

2021 Annual Report



A student studying soil as part of our fall field day program in Truckee with the Truckee Donner Land Trust.

Dear Headwaters Science Institute Supporters,

We're a team of scientists, so making adjustments simply comes as second nature. As we look back on another successful year for Headwaters Science Institute -- albeit one of the continued tweaks and changes -- it's no wonder we're so excited for what's to come.

If 2020 was a year of adjustment to adversity, 2021 was a year of adjustment and transition into a new normal.

We went from being forced to eliminate nearly all of our in-person learning programs due to pandemic restrictions in 2020, something the entire world was forced to grapple with, to figuring out how in 2021 to begin to safely bring them back while also maintaining our newly created digital footprint born out of necessity.

So, Headwaters became in 2021 a hybrid educational organization as we returned to in-person learning with two summer camps and a handful of school field days over the second half of the year. It was wonderful to see the faces of kids in the field as they learned the wonder of our natural world through our signature hands-on, student-driven research programs.

But we also have taken full advantage of the realization that we can serve students anywhere. Our newly hired program manager Jennifer Cotton, after all, is located in Florida and is currently mentoring Research Experience students across the country. Our digital library of science lessons continues to receive traction and racked up nearly 22,000 views last year.

It's why we couldn't be more excited about the possibilities and ever-expanding footprint of Headwaters as not only a Northern California educational nonprofit but also a nationwide digital science institute. Through it all, the heart of our mission to increase access to student-driven science research and ultimately fostering curiosity through science education remains the same.

There was also a hidden benefit to pandemic restrictions: the revenue surplus gained from saved expenses stemming from in-person learning allowed Headwaters to expand its team. Overall, we hired three new employees in 2021, including two in programming and a communications manager. Jennifer, a science content specialist and educator; Beth Fitzpatrick, a Ph.D. candidate, and educator; and Dan Iteel, a former news journalist and current marketing specialist, all joined Headwaters in the second half of the year. We've already been extremely pleased and impressed with their contributions made and look forward to seeing how they shape our organization into the future.

We want to thank and praise educators and nonprofit stakeholders, in our community and nationwide, for their tireless efforts and continued support during another challenging year. We also deeply appreciate our volunteer board members, the teachers who have continued to use our lessons. And to our financial supporters: Every dollar donated and every like and share of our digital content made a huge difference.

We could not do this work without your support, we are thankful to each and every one of you for selflessly helping students across the country.

Best,
Andy Giordano, Board President
Megan Seifert, PhD, Executive Director



Students from Sacramento Country Day working on an Ecology project near the American River in Sacramento.



2021 Program Highlights

It was a year of transition for Headwaters Science Institute in 2021 -- a coupling of the pandemic-related adjustments made in 2020 with a hybrid version bringing together virtual learning with the return of in-person programs.

Now, students can virtually join programs such as the Research Experience from anywhere in the country, while students in our backyard of Northern California can opt for in-person programs and camps. We also went from eliminating virtually all in-person learning in 2020 to resuming hands-on learning last summer with summer camps, Fall Field Days, and San Francisco University High School and Sacramento Country Day School field days.

The reemergence of in-person learning has allowed us to hit the ground running in 2022. We already have multiple field day programs under our belt with more to come, and our summer camps will grow from seven weeks spread over two camps offered last year to 11 planned weeks in four camps for 2022.

Programs instructor MaryEllen Bernier spearheaded some of those adjustments, learning to teach science programs in front of a camera. But she, like all of us, was glad to welcome students back into the field for hands-on learning. "Once again, I got to see smiles and giggles from the kids," she said. "I could see how the kids were craving moving and exploring outside. It was a boost for my enthusiasm for exploring the natural world.



A Girls' program student observing birds as part of her project on human impacts on bird behavior.



A girls' science student measuring soil color during a fall program.

"The silver lining of our jump into online outreach and learning is seeing how far our reach is now," she added. "We don't have to fly to the other side of the country to guide students through their own research project, which is cool! When junior scientists investigate their own area it creates a new sense of stewardship, which we sure need a lot of."

Overall, Headwaters served science programming to 443 students and 84 mentors in 2021. Our digital library of resources, however, still played a huge role in our hybrid offerings for students and teachers. Our YouTube channel -- including Lunch With A Science episodes and digital science lessons -- received 21,749 views, 956 hours of watch-time, and the channel picked up 109 new subscribers.

Our Research Experience continues to be the crown jewel of our program offerings. Nearly 86% of students reported that they learned something in the Research Experience that they wouldn't have in a normal classroom, while 71% said they like science more after participating in the program. Of the 44 Research Experience students from 2021, 11 were published in academic journals; and one student was accepted to the Ivy League's University of Pennsylvania, and another is enrolled in CSU Los Angeles as a 14-year-old!

