



The New Wildcrafted Cuisine

Exploring the Exotic Gastronomy of Local Terroir

With detailed recipes for ferments, infusions, spices, and other preparations



PASCAL BAUDAR

PREFACE

What Is This Book About?

The *New Wildcrafted Cuisine* is not about wild food identification, although you will see many photos of the plants, fruits, and berries I use. There are already so many books on the subject of identifying plants that it is much better for you to buy one specific to your local environment.

I have included some recipes, but this book is not really about cooking either. As with plant identification, numerous books and resources on the subject of cooking wild foods exist online. Another recipe for nettle soup or pesto would be redundant when there are already so many delicious ones to be found online.

This book is about exploring from a culinary perspective what the wilderness is so generously gifting to us and about how to create interesting ingredients that will represent your local terroir as a forager, cook, or chef. To some degree it fills a gap between foraging and cooking.

You can also think of it as a good companion to plant identification books. Hopefully you will find some interesting, unusual, and additional uses for your regular forages, such as the use of stems, leaves, rocks, and so on. This may not be covered in some of the other books.

Although I live in Southern California and thus use the bounty from my local wilderness, there are many ideas and methods presented here that you can use regardless of where you live. Quite a few of the plants I mention (or closely related species) can be found around the world.

If I have a goal with this book, it's to inspire people to explore more deeply the tremendous bounty nature offers all of us—twigs, leaves, sap, barks, dirt, insects, and much more.

As I finish writing this book I am painfully aware that I'm barely scratching the surface on the possibilities and uses of local edible plants. I have much more to learn myself and still need to experiment with many plants that are found in the desert that is local to my home.

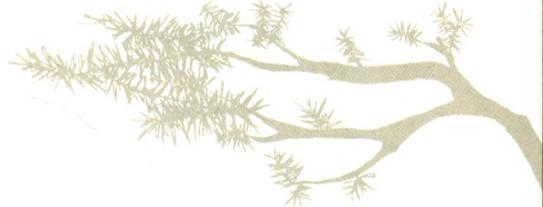
I could have written many more pages, but one has to stop somewhere. I've tried to be as comprehensive as possible and show a variety of interesting uses for foraged ingredients. My sincere wish is that, after reading this book, you will develop the same passion and creative urge that I have, to research and experiment in your own local wilderness and to safely try new things—new methods and ingredients that define you and your terroir. It is truly a wild, creative, and fulfilling endeavor that has changed my life.

Out there, you will find an amazing world of endless flavors and ingredients waiting for you. Jump in, and share what you do with others.

Happy exploring!

INTRODUCTION

My Personal Quest for Local Flavors



When I was growing up in the 1970s as a kid in Belgium, foraging was a normal part of life. Living in a tiny farming town with very limited entertainment, my favorite pastime was wandering the woods. There was always something you could discover or make from scratch to entertain you. I could make my own bow and become the Robin Hood of my local forest for a few hours, or I could pick up beautifully colored rocks for my collection. Foraging was just a natural part of my entertainment. During my wanderings I would come across delicious wild edibles such as hazelnuts, chestnuts, or various wild edible berries and help myself liberally to these tasty free gifts.

I think the valuable lesson I learned at the time was that food and delicious flavors could be found everywhere and that foraging was a normal activity, not something unusual and weird. It was part of living in a country setting.

As a teen I wanted to become a *garde forestier* (akin to a forest ranger in the United States). At the time I had some very vague ideas about what their duties might entail, but the notion of wandering the woods for a living was awesome in my mind. Unfortunately I had no idea how to qualify for such a job. I enrolled in a school that I thought was teaching the subject of plants and biology; instead, I was learning how to become a farmer.

Domesticating plants was never on my agenda, so I left after a year. I decided to follow my other passion, which was art, and enrolled in the Academy of Fine Arts in Tournai, Belgium where I learned drawing, painting, sculpting, and photography. I developed a profession as a graphic artist, which I pursued until very recently.

Looking back, I don't have any regrets; I believe the path I took was meant to be and made me who I am today. Art is still very much part of my life—I view foraging and creating from wild ingredients as a true art form. There are endless amounts of aesthetics and creations you can make with the gifts that nature offers us.

My passion for exploring the local wilderness in search of flavors started in the late 1990s. At the time, being mostly interested in outdoor survival skills, I attended numerous classes and workshops with various instructors in Southern California, Arizona, and Oregon.

As part of their curriculum, some instructors would teach about edible wild plants, and it wasn't unusual for our classes to make very basic dishes with local plants, such as salads, porridges, or simple infusions. While some were quite good, very often the resulting flavors and textures were in the realms of "I would eat that in a survival situation if that's all I had."

As I continued attending classes, I became more intrigued by the possibility of using our local edible and aromatic plants beyond creating what I call survival food. Some of the plants had incredible flavors, but nobody I knew locally was really doing anything more refined with them beyond these basic survival dishes.

A good example of a plant with amazing flavor is black mustard, which has some very pronounced wasabi-like tastes, but in the classes I attended it was mostly eaten cooked or prepared raw as part of a wild food salad. One wild food instructor even told me it wasn't edible because it was too spicy!

One day I decided to experiment with the flowers using a recipe for making mustard I found in a culinary book. Using my stone grinder (*molcajete*), I crushed the flowers with vinegar, white wine, salt, and a bit of honey and made a beautiful yellow paste. The end result was somewhere between wasabi and artisanal Dijon mustard. It was truly the most delicious mustard I had ever eaten. A spark ignited at that moment—I think this was the first time I realized that wild food could be truly gourmet food and should be approached with that perspective.

