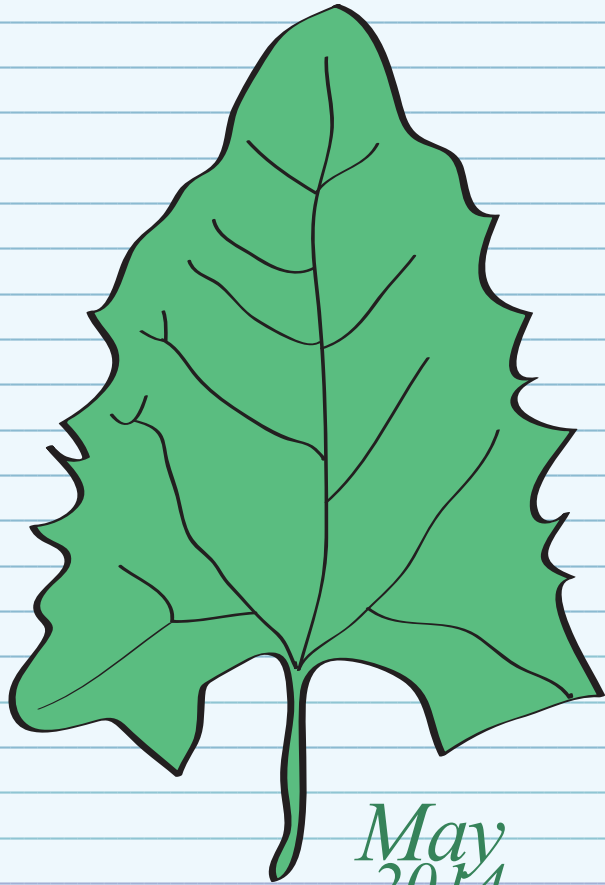


WILD

Edible NoteBook



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Wild Edible NoteBook

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Hi and thanks so much for checking out the *Wild Edible Notebook*, a monthly collection of stories about foraging and using edible wild foods.

This month's *Notebook* is graced with a second contribution by renowned forager and writer Samuel Thayer. His story is about the underground tubers of a sedge called chufa, set in a tale of family and discovery.

Next is a story about orache, a goosefoot relative with salty, arrowhead-shaped leaves, along with a few of its desert-loving cousins. This is followed by a tale of cattail hearts—the shoots or cores of cattails, known also as “Cossack asparagus”—which come into season in spring. Last, there is a reflection on what it means to be a weed, including an interview with a local weed sprayer that explores herbicide application practices and their implications for foragers. As always, this issue concludes with a handful of recipe ideas using wild food.

2022 Update:

Begun as a free publication in 2011, the *Wild Edible Notebook* was available by subscription from 2014-2015. It went on hiatus after that so I could undertake other pursuits, chief among them a book I am writing.

This year, I decided to start reissuing the *Notebooks*, a process that involves reading through and correcting any glaring errors. I will admit that my thinking has evolved on some topics since then, but for the most part I have not rewritten any stories.

For current writing, please visit my blog at wildfoodgirl.com, or social media at Facebook ([wildfoodgirl](https://www.facebook.com/wildfoodgirl)) and Instagram ([wild.food.girl](https://www.instagram.com/wild.food.girl)), where I post regularly.

Sincerely,
—WFG



Photo by Gregg Davis.

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*Like orache, this guy is an Atriplex—
but a woody, desert-loving cousin. His
tiny leaves are edible and salty too.*

REVISED 5.10.22

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Chufa—There is Such a Thing

By Samuel Thayer

I look out my dining room window, from this bowl of grayish, sweetish gruel that my children and I pass between us, and across our little orchard to a wind-swept snowy field beyond the fence. No trace of vegetation rises above the waves and drifts that encrust this gentle slope, cut in half by a curving ravine. But we remember what is frozen in that smothered dirt—with the vivid kind of reverie that only cold, muddy fingers and sharp autumn winds can manufacture. And the soothing heartiness that we slurp from the little spoon brings a timeless comfort as we stare at the place where this breakfast came from, and where a thousand more such breakfasts wait for our fingers. Earth almonds, as they are sometimes called. Millions and millions of them; more than we would ever care to gather.

Bill is the name of the man who farms the field just south of my orchard. He's a nice fellow, so I don't mean to rejoice in his troubles. But last spring, which was very late and wet, left a two-acre low spot in his field where the corn barely

germinated, and in its place sprouted a thick crop of a weed that adores waterlogged low spots in crop fields—chufa.

Chufa is native to an extremely broad region, including Asia, Europe, North Africa, and North America. It is found through the eastern half of the US and southern Canada, and also along the entire West Coast and sometimes well inland. It was domesticated long ago in Egypt and is still a commercial crop in parts of North Africa,

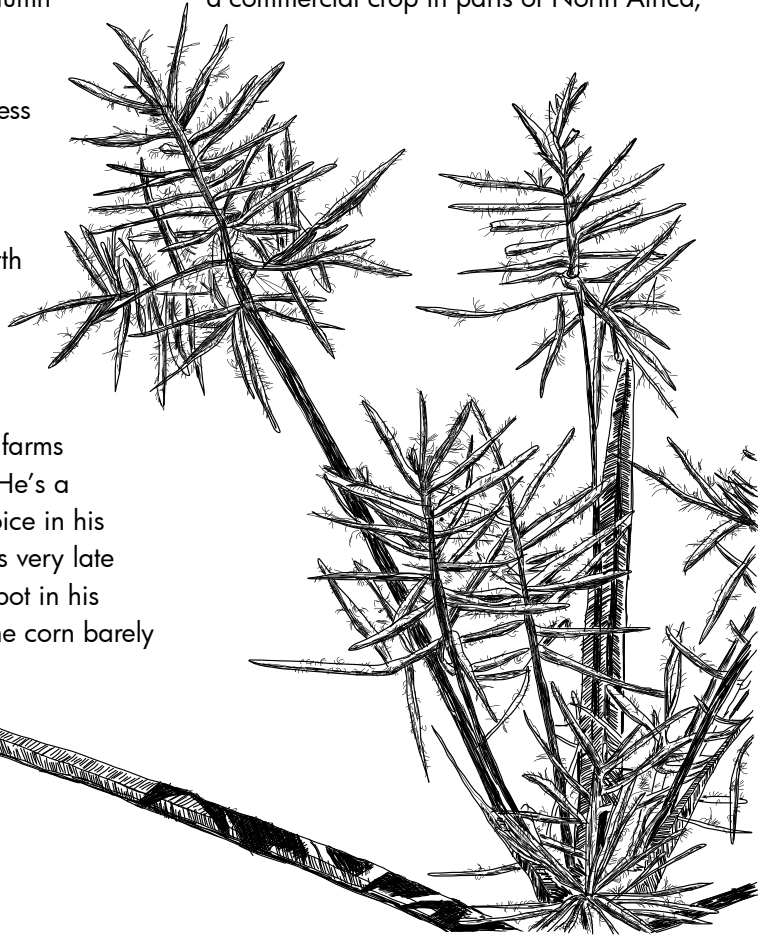


Illustration by Gregg Davis.

Spain, and Portugal. It was also cultivated by the Owens Valley Paiute of California. Farmers know the plant as nut sedge, and many of them know it well—but they are no more excited to eat it than they are to eat potato bugs or pigeons. And despite its broad range and reported attributes, I can't seem to find any living forager who has collected it for consumption.

My computer has never heard of chufa, either, and every time I type the word, it wants to change it to chuff. Which I have never heard of, so I change it back. The writers of word processing software may not know it, but there is such a thing as chufa.

I didn't always fully believe this either. A plant given such accolades arouses suspicion. (Am I being baited into another pond-lily potato disaster?) Euell Gibbons described it, in *Stalking the Healthful Herbs*, as tasting "in between the flavors of coconut and almond," noting that "as it is chewed it yields copious amounts of sweet white milk," and adding that it was "one of the finest tasting and most nourishing wild breadstuffs I ever tried." This makes it sound pretty good. Gibbons also related that, "where the soil is light, sandy, and easy to dig, the chufa is likely to bear huge crops of larger tubers only an inch or so below the surface ... one can sometimes merely grasp all the grasslike leaves and stout stems and pull up the plant, bringing up at least three-fourths of the nuts with it, without digging at all." Not just exotically delicious, but a cinch to collect. A tuber would be hard pressed to live up to all that.