LUNCH WITH A SCIENTIST & ONLINE RESOURCES



60+ scientists

60%

became more interested in science after watching LWS



14

disciplines



SCHOOL PROGRAMS

42%

became very interested in STEM careers



90%

of yearly budget funds scholarships and programs

Students' perception of the sciences improves by

11%

SUMMER SCIENCE CAMPS



4 camps offered for students as young as 5, through high school

93%

are confident in their ability to apply the scientific method, an increase of 5 percent.

STUDENT RESEARCH EXPERIENCE

“My favorite part was having the opportunity to help make new potential discoveries in a field I'm interested in.”

44% of students became more confident in using the scientific method

46%

of Research Experience students were published



11 scholarships awarded





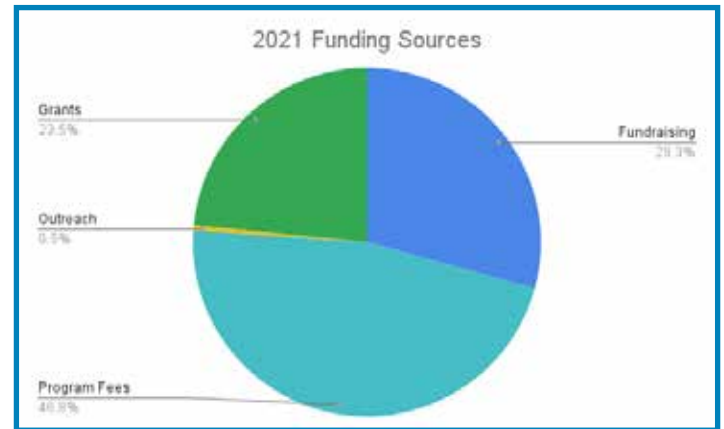
A student from the Summer Research Experience Studying water quality.



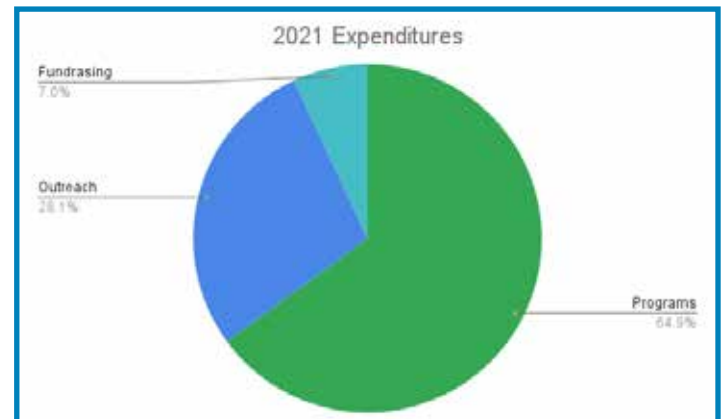
Summer Campers learning about meadow science.

Headwaters Financial Report

(Fiscal Year ends December 31)	2019	2020	2021
Funding Sources			
Donations	\$91,003	\$99,753	\$84,382
Program Fees	\$85,477	\$90,127*	\$134,800
Grants	\$20,100	\$59,601	\$67,585
Outreach Income			\$1,305
Total Revenue	\$196,580	249,481*	\$288,074
Expenditure			
Programs			
Materials/payroll	\$85,646	\$103,650	\$108,954
Scholarships	\$42,139	\$14,296	\$17,900
Total Program Costs	\$127,785	\$159,986	\$126,854
Fundraising	\$15,472	\$8,858	\$13,619
Outreach			\$54,992
Overhead Expenses	\$20,136	\$8,289	-\$1,910
<i>Employee Retention TC</i>			-\$16,641
Total Expenditure	\$181,660	\$177,133	\$177,360
Increase in Net Assets	\$14,920	\$72,348	\$110,712



Savings from pandemic-related relief funding allowed Headwaters to position itself for growth heading into 2022. We went from one salaried staff member in January 2021 to four full-time salaried employees in 2022. We now have the staffing to double our program offerings, resuming the school program growth that started before the pandemic hit. We are still able to subsidize program costs for low-income students through the support of our donors and grants.



Headwaters works hard to keep overhead low and use the bulk of its funds to implement our mission.

Headwaters Science Institute

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1. **Amazon Smile:** do your online shopping with Amazon smile!
2. **Escrip-** Signup with escrip with Headwaters group ID (500824550) and you can give back to Headwaters anytime you shop online or when you are dining out.
3. **Square:** support us through a purchase from our online store

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HEADWATERS
SCIENCE INSTITUTE

“I learned that science is a really cool and fun way to figure out how things work!”

-Sac Country Day 6th Grade Student

Student studying at Elizabeth Town Meadows In Truckee.

headwatersscienceinstitute.org