In the early 2000s, I started experimenting with preserving and cooking wild edibles. I attended over four hundred classes and workshops with anyone who could provide me with information about cooking, preserving food, and foraging wild plants. I also spent time with native people learning how to process acorns and cook traditional foods.

I had great fun during these years. I did a lot of traveling, and I made some really bad concoctions—and some interesting ones too. I started playing with native and wild food using traditional and modern methods of preservation such as pickling, fermentation, dehydration, smoking, and pressure canning. And I was doing a great deal of research to find more local edible, medicinal, and aromatic plants.

My friend, the author and survival/wild food instructor Christopher Nyerges, was instrumental in teaching me about local wild edibles during these years, and I probably attended over two hundred of his classes.

The next level of my education in wild foods came when I met my partner, Mia Wasilevich, who is an accomplished and truly talented chef. We've been living together for over six years now, and she really opened my eyes to what's possible in terms of flavors. Together we are culinary accomplices, with Mia creating a lot of refined and sophisticated dishes while I concentrate on researching plants and developing new ingredients and preserves.

Four years ago I decided to follow my passion for foraging and wildcrafted food. I quit my job as a graphic artist and I've not looked back since. So far it's been the most fulfilling adventure of my life. I've made countless new friends, worked with some of the most talented chefs in the United States, and to this day I still feel like a little kid in a candy store. The learning and fun never stop.

Why Foraging?

Having hosted countless wild edible and aromatic plant identification classes for many years, I find it interesting to see what motivates people to forage.

Some people are interested in the survival aspect of foraging. In case the whole society goes down, they would be able to find food for themselves and their family or exchange food with others. Knowledge of what's edible and what's not is definitely a very important skill, making you a valuable person during dire times, someone others want to have around to help with their own survival.

However, the vast majority of people who come to my classes and workshops are not survivalists. They want to connect more with nature, understand where our food used to come from, look for an alternative to the regular store-bought foodstuffs, have access to more nutrient-rich foods, and consume fewer chemicals and pesticides. They're also interested in becoming more independent and gaining the ability to create

their own ingredients, such as cheese, mustard, beers, and wines. There is even an actual movement called *rewilding*, in which advocates are striving to return to a more wild or natural state and undo the human domestication of our modern society.

From my perspective, this is not an unhealthy view. The reality is that most urban dwellers have become disconnected from the food they consume and are forced to simply buy it prepackaged at the local grocery store. Many of them would not even know how to start growing their own food or would contemplate with disgust the possibility of killing and butchering an animal.

If you think about it, it's really a fascinating trend. As a species we humans started as hunters/gatherers, then became farmers, and now we are simply becoming consumers. In the process, we are losing our freedom of choice and have become limited by what is made available to us. A good example of this dwindling choice is potatoes. Presently only seven types of potatoes are commonly available at the supermarket, but did you know that there are actually over seven thousand types of potatoes in the world?

The same limitations and lack of freedom to choose apply to many other foods. The lettuce selection made available to me in a commercial grocery store is reduced to maybe ten varieties. But nature can actually provide me with a much wider variety and more interesting flavors. At the right time of the year I can forage more diverse, interesting, and delicious ingredients than what the store is offering. Last spring, it only took me 20 minutes to create for my students a delicious wild food salad composed of dandelion, sow thistle, chickweed, chervil, watercress, wild lettuce, mustard, radish flowers, lamb's quarters, and miner's lettuce.

In this process of domestication, we are also losing precious knowledge. For example, through my research I found that natives on the West Coast once foraged over a hundred types of wild seeds; yet none are available at the store today except for chia. And the chia you can purchase is not even the local wild variety. West Coast peoples probably foraged for many more seeds than what my research turned up, but that knowledge and their preparation methods have been, for the most part, lost.

For many of us who are now learning about local edible plants and foraging, there is a very tangible pleasure to be found in wandering through the local wilderness, foraging seasonal wild edibles, and creating from scratch an incredible dish that could not be found anywhere else in the world. You get a feeling of independence from the regular food system, a sense of freedom and choice.

In addition to people seeking this kind of independence, I also get a decent number of foodies, home cooks, and professional chefs in my classes who are interested in being part of the foraging "movement"—searching for wild edibles has become trendy these last few years. Some come to a few classes and realize that foraging is actually *a lot* of work; some people stick around because they discover a passion for it.

On my part, although I probably have a touch of the rewilding urge going on, over the years I have become more and more involved in a quest for local flavors. So far it's truly been a fascinating and endless journey. The more I learn, the more I realize I'm just getting started. It is quite a humbling experience, but it's also very exciting knowing that you have a future full of discoveries and the ability to create new ingredients.

I find that this knowledge also grows exponentially. For example, if you know how to make wild beers, you can create interesting vinegars with them. With the vinegars you can make very unique mustards with local seeds, along with sauces, shrubs (vinegar-based drinks), and pickled wild seeds. You can also use the vinegars to preserve or infuse many foraged ingredients and to curdle cheese, and that's just a beginning. The opportunities for exploration are endless.

Recently I was invited to speak about foraging as part of a panel for "The Taste," an annual food festival in Los Angeles. Out of curiosity, I spent a few hours beforehand looking at what wild edibles some trending restaurants in the city were using in their dishes. I came up with around 30 different items, ranging from common and well-known edibles such as dandelion, chickweed, fennel, and watercress to more exotic ingredients such as yarrow or black sage.