For me, chufa didn't. Not that it had much of a chance. I'd find an occasional clump of it

growing in the flower garden at the library, or even in its natural habitat on a sandy riverbank, and from these scattered specimens I'd get a small palmful of very small tubers that tasted just scarcely better than the dirty fingers that popped them into my mouth.

But I always keep in mind that a plant which seems useless and piddly in one place might rise to the fore in another locality where conditions favor it. I once talked to an organic peanut farmer in Georgia who told me that nut sedge was one of her worst weeds, and assured me that I could come and dig it up anytime I pleased. I'm sure the chufa in her sandy, fertile southern fields were robust and productive—but the problem is, I don't live near Georgia. I waited for chufa to come to me.

One August day as I was spreading the seeds of great burdock between a few of my apple trees my eye caught the distinctive form of chufa's flowering top. I looked about and noted a few more chufa tops—a pleasant surprise right here at my place, but not enough to get too excited about. The next spring, a hayfield down the road was plowed up and planted with soybeans, and I noticed that by midsummer the chufa was growing there thicker than the broad-leaved crop. This was my first inkling of what a serious—and abundant—weed this sedge could be. And then, next summer, it was the field next door, with a solid carpet of the grassy stems over more than an acre. Chufa, at last.

I waited until November, when the tops were dead, the berries were all picked, the nuts collected, the garden chores done—when root vegetables are about all that's left for a forager to do. We went as a family, with a shovel and

four bowls, and started turning over clods of dirt and picking through them for the tiny starchy treasures—like a mini flock of wild turkeys, minus the head bobbing. Although our hands got cold, it was hard to stop, and only the weight of other chores drew us home. We dumped our individual bowls into the big one, and I marveled at the heap of muddy, crinkled, tan globs we had collected. A quart. Not a lot of food, but enough to get an idea of what chufa is all about.

I rinsed them repeatedly, then dried them. Even when freshly dug, chufas are quite dense and hard, so they dry easily, and don't lose much volume or weight in the process. Then I left them on the counter for a few months, admiring them, repositioning them, sifting them through my fingers and looking for impurities, occasionally spilling and recollecting them, sometimes even cursing them for being in the way—all the while wondering what the heck to do with them.

Then one day, I woke up and thought, "Ok, it's chufa time." I divided the stash of dry tubers into three batches. One, I ground in a blender while dry. The other two I soaked in hot water. I took some of the dry flour and mixed it with water, then brought it to a boil and strained out the coarse particles. My thought was to make a sort of nut milk. It tasted sort of food-like, but left much to be desired.

My next experiment was putting some of the soaked tubers in a blender until I had a slurry, then straining the slurry through a cloth—exactly how I make hazel milk. I warmed the cloudy liquid that came through the cloth, and sipped slowly. Very good—now I taste the comparison to almonds. Like a nut milk without

the oil. I made another batch of this chufa milk and brought it to a simmer, and it thickened to a very familiar texture: gravy. Perfect. I've been looking for some sort of wild gravy with a better texture than acorn starch, and now I know that next Thanksgiving, God willing, I'll be mixing the venison drippings with chufa to make my gravy. OK, more things to check out. I took the chufa "gravy" and cooked oatmeal in it, then mixed in black walnuts and sweetened with maple syrup. Delicious. I cooked chia in it the same way. Also very good. I made plain chufa with finely chopped hickory nuts, sweetened with maple and graced with a touch of cinnamon. This was worth fighting for. Pretty soon, I was thinking that chufa is one of the finest wild flours I've ever encountered.

I can't wait for all that snow to melt, and the ground to thaw, so I can get wet, muddy, semi-numb fingers again.

Samuel Thayer is the author of some of the best foraging guides out there—[Nature's Garden \(2010\)](#) and [The Forager's Harvest \(2006\)](#). Find him at www.foragersharvest.com.



Orache You Glad It's Edible? By WFG

I've always loved finding treasures in the wild, from translucent jingle shells on the Connecticut coastline to crystalline rocks around Colorado's long-abandoned mines. In years past, I trekked across vast stretches of earth in search of projectile points, as archaeologists call the stone tools left scattered across the virgin grounds of yesteryear by our wild-plant-eating forebears. Today, however, I chase another point—the green, arrowhead-shaped leaves of the wild edible green, orache.

There are several species of orache—a term I am using to refer to herbaceous, annual members of the genus *Atriplex*—that grow in the alkaline soil of Denver, Colorado and surrounding areas. They look a lot like goosefoot or lambs' quarters—the



Thick, green leaves of two-scale orache (Atriplex heterosperma) growing at the edge of a field around 6,000 feet in Colorado.

edible spinach-like plants in the genus *Chenopodium* to which they are related—with green to greenish-blue leaves that are covered, particularly on the underside and growing tips, with a white, mealy substance upon which water balls up and runs off. Like those of the goosefoots, orache flowers don't look much like flowers at all, but rather small clumps clustered on the upper parts of the stems.

The leaves of orache differ in shape from lambs' quarters, however, tending towards arrow- or triangle-shaped. Botanists describe this characteristic as "hastate," meaning "shaped like an arrowhead, with narrow basal lobes standing out at wide angles" (*Flora of the Great Plains*, 1986), such that the bases are straighter or even indented as opposed to the narrowed or diamond-shaped leaf bases of goosefoot. Euell Gibbons (1964) describes the leaves of common orache (*Atriplex patula*) on the Maine seacoast as "somewhat halberd-shaped



Orache leaves from two different Colorado foraging sessions.



Above: Orache leaf close up. Below: Goosefoot leaf.



... except that the two barbs on the lower edges are turned outward instead of pointing downward.”

Keep in mind that orache leaves can be variable. The leaves of common orache (*Atriplex patula*) range from triangular or arrowhead-shaped to lance-shaped or linear, Steve Brill points out in his *Wild Edibles Plus* app. They are toothed, sometimes with wavy margins, and grow on petioles opposite one another in the shoot stage, with subsequent leaves becoming alternate.

What sets orache apart from goosefoot in my opinion, however, is that the greens come pre-salted by nature. That’s because oraches, like their fellow desert-loving, woody *Atriplex* species, retain salt in their leaves. Thus one need only sauté the greens—whether young, entire spring tops or thick, late-season leaves—for a subtly salted side dish to accompany a meal or accent more complex dishes.

Soap or Salt?

Opinions of orache in the wild food literature run the gamut from the best thing ever, to too bitter to bother. I am a member of the first camp, and the fact that I have to travel to parts lower to find orache only adds to the allure of one of my favorite wild veggies. But not everyone reviews the plant so glowingly.

On *A. patula*, for example, the same species extolled by Euell Gibbons (1964), Wildman Steve Brill (1994) writes: “While other wild-food authorities praise the virtue of this salty-tasting species, my students and I usually reject it as unpleasantly bitter,” concluding, “it’s better in some locations than others.”

Certainly there are many possible reasons as



Orache plant (above), growing in proximity to goosefoot or lambs' quarters (right) on the Colorado plains, near the base of the Rockies' eastern slope.

to why orache tastes so good to some palates, and so bad to others—from species, location, and growing conditions to the age of the plants and individual flavor preferences.

In his entry on the related wild spinach *Chenopodium album*, John Kallas (2010) provides a clue, pointing out that “older leaves can start taking on a mild off-flavor and even become bitter,” perhaps “partially due to the buildup of saponins in the aging plant.” I, too, have observed this tendency towards an unpalatable bitterness with a local species of lambs' quarters, which I normally relish, growing in a disturbed location here in the Colorado high country in late summer.

Plants in the genus *Chenopodium* and several species of *Atriplex* contain saponins, which are lather-forming, bitter glycosides used in soap that are toxic in large quantities but potentially beneficial in small quantities. Saponins are present in a number of our plant-based foods, including beans, tomatoes, and spinach. They are not easily absorbed by the digestive system, so much of what we eat passes through, and they also break down when cooked (Elpel, 2012). Kallas makes a good point about lambs' quarters that probably applies to orache and related saltbushes too—if the mature leaves are bitter, it is likely due to increased concentrations of saponins.

