

BEAVERTON SCHOOL DISTRICT



AMERICAN INDIAN ALASKA NATIVE PROGRAM

Filling the Gap: Addressing the Problem of Missing Oaks on the Land Through Public Education and Indigenous Stewardship

An Interview with Brandon Culbertson

Hi Brandon. Could you provide some background on how this project got started?

The project got started in association with where I work right now [at Beaverton School District]. One of the hats that I wear as a Native Education Development Coordinator is being out at Terra Nova, a career and technical education, or CTE agricultural program. There's a lot of space out there, and so the admin and staff invited the Native Education Program to intertwine with the site and curriculum. This program aims to help bring about the resilient ecosystems that we're going to need as we move further into climate change through the restoration of native plants. A lot of that looks like restoring habitats to pre-settlement conditions to the best of our ability, and the oak savanna in the Willamette Valley is not what it used to be. About 95% of it is gone. As we continue to see growth boundaries

expand further out and agricultural needs continuing to grow, we're seeing that more and more oak savannas are under threat. A lot of the oaks that we do see at present on the landscape are fairly old, which is awesome, but there's a generational gap between the trees. And so the thought was how can we partner this CTE ag school in association with tribal community and interested community partners around creating positive change?

One of our goals in addressing this environmental need is to create a native plant nursery at Terra Nova, where we can propagate native plants and grow some oaks to an older age for planting out at other sites. We're starting off with an oak garden and then we will start sending trees home with students that have property where it makes sense [to plant them]. We'll also plant on district and municipal property

where appropriate. Basically we seek to saturate the community with oak starts. I also think it makes sense to integrate conservation groups and large, private land owning individuals that would be interested in having a few people on their property to gather acorns and/or plant oaks.

Where are you at in this work now?

At present myself and my babies are gathering acorns for school and community planting endeavors. We're also doing some germination experiments with floaters and non floaters, some bark chips, some oak debris, as well as clay and then potting soil to introduce elements of science into it. Activities like these get students and families doing STEM based bonding wrapped around that umbrella of cultural and environmental sustainability.



Brandon Culbertson

Native Education Coordination and Development TOSA for the Beaverton School District

Brandon is from the Northern Arapaho Nation (WY) and Fort Peck Assiniboine and Sioux Tribes (MT). He is an alumnus of the University of Oregon and Wind River Tribal College. He has 15 years of experience working on and off-reservation within Native Education. Currently, he works as the Native Education Coordination and Development TOSA for the Beaverton School District. His work there involves implementing tribal history/shared history, tribal language(s), and Indigenous science into curriculum, CTE, and classrooms (K-12). Brandon has had success progressing institutional change in partnership with the board and staff to include disaggregating AI/AN Data, changing Columbus Day to Indigenous Peoples' Day, recognizing Native American Heritage Month, and renaming Timberland to Tumwater Middle School. He currently serves as the vice-chair of the Oregon Department of Education American Indian/Alaska Native Advisory committee and serves as a sergeant within the Oregon National Guard.

We were fortunate this year to pull in a grant from Oregon Metro, and right now we're in the process of procuring additional funds from Meyer Memorial Trust and the Oregon Department of Education CTE grant to recover and restore around three acres that are currently covered in invasive species or lawn at Terra Nova into pollinator friendly traditional food and cultural product systems.

Who is involved in the oak collection and propagation teams?

About 10-15 students have signed up to propagate acorns, and other than that it's been primarily Native community members. Two Native Studies professors, one from Portland Community College Rock Creek and one from Portland State University, are interested in teaming up as well. There's been a lot of word of mouth amongst Native families. All said and done, there are around 3000 acorns in the ground right now, so we're all very excited about that.

Some people have gathered [acorns] on their own. Some are more likely to show up to an event to plant, or have

expressed supportive interest, but lack access to acorns or soil or pots. So it's just meeting people where they're at and providing what they need to be able to participate in community based environmental restoration.

Why oaks?

As mentioned, around 95% of the white oak range has been decimated since European contact/settlement. Therefore, it's important for all of us that live within this region presently to help restore the environment to the way that it was stewarded since time immemorial. White oaks are a keystone vegetative species that are providers of shelter, food, and are really a prairie marker species in the Willamette Valley. It's critical for all of us to pitch in and help do our part to restore these areas to a semblance of what they were like in a pre-contact landscape.

Around 750 wildlife species visit oak habitat, and from what I've heard, almost all of the mammals and birds within the valley will spend some time on a white oak or draw sustenance from it in some way. It is time to get in front of situations where we see Douglas firs being monocropped in areas that

What is Terra Nova?