As a comparison, I decided to take a look at what plants and other wild raw ingredients I've discovered

and collected so far over the years and came up with around four hundred. From that base alone, there is already an almost infinite number of potential culinary creations I can make through various processes such as lacto-fermentation, pickling, brewing, winemaking, salting, dehydrating, or just plain regular cooking.

From a culinary perspective, there is a whole universe of flavors waiting to be rediscovered in wild foods.

The Gift of Foraging: Harmony and Balance

The greatest gift I've probably received from my foraging activities is a true sense of balance, harmony, and freedom.

I feel the most aware and alive when I'm in the forest or the wilderness. It's actually quite Zen-like, in that I can tune out the noise of modern civilization and simply be there in the moment. Gone are the financial worries, the alarming news that radio or TV is spouting off on a continuous basis, the commuting, the concept of having to work, the dealing with sometimes complex human interactions, the constant noise surrounding us, and so on.

Instead of prompting a "storm watch," as it's called in the local Los Angeles TV newscasts, I welcome the rain as a precious ally and provider of life.

The "civilized" world, the chatter in your head, the crushing sense of time—everything seems to just slow down and cares disappear after a short while. You can simply be present in the moment and experience the environment fully and with all your senses: smell, touch, hearing, taste, and sight. It's an amazing state of awareness. You can be picking wild lettuces knowing that the alarmed bird 400 yards away is telling you that something has disturbed him—maybe a predator, or another human. You can discern that the noise you hear from 10 yards away is a lizard slowly making its way through the decomposing leaves, not a snake. You can smell slight hints of fennel in the air, which tell you some oyster mushrooms may be nearby. The list goes on. With experience, you can even close your eyes and by smell alone identify many of the plants surrounding you. By tuning out, you let the forest talk to you.

As you get to know the plants and understand their world, you realize that you're truly surrounded by pure, unadulterated life forces and, with time, your relationship with their environment becomes more intimate. You become simply part of the environment as a human being, not trying to dominate plants and place them neatly in rows after rows over endless acres of sorry-looking land. You understand nature is not trying to dominate or scare you, either. It's a symbiotic relationship. I try to do my best to make my activity highly sustainable; sometimes I take care of human trash and restore water flows, remove or manage invasive foreign plants, and even plant native seeds if necessary.

Through accumulated knowledge, research, observation, and interaction with them, the plants will gladly reveal their deepest secrets and speak your language. For one of my friends, an herbalist, that language is medicinal. As a forager, the plants talk to me about flavors, smell, texture, color, touch, and many other sensory perceptions related to food.

The Quest for a True California Cuisine

I've trained and worked with many chefs and talented cooks. During my classes and workshops I often tell them that if they want to truly be innovative, they need to try setting aside their culinary education and take the time to let these new ingredients talk to them as if it were the first time they had to cook something.

Sure, you can easily make acorn pastas, wild food pizzas, nettle ravioli, lamb's quarter pesto, a Vietnamese roll or a Thai salad with fresh wild greens, and countless other ethnic-inspired dishes using foraged ingredients, but is that really the best use of the ingredient? You can use French, Italian, and Asian recipes or cooking techniques with them, but what about creating a California cuisine? What kind of cuisine would actually express the most of what our local terroir has to offer?

Similarly, if you live in another state or country, what unique creations can you make with what nature is providing you locally to create a true taste of place?

It's not easy to explore this question, because our tendency is to rely on our previous knowledge and experience. But I think that by making this exploration

there is the potential to go much further in creating a true and original modern-day wild and native cuisine. Well-known restaurants featuring local wild food, like Noma, Fäviken, or D.O.M. in Brazil, have become what they are because they went deeper and further in their approach to wildcrafted or local ingredients and, in the process, created something new.

These restaurants and others have also made wild food very trendy in the culinary world, and I've seen many places trying to emulate them when creating dishes. But if you study their cuisine, they are what they are because of their own creativity, location, culture, and what their environment provides. Trying to be Noma or Fäviken in Southern California, Seattle, or New York City is kind of pointless because we have little in common in terms of ingredients, history, climate, and culture.



What are the real flavors of contemporary Southern California, the true cuisine?

I don't know and I don't think it has been created yet—it's still wide open for creative interpretation and exploration—but from my perspective, you won't find it by importing food from other countries or purchasing ingredients at the local farmer's market or supermarkets.

For example, one might ask what is a Southern California beer? Should it be a beer made locally with regular hops and grains, or one made with actual local native resources, such as wild plants and grains? If you compare these two beers, which one would truly taste like our terroir?

Will you experience the local flavors if you make a salad using purchased ingredients at the farmer's market? Some may argue that, yes, the farmer's market is a good representation of our local produce, but the flavors will be vastly different than a salad made using foraged ingredients such as chickweed, miner's lettuce, native watercress, speedwell, and countless other delicious wild greens. Again, which one is a true representation of our terroir?

Add to that salad a dressing made with our local cactus pears and vinegar made from a forest beer (turned into vinegar by using local *Acetobacter aceti* bacteria) and I think we're getting closer to tasting the true local

flavors. Heck, you can even go further and incorporate local black walnuts or pinyon pine nuts and sprinkle it with a spice blend made from chaparral aromatic herbs.

