

Citizen Science: Stories of Science We Can Do Together
Season 2, Episode 2: Libraries and Citizen Science Month 2021

[Theme music]

Welcome to *Citizen Science: Stories of Science We Can Do Together*, a podcast brought to you by SciStarter, recorded live in SciStarter's virtual world headquarters. In this thrilling episode: If you think libraries are boring, then you're more out of touch than a 17-year cicada grub! Caroline Nickerson and I reveal the wild side of libraries, and how they'll be taking center stage for Citizen Science Month in April, demonstrating projects where you fight vascular disease, unmask light pollution and protect coral reefs.

[Theme music fades out]

Caroline Nickerson

Hey, Bob.

Bob Hirshon

Hey, Caroline! So, we're looking at the exciting nexus of libraries and citizen science?

Caroline

That's right. Everyone knows that libraries have books, music and videos. But now, libraries are also where you get resources and tools to conduct your own science investigations, as well as attend programs to learn about all sorts of different topics, including citizen science.

Bob

It's really amazing. The library where I grew up was a little one- or maybe two-room building that was built with proceeds from a spelling bee contest. And it had a sculpture of a bee on the roof. Which was really cool. But then in the 90s, it was fighting for relevance because of the Internet. The Internet would have more books than the great library of Alexandria, so everyone was saying brick and mortar libraries would vanish. But that didn't happen at all.

Caroline

Right, and as time goes on, libraries have just expanded their role and been trailblazers in technology, leveraging their status as trusted community leaders and hubs for local patrons. They're a safe space for everyone to hang out and learn something new. In fact, I saw this firsthand when I visited the Gilbert, AZ. That's where Robin Salthouse used to work. And I have to say this library is probably the coolest place I've ever been to. It's really a place patrons come together. I saw people from all walks of life. I saw people just having fun learning something new. And a big part of that was Robin. Ever since she retired from Southeast Regional Library in Gilbert, Arizona, she's been an advisor for the SciStarter team, helping us engage new libraries, community based organizations, run kit programs, and so much more. But I'll let Robin tell you a little bit about herself.

Bob

And happily, she's our first guest. Hi, Robin, you there? Could you introduce yourself?

Robin Salthouse

Hi, I'm Robin Salthouse, I'm a retired public librarian, now acting as an advisor for SciStarter and Arizona State University for Citizen Science Projects. I'm coming to you from Kingston, WA.

Caroline

Hi, Robin, thanks for joining us.

Bob

Caroline and I were just chatting about how much libraries have changed in recent years.

Robin

Yes, absolutely. If you haven't been to your local library recently, you're missing a lot. And even during pandemic, so many libraries are doing virtual programming. So if you have a computer, you have the internet, you can actually be involved in streaming programs—Caroline can certainly talk to all the work she's done with that in supporting libraries. Or what's even neat if you work or you're not available during these streaming programs, you can even usually catch them on YouTube. So libraries can provide everything from sporting equipment, to story times for families, to, as we've been talking about, citizen science tools and projects.

Caroline

And Robin is so good at summarizing all this, but there are kind of two branching pathways for libraries to get involved with SciStarter. And Robin is such an important, integral part of both of these paths. So the first one is the IMLS, the Institute of Museum and Library Services kit program, which Robin got started with as a library herself in Gilbert, you know, receiving the kits and checking them out, and now is an advisor, it's scaling nationally for libraries to participate in SciStarter's and ASU's citizen science kit program. And then there's also CitSci month, in April especially, but leading up to April, through April and all year round really, programs we do online with libraries, and Robin has become such an important part of that, of moving those events along, helping librarians and library staff members, and even people from community-based organizations ask questions in these events and really have dialogues with project scientists and other folks in the citizen science world. So Robin, could you speak to those two programs: the IMLS kit program and the CitSci Month Program?

Robin

Certainly. The IMLS kit program is now in a phase-- it's the 3rd phase actually – where we're working to scale the program out nationally. And we really are looking for libraries who want to bring kits and citizen science into their libraries. So we will soon be asking libraries to join it, and they'll be part of an evaluation program; we will be looking at our existing kits, possibly expanding into another kit, and getting feedback from these libraries. We're also working with more and more community-based organizations, so whether it's something like an astronomy club, a gardening club, Girl Scouts – people

who are looking to contribute to real research, we need their help as well to promote this. And hopefully in projects that are meaningful to their community. So that's the IMLS program real briefly. And then Citizen Science Month is April. And it's gone from a day to a month of activities. And so again we're working with community based organizations, libraries to provide these events, and Caroline has office hours every week on Thursday mornings where people can stop in at 11 am and 8 am Eastern time to get ideas and check on ideas they have for their citizen science month, or just find out how to get involved in all of this, so, it's just a great way to get your community involved, to highlight a project, or just start the whole idea of what is citizen science so people can get started.