Terra Nova Science & Sustainability is an experiential learning campus that is operated by the Beaverton School District, complete with growing space, an industrial kitchen and a workshop/makerspace. Here, students have an opportunity to get their hands dirty, applying classroom knowledge as they grow food plants and learn about stewarding native habitat, among other things. This half day field science program is open to high school students already enrolled in Beaverton schools.

were traditionally white oak savannas, hillsides giving way to vineyards and population growth, otherwise we may collectively suffer under ecological collapse. Population in the valley is expected to double in the next 15 years, so now is the time to try to mitigate white oak habitat loss and really try to mitigate that generational gap that exists between heritage trees and what's currently on the ground.



Students proudly display freshly potted acorns. Oregon white oaks can live up to 500 years; this is the first day of a very long life for these trees. Photo Credit: Brandon Culbertson

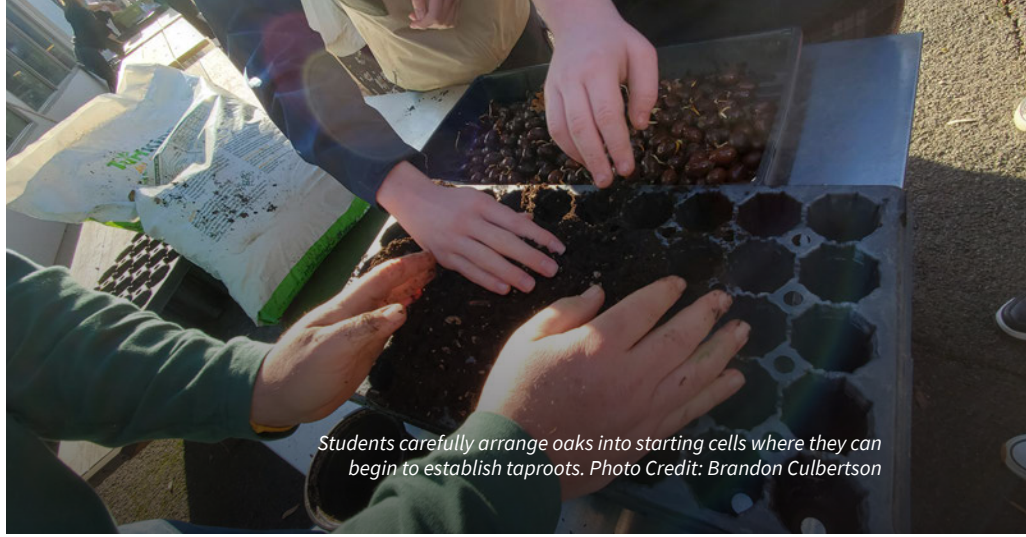
How have the participants responded to this project?

Different audiences have different feelings, I think. But with youth in general, most are caught off guard; they don't know that what we see today isn't always the way it was. This project is neat in that it feeds into the young people's concern around climate change and planting oaks is a tangible way for somebody to make a difference immediately, but is also long term. I've seen young people get really excited about the idea of planting something that then will outlive them and their future generations, but also be excited about the fact that someday they can point to a tree and say to their kid "I remember when I planted that."

To be able to mix in education, and some of the cultural significance to tribal people around stewardship, and ideas of symbiotic association, reciprocity and interconnectedness which are central and integral to Indigenous lifeways and ways of knowing provides unique teaching and learning opportunities. It also provides an opportunity for [non-Indigenous] people to gain insight into an area that they might not otherwise have access to by learning the importance that ecological balance and reciprocity holds within our lifeways. This is important to take note of as historically educational systems either ignored, devalued and/or sought to eradicate what makes us special as culture based environmental stewards.

Is there anything else you would like to share?

I think whenever we do outdoor education, finding engagement strategies for conservation is a no brainer. When people visit natural areas, I'd really like for there to be ways that they can help with direct action based stewardship. Whether that looks like invasive species removal as a natural act when you're walking through a park or green space, or even having opportunities to propagate natural native plants and then bring them in or just take them home and have that be okay, I think is the next step. I really look forward to the opportunity to create those types of learning and leadership modalities for the students that we serve.



Students carefully arrange oaks into starting cells where they can begin to establish taproots. Photo Credit: Brandon Culbertson



Trays of acorns ready to be potted. Photo Credit: Brandon Culbertson



Are you interested in planting oaks grown at Terra Nova? Or would you like to provide acorns from Oregon white oaks on land that you own or manage? Please reach out to Brandon Culbertson at brandon_culbertson@beaverton.k12.or.us