What about the original native cuisine? Where can you eat acorns in a Los Angeles restaurant? Properly cooked, acorns are delicious, so why can't you find them on local menus? The same goes for screwbeans, palo verde beans, and mesquite.

How deep can you go? Reptiles? Insects? Oaxacan cuisine—not too far from Southern California, if you think about it—is not shy about using what we might consider to be unusual ingredients. They're actually not really unusual; the ingredients are just part of Oaxaca's culture and environment.

What about seeds? There are over one hundred edible seeds in the local wilderness but practically none are found in the local cuisine. Where can I find black sage, clarkia, primrose, plantain, or white sage seeds incorporated into a dish in a restaurant?

Why can't we find all these native ingredients in our local cuisine? Is it cost? lost knowledge? lack of culinary experience with them? the amount of time it takes to forage them? not enough demand? Would it be too expensive for the customer?

Probably we can't find native ingredients in our local restaurants for every reason just mentioned, but I don't believe for a minute that food-savvy customers would not be interested in these foods. There isn't any real demand for this cuisine because it isn't there in the first place, and most people are not even aware of it. The motto "Eat local" is a nice marketing slogan created to sell farmers' produce, but it does not raise awareness of our untamed, wild, and true flavors.

The "local" cuisine has too often fallen victim to farming and food globalization. I don't think this phenomenon is just happening in Southern California; it quite widespread in North America.

Don't take me the wrong way: I'm far from being an extremist, and I have really nothing against small local farming and having your own garden. A large percentage of my diet actually consists of organically grown local food.

But I think there is the possibility of a happy marriage between locally grown food and wild flavors as

an example of a true local cuisine, one that embraces everything a particular place has to offer.

My point is this: We are missing a tremendous amount of cultural and culinary identity by not exploring and creating a cuisine that would integrate all the flavors our untamed terroir has to offer. I don't care where you live—Oregon, New York, Georgia, or anywhere else—the use of wild food should not be considered a trend or some bizarre or unusual practice. Instead, it should be an integral part of the local culinary experience and something to be proud of.

As for where I live—Southern California—let the culinary fun begin! I'm not a chef or even a cook: I see myself more as a culinary explorer, and even after all these years wandering in the woods, mountains, chaparral, and desert in the quest for ingredients, I know I'm just scratching the surface in terms of what's possible culinary-wise.

If this book makes a humble contribution to the creation of a true local cuisine, or simply brings awareness to readers interested in food—helping them understand that nature can offer a truly incredible bounty of nutritious and flavorful food outside the regular channels—it's all worth it.

Foraging Ethics and Caveats

Many of the books about plant identification will have guidelines for foraging ethics. Read them carefully and follow them. Respect the rules. I've done my best and, so far, after 16 years of local foraging, I've not encountered any problems. Never pick rare or endangered native plants, and do your best to help them propagate. Do your research and find out if specific plants are legal to harvest.

Think sustainability. Don't uproot plants if it's unnecessary and don't take too much in a specific area, even if they seem plentiful. If I find a field of nettles, wild onions, or watercress, I try to never forage more than 20 percent so that I can come back year after year and enjoy the gift nature is offering me. I have seen fields of edible or aromatic plants being destroyed for dubious commercial uses; it is truly pointless and destructive.

As a forager, you must assume the role of being a steward of the land. If you do so, the rewards will be plentiful.

As a general rule, always approach a new food source sensibly. Although from my experience it is extremely rare, there is always the possibility that your body may experience an allergic reaction to a new plant or ingredient. For instance, I once saw a person have a slight allergic reaction to amaranth. It's better to eat only a small quantity of any new food and see how your body likes it. The same rule applies to both wild and conventional foods. Also, if you are allergic to shrimp, approach entomophagy (eating insects) cautiously.

Some plants can induce specific actions (laxative, diuretic, hormonal, etc.), stimulate the uterus, or have abortive effects. Although the following list is quite incomplete, here are some plants that would not be recommended for eating or drinking if you are pregnant. As you learn about new herbs and plants, always check them out carefully to see if they may have toxic, allergic, or other effects. This information is often available online.

SOME HERBS AND PLANTS TO AVOID IF YOU ARE PREGNANT:

- Black cohosh (*Cimicifuga racemosa*)
- Buckthorn (*Rhamnus frangula*)
- California sagebrush (*Artemisia californica*)
- Cotton root (*Gossypium hirsutum*)
- Feverfew (*Tanacetum parthenium*)
- Ginseng (*Panax ginseng*)
- Goldenseal (*Hydrastis canadensis*)
- Horehound (*Marrubium vulgare*)
- Horsetail (*Equisetum arvense*)
- Juniper (*Juniperus*, which I assume would include our local California juniper berries)
- Licorice (*Glycyrrhiza glabra*)
- Motherwort (*Leonurus cardiaca*)
- Mugwort (*Artemisia vulgaris* and others)
- Sages (*Salvia*, including white sage, black sage, etc.)
- Tansy (*Tanacetum vulgare*)
- White fir (*Abies concolor*)
- Wild rhubarb (*Rumex hymenosepalus*)
- Wormwood (*Artemisia absinthium*)
- Yarrow (*Achillea millefolium*)

On Edible Versus Unpalatable and Poisonous

I consider the act of creating forest blends to be advanced foraging. You can start with a few plants that you know well, but to make complex blends requires a bit more sophisticated knowledge.

