

SECTIONS

Health

Looking for new ways to promote old foods may improve Alaskans' health

Yereth Rosen | Alaska Dispatch News | September 27, 2014

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Isty Hlasny, Sunny Alexie, Isabelle Hlasny, Paul Hlasny and Ida Alexie strip leaves from wild rhubarb at their fish camp on the Kuskokwim River near Bethel, AK this summer.

Bob Hallinen / ADN

Dangling on branches and scenting the woods in the middle of Alaska's biggest city are some deep-red nutritional superstars. The tangy, strong-scented [high-bush cranberries](#) that grow wild on the Alaska Pacific University campus and across much of the Alaska landscape hold antioxidant loads that are more than seven times those found in commercially cultivated blueberries.

Those berries aren't the only health-food superstars to be found in Alaska. Some may seem a bit unlikely, like tart, tender, light-green spruce branch tips, which are packed with vitamin C. Or [dandelions](#), that lowly weed furiously yanked out and discarded by gardeners, which is edible from its yellow flower all the way down to its roots. They're known to hold high nutritional value and [compounds that relieve muscle fatigue, as well as other benefits](#) -- but many aren't aware of their nutritional benefit, much less that they're edible at all.

"People say, 'You can eat dandelions?'" said Peggy Hunt, an Alaska state agronomist who likes to put the bright flowers on muffins and who led a plant tour during an [Alaskan Plants as Food and Medicine](#) conference held in August at APU.

Other wild plants sprouting along the APU ski trails and elsewhere in Anchorage are also packed with nutritional and cell-protecting antioxidant qualities. Among the other edible and medicinal flora pointed out during the conference are the [Cow parsnip](#), otherwise known as wild celery, a naturally low-calorie vegetable, and pineapple weed, also known as Alaska chamomile, "a chill-out plant," in the words of wild-foods expert Gary Ferguson, a naturopathic doctor who helped lead the tour.

The nutritional benefits of wild and local foods traditionally used by indigenous peoples have been touted for decades. Medical providers have made such claims since at least the 1930s, when dentist Weston Price traveled the world to examine the dietary habits and health of indigenous and isolated populations. Though he made generalizations about "primitive" cultures that are cringe-worthy now, he was seen in his time as an advocate for Native people.

In northern Alaska, Price found "strong, rugged babies" and "magnificent health of the child life," according to his 1939 book, "[Nutrition and Physical Degeneration](#)."

The story was similar in northern Canada, Price wrote. "The physiques of the Indians of the far north who are still living in their isolated locations and in accordance with their accumulated wisdom were superb," he wrote.

But once Native people started eating "store grub," tooth decay and other health problems followed, Price said. Take arthritis: "We neither saw nor heard of a case in the isolated groups. However, at the point of contact with the foods of modern civilization many cases were found, including 10 bed-ridden cripples in a series of about 20 Indian homes," he wrote.

There is a growing body of hard science to back up that conventional wisdom about the superiority of traditional wild foods.

Alaska seaweeds and sea plants, part of some traditional Native diets, have extremely [high antioxidant](#) and [anti-inflammatory](#) potency while showing promise as obesity-prevention agents, too, according to research by [North Carolina State University's Plants for Human Health Institute](#).

Seaweeds gathered from Sitka, with the high levels of phytochemicals built up in tough natural conditions, appear to hold qualities that prevent the conversion of complex carbohydrates and dietary fat into high blood sugar and body fat, said [Josh Kellogg](#), a North Carolina State doctoral candidate who's examining Alaska plant compounds and [their ability to prevent what doctors call "metabolic syndrome,"](#) the web of interrelated ills from obesity and sugar overloads. The seaweeds, especially brown varieties like the puffy species bladderwrack, achieve these results by blocking digestive enzymes, similar to the mechanisms of the anti-obesity and anti-diabetes drugs [Acarbose](#) and [Orlistat](#), Kellogg said.

"If they block your digestion of fats, they block your digestion of starches. You won't even take them into your bloodstream," he told attendees at the plants conference.

