



**ENVIRONMENTAL
SCIENCE CENTER**

Impact Report

Fiscal year 2019-2020

Impacting the Community

The Environmental Science Center began in 2000 to offer experiential environmental education programs at local beaches, streams, forests, and classrooms in south King County. We started from the desire to further engage students and families with their natural surroundings.

Even during a pandemic, we were able to reach our neighbors in new ways to inspire more connections and protections of natural systems. As we adapt to change, our core values and the needs of our communities will guide us toward more novel forms of environmental stewardship. We are eager for what is to come.





**7,071
PEOPLE
SERVED**

27,087
contact hours
in community &
school programs

11,896
hours youth
spent outdoors

4,014
people visited a
creek or river with
spawning salmon

MISSION

The Environmental Science Center (ESC) promotes environmental stewardship and academic achievement through science-based education.

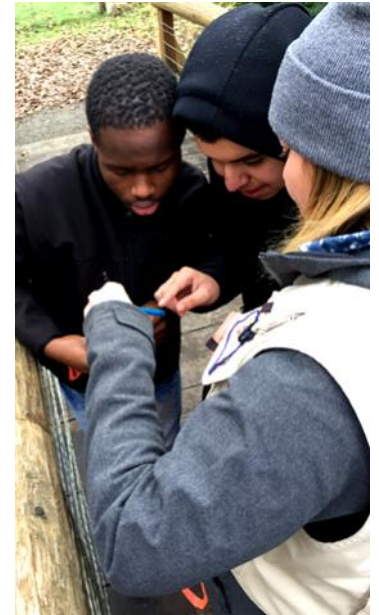


VISION

Our community is inspired and contributes to a sustainable future through quality environmental science education.

CORE VALUES

As long as our interactions align with our core values, we'll know we CARED.



Community
engagement

Academic
achievement

Respect for the
environment

Equity &
access

Discovery &
exploration

C **ommunity engagement**

Everyone can have positive impacts on their community.



120
volunteers
contributed

902
hours to help
the environment

Local Involvement in International Science Projects

International Coastal Cleanup (ICC)

In two hours, 66 people removed 109 pounds of trash from Burien's Seahurst Park for the ICC, the Ocean Conservancy's largest worldwide volunteer project in service to our ocean. The event occurs each September and the data collected on marine debris provides insight for behavioral and policy changes across the world. Friends and neighbors removed large tires and treated wood, while small items also added up. Many groups tracked data on the Clean Swell phone app, which ESC uses and promotes for all coastal cleanups.

Great Backyard Bird Count (GBBC)

In February, 153 people gained appreciation for birds and ways to identify and protect them at ESC's annual Bird Fest. The winter event takes part in the GBBC of the National Audubon Society and Cornell Lab of Ornithology to help people identify and count birds toward understanding their global distribution patterns. Eight nature organizations partnered, and in three hours, 34 birds of nine species were recorded at Dottie Harper Park in Burien. This was the first bird count for many people and all of them were encouraged to continue counting and to submit data any time with eBird.