That's not to say, however, that all late-season orache leaves (or lambs' quarters for that matter) are bitter. In fact, both can make



We visited some amazing hot springs (left) in Meadow, UT, last spring, and orache (top) was growing everywhere. Too bad the orache was in the middle of a poopy cow pasture. We did, however, get a pleasant early morning visit from a herd of talkative cows and calves while we were in the pool. If you're interested in the deep, natural hot springs, which are open to public bathing by posted permission of the landowner (above) provided you're clothed and sans intoxicants or dogs, this post has a Google earth map we followed to find it: <http://blog.myscoutstuff.org/2011/04/meadow-hot-springs-and-lava-tubes-at-tabernacle-hill>.

excellent and substantial veggies late in the growing season—but a field taste test is not a bad idea before collecting in quantity just in case. In Denver I've harvested both mature and immature specimens of orache, so far with good flavor results.

Perhaps Scotland forager Mark Williams' description (www.gallowaywildfoods.com) of his local oraches will convince you: "I rate the ones I encounter very highly—both as a superb salad leaf when young, and as a spinach substitute when mature," he writes of the coastal species available to him, which include spear-leaved orache (*A. prostrata* or *A. hastata*), frosted orache (*A. lacinata*), and Babbingtons orache (*A. glabriuscula*); as well as common orache (*A. patula*) inland. "The tender young leaves, to my palate, are wonderfully sweet with nutty overtones and a hint of salt."

Salt-Lovers, Land & Sea

Also called saltbrush or spearscale, oraches love salty soils, whether alkali flats and salt basins in landlocked regions like Colorado, or along coastal waters.

The New York Natural Heritage Program describes how thicketleaf orache (*A. dioica*), which it lists as endangered in New York on its site (<http://acris.nynhp.org>), has taken advantage of road salt to extend its range westward from the salt marshes of Long Island where it was known to occur. Meanwhile, an introduced European species of orache (*Atriplex prostrata*) is now invading saline habitats where thicketleaf orache used to grow.

On the Scotland coast, Williams notes that orache can be found on and above the high-

*Lush orache garden by a bike path near Boulder, CO.
The photo is from late May, 2013.*





Above: Another tasty orache patch near Denver.

Below: That is not orache. Can you guess what it is?



tide line, generally growing from decomposing seaweed bands. Likewise, Gibbons (1964) describes *A. patula* growing just above the high water line from Labrador to Virginia, in many places “so abundant that it would be hard to find a hundred yards of shoreline without enough of this plant to furnish an excellent salad or vegetable for the camp dinner.”

Of course that was a different time, and

now some *Atriplex* species in the northeastern U.S. are protected, with designations ranging from “endangered” to “salvage restricted,” including *A. glabrisciula* (CT, NY, and RI) and *A. subspicata* (NJ and NY), along with *A. tularensis* and *A. coronata* in California and *A. hymenelytra* in Arizona.

Cattail Bob Seebeck (2012) treats Colorado’s (non-threatened) green, triangle-leaved oraches together under the common name “saltbrush,” and recommends searching for their broad, 1-6-inch-wide arrowhead-shaped leaves on plants growing up to 4 feet tall in meadows, pastures, playas, and river bottomland with medium moist to dry soil, full sun to partial shade. I have found thick, lush specimens in alkali flats-turned-farmland in Utah as well. Roadsides and ditches are also good places to look.

Although I have been eating one or more of the green, salty, annual *Atriplex* species with arrowhead-shaped leaves in the Denver area for several years now, I have yet to conclusively identify the species. My recent, renewed forays through our local floras have dead-ended more than once, compounded by

Oxalates & Nitrates

Oraches contain oxalates, and may also concentrate nitrates from the soil, Seebeck (2012) notes. Therefore, he advises we consume orache only in “sensible quantities.” Many authors recommend staying away from nitrogen-rich soils—like places where excess fertilizer has been applied and water flow-through is limited—when harvesting nitrate-accumulating wild edibles.

However, John Kallas includes an interesting discussion of oxalates and nitrates—commonly the subject of warnings in the wild food literature—in his 2010 book, *Edible Wild Plants*. He concludes that the warnings are overblown, most stemming from research on cows and other domesticated ruminants, whose eating habits are very different than those of human beings. Many vegetable foods contain oxalates or accumulate nitrogen, he explains.

Soluble oxalates or oxalic acids—which are found in spinach, rhubarb, cocoa, and sorrel, to name a few on the domesticated side—are a normal part of the human diet, explains Kallas, who has a Ph.D. in nutrition. He goes into some depth explaining how oxalic acids function in body chemistry, noting too that there is little scientific evidence to support the claim that dietary oxalates promote the development of kidney stones or gallstones in healthy people.

“My understanding and opinion is that in the context of a normal, healthy, diverse



diet, dietary oxalates are a nonissue for healthy people,” he concludes, advising us to “consume sorrel, dock, purslane, and wild spinach without fear [of oxalates] unless you are chronically malnourished, have complicated or unusual blood chemistry, or are counseled by your doctor not to.”

Kallas comes to a similar conclusion on plants that accumulate nitrates—including domesticated turnip greens, spinach, celery, and corn; as well as purslane, wild spinach, curly dock, and miner’s lettuce on the wild side.

“Nitrates are a normal part of eating, and our bodies have a means for processing them,” which involves converting the “useful” nitrates to nitrites (“the bad guys”) and back to nitrates again, he writes. Infants under three months of age, whose bodies have not yet developed the means to convert the harmful nitrites back to nitrates, are the exception. “If infants are breast-fed, that would solve any nitrite accumulation problem,” he explains, while recommending against pureeing nitrate-accumulating plants (or any vegetable for that matter) and feeding them directly to baby.

“For healthy humans over three months of age, there is no evidence that I can find to suggest any harm from eating plants high in nitrates in the context of a normal and diverse diet,” he concludes. — WFG

the fact that there are no mature specimens available to me as I pen this.

“The genus *Atriplex* is taxonomically difficult, and there is little consensus on delimiting species,” *Flora of the Great Plains* (1986) notes. “In the past, *A. patula* L. and *A. patula* var. *hastata* have been catch-all taxa to which many of our specimens have been referred,” the authors explain, before noting their inability to detect these taxa in the Great Plains themselves, and emphasizing the need to collect mature fruiting specimens, as opposed to young ones, to make careful study possible.

The green-leaved, annual species listed by Weber and Wittmann (2012) for the Colorado region include garden orache (*A. hortensis*), which has leaves that can be red or deep red-purple and seedpods that are much bigger than other species; *A. dioica*, which the authors explain to be difficult to distinguish from *A. patula* or the introduced *A. prostrata*; and *A. heterosperma*, which I have since (2020) identified as the common, non-native Denver species I have been eating. Other local annuals that have gray or whitish leaves include *A. rosea*, *A. truncata*, *A. wolfii*, and *A. argentea*.

Woody Desert Atriplexes

The genus *Atriplex* includes not only the annual oraches but also a number of woody, perennial, bush-forming species, grouped together under the common names shadscales and saltbushes.

I was quite taken aback the first time I spotted one—a small, gray-green bush with densely

Right: *Desert shadscale* at an empty roadside lot in Nevada. I knew it was related the minute I saw it!

Top: The scurfy, silver leaves made a perfect adornment for our dashboard mascot.





What's this? Another edible desert Atriplex in the same Nevada lot? I think we've got a saltbush here.

branched stems and a silvery but distinctly goosefoot-like new growth of thick, water-resistant leaves. It was growing in an empty gravel parking lot in Nevada, where we stopped during our road trip through the Great Basin last year. I picked a sprig and ventured a small taste. Sure enough, it was salty as all get-up. I could barely contain my excitement. We ended up spending the night there, in the middle of a Nevada nowhere, so I could entertain myself

with the plants.

In addition to the shadscale—which I tentatively identified as *A. confertifolia* based on the rounded leaves and two-winged fruits using Francis H. Elmore's *Shrubs and Trees of the Southwest Uplands* (1976)—I found another *Atriplex* growing just inside the fenced-off pasture that flanked the parking lot. This was the four-winged saltbush *A. canescens*, named for its light green, papery, and distinctive four-winged bracts.