As with any foraging, you *must* know what you are doing. Only pick plants, leaves, and other matter that you can positively (100 percent) identify, and know the properties of the plants, from both a culinary and a medicinal perspective. Dosages are often crucial. A particular plant could be used sparingly as a spice, for instance, but could make you sick if eaten in large amounts. This is nothing new, by the way; it's also true of some more conventional spices or plants that you buy at the store. Nutmeg is a good example. Nutmeg has psychoactive effects when ingested in large quantities and can make you quite ill. In extreme cases it is deadly. In small amounts, however, nutmeg is an excellent and useful spice.

While you may be tempted to pick up some beautiful and fragrant autumn leaves from the forest ground to experiment with, you will need to know the poisonous plants in the environment as well. One leaf of poison oak or poodle-dog bush (*Eriodictyon parryi*) in your blend is already too much. Here in Southern California we have deadly plants such as poison hemlock (*Conium maculatum*), white snakeroot (*Ageratina altissima*), and the castor bean plant (*Ricinus communis*). Some potentially harmful plants can smell very good—like jimsonweed (*Datura stramonium*), which smells similar to peanut butter—but this plant is highly psychoactive and can kill you as well.

If you pick up decomposing fall leaves, don't use them if you're not 100 percent sure what they are. As you accumulate more knowledge about plants, you will gain more freedom and creativity.

Knowing what plants not to include in a blend is one thing, but what makes a plant edible?

Edibility is an interesting concept. The dictionary definition of *edible* is "fit to be eaten, especially by humans." It's often used to contrast with unpalatable or poisonous examples.

When I was learning about wild food, the vast majority of instructors would stick to the most well-known edible plants (although they were all new to me), but anything that was considered unpalatable was usually skipped. I learned about amaranth, yucca, mesquite, and countless other edible plants and berries, but outside of that realm, the potential culinary uses of interesting ingredients such as mugwort, sagebrush, unusual seeds, tree leaves, barks, unripe berries, grasses, insects, and many roots were not usually part of the education.

The truth is that many plants, trees, roots, unripe berries, and so forth are edible but usually not used because they are unpalatable as is. The taste is too bitter, the texture is too tough or too woody, they're not digestible without processing, or the flavors are too strong.

Over the years my definition of *edible* has changed quite significantly. If something that I can gather in the wild is not poisonous or harmful in any way, I simply assume that I may have not found a culinary use for it yet. In fact I may not always be successful in doing so, but often the inedible properties can be altered through

such simple processes as boiling, candying, frying, roasting, or fermenting. Experimenting is the fun part, and a large part of what Mia and I do.

These days it's not unusual for me to even forage barks that once roasted, are used to create smoked vinegars by simply placing the roasted bark in the vinegar for several weeks. I can make ten different smoked vinegars using the barks of various local trees, such as mesquite, oak, and figs. Each of these vinegars has a slightly different flavor.

- Australian bushberries (dehydrated)
- Black sage
- Blackberry leaves
- California bay
- California juniper berries and wood
- California sagebrush
- Chervil (burr-chervil)
- Cottonwood leaves
- Currant (berries and sometimes leaves)
- Dates (from local palm trees)
- Epazote
- Fennel
- Figs (leaves and fruits)
- Fragrant everlasting
- Grass
- Lemonade berries
- Magnolia leaves or flower petals
- Manzanita berries
- Mormon tea (ephedra)
- Mugwort
- Mushrooms (turkey tail and oyster)
- Pine needles
- Pineapple weed (wild chamomile)
- Prickly pear cactus
- Purple sage
- Rose hips
- Seeds (black mustard, mugwort, etc.)
- Stinging nettle
- Sweet alyssum
- Sweet white clover
- Toyon berries (dehydrated)
- White fir needles
- White sage
- Willow leaves
- Wright's cudweed
- Yarrow
- Yerba santa
- Various wild mints
(seven different kinds)
- Various stems (horehound,
mugwort, sages, etc.)
- Various barks, sometimes roasted
(oak, sycamore, etc.)
- Various roots (radish, mustard, etc.)
- Insects (ants for lemon flavors,
cochineal for color)
- Organic honey from the local forest
or mountains
- Lerp sugar (honeydew excreted
from insects)

Once you have accumulated enough expertise about the edible and medicinal properties of an environment, you will perceive it with completely different senses. The forest, chaparral, desert, and mountains become vast universes of aromas and flavors begging to be discovered and used. It is also ever changing with the seasons. You just need to learn, explore, experiment, and have fun in the process!

Some of the plants and ingredients I currently use in my forest and other environment blends include:



Pears cooked in forest floor.

Preserving— A Forager's Perspective

When I tell people that I'm a forager, most of them think that I spend the majority of my time in the local wilderness.

Nothing could be further from the truth. Foraging is actually the least time consuming of my activities. I would say that I spend roughly 25 percent of my time foraging, 25 percent exploring new locations, and 50 percent preparing and preserving the bounty.

There is good reason for that those time allocations: Many plants, fruits, nuts, and berries have a very limited life span. For example, I may have a two- to three-week window of time to gather yucca buds before they become too hard and unpalatable. If I don't pick ripe elderberries right away, they'll be eaten by birds within a week or two. Where I live, a similarly short window of time exists for wild currant berries, pineapple weed, chia seeds, and wild onions in the desert, to name just a few examples.

So it's the ages-old survival battle of harvesting the food while it is available and preserving it so you can enjoy it in the future.