1,995

people engaged in
community programs



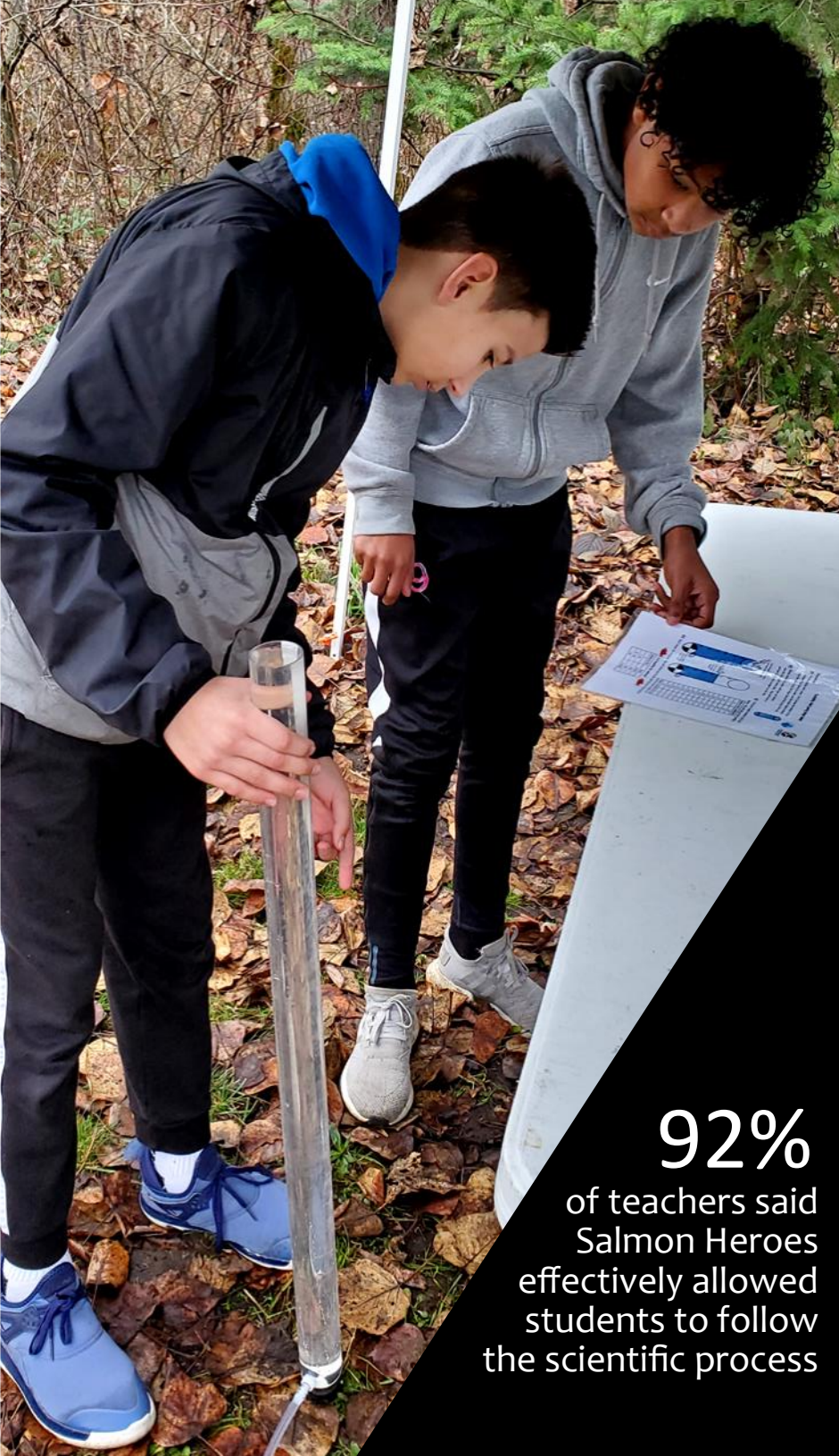
Academic achievement

Education improves quality of life and career opportunities.



88%





of students
increased their
knowledge of
watershed health and
stewardship practices
after Salmon Heroes




Expanding Districts & Worldwide Impacts

More than 3,400 students had an outdoor class on salmon at a local creek or river where these iconic species spawn. ESC's 149 classes were a record number for the Salmon Heroes program, which reached 36 schools in ten districts. We also celebrated our first district-wide partnership serving all eighth-graders in Auburn. Many experienced the sights, sounds and smells of the final plight of chum salmon, and the beginning for their eggs. ESC uploaded so much water quality data from students that we became Earth Echo Water Challenge Partners and were featured internationally on World Water Monitoring Day in a Cedar River field study with Renton classes.