The funny thing is that both of these woody *Atriplex* species are found in Colorado (and

throughout the western United States), but it took me a road trip to Nevada to find them.

I reached through the barbed wire to gather a few narrow leaves. Whereas the shadscale leaves were nice and salty if not a tad overpowering, my first taste of four-winged saltbush left something to be desired, not to mention an unpleasant aftertaste. I gathered samples of both to dry, and now, nearly a year later, my assessment of the dried samples remains the same—the shadscale has a decent flavor, but the saltbush in its current form may prove difficult to sneak successfully past Gregg’s taste buds, no matter how creative the preparation.

According to Daniel Moerman’s compilation



***Above:** Dried shadscale leaves, ready for culinary experimentation. **Below:** The Nevada stop where we found repose after an afternoon chasing *Atriplexes*, and a sumptuous sunset over the fish pond.*





Above: Young, fresh orache ready for salads and sautes.

Below: A crazy attempt at cornmeal pudding made salty with shadscale leaves. It ended up being more like polenta, and I'm not sure I tasted the shadscale. Still, it wasn't bad topped with horseradishy tansy mustard (*Descurainia sophia*), wilted in a pan with butter and lemon.



of ethnobotanical resources, hosted at the University of Dearborn, Michigan (<http://herb.umd.umich.edu>), native groups have long used the seeds and leaves of both species for food products, in addition to medicinal and ceremonial uses. Hopi people have used the ashes of the saltbush *A. canescens* like baking soda (Vestal, 1940); the Navajo of Chaco Canyon made puddings from the flowers (Hocking, 1956); Ramah Navajo people placed leaves on coals to impart a salty flavor to pit-roasted corn (Vestal, 1952); and Tewa and Hopi people stir ashes into dough to give it a greenish-blue color (Robbins, et. al., 1916; Whiting,



A basic salad, made extraordinary by orache.

1939; Colton, 1974).

Similarly, Hopi cooks boiled leaves of shadscale (*A. confertifolia*) in water, then mixed the water with cornmeal to bake into a pudding (Fewkes, 1896; Castetter, 1935). Leaves were also boiled with meat and other ingredients as a flavoring, and the leaves cooked as greens (Whiting, 1939; Colton, 1974; Vestal, 1940).

“More than two dozen *Atriplex* are edible, and probably more,” Green Deane writes at www.eattheweeds.com, where you can find a long list of species used for food by native groups in the U.S. and abroad. Several European wild food authors note the inedibility of grassleaf orache (*A. littoralis*), a shrub

that is also found in the U.S. northeast and Canada (USDA); supposedly the leaves smell bad and taste worse.

As I remained with doubts about what part of the saltbush to burn for ash, and lacked in the blue cornmeal I later discovered is used in combination with alkali ash-filtered water to get the blue color of Hopi piki dough, I decided to go with the boiled-water approach with my sample of shadscale leaves and what was left of an old package of Bob’s Red Mill corn grits I dug out of the closet. My bastardized attempt to make some manner of savory corn pudding came out awkward at first—a small cast iron skillet full of oven-thickened, slightly sweetened

corn mush with salty green flecks that nobody seemed too excited about eating. But then I was able to resurrect it by frying slices in olive oil and serving it like polenta with dinner.

It's been fun times in the wild edible kitchen, I tell you.

Orache Fulfills a Basic Need

I'd like to tell you that I created something absolutely genius with all the green, triangle-leaved orache I've harvested in the last few years—like the orache tabouleh at www.eatweeds.co.uk, or the orache wedding soup in *Edible Wild Plants of Pennsylvania and Neighboring States* (Medve & Medve, 1990). Instead, to date I've opted for simpler preparations—orache sautéed with butter, or orache tossed raw in a salad with tofu, sunflower seeds, and my standard soy, ginger, brown sugar, and fish sauce dressing.

You see, finding orache is always a matter of timing for me, since it grows downhill from where I live, topping out around 9,000 feet (Seebeck, 2012). If I'm not in the right place at the right time—when the leaves are green and unspoiled and ready for harvest—I don't get any. And so, for me, orache is indeed a treasure. One that I won't sacrifice to risky recipe ventures that may or may not turn out quite so yummy as those simple sautés and salads of my wildest edible dreams.

■



[*Heart* Cattail Hearts

By WFG

The renowned forager and writer Euell Gibbons called cattails “the supermarket of the swamps,” and from that moniker other nicknames have emerged, among them “the Walmart of the swamps.” Although evoking Walmart doesn’t help me to connect with my joy for wild plants, the sobriquets are so given because of all the different plant food cattails yield—from the shoots (aka hearts or leaf cores) and flower spikes to cattail pollen as a protein-rich flour, along with several underground parts, among which the rhizomes require a bit of processing (or chewing) to separate the edible starches. It is also often the case that cattails are quite plentiful where they occur, making them a good choice for sustainable wild harvest.

I like to harvest the shoots or hearts, also known as “Cossack asparagus,” in May here



Cattails growing out of a spring-fed pond behind a friend's house in Ithaca, New York in mid-June. I found it easier to pull the shoots where the land was dry and provided resistance, however.

Gregg's sister Caity pulls her first cattail shoot from the side of a Fort Collins marsh by grasping the inner leaves near the base of the plant and pulling out the cream-colored core, which comes out with the stiff, green leaves attached. I usually cut these off and leave them in the field, taking home only the edible cores, unless I need the stiff leaves for craft purposes.



in Colorado, at an elevation of roughly 6,000 feet. (The season for cattail shoots and other plants occurs later as you go up in elevation.) As a general guideline, the shoots are best harvested in spring and early summer, prior to the development of the flower stalk.

It takes but a mellow yanking to the inner leaves near the base of the plant to get the soft, white core to release, bringing the attached long green leaves with it. I usually cut the green part of the leaves off in the field, keeping just the bottom portion to finish cleaning in the kitchen.

The Heart: To Cook or Not to Cook?

My friend Butter describes cattail shoots as tasting like cucumbers, so I find myself inclined to come up with recipes that substitute cattails for cucumbers. The problem is that I normally eat cucumbers raw.

Numerous sources say cattail hearts can be eaten raw or cooked, though Sam Thayer (2006) writes of getting “an itchy, irritated feeling” in the back of his throat when he eats them raw, so he prefers to cook them. I have experienced this sensation too, though not to the point of discomfort.

I couldn't help but wonder about the safety of eating raw cattail shoots, which are often found growing in water, however. Specifically, I was interested in whether cattails growing in water could transmit



Cattails growing on the edge of a Fort Collins marsh in the middle of May, 2013. Note how the clumps appear cylindrical at the base where the leaves join.



water-borne parasites like *Giardia* on the raw hearts. I emailed Sam the question (2012), and he thought the parasites unlikely to migrate into the internal environment of the plant. He wrote: “With cattail shoots I don’t think it’s an issue at all. You eat the interior part which is sterile, peeling off those layers exposed to the outside.”

Parasitic contamination seems more likely to be an issue if the harvester is not careful—for example, if one were to drop the sterile shoots back into the pond by accident.

Still, if I plan to eat cattail hearts raw, I’ll often take extra precautions to kill any real or imagined parasitic hitchhikers, especially when harvesting the plants from locations with standing water. After a thorough washing, I

I decided to soak the cattail hearts in a vinegar-and-water solution for extra measure, as I planned to eat them raw. This might be going overboard, however.

prep them as I learned from Thayer’s book, by cutting and reserving the bottom, soft part, peeling off a layer of leaves, then cutting another soft portion to use for food, then peeling off another set of leaves, and so forth, until I’ve discarded all the tough parts and kept all the soft parts. He describes the vegetable as “a little bit annoying” because of the required processing, but I watch crime dramas on TV to distract myself.

