Antonio Cosme is an internationally renowned indigenous Xicana Boricua public intellectual and ecologist. He works as a public speaker, strategist, facilitator, artist, beekeeper, farmer, writer, entrepreneur, educator and organizer from Southwest, Detroit. Antonio co-founded the Raiz Up art collective in 2012, a xicano and indigenous hiphop crew building social movement on issues of public importance such as environmental racism, de/colonization, foreclosures, racism/anti-blackness #Raizup. Antonio is the Detroit Education Coordinator at National Wildlife Federation. Antonio leads the Detroit Leadership and Environmental Education Program (D-LEEP) that seeks to bridge social divide through a project-based, outdoor, environmental curriculum to help high school students connect with nature, build a more sustainable community and prepare for future success in their academic and career endeavors.
What is the Detroit Leadership and Environmental Education Program (D-LEEP)?

D-LEEP is an afterschool program for high school students that cultivates relationships with nature through outdoor experiences, ecological education, and action. Weekly programming is led by National Wildlife Federation (NWF) staff, teachers and students in close collaboration with community partners and the Detroit Public Schools Community District. Key program components include workshops and discussions, field trips, and participation in a student-led sustainability project on campus.

The central goal of D-LEEP is to cultivate the next generation of conservation leaders from the communities most impacted by environmental injustice. By engaging students and their families in outdoor activities and community-based sustainability projects and connecting youth to job and skills development opportunities, we simultaneously help to foster more resilient ecological and human communities and support the next generation of leaders.

The D-LEEP curriculum has 4 pillars:

• **Fostering a Deep Connection to Nature**
  D-LEEP cultivates stronger relations between students and nature through outdoor activities such as kayaking, hiking, seasonal foraging, and camping to promote mental and physical health and wellness, and build a foundation for environmental stewardship and leadership.

• **Developing Knowledge of Self**
  Students explore Michigan’s ecological, economic, and racial histories. Students complete oral history and storytelling project that places their own families within a historical context, providing understanding of how they fit into the world’s current environmental justice and conservation challenges. By building a solid understanding of history and knowledge of self, students are better equipped to address current and future environmental and social challenges.

• **Connecting to Community Leaders in Conservation and Environmental Justice**
  Students meet ecologists, arborists, herpetologists, naturalists, farmers, beekeepers, citizen scientists, environmentalists, and other adults working in STEAM careers. We help students to identify and secure summer camp/work opportunities.

• **Building Legacy and Leadership Skills**
  Students lead an on-campus sustainability project with the support of teachers and administrators. Project examples include installing water catchment systems, pollinator and food gardens, solar energy installation, and community gardens or trees. This provides students with an opportunity to put their knowledge of environmental challenges into solutions.
Year One
In Numbers

NWF staff work in close partnership with Detroit organizations and entities to implement D-LEEP, leveraging other local efforts and opportunities. One of our closest partners is the Detroit Public Schools Community District (DPSCD). NWF signed an MOU agreement with DPSCD in Fall 2020 to support and enable all of the programming.

For example, before the COVID-19 pandemic began, NWF had begun organizing a large youth march related to environmental justice and conservation issues with support from DPSCD. This will be revisited when the COVID-19 threat passes. NWF has also partnered closely with Eco-Works to facilitate expansion of NWF’s Eco-Schools programming to all Detroit Public Schools. This major collaborative effort will continue in 2020-2021.

Many panel discussions and workshops with Antonio Cosme D-LEEP students, youth from the broader public and Detroit-ers representing NWF and getting out the word about our outdoor work in Detroit.

3
Schools Participated in D-LEEP

University Prep High School, Marygrove, Western

32
Students Enrolled

Over 42
Different hikes or nature excursions

to parks all over Michigan including Sleeping Bear Dunes, Hartwick Pines, Proud Lake, Bald Mountain Recreation Area, Rouge Park, Island Lake Recreation Area, Huron Meadows Metropark, Belle Isle, Bird Hills Nature Area and dozens more with over 350 participants, averaging 7 people per hike.

Over 650
People Reached

through more than 40 workshops and lectures on topics such as Lactobacilli Fermentation, Eco Justice and Activism, Beekeeping, Making Maple Sugar from Maple Syrup, Detroit’s Ecological History, Edible Mushroom Foraging, the Hydrologic Cycle, and Birch Bark Crafting.
Over 7130

Reached Total

(including D-LEEP, workshops, hikes, events we organized, or events Antonio Cosme spoke at/engaged.) About half of these came through very large events that Antonio helped organize such as marches and rallies.
Looking forward to Year Two!

In the upcoming year, we will be doubling the number of participating schools from three to six. To best facilitate this expansion, each school will be more autonomous by adding an additional teacher and student organizers. Each school’s D-LEEP team will be led by two teachers and two student organizers.

We will choose 1 new school in each of 3 regions in Detroit, Southwest, West and East. By coordinating the D-LEEP program regionally, we allow for students within a region to convene periodically for workshops/dinners. In person workshops and learning presents unique opportunities for leadership and comradery reinforcing knowledge through social interaction. However, Covid-19 presents challenges to social education. Restrictions on indoor and close-quarters activity, kids being stuck at home, the looming possibility of schools remaining closed make the value of outdoor education and experiences that much greater. There has seldom been a greater need for the type of programming we’re offering.