I am a scientist (circle one)/ Soy un científico (pon un círculo alrededor de uno):

Strongly agree/ Totalmente de acuerdo	Agree/ De acuerdo	Disagree/ No estoy de acuerdo	Strongly Disagree/ Totalmente en desacuerdo
			

De acuerdo



"Salmon Heroes is an excellent field trip we always look forward to! Lots of connections for students to make to our science coursework"
-Rainier Prep 5th-grade teacher

Student post assessment from Salmon Heroes

92%
of teachers said
Salmon Heroes
effectively allowed
students to follow
the scientific process

An Advanced Beach Heroes option was developed for spring of 2021 from our other popular school program, which builds off beach exploration tools for kindergarten-3rd grade. Older students will monitor intertidal communities at Seahurst Park in Burien using beach transects and scientific illustrations. This will track ecosystems over time and introduce students to new ways they can connect with the beach on deeper levels.

Respect for the environment

Our environment benefits from choices rooted in respect for the natural world.



38

weekly toddler events
shared different ways
to appreciate & protect
local natural systems

What is on the beach? ¿Qué hay en la playa?

These unique species adapted to live in and out of water based on the tides. The higher they are on the page, the more you can find them higher on the beach in shallow water, starting in the splash zone.

Estas especies únicas se adaptaron a vivir dentro y fuera del agua según las mareas. Cuanto más alto estén en la página, más alto podrá encontrarlos en la playa en aguas poco profundas, comenzando en la zona de salpicaduras.



Acorn Barnacle
Percebes/Balano



Shore Crab
Cangrejo Púrpura de la Costa



Pacific Mussel
Mejillón



Hermit Crab
Cangrejo Ermitaño



Splash Zone
Zona de Salpicadura
High Tide Zone
Zona de Marea Alta



Be curious. Be kind. Be beach STARS!

- Step carefully
- Touch gently with two wet fingers
- Animals stay where you find them
- Remove only trash
- Share what you learn

Sé curioso. Sé amable. ¡Sé playa ESTRELLAS!

- Sé cuidadoso al caminar
- Toque suavemente con dos dedos mojados
- Aprecia los animals sin moverlos
- Recolecta solo la basura
- Siempre comparte lo que aprendiste



Limpet
Lapa



Woody Chiton
Chitón Leñoso



Littleneck Clam
Almeja



Heart Cockle
Almeja Berberecho



Purple Mahogany/Varnish Clam
Almeja de Barniz



Dungeness Crab
Cangrejo de Dungeness



Kelp Crab
Cangrejo Kelp del Norte



Moonglow Anemone
Anémona



Sand Dollar
Galleta de Mar



Sea Lettuce
Lichuga de Mar



Sugar Kelp
Kelp de Azúcar



Eelgrass
Pasto Marino

Splash Zone
Zona de Salpicadura
High Tide Zone
Zona de Marea Alta
Mid Tide Zone
Zona de Marea Media
Low Tide Zone
Zona de Marea Baja

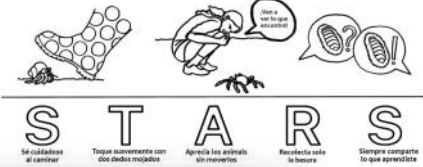


Bilingual Beach Outreach

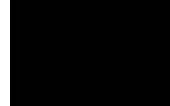
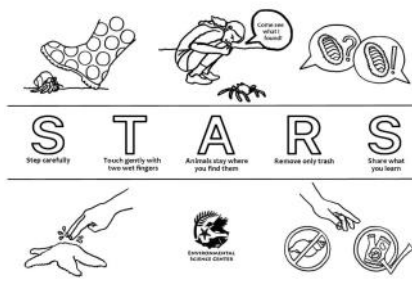
Puget Sound and Seahurst Park's shoreline provide a wonderland of discoveries. Before Covid-19 cancellations, programs allowed all ages to explore aquatic landscapes in intimate and communal ways, while safeguarding the sensitive creatures under observation. ESC's cancelled programs included Beach Heroes, Tide Pools for Tots and Summer Beach Walks, all of which occur annually.

To continue serving people during times of low tides and intense separation, we created our first beach ID guide in both English and Spanish. Stewardship tips for treating marine organisms and areas kindly are shared through our signature STARS acronym. The guide is downloadable and the ones in park kiosks are printed on Rite in the Rain paper for durable use near water. It will be an outreach tool in all future school and community beach programs, along with our new coloring sheets.