Then for extra measure—if I’m planning to eat them raw—I’ll soak the heart pieces in a strong vinegar-and-water solution for 12 minutes



or so. Studies seem to indicate that a strong vinegar soak can be effective in reducing *Giardia* infection rates in endemic areas. In one study, vinegar won out over lemon juice for treating uncooked foods with *Giardia* cysts, but did not kill everything in the tube. From the abstract: “The mean giardiacidal activity at 4 degrees C after 3 hours for lemon juice, vinifer, and vinegar was 18.9, 12.8, and 28.4%, and at 24 degrees C, 28.3, 16.2, and 40.6%, respectively.” The abstract concludes: “the giardiacidal activity of vinegar was more than the other materials, and as exposure time and temperature increased, giardiacidal activity also increased; the highest giardiacidal activity of vinegar was at 3-hours exposure at 24 degrees C” (Sadjjadi, et. al., 2006, www.ncbi.nlm.nih.gov).

So the vinegar soak can help but is not 100% effective if parasites are present, though they probably are not in the first place. One thing I can say from experience, however—if you don’t rinse the cattail hearts in water after a vinegar soak, your meal will be infused with a strong, vinegary flavor.

Could Always Just Cook Them

Of course, you could always just cook your cattail hearts. I’ve tried a bunch of different cooked preparations, but often find myself drifting to the American

Southwestern-spiced shrimp and cattail hearts make a tasty combo. I sauteed the hearts first, then added the shrimp to the pan.

Southwest for flavor ideas.

A blend of peppers including sweet ancho, Tellicherry black, cayenne, and chipotle with onion, garlic, Mexican oregano, salt, cumin, paprika, and cilantro makes up the Penzey's Southwest spice mix that always finds its way into the pan with cattail chunks in our house. I like these served alone, mixed with couscous, or my favorite yet—in the form of Southwestern shrimp and cattails, which I imagine could only be made better with invasive crayfish in place of the shrimp.

I also tried a riff on Wildman Steve Brill's "Cattail Shoots and Carrots in Peanut Sauce" from *Identifying & Harvesting Edible & Medicinal Plants in Wild (and Not So Wild) Places* (1994). It involves steaming the carrots



A steamed-then-chilled veggie mix including cattail hearts, milkweed shoots, and carrots—not a bad snack at all dipped in homemade peanut sauce.

and cattail shoots and serving them with peanut sauce on top. I found this preparation tasty, but what I enjoyed even more were the cold leftovers—cattail shoots and carrots joined by steamed milkweed shoots I had on hand, dipped in peanut sauce for a midday snack.



It may be hard to see the veggies for all the bright colors, but that's Mom's summerware, and it holds steamed cattail shoots and carrots with one of Dad's homemade sauces. Gregg made it, at Mom's behest.

Water a Weird Shade of Green? Think Twice.

"I usually don't worry about the cattail shoots if I know it's not a beaver or chemical polluted area," a FB friend, Chris Bosetti, commented a couple years back. I think that's a good point on the *Giardia* front, not to mention the pollutants.

Cattails are known to accumulate heavy metals. For this reason, they can be used to clean up toxic sites. If the water that a cattail is growing in is an unnatural blue or green, for instance, you might want to think twice

about foraging for dinner there. It's never a bad idea to find out what happens upstream, no matter how clean the water appears to be.

"There's little wrong with a healthy pond but I would stay clear of cattails that get drainage from any kind of road or company," Green Deane (www.eattheweeds.com) responds to a commenter on his cattail-eating video on YouTube. "One of the two times I was ill from a foraged plant was cattails below a discharging company I did not know about. I ended up praying to the porcelain god for a while."

Since throwing up makes me cry, I try my best to only collect cattail parts from clean sources. But there's also a related

long term concern about eating something that's polluted, that might not make you sick immediately but over the course of time.

In *Recent Advances in Plant Biotechnology* (2009), Ara Kirakosyan and Peter B. Kaufman cite a study on the uptake of lead by broad-leaf cattail (*Typha latifolia*). The study found that most of the lead was confined to the roots and rhizomes of the cattail, but with the addition of a chelating agent, was taken into the shoots.

Though it sounds like the greater risk is in the roots and rhizomes, I'm still probably not going to eat cattail shoots—or any other

Cattails' distinctive, fluffy seed heads, shot in winter in Yarmouth, Maine. Photo by Ano Lobb, licensed for reuse under Creative Commons.



vegetables, for that matter—growing in toxic waste dumps.

World *Typha*

Here in the Colorado Rockies we have three species of cattails—the common or broad-leaf cattail *Typha latifolia*, the narrow-leaf cattail *T. angustifolia*, and the southern cattail, *T. domingensis*, per Weber & Wittmann’s *Colorado Flora* (2012), though the authors point out that the taxonomy of *Typha* is made difficult by hybridization.

According to Plants for a Future (www.pfaf.org), all three share similar edibility characteristics. In fact, of the nine species of *Typha* worldwide listed at PFAF, seven are listed as having the same edible parts with similar uses. Two species, *T. bungeana* and *T. minima*, are listed as having similar usage, with the qualification that the notes are for other members of the genus, “but they probably also apply to this species.”

Sam Thayer’s cattail chapter in *The Forager’s Harvest* centers on two species common to North America—*T. latifolia* and *T. angustifolia*. Both are used similarly, he explains, though he notes that foragers harvesting rhizomes for starch should aim for common cattail (*T. latifolia*) rather than narrow-leaf cattail (*T. angustifolia*), as the latter tends to prefer drier locations and has smaller rhizomes, making them more difficult to collect. His chapter clears up some points



After cutting off the soft part I wanted to keep, I peeled off the next firm layer by twisting the cattail shoot, grasping the thin skin as it started to separate, and tugging. Photo by Gregg Davis

about underground cattail parts, including the difference between rhizomes and the lateral shoots protruding therefrom. The laterals are “sweet, mild, and soft with no objectionable flavor,” he writes, such that they can be enjoyed fresh as a snack or sliced raw into salads, a far less complicated experience than separating starches from the rhizomes to make flour.

Edible Shoots or Cossack Asparagus

One of the places I enjoy harvesting cattail hearts is a spring-fed pond in our friend’s back

yard in Ithaca, New York. The fact that it's spring-fed does not necessarily mean the water contains no *Giardia*. But a spring-fed pond is arguably safer than a runoff-fed pond, which can play host to all the feces from upstream for the parasites to feed upon.

I find it hard to tug the shoots from the pond itself because of the soft mud, which threatens to deliver more of the plant than I want, and not just the shoot core. However, the cattails growing on the drier ground by the pond's edge make for an easy shoot harvest, and I figure it is a safer bet on the water-borne creepy crawlies concern too, whether or not ill-founded.

Our friend is always trying to keep the cattails from overtaking his pond, so he was happy for me to have my way with them. According to Deane: "The spread of cattails in a body of water is an important part of the process of open water being converted to marsh then dry land." They grow in abundance, something fish pond owners might not always appreciate, but polluted natural landscapes do.

Lookalikes

Cattails have some toxic lookalikes when young, so Deane writes to always look for last year's growth to find this year's. Cattails have elongated flower heads that in maturity look like brown, fuzzy corn dogs. The shoots are "very mild tasting and without much aroma, meaning if what you think you've got is a cattail and it is strongly flavored and/or aromatic—



*Did you eat what you thought was a cattail heart, but it made your throat burn? It might have been an iris and not a cattail. **Top:** Pond-side iris (toxic) in Ithaca, NY. **Bottom:** Western blue flag (*Iris missouriensis*) in the Colorado lowlands.*



Where the leaves come together at the base of the plant, cattails make a cylindrical shoot or core, whereas iris leaves (pictured, toxic) come together flat. Old, overwintered stalks nearby may also provide a clue. Cattails often display their characteristic, fluffy brown seed heads. Iris fruits are three-part capsules that open to release their seeds.

not counting the smell of mud—you've got the wrong plant," he explains.

Thayer (2006) gives sweet flag (*Acorus calamus*), which has a flower spike that

hangs off the side partway up the leaf instead of pointed vertically at the top of the stalk, as a lookalike.

Then there are irises, which are toxic lookalikes. The flowers are distinctively *Iris*, but if gathering prior to flowering, the basal clump of leaves is flat in cross section, compared to the clump of cattail leaves, which is round in cross section, to borrow Thayer's description. Steve Brill gives daffodil (*Narcissus pseudonarcissus*) as another toxic lookalike.