Bob

Wow. So if there are libraries among our podcast listeners, or library staff, or just people who want to find out what sorts of citizen science opportunities there are at their local library, how do they learn more?

Robin

Well, there's a great website, SciStarter.org, and there's a link–

Bob

I've heard of it!

Robin

Yes, (laughs) It's really great. So there's all sorts of resources there, so if you then go forward slash "library" or "library-resources" there's a link to show you which libraries have those kits. And there's even an email you can put questions in, so if you can't find your library, you could always ask SciStarter to help you find one, or locate one, or maybe get your library involved, and we'll help them get all set up.

Caroline

Thanks so much, Robin, and thank you again for all of your help with the ILMS program and everything else that you do. I can't even cover every single thing you help with, and the knowledge that you've given us.

Robin

Sure. It was great to have this invitation. I really appreciate it.

Bob

Our next Citizen Science Month hero is Don Ficken. He runs a library telescope program based in the St. Louis area, that lets people borrow telescopes and other materials from their local library.

Caroline

Right, and Don is also chair of the Missouri chapter of the International Dark Sky Association, a group dedicated to monitoring and reducing light pollution. He's very active in Citizen Science Month, working in tandem with library groups to introduce people to astronomy.

Bob

And we've got Don Ficken here with us at SciStarter's virtual world headquarters. Hey, Don! Can you tell us a bit about yourself?

Don Ficken

Yes, I'm in St. Louis, and I really have a couple roles: one is I manage the library telescope program for the St. Louis area we have about 40 libraries over 90 branches that extend to some rural areas of the state of Missouri and Illinois actually. And so I've been doing a lot to promote that program. Obviously, you can go and look at the stars, you can check out a telescope just like a book. But there are other times when you want to do other things other than that, and also frankly, I have another role that's really interesting: I'm president of the International Dark Sky Association for the state of Missouri. And of course, when you think about light pollution and skies, you think about stars, but there's a lot more about light pollution includes life on Earth. And so one of the things that I was able to do is get involved with citizen science, because I like to bring all this together. In other words, you can do star stuff, but you can also do stuff in the daytime. You can go out and look at biodiversity, you can look at sunflowers, and bees, birds, and that – all life is affected in some way by light, natural or man-made. And so what we've been trying to do in both organizations is really put together a way to leverage our tools as best as possible.

Caroline

That is so cool! And why do you think it's important for libraries to do citizen science?

Don

Well, I think one of the reasons that we found – even with the telescope program – is that the old library was kind of like only books, and this makes it more of a community library. It brings people in and engages them, and frankly, I think school should take more advantage: rather than every school buy their tools, why wouldn't they just go to the library and check them out? I mean if you got multiple schools, that's just like wasting money. Plus the libraries connect pretty good with resources like myself and others that are really good at explaining things. That's just another way to deliver programs. I think libraries really need to do this kind of thing just like they're doing internet, computers, things like that to bring folks in. And it makes it more of a living library. The St Louis libraries many of them are really almost going too far. They do guitars, tools everything you can think of for checkout. And citizen science is such a great way to promote science.

Bob

Is there anything else you'd like to share?

Don

I think the biggest thing that I found is that there's sometimes an intimidation to get involved with these tools and things. Just try it! You know what? These things are built for public check out. Just give it a shot and you know what? I think you're going to have a lot of fun. You might have fun taking pictures of bees, or maybe night sky or the moon. I've had people jump up and down, clap their hands, they're so excited because they took a picture of the moon in the matter of a few minutes. Just try it! That's what these things are made for. I think you're going to have fun and guess what? You're going to learn something out of it, too, and that's even cooler.

Caroline

Great! Thank you so much, Don!

Bob

Our next Citizen Science Month hero-librarian is Alynda Smithey, in the city of Jackson, Missouri, just a couple of hours south of St. Louis.

Caroline

Yes, Alynda is doing amazing things with Riverside Library, where she works, and other libraries in the neighboring communities. She has citizen science kits and programming about all sorts of projects. And she works with Don, too, on her astronomy-related efforts.

Bob

Great. Hi, Alynda! Could you introduce yourself?

Alynda Smithey

My name is Alynda Smithey and I'm the children's and youth services librarian with Riverside Library here in Jackson, Missouri.

