to a few months.

Now that we know how to make a compost pile, why on Earth would we make one? First of all, making compost keeps extra garbage out of the landfills by recycling food and yard waste back to the earth. Nobody wants a landfill in their backyard so we shouldn't overload them. Creating compost also provides nutrients for your soil

and those of us who want to plant butterfly gardens and grow our own vegetables don't need to buy expensive fertilizers. We can make our own!

**[Shelly Hope]**

Thanks Michael. That's great information. I'm sure buying all of that fertilizer can get really expensive too. So people can also save a lot of money by composting. It looks like we can use this compost for our next station; container gardening. This is Chelsea, whose group will discuss the concept behind container gardening.

**[CONTAINER GARDENING—Chelsea James]**

My team is demonstrating how to container garden. Because we live in the city of Chicago, not everyone has a backyard to garden in. Therefore, we want to show you how to make a beautiful and affordable butterfly garden with limited space.

The first thing to do is find plants that butterflies love. We conducted some research and found that monarch butterflies love Common Milkweed, Butterfly Bush, Butterfly Weed, Marigold, Mustard Greens, New England Aster, Joe-Pye Weed, Showy Coneflower, Smooth Aster, Swamp Milkweed, Wingstem, and Zinnia.

Then it's important to make sure your containers are appropriate for your plants. For example, is it deep enough and does it have drainage? To be sure our plants have the best chance to thrive, we are adding some of the nutrient rich compost we've made. To make our planter look great from every angle for the monarchs, plant the tallest plants in the middle and smaller ones around the edges. You don't just have to use store bought planters. We also have a boot and a tire, and you can plant flowers in these too! It's easy to make any container beautiful with flowers.

Now we can attract monarchs and other butterflies right to our doorsteps.

**[Shelly Hope]**

Great, thanks Chelsea. That's very useful information. The Notebaert students produced another video about container gardens and the importance of butterfly gardens. Let's have a look at their container garden.

[Roll-in video]

**[Shelly Hope]**

I really like the fact that container gardens can go anywhere. That was great! Now let's go to Andrianna's group, which will be planting milkweed for monarchs. Andrianna?

**[MILKWEED PLANTING—Andrianna Hicks]**

Hi. We are planting Common and Butterfly Milkweed for Monarchs. We chose Milkweed because it's the host plant for monarch caterpillars. The adults lay their egg on a milkweed plant. When the caterpillar hatches, it eats the leaves on the plant. This is important because the milky substance that comes out of the milkweed makes the Monarch poisonous to predators. (Crack a leaf and show the milk from the plant.) Monarchs only lay their eggs on Milkweed plants so this plant is very important for the monarch population.

**[Host: Mike Rizo]**

Thank you all for showing us what can be done in almost any space to make the environment greener.

## **LATEST RESEARCH ABOUT BUTTERFLIES**

**[Host: Mike Rizo]**

Okay, let's get back to Doug who's going to tell us about the latest research involving butterflies. First, what's the latest word about monarch butterflies? Are their populations increasing or decreasing? What is the general health of the monarch population?

**[Doug Taron]**

There's so much bad news about the environment today that it's great to be able to share some good news. Several organizations have been conducting long-term monitoring of monarchs on the wintering grounds in Mexico and in their summer range in the US and Canada. There's one program right here in Illinois that monitors butterflies, including monarchs. As with many butterfly species, monarch population sizes jump up and

down a lot from year to year. When we look at these trends over time, we find that the monarch population size has shown neither a long-term increase nor a long-term decrease over the past 20 years or so. So far, the monarch has done well with a lot of changes that humans have caused in the environment. Researchers will continue monitoring population sizes in case anything changes.

The Mexican wintering grounds will always be a point of vulnerability for the monarchs, because so much of the population is crowded into such a tiny bit of habitat. Many folks are working hard to protect these wintering sites from threats like illegal logging, but a lot of challenges remain.

**[Host: Mike Rizo]**

I understand that your expertise is in restoring butterflies to areas where they might have disappeared. First, why would butterflies have disappeared from a given area?

**[Doug Taron]**

This goes back to what I was saying earlier about loss of native habitats like prairie here in Illinois. If a butterfly requires prairie and its home is converted to a cornfield, or a lawn, or a shopping mall, the butterfly species will vanish from that area.

**[Host: Mike Rizo]**

So it's possible to find only some species of butterflies in a specific area, right?

**[Doug Taron]**

That's right. Most species of butterflies can be found in all sorts of places around Chicago. A few have much more specific requirements. For example, the swamp metalmark is an endangered species here in Illinois. It can only live in a very rare type of wetland called a fen. Silver-bordered fritillaries require wet prairies, and purplish coppers live in marshes.

**[Host: Mike Rizo]**

So what do you do when you reintroduce a species to an area?