Sé curioso. Sé amable. ¡Sé playa ESTRELLAS!



Be curious. Be kind. Be beach STARS!



E

quity & access

Everyone should have access to quality science education and exploration.



93%

of schools received
program subsidies
and transportation
assistance

Reaching Students Where They Are

After a day of school, friendships and discoveries continued for members of Renton’s STREAM Team (Science Technology Engineering & Math). Their weekly investigations involved studying macroinvertebrates, birds, salmon, and marine debris. When COVID-19 limited in-person sessions, online learning was not a realistic option for many students. Neither was going outside. We accepted both challenges to create meaningful educational experiences in English and Spanish, regardless of access to technology.

More than 1,000 science kits were filled with nature journals, activities and experiments to do at home or in a green space throughout summer. None required a computer, printer or internet. They were all received by students and families of STREAM Team and Southwest Youth and Family Services. As the pandemic shifts school operations, we will create more and continue adapting to the needs of students.



Sound Mapping

Find a comfortable spot near a window or outside. In your nature journal, mark an X in the center of your page. This represents YOU! Spend 4-10 minutes listening and drawing your 'sound map.' For each sound you hear, mark something simple that represents the sound (a wavy line could represent wind, dots could be rain, swirls could be a chattering squirrel, a big blotch could be a horn). Draw what feels right to you, and close your eyes if it helps.

Many animal's ears are shaped to help them catch sounds. Feel the shape of yours and cup your hands around them to focus your listening. See if you can catch sounds coming from in front of you, behind you, beside you and above you.

Reflection Question

What sounds were the most familiar to you?

Did you hear any new sounds? Do you think you would hear any new sounds if you were in a different location?

What sound did you like best? Why? How did it make you feel?

Can you mimic any nature sounds? How would you feel if you could?

Many animals have very sensitive hearing. How do you think they hear sounds?

Window Observations

Choose a window in your home as your study location. Over the next few weeks, you will make observations about this study area and track any changes. Whenever and however you draw is OK!

Scientists come back to the same study area or monitoring site again and again to record patterns and changes, which helps them make connections.

A lot can change within a month, so record what is happening right now and keep at it!

Draw a square or rectangle on your page to show the window frame. Now draw what you see on the other side of it! You can sketch as simple or detailed as you like. Make sure you write down the date and time for each observation!

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Opciones de preguntas de reflexión

¿Dibujas más aves?

- ¿Hay animales alrededor? Dibuja o describe cómo se ven, suenan y actúan.
- Encuentra un pájaro. ¿Cómo se ve y suena? ¿Dónde está y qué está haciendo?
- Cuenta el número de animales diferentes que ves durante 5 minutos o más.

¿Crees que es esto? ¿Crees que es esto? ¿Crees que es esto? ¿Crees que es esto?

Reflection Question Options

Choose a question or make your own for each day! The more interesting questions you ask, the more your answers could lead to unique discoveries!

Draw in more plants and butterflies!

- Choose something of interest and observe it either for a period of time, or several times throughout the day. Record any changes.
- Reflect on the season. What season are we in? What evidence can you find?
- Count the number of different plants you see. Do you know their names? What would you name them and why? Draw or describe some.
- Draw and label a plant that you can see, scientific-illustration-style.
- Spot another plant. Where and how does it grow? What could its growing conditions tell us about it? How is it important? Use words and pictures.
- If you were a plant or animal, which would you be and why?
- Notice anything around you in your personal environment. How does it make you feel?
- What do you wish to know more about regarding nature? Why does this interest you?
- What other things do you wonder about the world?

