MPR News | Minnesota Now U of M study finds native plants could help keep buckthorn away for good 01KXH1XKCW9ASM0HN9G8301MWQ

ANGELA DAVIS: Well, meeting new people isn't always easy. Bars are expensive. And dating apps can be exhausting. But a Minneapolis group is trying a unique approach, grabbing a pair of work gloves, heading to a park, and helping remove invasive buckthorn. Nicole Ki reports.

NICOLE KI: Loppers cut through buckthorn along a trail overlooking the Mississippi River. More than 50 people worked to clear the invasive shrubs, piling branches and stopping every so often to introduce themselves. Andrew Johnson drove down from Blaine after spotting the event on Reddit.

ANDREW JOHNSON: I'm single, ready to mingle, whether that be for a romantic partner or, I guess, making friends around the Cities. I don't really like dating apps. I think seeing people in person mingling is more-- it's more organic.

NICOLE KI: The Buckthorn Removal Singles Club is a new meetup every Sunday at East River Trail in the Prospect Park neighborhood. Organizer William Cooke says the idea came to him after noticing how much buckthorn had taken over one of his favorite parks.

WILLIAN COOKE: I was just looking and seeing how much buckthorn there was. And I was thinking, this would take an army of people to remove-- and got me thinking, maybe just put the two ideas together, have people meet each other in a very human way while also getting rid of the buckthorn.

NICOLE KI: He printed out four flyers advertising the club and hung them up in neighborhood coffee shops. That was all he did until people shared photos online, which spread like buckthorn. Some came looking for a date. Others just wanted to meet new people while helping the environment. For Corinne Buie, who lives in Crystal, the event checks both boxes.

CORINNE BUIE: As a queer person, it's harder to meet people. But I figured there's got to be some gays out here trying to help the earth.

NICOLE KI: She says reducing invasive species like buckthorn so native plants can grow was part of the appeal.

CORINNE BUIE: It doesn't hurt that buckthorn is just such a fun word, too. Singles Buckthorn Removal Club-- come on.

NICOLE KI: Kind of has a ring to it?

CORINNE BUIE: Yes, it does.

NICOLE KI: By the end of the morning, volunteers had cleared up piles and piles of buckthorn and swapped phone numbers. Some even stuck around afterward for coffee. Cooke says the club will continue meeting every weekend until it's too cold outside. He hopes people leave with a stronger connection to the park, and maybe each other. Nicole Ki, NPR News, Minneapolis.

ANGELA DAVIS: Well, those singles have a lot of work on their hands. If you've ever tried to remove buckthorn, you know it's a stubborn battle. Homeowners, forest managers, and volunteers spend countless dollars and hours cutting and spraying the invasive shrub only to watch it grow right back.

University of Minnesota researchers recently published new data that shows there's a better long-term strategy. They found that planting native grasses and wildflowers immediately after removing buckthorn is remarkably effective at keeping it at bay. Mike Schuster is on the research team and joins me now to explain. Thanks for being here, Mike.

MIKE SCHUSTER: Thanks for having me.

ANGELA DAVIS: Had you heard of those singles meetups? How funny is that?

MIKE SCHUSTER: Yeah, I did see those flyers. Yeah.

ANGELA DAVIS: Well, what they could do is they could remove it. And then they could spend more time planting native grasses. And what we're talking about is a solution here. But what exactly makes buckthorn so damaging as an invasive species here?

MIKE SCHUSTER: So buckthorn came over from Europe in the 1800s as a hedge plant. And it has a lot of traits that make it really good at being a hedge. It grows really fast. It's resistant to browsing. It produces tons of leaves and berries and all these things that make for fantastic hedges.

The problem is it maintains those traits when it is transitioned into a more natural system. So instead of having a forest understory filled with native plants, we have a perpetual hedge of buckthorn that is just basically snuffing everything else out.

ANGELA DAVIS: And so your research found just cutting it often isn't enough. Can you talk about just how exactly it does come back so easily? It comes back more easily than other invasive species, you think?

MIKE SCHUSTER: Well, maybe not more than other invasive species. But certainly, it has a forte for coming back. It can come back through a few different mechanisms. One of that is that it just resprouts really easily. It just grows back really robustly after you cut it.

There's always little plants that we leave behind unintentionally. And then there's tons and tons of seeds that germinate that create this Chia Pet of buckthorn seedlings on the forest floor that are really a long-term problem that we have to deal with. And if we don't jump on them right away, that will come back to bite us.