**[Doug Taron]**

First of all, we need to make sure that the butterfly belongs there. Are there enough of the kinds of plants that the caterpillars eat? Are there plenty of nectar sources for the adults? Is the site big enough? If the answers to those questions check out, we go out to someplace where the butterfly can still be found. We collect females, usually a half dozen to a dozen of them, and take them back to the lab. They lay eggs in special cages we place them in. When the eggs hatch, we start raising the caterpillars. That's the real work because caterpillars eat a lot and it can be hard to keep up with providing them the plants that they need. Eventually, the caterpillars undergo metamorphosis. We take the adults out to the site and release them. If all goes well, they establish a new population.

**[Host: Mike Rizo]**

What has been the result of your work with reintroducing species?

**[Doug Taron]**

We have learned a lot about breeding butterflies in the lab. Last summer, we worked with seven different species, and we hope to do the same this summer. We have started a population of regal fritillaries on a prairie near Markham. There is a new population of silver-bordered fritillaries on a wet prairie in McHenry County, and purplish coppers on a wetland in Lake County. We continue to monitor the progress of all of these brand-new butterfly populations.

**[Host: Mike Rizo]**

If students want to get involved helping butterflies, what can they do?

**[Doug Taron]**

There are a whole bunch of citizen science programs about butterflies that have been developed for kids and classrooms. Project MonarchWatch and Journey North are two great ways to get involved.

**[Host: Mike Rizo]**

One last thing . . . how do you get to become a butterfly scientist? I think many of our students would like to know that. Do you enjoy your job?

**[Doug Taron]**

I love my job. I feel very fortunate that I do something that allows me to work with some of the creatures that I enjoy the most, and that I get to travel to some very special places. To prepare for this sort of career, you should take lots of science and math courses in school, but there are things that you can do outside of school, as well. Get a field guide and learn how to use it. Go outside and try to find some of the interesting species that you are reading about in your field guide. Volunteer to work on ecosystem restoration. These experiences will all improve your chances of finding a successful career in biology.

**[Host: Mike Rizo]**

Thank you for sharing the results of that research with us.

## **GO!TEAM AND EL VALOR (3 minutes)**

**[Host: Mike Rizo]**

We have some students who have been doing some of their own research about butterflies. These students are from El Valor and I'd like to introduce Natali Gonzalez, who has been a counselor.

Natali, first tell us about El Valor?

**[Natali Gonzalez]**

El Valor is a community organization that helps people with disabilities, mentors minority students, offers preschool classes, education and generally helps underserved communities. I worked with girls aged 9 to 13 who were part of GO! Team. GO stands for "Girls Online" and these girls worked on science projects and computer technology. I'd like to introduce Jazmin Nevarez, who was one of the girls on the GO Team.

1. What did you like most about Go! Team?
2. How did you incorporate the skills you learned in Go! Team with finding out more about monarch butterflies?
3. How has this program affected your perspective and attitude about nature?
4. Since the program has ended have you done any planting or made some future plans on how to help the Monarchs survive?

**Natali:** Thank you, Jazmin, for telling us about your project.

**[Host: Mike Rizo]**

One of the goals of the GO Team was to help these girls understand that through learning about nature they could learn other skills too.

**[Natali Gonzalez]**

That's right . . .

**[Host: Mike Rizo]**

Thanks, Natali.

## **BIOBLITZ RESULTS**

**[Host: Mike Rizo]**

Okay, as we mentioned earlier in the program the students have been out conducting a survey of plants and animals for the bioblitz. Devon: can you tell us what the students have found over the last 20 minutes or so?

**[Devon]**

I think you'll be surprised with our results. As you can see, this chart shows we've found . . .

**[Host: Mike Rizo]**

Wow, that's amazing what can be found in such a short period of time. If you had more time, I'm sure that you could identify more species of plants and animals. Thanks for that report. I hope that this is an activity you can do in your schoolyard or backyard sometime. It's fun to see exactly what you have living and growing around you.

## **QUESTIONS AND ANSWERS (12 minutes)**

**[Host: Mike Rizo]**

Okay, we've been learning a lot about how small spaces can have big benefits for plants and animals. We love to hear from you now and take some of your questions by e-mail. You can send your questions to the e-mail address on the screen. We have a question from:

## **CLOSING**

**[Host: Mike Rizo]**

Thank you for your great questions, but that's all the time we have today. I'd like to thank our sponsors and everyone who helped with the webcast today. Go to the web address on your screen <http://monarch.pwnet.org> and continue participating in MonarchLIVE.

In two days – on Thursday, May 21 – MonarchLIVE is going to be in St. Paul, Minnesota, at Battle Creek Elementary School where you can learn about the summer population of monarch butterflies. In February during the programs in Mexico, we learned about how monarch butterflies are concentrated in just a tiny area in the mountains of Mexico. On Thursday, the program will be about how monarchs spread out all over the mid-west and east coast during the summer.

One last thing before we go . . . We're asking teachers to go to the web address on the screen and fill out an evaluation of this program. Your feedback is important to us. Thank you for joining us today at Eden Place and Bye!!!