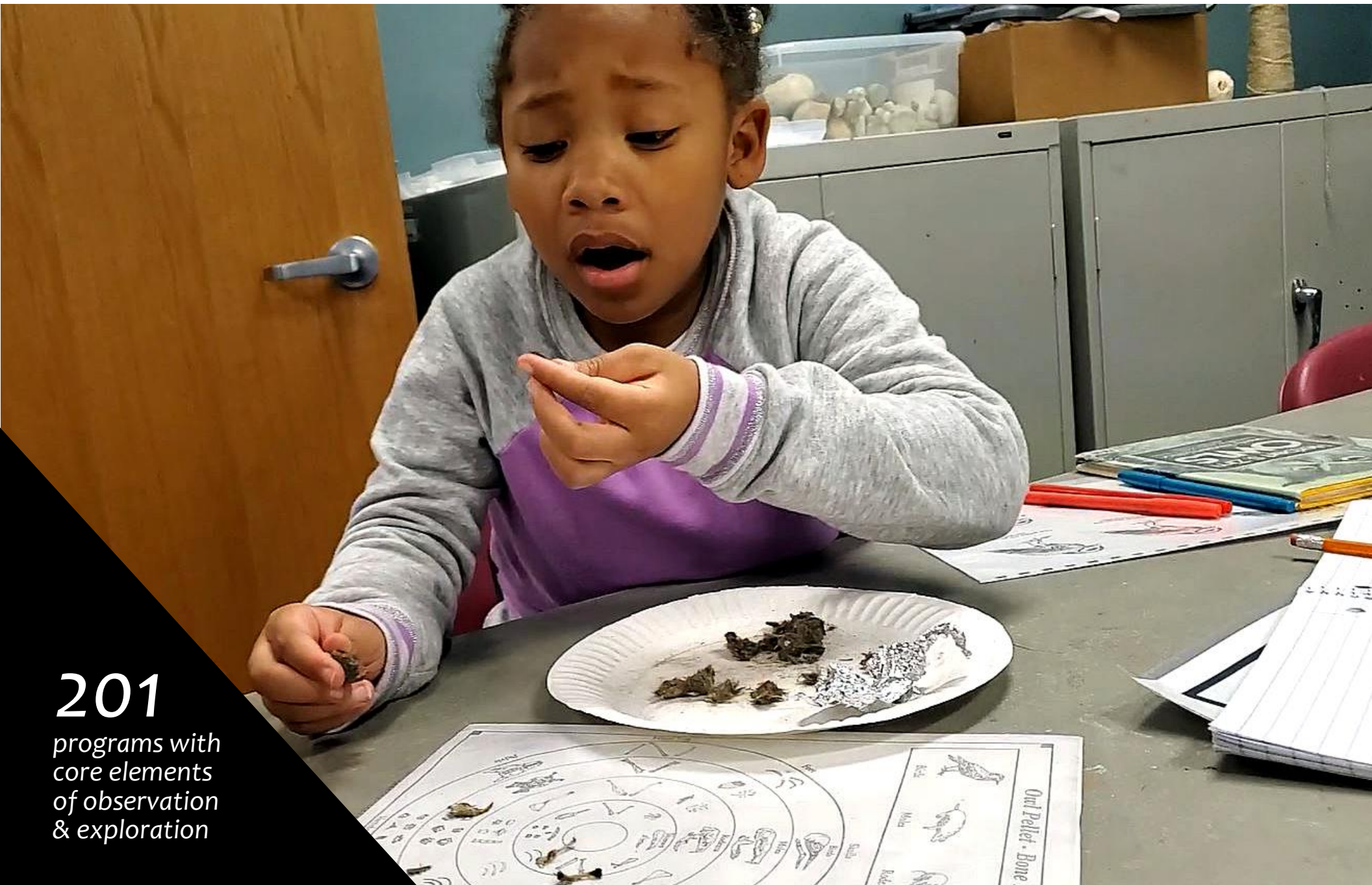
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D

Discovery & exploration

Mindful hands-on learning opportunities produce intimate, impactful experiences.