Boon of seaweed and berries

Early research also suggests the seaweeds have compounds that shrink the size of lipids in fat cells, Kellogg said. Large lipid droplets tend to adhere to cell surfaces and lead to metabolism problems, insulin resistance and, ultimately, Type 2 diabetes, Kellogg said. But small droplets could result in better metabolism of fat -- more burning for energy and less storage -- meaning smaller fat cells and reduced risks for obesity and diabetes, he said.

"Seaweed from Alaska has a great potential to offset complications of obesity and diabetes," he said.

While some Alaska commercial fishermen already do a brisk seasonal business harvesting [herring-egg-covered kelp](#) for customers in Japan, where roe-on-kelp is considered a delicacy, few Alaska seaweeds and sea vegetables wind up in commercial food markets.

Many wild Alaska berries pack more antioxidant punch than their commercially cultivated counterparts, according to several studies. A [study](#) by North Carolina State's Plants for Human Health Institute, published in 2013, found that while cultivated cranberries and blueberries are good sources of antioxidant and anti-inflammatory compounds, the wild Alaska versions are superior.

Even berries stored for a year or more retain nutritional power. Wild berries from interior Alaska, particularly lingonberries, scored high in antioxidants, even after being frozen 20 months, according to a [University of Alaska Fairbanks study](#) published in 2006. A [Finnish study](#), presented in 2013, said cloudbberries appeared to fight tumors in laboratory mice.

Protein-rich wild salmon, a key to traditional diets in Alaska, are well known for high levels of healthy [omega-3 fatty acids](#), which help regulate cholesterol, among other benefits. One [study published last year in the Annals of Internal Medicine](#) said omega-3 fatty acids aid longevity. That study, based on long-term research of 2,700 Americans who had reached their 70s, found that those with the highest omega-3 levels lived 2.2 years longer while cutting their risk of cardiovascular disease by about a third.

Wild salmon generally provides much more nutritional benefit -- and less contaminant risk -- than farmed salmon, according to several studies, including [one published in 2005](#) in the Journal of Nutrition.

Wild Alaska fish can also be a valuable source of Vitamin D for northerners who, because of sparse winter sunlight, are vulnerable to deficiencies. According to a recent [UAF-led study](#) of western Alaska Yupik residents, fish supplied more than 90 percent of dietary vitamin D -- enough to provide sufficient year-round levels -- even though traditional wild foods accounted for only 22 percent of residents' caloric intake.

Seal oil, a staple of some indigenous diets in the circumpolar north, appears to stave off cardiovascular disease, too. A [2011 study](#) led by researchers at Norway's University of Tromso found that mice fed a combination of seal and olive oil were less likely to develop atherosclerotic lesions, spots of damaged tissue that harden arteries and lead to heart disease. That adds to a body of work that goes back to a landmark [1994 study](#) of Athabaskan and Yupik residents 40 and older that found those who ate seal oil or salmon daily had lower diabetes risks.

New ways to promote old foods

For Ferguson, an Aleut who grew up in Sand Point and heads the [wellness and prevention program](#) at the [Alaska Native Tribal Health Consortium](#), spreading the message of wild foods' benefits has been a passion.

He helps organize culture camps that teach village kids about their regional traditions, including wild-food diets. He serves on the boards of the [Aleut Corp.](#) and its nonprofit arm, the [Aleut Foundation](#), where he strives to bring health considerations to corporate business decisions. And he helps run an educational project at ANTHC called [Store Outside Your Door](#), which enlists Alaska leaders, elders and assorted local-food enthusiasts as cooking and nutritional instructors. Several webcasts produced by Store Outside Your Door feature celebrity Alaska chef Rob [Kinneen](#), showing viewers how to make such dishes as wild duck risotto, Alaska fresh rolls, tossed salads made from beach greens and other traditional foods "with a contemporary twist," as its website puts it.

The projects, said Ferguson, are "teasing out bits of wisdom from the past ... as protective today as it was thousands of years ago." In practical terms, he said, he and his colleagues want to make wild foods desirable to avoid shaming or "guilting" people and to coax incremental steps toward healthier lifestyles, like encouraging people to mix wild berries in recipes or try to include wild or local food in at least one meal a day. "It's a combination of small changes over time," he said.

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