Currently I'm not living in a world where the preservation of wild food is vital to my survival, but if I want to work as a professional forager, preserving is a crucial activity for my vocation. Without it, when the summer comes in Southern California and the terrain turns into a desert, I would have a very hard time finding enough variety or quantity of wild edibles. This becomes a real issue if I'm working with chefs or when we have private dinners scheduled.

But if we were just looking at preserving food from a survival perspective, I think we would be missing the point. What started as a necessity through human ingenuity and creativity has been transformed into gourmet practice. Through the magic of preservation, a simple ingredient such as milk can be made into countless delightful cheeses and other delicacies, such as butter or ice cream. Plants, fruits, sugar, and water become beers, liqueurs, or wines. Meat can be magically transformed through curing into ham, bacon,

salami, prosciutto, and sausage. Even fish guts and salt can be metamorphosed into a golden, umami-rich liquid called fish sauce, an essential ingredient in some Asian cuisines.

The possibilities and types of products that can be created through preserving are virtually endless. Factually, the vast majority of what you buy at the store are preserved products. In my local supermarket, out of the 16 aisles for food products, 14 are dedicated to preserves, with 3 aisles alone reserved just for frozen products.

With foraging, preserving is really where the fun is at. Not only can you take some of your foraged ingredients and turn them into unique and delicious products, but, through research and experimentation, you can also create brand-new products such as mugwort beer vinegar, sweet white clover salt, coffee berry jam, wild spice blends, insect-flavored beers, and so on.

Many of the products I create are a compound of various preservation methods. For example, my last wild "Dijon" mustard was ground by hand using my *molcajete* (primitive stone grinder) and was composed of elderberry wine, mugwort beer vinegar, homemade sea salt from dehydrated seawater, raw mountain honey, and foraged black mustard seeds. The flavors are truly unique (several chefs have told me it was the best mustard they'd ever had) but, if you take into account the number of hours to create it, it's nearly priceless. If I valued my time at \$25 an hour, creating all the sub-products (wine, beer, and so forth) and gathering in the wilderness the elderberries, the seawater, the mustard seeds, and the plants to make the beer, the true cost of a half-pint jar would be in the range of \$250.

While a chef or restaurant would have a hard time justifying buying such an expensive product, that calculus accurately reflects the quality of ingredients we provide when Mia and I host private dinners.

To be honest, I've provided such products to some of the chefs I've worked with at much lower cost, mostly because I'm driven by passion rather than economics (and that's not always a good thing), but I don't think most chefs had any idea of the labor involved in making them.

All the various preservation methods can be applied to wild edibles. Thus, as a forager, you have the ability



to create an infinite number of products. It doesn't matter if you are located in California, New York, or France: There are enough plants and other edibles out there to fulfill your wildest dreams in terms of creating ingredients. The only exception may be in extreme climate conditions such as Antarctica or the Sahara Desert—choosing to become a forager there may not be the smartest career choice.

If you don't know basic preservation techniques, you are seriously limiting yourself. I could not have made a living working with chefs for over four years without the ability to create products using wild plants. My "wild" preserves such as vinegars, sodas, spice, and blends were more sought after by some chefs than the actual wild ingredients themselves.

Preserving food has also allowed me to provide products during the lean times (summer in California) and continue making a living despite a harsh, desert-like environment.

Due to my warm-climate location, cellaring (preserving fresh food by storing in a cold cellar) is not a method I've experimented with very much.

SOME OF THE PRESERVATION TECHNIQUES I USE WITH MY WILD EDIBLES INCLUDE:

- Dehydration
- Lacto-fermentation
- Alcoholic fermentation
- Pickling
- Dry salting
- Canning (both water bath and high-pressure canning)
- Preserving in fat
- Preserving in sugar
- Preserving in water
- Preserving in alcohol
- Freezing
- Curing
- Smoking
- Vacuum packing

Food Safety

You cannot talk or write about food preservation without touching on the subject of food safety. Most of the preservation methods, such as dehydration, fermentation, salting, freezing, and so forth, are very safe. It becomes a little bit more complex once you get into canning.

If you are interested in pickling or making jams and jelly, understanding the basics of food safety such as pasteurization and low-acid versus high-acid foods is a must.

It's even more crucial for wild foods. Why? Because very often you are in uncharted territory. When I took the Master Food Preserver program a few years ago we learned about food safety, and our job was to demonstrate and promote the various methods of food preservation using USDA-approved recipes. Having recipes that were tested in a laboratory made it simpler and safer for people to get into canning.

Guess what? There are no approved recipes for preserved wild edibles. You won't find an approved recipe for pickled acorns, fermented black walnuts, dandelion kimchi, or canned goat meat cooked in forest floor in the USDA literature. So if you want to create your own gourmet wild food preserves and custom pickling solutions, the only thing you can do is to fully understand and apply the basic principles of food safety to make sure that what you do is 100 percent safe.

Even if you have some objections to the modern ways of preserving food, a good understanding of the concepts behind food safety can at least offer you an educated approach and practice. Armed with that knowledge you can decide if it's a good idea to preserve those mushrooms in oil, or if it would be safer to add acidity to the solution before canning it.

Unsafe preservation methods can make you very sick, or worse. This can range from becoming nauseous from ingesting harmful bacteria due to unsafe storage temperatures to potentially dying from botulism if you don't follow food-safety practices for canning high- and low-acid foods. If you share your preserved food

with others, it would be highly irresponsible to neglect studying and understanding the subject.