Private Universe

There's something very satisfying about the soft sucking noise a crisp, white cattail heart makes as it releases from the stiff leaves surrounding it. If I'm not careful, the very action can knock me off my feet.

But I like being deep in the mess of cattails, with spiderwebs at face level and mud underfoot while the birds chat noisily overhead and myriad bug colonies live it up in their own private universe where few humans venture. Sometimes, on the east coast, my hands get sticky with spitbug spit as I pull cattail cores. In any case, I feel productive and proud to emerge from the reeds, albeit dirty and sweaty, toting my armload of cattail shoots.

■



Have the Weeds Been Sprayed? By WFG

As a wild food forager who looks closely at plants no matter where I go, I've seen the signs plenty of times—dead, brown vegetation along roadways and in parks, sometimes curled into grotesque shapes as if the plants suffered their way out of life under duress from any number of chemical herbicides.

Clearly wild food harvesters should stay away from such freaks of human nature, choosing instead to consume healthy, live, non-tortured specimens—for many are those plants subjected to eradication efforts that are also edible and delicious.

Plants, or more specifically “weeds”—those unwanted, fast-proliferating, often long-dormancy-seed-producing flora which we, as a culture, for the most part disdain in our gardens, yards, office spaces, or right of ways—might suffer such cruel fates by any



Oh, giant dock, how sad you wither there! It must have taken a lot of herbicide to bend thee so. And to think how much green fare you might have provided had you not come to such a cruel fate.

number of hands, whether private landowners, lawn care specialists, enforcers of public policy, or clandestine weed sprayers in the night.

A Weed is a Weed

What it means to be a “weed” changes with perspective. From a gardener’s or farmer’s standpoint, weeds might be plants that insinuate themselves where they are unwanted. But from a forager’s standpoint, many so-called weeds are highly valued; they might make up an integral part of our next dinner. And from nature’s standpoint—well, who knows exactly?

“Despite their nuisance value to us, weeds may have an ecological point,” Richard Mabey writes in *Weeds: In Defense of Nature’s Most Unloved Plants* (2010). “Their long existence on the planet and all too obvious success suggests that they are highly evolved to ‘fit’ on the earth in the Darwinian sense, to find their proper niche.” Mabey traces the evolution of society’s attitudes towards so-called weeds, which have been seen as everything from as God’s punishment to an agricultural society for Adam’s indiscretion, to sources of herbal medicines and food, to ecosystem decimators necessitating legislative action.

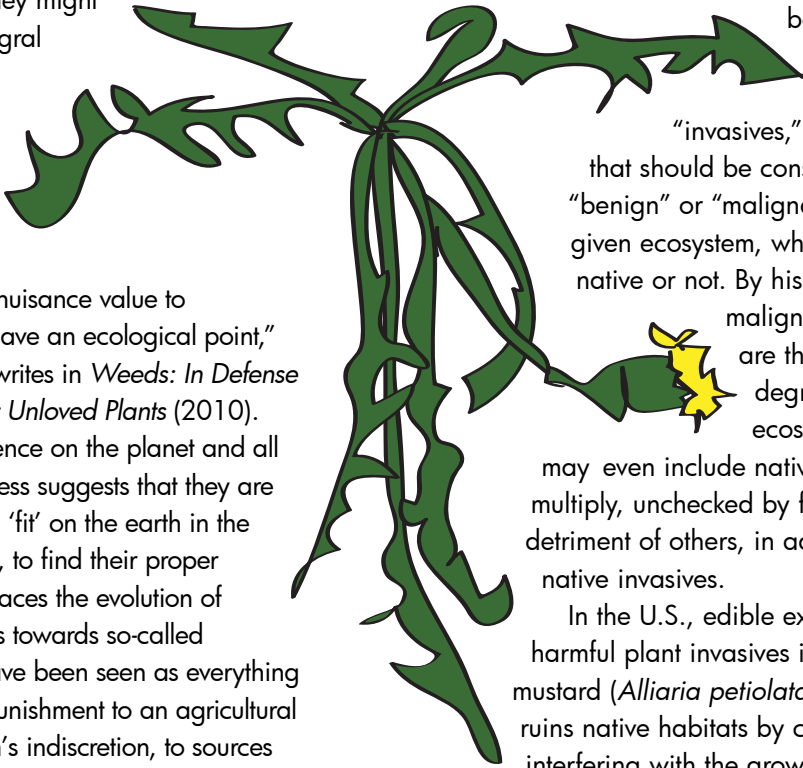
“Weeds in nature are valuable plants that deserve respect,” writes conservationist Stephen Packard (www.vestalgrove.blogspot.com/2012/08/weed-alien-invasive-malignant.html). He uses the human body as metaphor to explain their function: “A weed patch in the ecosystem often functions much like a scab on a mild wound that you or I might suffer. Weeds are an ecosystem’s response to

degradation or disturbance. The scab helps the wound heal,” he writes. “Weeds help quality ecosystems heal. They prevent erosion and start a succession process that is likely to end with the conservative plant species that were there before the (mild and temporary) wound.”

However, Packard differentiates between “weeds,” “aliens,” “invasives,” and species that should be considered “benign” or “malignant” within a given ecosystem, whether they are native or not. By his definitions, malignant species are those which degrade ecosystems. They may even include native plants that multiply, unchecked by fire, to the detriment of others, in addition to non-native invasives.

In the U.S., edible examples of harmful plant invasives include garlic mustard (*Alliaria petiolata*), which ruins native habitats by chemically interfering with the growth of nearby plants; the quick-spreading Japanese knotweed (*Fallopia japonica*); and kudzu (*Pueraria spp.*), which has outcompeted native species from Texas to Florida and Maine (USDA).

And yet, while invasive species are often portrayed as “the stock villains of conservation biology, disrupting ecosystems and throwing native populations into disarray,” as Brandon Keim puts it in *Wired* (2011), Keim also notes that invasive species can sometimes be



beneficial. His examples include native butterflies feeding on non-native plants in California, or alien trees helping to restore abandoned pastures to a condition suitable for native plants in Puerto Rico. “Even the much-maligned zebra mussel helps filter toxins from lakes,” he writes.

Keim points out that a great number of our beloved plants were once invaders from elsewhere. Mabey (2010) explains how Neolithic settlers brought fat-hen—a *Chenopodium* species known also as goosefoot or lambs’ quarters—to Britain sometime between 2,000 to 3,500 BCE. The plant took and became an important food plant, one that has endured millennia and spanned cultures worldwide.

Species migration happens faster now, and on a larger scale—but it’s by nature’s design, writ large by globalization. Some of our new weeds may be more harmful than others, but Mabey invites us to consider a point—that “the weed community should not be judged by the behavior of its most aggressive members.”

Still, the most aggressive members are the ones causing the most “problems”—whether in an economic sense to farm or rangeland, or an ecological sense to native ecosystems. There are many methods of control, ranging from weed mats, mechanical removal (of harmful

This is not the innocent daisy you might think. It is the scentless chamomile daisy, industrious invader of landscapes.





*Above: Young, scentless chamomile daisy greens can be difficult to distinguish from pineapple weed (*Matricaria discoidea*), an edible weed (left) whose flower heads emit a delicious, pineapply aroma. Pineappleweed heads lack white petals and can be used like chamomile for tea. If you figure out how to eat scentless chamomile without spitting it back out, let me know, because it is supposed to be edible.*

species that don't reproduce readily from broken roots), mowing, even grazing by goats. But some insist that herbicides are the best route.

Take this snippet of an essay by the California native plants growers, Las Pilitas Nursery (www.laspilitas.com), which also uses the human body as metaphor: "Weeds are like an

ecosystem infection, and herbicides the antibiotic,” they write. “You can tell how long someone has been trying to restore native sites by whether or not they use herbicides. Some people have never had to deal with hundreds or thousands of acres of pampas grass (*Cortaderia jubata*), veldt grass (*Ehrharta calycina*) or brome (*Bromus spp.*). You can’t control weeds in a weedy hillside by talking about environmental sensitivity and using volunteers. You’ll be out there by yourself within a week or so. The weeds—we call them the ‘Borg’—will win.”