DPSCD’s plans are forthcoming as the district negotiates with teachers. We are preparing for all contingencies including fully open, part time open with digital, and fully closed digital learning. We will utilize Zoom to facilitate our educational workshops. We are also developing a workbook for students to follow along throughout the semester, complete with a digital component, that offers enhanced educational opportunities and outdoor challenges.

While schools may be closed, the state parks and Metroparks remain open throughout 2020. Last year about half of the afterschool program days took place outside. We plan to lean more heavily on outdoor excursions in year two. Transportation will remain a central challenge, as schools may not allow many students to travel together in their teacher’s cars. Students can be dropped off directly at the destinations, and we will organize carpools for students don’t have rides.

We are developing a student leadership model that incentivizes students to set norms, organize their fellow students, lead conversations, and take on responsibility for one another. Two student organizers will receive stipends to help with outreach to fellow students, ensuring students are prepared with necessary gear and clothes for the week’s activities. This year, given the challenges presented by Covid-19, these student organizers will become instrumental in communicating with their fellow students and organizing ride sharing.
D-LEEP Program Manager’s Reflection

While growing up in Detroit, my family always relished our annual camping trip. I spent a lot of time playing sports outdoors. The opportunities afforded me by my parents are not shared among so many young people in Detroit. Offering up relationships to nature, and watching these young people flourish has brought me so much joy.

Our vision is to create a model that can be replicated throughout the region and country. Increasing the scale of the program to reach more students, while remaining small and nimble is a unique challenge. We want to remain small and nimble so that we can react to changing conditions and increasing outdoor/educational opportunities, yet we need to grow to reach more students. By beefing up leadership capacity in each school with an additional teacher and student organizers, I believe we can create more autonomous teams that will incentivize students to help organize and reach out will be much more sustainable and provide new leadership opportunities.

Covid-19 really swept my feet from under me, like so many others at the end of this year. The program essentially ended 3 months early when DPSCD closed for the year. We didn’t get to have our big camping trip up north, we only started to develop sustainability projects, and our big march with DPSCD was canceled. It’s going to be an interesting year, attempting to build this model in the midst of this pandemic, but I think the challenges of physical distancing will create a higher demand for outdoor work and the possibility to utilize digital communication to reach more people.

“

The opportunities afforded me by my parents are not shared among so many young people in Detroit. Offering up relationships to nature, and watching these young people flourish has brought me so much joy.

- Antonio Cosme
Student Highlights

“I’ve always been afraid to go in forests. But now I love hiking, me and my grandmother go hiking together on weekends.”

Tiyonna a senior at University Prep Academy

“My parents are not into nature at all. My family worked in agriculture, my parents looked down on outdoor activity. I find so many good things here.”

Celeste a freshman from Western International High School.

“I didn’t know I would be good at this. I had never kayaked before, and it felt cool to just be so good at it on my first time.”

Mauriah a freshman from University Prep Academy
D-LEEP in Action

D-LEEP students helped launch of the first sugar bush in recent history in Detroit

In partnership with Detroit's urban indigenous community, D-LEEP initiated the only maple tapping operation in Detroit, by collaborating with 8 community organizations including Friends of the Rouge Park. Students in the program helped produce over 10 gallons of maple syrup. This work has been featured in articles. We have gifted most of the maple syrup to native families and those who helped operate the sugarbush. Read More Here
D-LEEP in Action

Connecting with Great Lakes Indigenous Communities

Antonio has also been building with Great Lakes indigenous communities long before his hiring at NWF. Throughout the year, he has visited with 9 tribes throughout the Great Lakes to support their activities, develop curriculum, initiate the Detroit Sugarbush project, and strengthen relationships. In the fall, the D-LEEP Students visited with Ziibimijwang Farm, a project by the Little Traverse Bay Bands of Odawa Indians. Students also visited the Saginaw Chippewa Indian Tribe and planted dozens of fruit trees. Antonio is developing an exchange program with Great Lakes Indian Fish & Wildlife Commission in which indigenous students from the UP and Detroit students would visit and stay among one another for an exchange program.
D-LEEP in Action

Students speak out for an environmentally just and healthy future

Youth from the D-LEEP stood at the head of a rally for renewable energy, speaking about their visions for conservation and a more environmentally friendly future. This action, in support of the Work for Me DTE campaign, helped encourage the Michigan Public Services Commission to require DTE to add more renewable energy in their 15 year plan. Students also attended other rallies and events standing against pollution. The entire student body of School at Marygrove went and visited 48217 in a tour D-LEEP education coordinator Antonio helped organize.
Detroit practically shuts down during winter. For many of our students, this was their first introduction to outdoor winter activities! Students enjoyed both skiing and ice skating. We hope to include snowboarding, snowshoeing and ice fishing in the future!

“It was amazing, 10/10. It gets you out, off the couch, getting warmed up in the cold, getting in a winter workout... This sort of activity is for us too.
- Jarallah a sophomore from Western International High School reflecting after cross country skiing for the first time
Students interacted with urban farmers and foresters, the state’s Attorney General, environmentalists, DNR naturalists, biologists, foragers, a beekeeper, an aquarist, and a cultural organizer. We will continue to grow and expand opportunities to build work ethic and expose students to different green career paths.