If you are interested in food preservation, do some research to find whether there is a Master Food Preserver program available in your area. It's well worth your time.

You can also find all the basics of modern preservation at the National Center for Home Food Preservation (<http://nchfp.uga.edu>). Presently they offer online classes.

Canning: My Basic Water Bath Method

A few preserve recipes in this book require a technique called water bath canning, whereby food placed in a jar with a vinegar solution goes through a process of boiling to make it shelf-stable, which means you don't have to keep it refrigerated and can place it somewhere on a shelf for later consumption.

The principles and logic in preserving food in an acidic solution, such as vinegar, using water bath canning are simple. The heat (boiling) used in the process and the high acidity of the pickling solution destroy microorganisms that could harm you or spoil food, thus assuring the food's safety and keeping quality.

That said, nothing is eternal. Over time food will degrade and become unpalatable, but ingredients that are properly preserved through water bath canning can last for a decent amount of time—typically a year or two, and sometimes more depending on various conditions such as storage temperatures or exposure to sunlight.

The water bath method is used for high-acid preserves and for jams and jellies. Low-acid food preserves—such as meat, fish, poultry, or various vegetables not placed into highly acidic solution—use another method called high-pressure canning, whereby high-temperature processing kills all unwanted microorganisms and prevents dangerous toxins such as botulinum (which causes botulism) from forming in the preserve.

Because some recipes in this book will give you the option to use the water bath method, I want to explain

the process I use so interested readers can readily do it. That said, there is much more to learn about water bath canning and the various techniques used in this process. I urge you to get yourself well educated on the subject. In addition to the resources cited above, the canning jar manufacturer Ball also has a great book titled *Ball Blue Book: The Guide to Home Canning and Freezing* that is usually available wherever canning supplies are sold. It can also be purchased online.

For most of my pickled wild preserves, such as wild radish pods, yucca buds and flowers, thistle stems, ash keys, and so forth, I use a “raw packing” water bath method very similar to approved recipes for pickling green beans or carrots. It’s very easy to do. You place your fresh ingredients in clean jars with spices, bring your vinegar-based solution to a boil, and pour it into each jar, leaving a half-inch of headspace. Close the jars, place them in hot water—140°F (60°C)—bring the water to boiling for a specific amount of time, and voilà! It’s really that simple. You don’t always have to use pure vinegar; for flavoring I sometimes add spices and even wine, beer, or regular water to the mix, but if I do so I will verify that the acidity level is adequate for water bath canning.

Because I deal with wild food and no USDA-approved recipes, I often err on the side of caution when boiling the jars—I probably boil them for longer than necessary, but my guiding mantra is better safe than sorry. Of course, if I find an appropriate “approved” recipe then I would use that one. For example, if I want to can my mountain sauerkraut (cabbage fermented with white fir, pine, and California juniper) or wild kimchi, I’ll use the approved recipe for canning sauerkraut. It’s important to use common sense and do your research.

I have done my best to apply everything I know about basic food-safety principles and correct preservation techniques in my recipes, such as ensuring the correct acidity level of my pickling solutions and even my ingredients by using specific tools, such as digital pH meters. Because I started foraging many years ago, most of my recipes have also been through empirical testing.

Drink the Forest

What does the forest taste like?

A couple of years ago I started experimenting with creating wild primitive brews using foraged ingredients from the forest.

As I explained in the beginning of this chapter, my inspiration came while foraging after a couple of rainy days. The whole forest had this incredible winter “perfume” emanating from the countless plants, trees, mushrooms, and leaves decomposing on the ground. It was like smelling the wilderness itself, and I was inspired to try recreating the experience from a culinary perspective.

I started introducing forest ingredients into my cooking and I really liked some of the results. But as I was exploring native and primitive brews, I became fascinated with using some of the same ingredients in my fermentations.

Forests—and even other whole environments or biomes, such as the mountains or the local chaparral—are really an endless source of flavors. Sometimes it takes a lot of research to make sure you can use the various elements safely, but as you have more and more ingredients to play with, it is truly a worthwhile activity. Originally I started with less than ten ingredients; today I’m probably able to combine over one hundred various ingredients ranging from grass, leaves, and mushrooms to bark, berries, aromatic plants, seeds, and even insects.

Do these brews really taste like the forest?

Yes and no. If you smell some of my concoctions you’ll know where they come from. It’s

much easier with the mountains, where you have very distinctive aromas, such as pine. In my opinion a regular forest is a much more complex environment. Through fermentation flavors are often altered, sometimes for better and sometimes for worse. You’ll have to discover that for yourself through experimentation.

Presently my “forest brews” are more closely related to Belgian sour beers; very often they end up tasting somewhere between a beer and a cider. They’re not something you want to drink in quantity, like regular beers; still, based on the feedback I’ve received, they’re quite enjoyable. Some of them are fantastic for cooking.

The recipes and flavors are always changing with the seasons too. Some plants, such as mugwort, will have a stronger flavor once the plant has set seeds. In summer the dry mugwort leaves that are foraged in the shade will have tons of character, even though those same leaves are pretty much tasteless if foraged in the sun. The last beer I made with seasonal forest ingredients had interesting accents of grapefruit, although none was present in the recipe. There are always surprises, and as I continue experimenting and tweaking recipes I’m able to have more good ones instead of failed attempts.

It’s really a work in progress and you could probably spend your whole life experimenting with wild brews. Who knows? Maybe one day I’ll open a bottle and, amid the esters and alcohol aromas, I’ll get a hint of the forest that inspired me that long-ago winter.