ANGELA DAVIS: I forgot about Chia Pets. I hadn't heard that in a while. I love that. So you've been trying to understand how to fight buckthorn for a decade or so through this research, I understand. And then, again, the big takeaway is that one should restore native plants right after removing buckthorn and that that will pay off more in the long run. Why do you recommend that? Can you explain for us what's happening during that process?

MIKE SCHUSTER: So there's a couple of things going on. The biggest thing is that all those plants that are left behind, those little guys and then the germinating seedlings-- they are all far better off after we've done our initial management, whether that's a singles group going in and cutting down buckthorn or a forestry mower going through, or even herbicides being sprayed.

All those things open up the canopy for them in a way that means tons and tons of resources for them. And they grow like, well, buckthorn after that. And they take over really quickly if we don't intervene.

And so the problem isn't that there is necessarily too much buckthorn, but that there isn't something else there to soak up those resources. And so putting native species back into these forests, where they've been lost through years of degradation and environmental change-- putting them back in the fight allows them the opportunity to soak up those resources and prevent those little buckthorn from turning into big buckthorn. And that's the key.

ANGELA DAVIS: And did you mention or do you want to mention what types of native plants worked especially well?

MIKE SCHUSTER: Oh, absolutely. Yeah. So there's a few different options. Generally, the most cost-effective, from our perspective, tends to be using wild rye grasses. These are grasses that are in the Elymus genus. And they grow really quickly, tolerate fair amounts of shade. And they produce a thatchy layer that shades buckthorn in the fall, when it is critical that it's getting light.

It actually kind of has this superpower where it is able to soak up light later into the fall, and even in early winter, when most of the other understory species have gone dormant for the season already. So using those wild rye grasses that make that thatchy layer helps shade the plants in the time when it needs light the most.

ANGELA DAVIS: Can you just describe what buckthorn looks like for anybody who might not know? Some people just aren't familiar.

MIKE SCHUSTER: Oh, yeah. Absolutely So buckthorn is one of those plants, especially in our neck of the woods here in the Twin Cities, or even broader Minnesota, that almost everyone has seen, even if they don't know it. So buckthorn is an almost ubiquitous shrub or small tree in Minnesota's oak and maple woodlands. It has these really dark, beautiful leaves that have really deep veining on it.

And then if you look at the ends of those branches, you'll see that there's these two little buds. And in the middle of those buds, there's a little thorn. And if you think about the footprint that a deer makes or even a buck makes, it looks like that footprint. And then there's a little thorn. So buckthorn-- there you go.

ANGELA DAVIS: That makes sense. Thanks for explaining that. And so this is everywhere in the state of Minnesota, right? What types of approaches do you suggest for people who are taking care of a whole city or parks, or is it just as helpful to do it one way as it would be just, say, in your own backyard?

MIKE SCHUSTER: I think the biggest difference between small and large-scale removals is the initial management that you're doing. Are you doing this by hand? Are you using a saw and maybe a dauber to put on some herbicide, or are you using heavy machinery? That's where the scaling issue comes in.

But as far as using native plant species to help fortify forests against recurring invasion, that's something that is applicable at any scale. Certainly, it's easier to do at smaller scale because it's easier to actually seed at a small scale. But if you have the resources, it can just as easily be done at large scale as well. So it works, basically, for anyone that's trying to prevent buckthorn or other invasive species from returning after that initial management.

ANGELA DAVIS: And so we're in the middle of summer, summer break for a lot of people. Do you think now is the time to try to tackle buckthorn? Is it a beginning of the summer, a late summer? What would you suggest to people who want to take the first step maybe in their own yard?

MIKE SCHUSTER: That's a fantastic question. And generally, we see later fall being one of the easier times to deal with buckthorn, not only because it's cooler and less buggy. It's much more pleasant to deal with buckthorn later in fall. But it also stands out way more in the fall than it does in the summer.

Right now, everything's green. It blends in, maybe. But in the fall, buckthorn is one of those plants that holds its leaves really late. And so you can very easily identify it. Hey, there's this green thing in the woods. There's a very, very good chance that it's buckthorn.

And so it's easy to find. And then you can treat it in the fall without running the risk of damaging any remaining native plants that you might want to spare from any type of herbicide or mechanical damage.

ANGELA DAVIS: Well, that's good to know. So the singles meetup can stretch well into late fall-- plenty of more chances for those folks. Thanks so much for joining us, Mike.

MIKE SCHUSTER: Thank you.

ANGELA DAVIS: That was Mike Schuster, a researcher in the University of Minnesota's Department of Forest Resources.