County Combats the Borg

This year I decided to take a closer look at weed management practices, starting with my home turf of Summit County, Colorado. The county operates a weed-spraying team of two, pursuant to the Colorado Noxious Weed Act of 1996 and later revisions, which mandates the implementation of county-wide plans to prevent damage by noxious weeds. Modeled after the state’s master list, these weeds are identified in a three-tiered county-specific list approved in 2012, in which List A species are the most pernicious, List B the



Evidence of sprayed herbicides. Even if I did want to eat the greens of scentless chamomile daisy, I’d choose a different specimen. RIP, invasive daisy!

second most harmful, and List C the least evil of the three.

One of the local weed sprayers is my friend and ski school colleague Ben Pleimann. He spends his summers spraying noxious weeds in the county’s right of ways, which range anywhere from 1 to 30 feet in width along county roads, as well as county-owned open spaces. The towns of Silverthorne, Frisco, and Dillon also hire the county team, Pleimann said, so public spaces owned by these towns are part of the rounds.

The weeds get two treatments per year, starting when the snow melts and the grass starts growing up north, which is generally around the end of May, he said. The first usually involves a mix of the herbicides Redeem and Escort, followed by a later application, before the end of September, of Milestone and Telar. Safety information for these products is available on the county’s website from the manufacturers. “We apply two different types so the plants don’t get used to the same herbicide over and over again,” Pleimann explained.

To control the weeds, the team zig zags back and forth over a given plot of land on foot, targeting individual species with backpack sprayers. They map out larger areas and use ATVs along with GPS trackers

to make sure nothing is missed.

“The herbicides we use only kill the plant they’re sprayed on,” Pleimann said. “We use broadleaf herbicides that don’t kill the grass around it.” This type of herbicide fits into the category of “contact herbicides,” which kill only the plant tissue they contact.

There are also systemic herbicides, which are taken in by a plant—a category into which autumn treatments designed to target the roots of individual species seems to fit. “A good time to treat Canada thistle (*Cirsium arvense*) is in the fall,” Pleimann explained. “It sucks the herbicide into the root to kill the plant.”

The herbicide industry also produces soil-borne herbicides, which are applied directly to the soil to be taken up by a plant’s roots; and

pre-emergent herbicides, which are also applied to the soil—often by machine for agricultural purposes—to prevent weed germination.

“For the county, for the most part, we spot spray, so it’s specific to that plant,” Pleimann said. “We don’t generally spray with booms unless it is a CDOT [Colorado Department of Transportation] right of way covered with kochia.”

Plant Offenders, Many of Which You Can Eat

At the top of the list of noxious offenders for our region are the spurges, Pleimann said—both myrtle (*Euphorbia myrsinites*) and leafy

A field of kochia so lovely that anyone would want to eat it. I certainly thought so, so I did just that.





(*Euphorbia esula*). These are subject to the strongest herbicides, the kind that require a license, but are of less concern to food foragers, he pointed out, as they are poisonous.

The scentless chamomile daisy (*Tripleurospermum inodorum* syn. *Matricaria perforata*) and mayweed daisy (*Anthemis cotula*)—both of which have daisy flowers with yellow centers and white petals above highly dissected green leaves—also get a lot of attention from county weed sprayers, as they have insinuated themselves quite thoroughly into local areas. “That’s one of our top things that we spray,” he said. Both species are reportedly edible.

All parts of scentless chamomile daisy are edible, writes Cattail Bob Seebeck (2012),

The unique, sweet greens of oxeye daisy prior to flowering. Ideally, you’ll see a flowering one nearby so you can match up the leaves to a tasty young rosette. Get them before they get sprayed, people.

noting that this is the more common of the two here in Colorado. My own attempts to eat this invasive, however, have been less than successful. The flowers taste okay, and could probably add visual interest to a salad. But I find the leaves beyond bitter, even with special treatments—like pickled in a sweet, vinegar brine. That doesn’t mean I plan to give up trying anytime soon, but I’m not quite ready to urge you to eat chamomile daisies either.

As far as *Anthemis cotula* is concerned, Seebeck explains that it “looks almost identical, but is less common here and has a scent.” Plants

for a Future (www.pfaf.org) lists *A. cotula* as having edible leaves that can be used for tea, but cautions that there have been some reports of toxicity. I have yet to sample this species myself.

The far more delicious oxeye daisy (*Leucanthemum vulgare*) is also a target for weed spraying, as it is a List B noxious species. Oxeye daisies have tasty edible greens that can be quite plentiful in the rosette stage. These work well raw in salads or sautéed with butter and salt. When we can find them in a clean location, we enjoy baking them atop our wild pizzas.

Many thistles fall into the category of edible invasives. Thistles considered noxious in the

county include bull thistle (*Cirsium vulgare*), musk or nodding thistle (*Carduus nutans*), plumeless thistle (*Carduus acanthoides*), scotch thistle (*Onopordum acanthium*), and Canada thistle (*Cirsium arvense*). Despite their spiny bristles, the peeled leaf midribs and stalks of the *Cirsium* thistles, as well as *Carduus nutans*, are edible. Plants for a Future cites several authors on the edibility of scotch thistle too.

While the peeled, crunchy young flower stalks and leaf midribs of various thistles make a

*The invasive nodding thistle Carduus nutans.
The rosette is lovely, isn't it?*



good trail snack, my best culinary experience to date has been with the taproots of young, first year rosettes. While flavors and textures vary from species to species, the roots I have dug from the soft soil of gardens here in the high country and boiled along with their leaf crowns tasted remarkably like artichokes, to which they are related. Thus to this day I thoroughly enjoy helping with the spring garden work, especially when it involves digging thistle roots from good soil.

Among the noxious thistles listed above, Canada thistle is the most difficult to kill, according to the Summit County Weed Management Plan. "A perennial weed with an extensive root system, Canada thistle reproduces both by seed and by vegetative buds on the roots," it explains. Whereas the other four thistles respond well (read: die well) by mechanical methods, such as tillage or "any method that severs the taproot below the crown of the plant," the management of Canada thistle is more involved. "Mowing, alone, is not



Dame's rocket has spread itself around the country via wildflower seed mixes. And yet, in Colorado as in many regions, it's considered a noxious weed. Nothing left to do but eat it, I guess.



Dame's rocket up close. Note the characteristic 4-petaled flowers of mustards, borne on the stem in an alternating, squirrel-tail form. Dame's rocket is sometimes confused with Phlox species, which have 5-petaled flowers.

effective unless conducted at two-week intervals over several growing seasons,” the document explains. Otherwise, a combination of mowing and herbicide treatment is recommended.

Those who wish to support noxious weed eradication efforts through foraging might therefore consider leaving Canada thistle roots alone, as disturbance has the possibility of hastening this particular plant's spread. Besides, Thayer (2006) writes that the only part of Canada thistle he uses for food is the stalk, as he considers the other parts to be of an inferior quality.

A few edible mustards are on the county invasive list as well. Although hoary cress or whitetop (*Lepidium draba* syn. *Cardaria draba*) has become problematic in some counties, it is rarely if ever present in Summit County, Pleimann said. The forager in me can't help but think that's too bad, because I've really come to treasure this mustard, picked before the buds bloom and prepared akin to broccoli.

The purple, lavender, or white-flowered mustard Dame's rocket (*Hesperis matronalis*) is “everywhere—not everywhere as far as growing wild out of control,” Pleimann said, but rather, everywhere you look in people's gardens. That's because Dame's rocket, considered a List B noxious weed in Colorado, is often included in wildflower mixes.

I don't have much culinary experience with Dame's rocket either, save for a few tastes of leaves and flowers. However I would like to make an offer to any locals reading this: if this mustard starts popping up in your garden, give me a call. I'll be happy to eat that mustard for you.

Common mullein (*Verbascum thapsis*), with its fuzzy, gray-green leaves and tall spire of yellow flowers, is considered a List C invasive. I like mullein leaves for tea when I have a cold. It's a good idea to strain the tea through a coffee filter or cloth to remove the fine hairs first.