Caroline

Alynda, I know your libraries and local groups have participated in the Adopt a Street program with the Globe at Night project. So Globe at Night is an ongoing citizen science project where anyone, anywhere in the world can map light pollution by reporting what they see, and even using special tools, like a light sky quality meter, they have access to it. But Alynda took it to the next level: she organized her patrons to systematically map their community, to get a real handle on what light pollution is, isn't, basically what's going on on the ground in the Jackson, Missouri area. So I'm really in awe of what Alynda's done. And it all started from a summer reading program connection, where SciStarter, the network of National Library of Medicine organized a program where we hosted Dr. Connie Walker, the leader of the Globe at Night project. Alynda was in direct conversation with her, she was the Q&A person for this event, and a really wonderful MC, and then after that, that's when Alynda embarked on Globe at Night's Adopt a Street. It's even received local media coverage, so I'll let Alynda tell you a little more about it.

Alynda

Okay so Riverside did the adopt-a-street program; it went really well we had a lot of interest in it. I think overall we had about two to five streets that were overall adopted through that process. We had – when I say we had a lot of interest, we had about 50 patrons ahead sign up to receive more information about it, and I know it got checked out a lot. I think of some of the stuff that we want to do with the next Adopt-a-Street is really reach out to the Girl Scouts and the Boy Scouts to let him know that we have that information, that technology here that they can do that as a project, that's kind of where we went with it.

Caroline

So, Alynda, why do you think it's important for libraries to have citizen Science Programs?

Alynda

I think the main reason to have citizen science is for kids. I think it's for kids to explore while they're young and have that, just have an opportunity to get their hands on something like this. Back when I was little, it just didn't exist. I mean, if you were to look at a telescope, it was like "oh, my!" you know, cuz that stuff costs money and this and that. But now the libraries they have it kind of at your fingertips, to where, you know, parents don't have to go out and buy a telescope. You know that they can discover it through the library. And our library is doing a lot more hands-on, like kits and stuff that you can take home and check out and explore. I mean we have like even microscopes and stuff like that that you can take. So I think it's very important for us to celebrate Citizen Science Month, and that to really engage kids and even adults that never got the chance or you know, they've never had the opportunity before to explore this stuff as well. So I think it's really important to drive home that.

Caroline

Citizen science is such a great fit for all ages. Anyone, anywhere, of any age, can turn their curiosity into impact. Thank you so much , Alynda!

Bob

Okay, we know what's up next!

Caroline

Bob, you can just say "here's Caroline with the news." You really don't have to do the whole "And Now" thing, because–

Bob

[News theme music]

And now, live from SciStarter World Headquarters, it's time for The News, with Caroline Nickerson.

[music out]

I just love doing that... wait, what were you saying?

Caroline

(sigh) Thank you, Bob. So, you've been hearing about Citizen Science Month during this episode, and its relevance for libraries. But citizen science month is global; libraries are an integral part of it, but there are all sorts of different people from all around the world who are planning really meaningful programs and engagement opportunities for their communities during April. I just wanted to give you a sample of what's available. And you can find all of these events that I'm telling you about at scistarter.org/calendar.

On April 3rd, I really want to highlight this one: Citizen Science Kids' Day. This is organized by SciStarter and it has guests from National Geographic– National Geographic's *Weird But True* show, which is on Disney+, PBS's *SciGirls*, and it's all moderated by the Time for Kids kid reporters. So this is really an event that's for kids, by kids, all about citizen science. So you'll definitely want to come for that.

There are library events that focus on different projects, and the beauty of the virtual world is even if the library is, for example, in Manhattan or Missouri or wherever the library happens to be, you can still attend their virtual event and learn about a global citizen science project.

On April 6th, a Muslim faith community is doing a webinar about community building. April 7th, there is a webinar by Public Editor, which is a project that really focuses on helping people analyze the news. I could just keep on going on and on. Our friends at All of Us, the All of Us California team are doing six different webinars during April about precision medicine, which is medicine that is really tailored to the individual. It's really an end to "one size fits all" medicine. CrowdWater – remember them from the Virtual Travel episode? They have two webinars.

We also have an event with Astronomy magazine during the month, about ways that you can meaningfully be a part of astronomy research. And I could be here all day; there are hundreds of events on the calendar. But explore them for yourself. Go to scistarter.org/calendar to dive in and get started. I'll see you during April!

Bob

Wow, it sounds like you're going to be pretty busy. And so is our next guest. Vivienne Byrd is here with us from the Los Angeles Public Library. And she and they will be very active in Citizen Science Month.

Caroline

Thank you so much for being with us, Vivienne. Now you run citizen science programs under the title "neighborhood science." Can you tell us a little about that?