Acorn Grubs

In a good year I can easily collect 50 pounds of acorns or more. I usually pick the good ones from the tree or the forest floor. I like to travel to my acorn foraging area after a windy day, and often the ground is just littered with them, making for easy picking!

Not all acorns are good to eat; quite a few are infested with grubs. The “bad” acorns are easily identified by the fact that there is a small hole, or a few holes, going through the shell. The hole is made by a small insect called the acorn weevil.

I rarely see the little brown insects themselves—they have a very long beak, which the female uses to bore holes into developing acorns and deposit eggs. The eggs turn into larvae/grubs, which feed on the acorns. Once they’re done feeding, they exit through the same hole and bury themselves in the ground for a year or two, until they reach maturity and emerge as adult insects.

If you were to find a caterpillar instead of a grub inside the acorn, it just means that the grub has left already and was replaced by the offspring of the acorn moth, which usually uses the already bored hole to deposit her eggs inside the now vacant acorn. Isn’t nature amazing?

In my early foraging days, picking up acorns from the ground was a slow process of inspecting each one for holes in the shell before placing them in a paper bag. These days I’m not that fastidious—I simply load several paper bags of what I see as edible acorns. I estimate that 10 percent or less will not be edible because the grub has eaten the inside.

Once home, I usually leave the acorns in the bag for a few hours, then place them in a large basket to inspect them and sort out the “bad ones.” The advantage of this method is that I can take my time to inspect the acorns in the comfort of my own home,

usually with some relaxing music and a good coffee. The other advantage is the fact that the bottom of the paper bag is usually loaded with cute, moving little acorn grubs. They look very much like maggots, but unlike maggots they have been fed a nice rich vegan diet for a few weeks, not rotten meat.

The grubs are completely edible and have a very nice, nutty flavor. Originally I thought that the grubs would taste bitter due to the tannins that most of our local acorns have in their flesh, but that isn’t the case at all. It is as if the grubs somehow process the food so as to keep all the good nutrients and flavors while getting rid of the tannins.

Over the years I have tried various cooking methods with acorn grubs, such as sautéing, roasting, frying, and so on, sometimes with great success, but just as often with great failure. If you try to fry or sauté the grubs, for instance, they just seem to melt in the high temperatures. The current method I use is to freeze them first, then clean them briefly, which also helps thaw them out. Then I place them in very hot water, bring the water to a boil for a minute or two, and—voilà!—I have boiled grubs, giving me a base for other preparations.

The transformation in this process is like what happens when you cook an egg—once boiled the flesh is dense and compact, and then you can use other cooking methods without the risk of the grubs melting down into nothingness. Try sautéing them lightly with chili, garlic, lime juice, and salt, then serve with salsa, or cook them briefly in a hollandaise sauce with truffles for an unforgettable culinary experience. As a dessert, I like to sprinkle the boiled grubs with white fir sugar and eat them as is.

Cooked properly, they’re quite chewy, creamy, nutty, and highly nutritious due to their high fat and protein content. It’s really gourmet food!



Boiled acorn grubs and white fir sugar.



CREATING A FOREST FLOOR AND HERB BLEND

This process is simple, yet easy to overcomplicate. It's all about proportions, balance, harmony, and knowing the purpose of the blend.

When a chef asks me to create a forest or mountain blend, my first question is: "For what purpose?" If he intends to cook meat with beer and a forest blend, my choices for the blend will be very different than if he intends to cook pears, which are much sweeter and require a different blend of ingredients.

The blend's purpose (making beer or infused vinegar, for example) or the main ingredient to be cooked dictates what the blend should be composed of. The photo on page 13 shows a forest blend I made for Chris Jacobson of Girasol restaurant here in Los Angeles. Chris worked briefly at Noma in Denmark, a restaurant widely known for locally foraged ingredients and for launching the Nordic food movement. Since he opened Girasol, Chris has been very passionate about foraging and quite adventurous with wild ingredients in his kitchen.

This blend is used to cook pears. Pears are quite sweet, so I know that their taste will balance and harmonize well with bitter ingredients. I also added plenty of aromatics to infuse the fruits. There is no set recipe; this blend was composed of the following ingredients:

40% forest grass—grassy/green flavors
15% fall leaves (mostly willow and a bit of cottonwood)—bitter and musky flavors
25% aromatics (mugwort, sagebrush, wild fennel, rabbit tobacco [Wright's cudweed], black sage)
15% fig leaves—fruity and fig flavors
5% fresh turkey tail mushrooms—earthy and musky flavors

If I were making a blend for a beer using the same seasonal forest ingredients, I probably would have used the following ratio for 1 gallon (3.75 l):

40% (0.3 ounce/9 g) grass
30% (0.2 ounce/6 g) dry mugwort
20% (0.2 ounce/6 g) fall leaves (decomposing leaves are even better for musky flavors)
5% (0.05–0.1 ounce/3 g) mushrooms, such as turkey tails
5% (0.05–0.1 ounce/3 g) other aromatics (California sagebrush, fennel, white sage, etc.)

Each environment (forest, mountain, desert, and coastline) can likely give you a minimum of ten plants or other ingredients to start with. The blends don't have to be complex to taste delicious. My favorite mountain blend is composed of only four ingredients: white fir and pine needles, manzanita, and California juniper berries.

Learn and research your local environment and try different blends. The various combinations of all these flavors is limitless.