More Than One Way to Do Edible Pest Control

Occasionally, the weed team will spray a few species that are not on the list, Pleimann said. One is kochia (*Kochia scoparia*), a low, gray-green, non-native plant that can take over

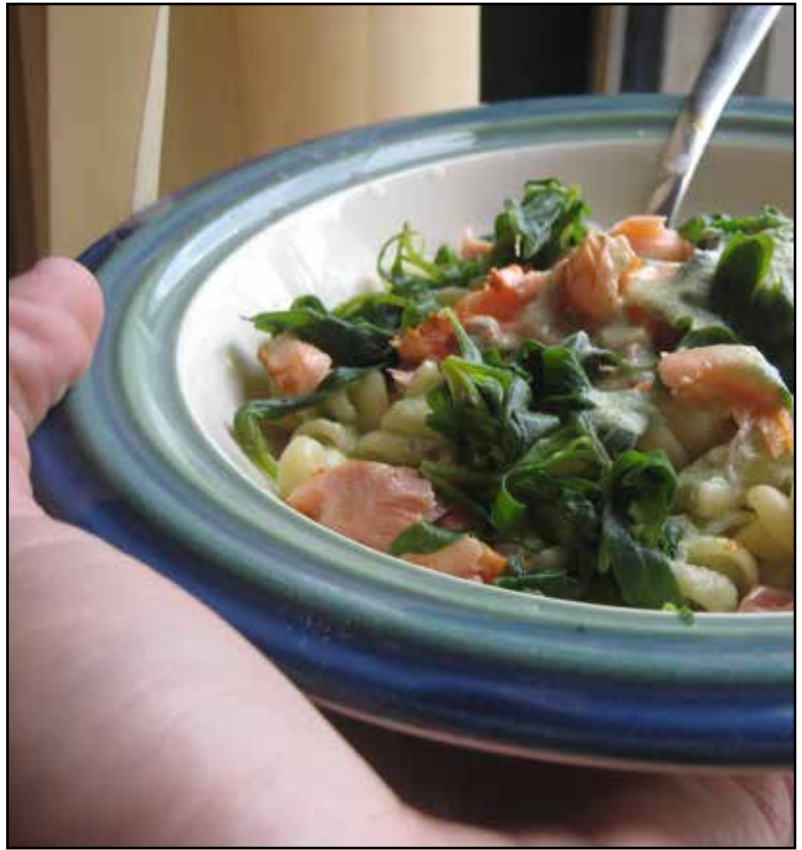
vast stretches of ground, particularly below 8,500 feet (Seebeck, 2012).

“The greens are very good-tasting and are a flavorful addition to kochia stroganoff,” write Alan and Sue McPherson in *Edible and Useful Wildplants of the Urban West* (1979). They recommend washing, boiling, and cooking the kochia tips for 15 to 30 minutes until just tender.

I have not found many modern accounts of kochia-eating by wild food foragers, but I did gather a batch of spring tips last year. These I washed thoroughly, boiled, and mixed into a salmon pasta salad. That turned out okay, but not awesome. We’ll see how it goes the next time around.

Pleimann also said that prickly lettuce (*Lactuca serriola*) may get the hose if it gets too thick. I perked up instantly when he said that. “There’s prickly lettuce in Summit County?” I asked.

As you may know, I can’t seem to get enough wild lettuce. Though mature wild lettuces are too bitter to eat, young prickly lettuce greens are good for weeks of ready-to-go wild salad mix, so I’m always eager to find new spots, especially here up high where I live. Apparently, the prickly lettuce prefers the north end of the county. Now to see if I can find it before it gets sprayed.



Kochia rotini with smoked salmon and spruce tip yogurt sauce. The leaf texture was fuzzy and tough to my palate, but Gregg liked it, and found the greens mild and pleasant, “like mallow,” he said.

Not If I Get to You First

It is my understanding that plants and their parts are not to be removed from county open spaces by the public, but Pleimann seemed to think removing noxious list species might be okay.

“Some people don’t like it when we spray,” he pointed out. “They say they’ll pull the weeds, but ‘please don’t spray.’ People are welcome to pull plants that can be pulled,” he said, with the exception of plants like Canada thistle whose

growth is promoted by pulling. He stressed, too, the importance of knowing what you're pulling so you don't remove native species by accident. "Some asters look like knapweed," he said, and "golden banner looks like toadflax."

Check out the Summit County Weed Control's website at www.co.summit.co.us/index.aspx?NID=114 for two useful documents with pictures and information on local noxious species and how they are best managed. For locals uncertain of a plant's identity, Pleimann said to bring it in and they'll look it up.

Although most of the county herbicide spraying is not designated by signage (with the exception of a few spots on the bike path), the Summit County weed crew posts its



whereabouts online each week. This makes me giddy with an idea to organize noxious weed foraging expeditions in advance of the spray crews. After all, as my friend Joe Roman at Eat the Invaders (www.eattheinvaders.org) insists, we might as well eat the invaders while we have them.



Top: A sprayed dandelion near Boulder, CO. Sometimes the effects of spraying can be seen the same day; sometimes it takes a couple days. Dandelions are not on Colorado's noxious weed list. Bottom: Weed sprayers spotted in the Denver area from the car window. Hi guys!



Recipes



“Catprese” Salad By WFG

It's not Caprese Salad, it's “Catprese” Salad. Credit for the name goes to our good friend Bill in Ithaca, NY, who always invites me to forage the back yard when we visit. We stuck to Balsamic and basil in honor of the name, but you can also substitute Italian dressing for the Balsamic and add (wild) oregano for a nice variation on this summery salad.

Ingredients:

Tomatoes, cut into chunks
Raw cattail hearts, cut into small chunks
Balsamic dressing
Fresh basil, chopped
Mozzarella balls



Instructions:

1. Toss all ingredients together except the mozzarella balls and let marinate for 1-24 hours.
2. Add mozzarella balls and serve.



Dilled Yogurt Soup

By Wendy Petty

I've lived within walking distance of cattails (*Typha spp.*) my whole life, and sincerely regret not learning to eat them sooner. If only I had known! Cattail shoots may be one of the most taste bud friendly foraged foods out there. Dandelion leaves, asparagus, and mushrooms have strong flavors, and not everybody likes them. But cattail shoots are crunchy and yummy. Since they are sometimes referred to as Cossack asparagus, I had expected them to taste like asparagus. But it turns out that cattail shoots have a lovely cucumber-like flavor. So far, my favorite cattail dish is a dilled yogurt soup:

Ingredients:

- 1 cup chopped cattail hearts
- 1.5 cups yogurt
- A handful of fresh dill
- Half a clove of minced garlic
- Salt & pepper
- Milk

Instructions:

1. In a blender, combine chopped cattail hearts (you'll be able to feel resistance with your knife where they become too tough to eat), yogurt, dill, garlic, salt and pepper,



Photo by Wendy Petty.

- and enough milk to thin to a nice soup consistency.
2. Blend until smooth, and serve chilled.



Zucchini Boats with Dock & Pepperoni By WFG

Among the many wild edibles that come into season in spring is curly dock (*Rumex crispus*), one of a number of edible docks whose young leaves and leaf stems can be chopped into a variety of dishes. These dock and pepperoni zucchini boats came out pretty good if you're into stuffing.

Ingredients:

Zucchini
Olive oil and/or butter
Onions
Curly dock (*R. crispus*) or related
Pepperoni
Chunky breadcrumbs
Queso cotija (Mexican dry cheese)

Instructions:

1. Halve a zucchini lengthwise. Scoop out the pulp with a spoon and set it aside.
2. Paint the halves with olive oil and bake, open side up, for 20 minutes at 375 degrees F or until they start to soften.
3. At the same time, prepare the stuffing. Start by sautéing chopped onions for 5 minutes, then add the chopped dock petioles and young leaves. Cook until they



- wilt and turn gray-green.
4. In a separate pan, sauté chopped pepperoni bits with the zucchini pulp.
5. Combine both with breadcrumbs and extra olive oil, butter, or other liquid to make a stuffing that is just moist.
6. Pack stuffing into the boats and bake until warm through and the stuffing starts to develop a crust.
7. Remove boats and press crumbled bits of queso cotija or other dry cheese into the outer layer of stuffing, then bake for another 5 minutes before serving.