Vivienne

Sure, so we call our program neighborhood science; it's really just another name for citizen science, or community science. We want to give our program a little bit more of the focusing on the community engagement. And then we wanted people to contribute more to their own neighborhoods and put more awareness in their own neighborhoods. So we decided to use the word "neighborhood." We moved

away from the word "citizen," because our city is pretty diverse, and we don't want people to have a misunderstanding that it's only if you're a legal citizen in the United States that you can participate in the program. So that is why we didn't use "citizen science."

Bob

And what sorts of activities do you do?

Vivienne

We started with a small grant from the state of California; from the California State Library. And that helped us to basically kickstart off our program. And we started with an organization called GLOBE. It's "Global Learning and Observation to Benefit the Environment." And so they are basically teaching our librarians, and then we can teach our residents, on how to do science: basically, contribute to the research, by collecting data for the scientists and researchers. So we can contribute to their research that eventually they will be able to use this information to basically improve their own community as well. So that was that idea we were thinking.

Bob

And then what sorts of things do they do? Are they - what sort of data or science are they doing?

Alynda

They do water quality, we do some water quality monitoring, we got introduced to do light pollution monitoring, we did clouds observations, we did - I'm trying to think what else? Oh, we did mosquito habitat monitoring. And our latest one is the air quality sensing. So that one is a partnership with EPA. And so we are hoping to be able to become a site that people can come and check out these little quality, not low quality, low-cost air quality sensors that are they can use at home. Not low quality! (laughs) They can use it at home to monitor the air quality around their neighborhood. That has been a pretty significant issue in the city of LA, so I think that's why we're pushing it a lot.

Bob

Wow, that is so cool. It's all happening at the library!

Vivienne

Yes.

Bob

So pretty soon we're coming up on citizen science month in April, and you and your library have been participating in these for years, right? So what's it been like, and what do you have planned this time?

Vivienne

I think last year was the first year they have the citizen science month, and we have our librarians to really push all the programs online. And we did a lot of different type of citizen science projects with our virtual audiences. We did also mosquito habitat mapping, we also did one of the NASA's projects: the

NeMO-Net. You can actually participate in classifying coral reefs for scientists. So that was something that got them very, very interested. So we we've done several different type of project and pretty much all that are pretty well will attended, so we were really happy.

Bob

Wow. And how about this year?

Vivienne

So I'm trying, for the very first time, coordinating a weekly, what we call the Neighborhood Science Tuesdays Program Series. So we're inviting through SciStarter, we were able to invite the speakers, who are actually the project leads or project developers of several citizen science projects, such as I See Change, iNaturalist, Marine Debris Tracker– what was the other one? Oh, GLOBE At Night, there so many of them, I'm sorry. So we have 12 or 13 programs coming up.

Bob

Wow thank you for being so committed and doing so much; it's amazing!

Caroline

My final question: Vivienne, what would you tell past Viviennes if you had the chance?

Vivienne

I only wish I knew about citizen-science earlier, because you know I think if we had taken the step to promote this sooner, I think we would have changed the condition of our planet much sooner than it is today. You know it wouldn't be this bad, that's the way I see it. So for anyone who's interested in, thinking or even thinking about tapping into citizen science, my word for you is: "Don't think about it; just do it!" (laughing)

Bob

Alright. Thank you so much! That's really great.

Vivienne

I'm glad to be here; thanks so much for having me.

Caroline

Thank you, Vivienne, for all that you do.

Bob

Well, that about wraps it up for another Citizen Science podcast. We hope to see all of your virtual smiling faces at Citizen Science Month in April!

Caroline

This is kind of like the Super Bowl for us. We do things year 'round. Anyone can come to SciStarter, anytime of year, and find something to do with Citizen Science. But we kinda crank it up a notch during April, and we're going at the fastest possible pace to introduce you to as much citizen science as possible.

Bob

Thanks, Caroline! I'll see you there!

[theme music]

Caroline

This podcast is brought to you each month by SciStarter, where you'll find thousands of citizen science projects, events and tools that you can get started with to turn your curiosity about the world into real impact. It's at SciStarter.org, that's S-C-I S-T-A-R-T-E-R – like you're starting the science– dot org. SciStarter is supported by a number of generous partners and collaborators from all around the world. SciStarter's founder is Darlene Cavalier. And thank you so much to you, the listener and the citizen scientist for getting involved and making a difference. If you have any ideas that you want to share with us, and any things you want to hear on this podcast, get in touch with us at info@scistarter.org. Once again, our email address is info@scistarter.org. Thanks again, Bob, and I'll see you next month!

[Theme music out]