201

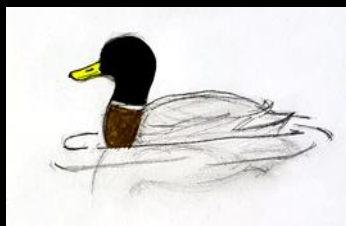
programs with
core elements
of observation
& exploration



Natural Discoveries Lead to Leadership

Birds and plants are indicators of healthy watersheds and became a highlight of multiple programs this year, both indoors and outdoors. Before Covid-19 halted gatherings, 36 teens removed invasive English ivy and Himalayan blackberry by hand from local parks to reestablish natural diversity. Five restoration projects occurred at Seahurst Park by Big Picture Middle School students, and New Start High School helped restore Saltwater State Park. Groups investigated habitats and designed multilingual trail signs to highlight benefits of local species, many that were inspired from bird walks. Having their own pair of binoculars and choosing themes for a trail sign gave students control of their interests. They could focus on exploring a particular subject, their talents, and environmental career paths.

Teachers noted how some returning students were facing difficulties on campus, but were relaxed and engaged in the outdoor program. This was especially apparent in leadership roles when they could share what they knew about identification or restoration methods.



71
hours of teen
restoration &
interpretation



EVERY person can make a positive, lasting impact, even through small actions. The communities we reach continue to grow and expand in enriching ways because of the support and commitment from our volunteers and donors.



A Community of Giving

\$5,000 +

Anonymous Donors
Brenda Sullivan

\$1,000 - \$4,999

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Jim & Janet Coleman
Education Legacy Fund
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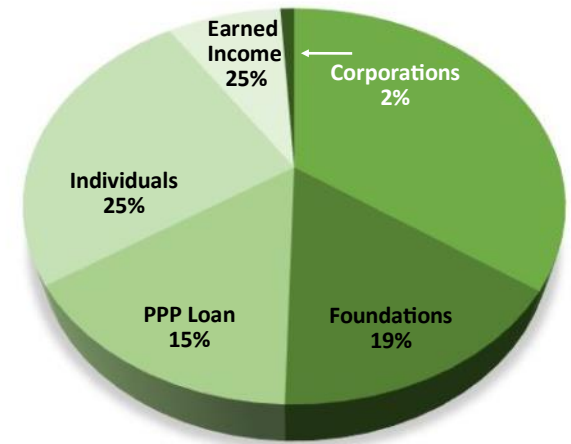
MEMBERSHIP LEVELS

We offer sustainable and comfortable ways for people to impact their natural surroundings. Since 2016, 35 members have joined our team to protect local forests, waterways and our future through monthly giving options.

- Sea Star — \$10 per month
- Chinook Salmon — \$15 per month
- Great Blue Heron — \$25 per month
- Sea Otter — \$ 50 per month
- Orca — \$100 per month

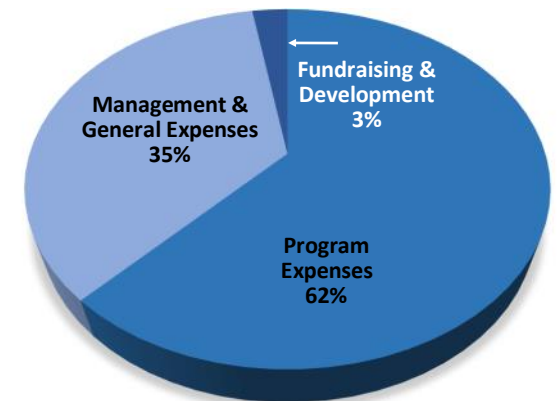


July 2019 - June 2020 ESC Financials



Revenue

Government Grants	\$124,602
Individuals	\$89,991
Foundations	\$56,050
Paycheck Protection Program - PPP	\$54,398
Earned Income	\$29,451
Corporations	\$3,578
Total Revenue	\$358,070



Expenses

Programming	\$218,190
Management & Generalized	\$124,289
Fundraising & Development	\$9,195
Total Expenses	\$351,673

The Environmental Science Center brings thousands of students out to explore their local rivers and marine ecosystems each year.



COVID-19 forced some of our programs to be very different, but our commitment to fostering the next generation of environmental leaders remained constant and will hold strong in the future.



**ENVIRONMENTAL
SCIENCE CENTER**

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EnvironmentalScienceCenter.org