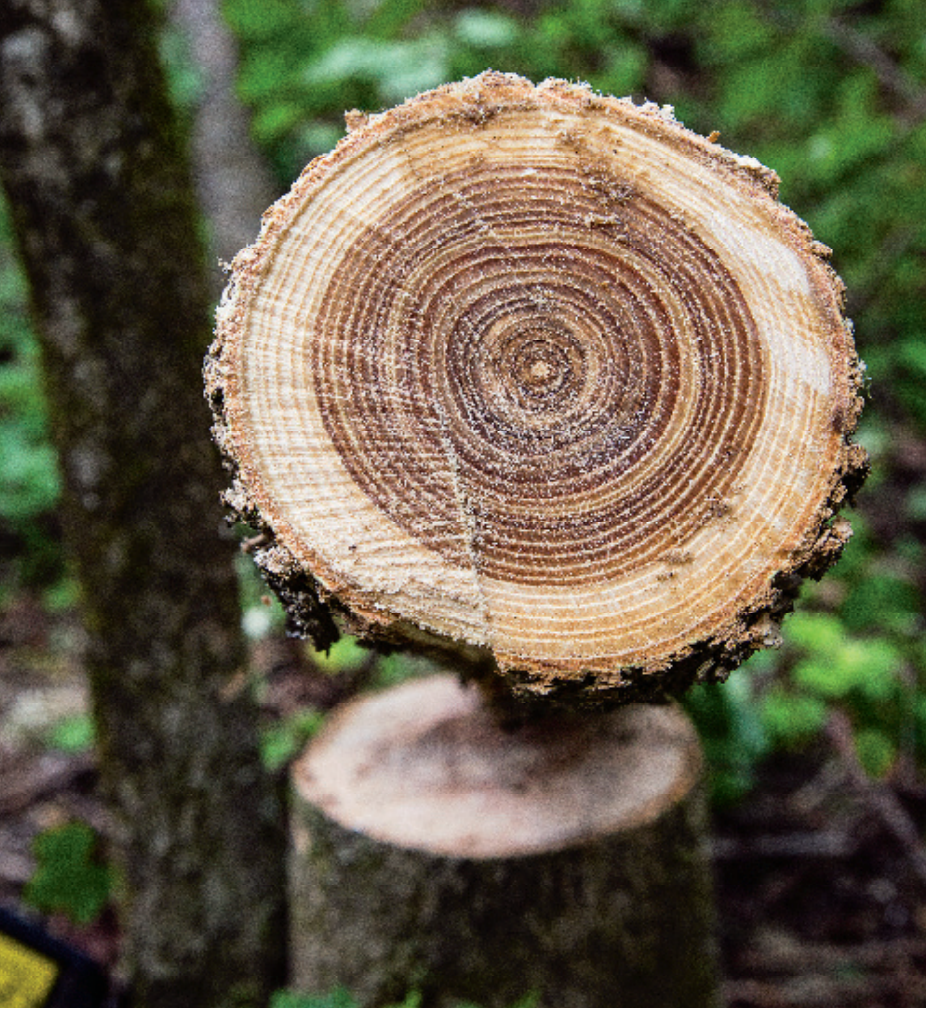
'MORE THAN JUST A TREE'

A deadly insect threatens New England's ash trees and a centuries-old Native American tradition—the weaving of beautiful ash baskets. BY SARA ANNE DONNELLY

IT'S A PARTICULARLY BUGGY JUNE MORNING IN THE WOODS NORTH OF CARIBOU as Eldon Hanning, Maine's most prolific ash harvester, stomps through the dense brush looking as though he got lost on the way to the biker bar. Over the multiple layers of DEET he's doused himself with, Hanning wards off the blackflies with a fraying gray flannel ripped wide over one elbow, faded black jeans, and a black cowboy hat pressed low over his wiry salt-and-pepper ponytail.

PHOTOGRAPHS BY
CARL TREMBLAY

Ash harvesters and basket weavers Eldon Hanning (right) and his son Frank examine a stand in northern Maine. OPPOSITE: **A view into the ash canopy high overhead.**



A freshly sawn trunk. Black-ash growth rings aren't as firmly connected to each other as they are in other tree species, making layers easier to separate for use as splints in basketmaking.

"That one," he shouts to his son Frank. "And that one over there." He uses an unlit cigarette to point out the ash trees. Unlit, because Hanning just had a triple bypass, and Doc says he shouldn't smoke. Doc also says he shouldn't go out into the woods and handle a chainsaw, or his pacemaker might fritz out and kill him. But Hanning just got a rush order, so Doc be damned.

Hanning grabs the chainsaw before Frank can start it up and cuts a deep gash into the base of a nearby ash. The exhaust of the chainsaw swirls in a thick cloud around him, blurring the distinction between his body and the limbless trunk of his target. For a moment it looks as though the ash won't drop; it'll just stand there, forever, balanced on its stump. Then it sways in the breeze. The harvesters take the cue and shove at its base, grunting as they urge it to give way. The ash, finally, wearily, tips in slow motion, its frizz of leaves high above glowing green in the sunlight as it slips, crackling, through the tree stand to land with a heavy shudder in the forest bed.

After three decades as a harvester, Hanning has an eye for good ash, but it might be more helpful if he had an eye for the bad ones. The emerald ash borer (EAB) beetle, an East Asian insect with an obsession only for ash—a bug that probably arrived here in infested shipping pallets unloaded in Detroit—has chewed the life out of more than 50 million trees since it was discovered in 2002. EAB gets its name from its opalescent green wings. It's narrow and no longer than a fingernail, looks like a pair of dangly earrings, and has a fierce appetite for ash, particularly green ash and black ash.

The borer burrows into the ash tree through a hole no bigger than an eraser head and kills it by severing its arteries and bleeding it of water and nutrients. About two years after infestation, the tree begins to look sick: Its lush green leaves shrivel and fall off; its smooth gray bark becomes pocked and pale. Even though it will take another three years for the ash to die completely, by the time the infestation becomes apparent most of the tree is useless. The beetle can survive subzero winters, kills 99 percent of the ash it encounters, and no one has yet figured out a viable way to eradicate it. The bug's attack could rival the chestnut blight of the early 20th century, in which an Asian fungus virtually erased chestnut trees from the American landscape. Because of its swift and deadly spread, entomologists call EAB the worst pest ever to invade North America.

"It's more than just a tree," says Lee Benedict, a Mohawk tree conservationist from Hogansburg, New York. "Ash basketry represents a livelihood to our people, but it's also an expression of our culture; it's an expression of our identity and the past and the present and the future."

The extinction of the ash tree would have a profound effect on Native American culture in New England, as well, particularly in Maine, where black-ash basketry remains an important source of income. Weaving patterns specific to each family have been passed down through generations, and ash baskets are traditionally exchanged at wedding ceremonies and coveted as goodwill gifts. In other regions of the country, tribes have had to alter the material from which their baskets are woven,

Traditional Passamaquoddy basketmaker Jeremy Frey at his gallery in Princeton, Maine. His specialty is finely woven baskets incorporating a variety of styles.

mostly because of forced migration or blight. But New England ash basketry is one of the rare tribal traditions that has never had to change. Until now.

"I'm worried about it, yeah," Hanning says of the ash borer. "I got to figure out a way to go out, cut the logs, process 'em, store the wood, not only for myself but for other basketmakers."

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Black ash has a body like a supermodel. Tall and slender, the tree can grow up to 150 feet, with a wide network of roots that sets it apart and makes it look aloof even in the densest forest. Also known as brown ash, it isn't a particularly populous tree—it makes up only about 3 percent of forests, or about eight billion trees nationwide, mostly in the upper Midwest and the Northeast—and it hasn't enjoyed the same status in American consciousness of, say, the mighty oak or the bountiful apple tree.

In fact, ash is considered something of a junk wood; it's most commonly burned in campfires. When it's not being torched, it's typically turned into baseball bats, paddles, snowshoes, or chair backs—but these objects are often made from other materials, too, and so although the invasive pest may be an inconvenience for those artisans, it's not a lifestyle changer in the way it is for ash basketmakers.

Today the borer has been found in 25 states around the country. The bug on its own is a bit of a slowpoke—it flies about two miles a year, total—but it spreads much faster as a stowaway in ash firewood carried across state lines by campers. Entomologists now worry that it's capable of changing forest ecology and costing billions of dollars in lost lumber. In New England, the borer has been discovered in western Massachusetts and Connecticut and near Nashua and Concord in New Hampshire. Rhode Island doesn't have much ash to speak of, but Vermont and Maine, which have the most ash in New England, have been on high alert for years, although there have as yet been no confirmed sightings of the bug in either state.

The wait is exhausting—like anticipating an earthquake or a hurricane, without knowing when it will happen or how bad it will be. "What exactly are we bracing for?" says Darren Ranco, a Penobscot Indian and chair of Native American programs at the University of Maine. "Is it an avalanche or some sort of slow-moving ooze?" No one knows, really. There are no national predictions of how much ash will die and when. But that's because the borer has spread much faster than anyone expected.

"Normally, when people find infestations, they've been there for four or five years," says Dave Struble, a state entomologist in Maine. "I suspect it's here somewhere at a very low level; it just hasn't reached critical mass where we're going to detect it. It's not a cheerful thought, but I think it's a reality."

The little green bug has particularly bad timing. While the ash-borer beetle was first opening its wings in North American air, tribes from Michigan to New England and up to Manitoba were launching a renaissance in basketmak-

ing. The threat to the tradition back then was complacency. Most of the basketweavers were aging or had died, and tribes became worried that the tradition would fade away. Populations that had only one or two basketmakers, faced with the threat of forgetting, began mentoring young basketmakers and harvesters. Hundreds of Native Americans in the Midwest and the Northeast now know how to identify ash trees, harvest and store them, and weave with their wood.

In Maine, a grassroots group called the Maine Indian Basketmakers Alliance led the resurgence in their core basketry tradition, black-ash plaiting. Founded in 1993 to rescue the endangered practice of Native American sweetgrass and ash basketry in the state, the alliance has increased its number of member basketmakers from 55 to more than 200 and lowered the average age of Maine basketmakers from 63 to 40.

Since the ash borer was discovered, the Basketmakers Alliance and the University of Maine have organized regional symposia involving entomologists and state officials to figure out how to store the ash (underwater, possibly, or in ice), how to fight the borer (purple traps seem to attract it, and insecticide works on a tree-by-tree basis), and how to preserve the knowledge (the University of Maine is compiling a video catalogue of basketmakers explaining how to harvest, process, and weave ash). There have been natural diebacks before, but the tree has always rallied and the basketmaking has always continued. How could ash just die away?

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Maine tribes are part of the Wabanaki Confederacy. A creation story has the Wabanaki first man, Glooscap, shooting an arrow into an ash tree. "Out of the trees stepped men and women," reads one version of the legend. "They were a strong and graceful people with light-brown skins and shining black hair, and Glooscap called them the Wabanaki, which means 'those who live where the day breaks.'"

"I believe the Creator put the ash tree here for us," says Richard Silliboy, a seventh-generation basketmaker and a Micmac Indian. "There's nothing that has ever damaged it to the point that the emerald ash borer does, but I do believe that the Creator will allow it to be here."

Despite the faith, these symposia can tend to depress. There isn't much that they can do today to stop it, so basketmakers and harvesters vow to stockpile ash splints in spare bedrooms and closets. In the cramped UMaine conference room, they stand together and pray to the Creator to help their black-ash tree: *Kissok pebanemool na abegunumooa wisok.*

Jeremy Frey is one of Maine's youngest and most successful basketmakers. Some of Frey's intricate baskets sell for upwards of $20,000 to collectors. Jeremy and his younger brother, Gabriel, also a basketmaker, are involved in every aspect of the craft. A typical run includes driving their truck three hours north of Indian Island and 30 miles off the tar, then riding ATVs six miles through mud to get to a stand.

"We go out in the woods," Jeremy Frey says. "I mean *in* the woods." In the woods, typically only five ash out of a hundred are straight and healthy enough for the Freys. The Freys haul those trunks home, strip off the bark, pound the growth rings off them in Jeremy's driveway, and divide the splints between them. Pounding takes hours. They know they're done when all of the cream-colored wood has darkened to a reddish brown where the hammer has struck, in a reaction known as "bruising." Strips of pounded wood are threaded through a splitter, a stand about three feet tall, resembling an isosceles triangle with a narrow groove at the top.

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THIS PAGE, FROM TOP: An adult emerald ash borer; distinctive markings left by ash borer larvae are noticeable on this tree at the Esopus Bend Nature Preserve in Saugerties, New York. OPPOSITE: A selection of Jeremy Frey's award-winning works, known as "fancy baskets" for their unusual shapes and weaves, with tools of the artist's trade.

AGE FOTOSTOCK/SUPERSTOCK (BEETLE); MIKE GROLL/AP PHOTO (ASH TREE)

'MORE THAN JUST A TREE'

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The moist, rough ash at this stage emits a distinctive smell: Some compare it to watermelon, others to manure. With a knife, they bisect the end of the splint and, gripping each side, pull the growth ring into two pliable strips. The strips can then be split again and again, down to splints as narrow as floss, as smooth as satin, and as strong as wire.

Broad-shouldered Gabriel weaves sturdy pack baskets with wide splints the way his grandfather did—muscle baskets made by a muscle man. Jeremy, slight and bespectacled, makes obsessively precise, fancy baskets. The brothers guess that they're around the seventh generation of basketmakers in their family—it's hard to say for sure. Not only do they preserve the harvesting and the weaving they were taught, but in the purist's version of the tradition, they also make all of their basket molds and many of their tools.

One afternoon a few days after a harvest, Jeremy sat at his living-room table weaving a threadlike splint into a small black-and-white barrel-shaped basket while his Chihuahua watched from her tiny bed in the corner.

"There are so many parts to making a basket that it can overwhelm you," he says as his fingers plait the splint. "But for me, it's just that I don't get to that point until I'm there. So if I'm pounding ash, I'm not even concerned about a basket. If I'm splitting it, that's what I'm doing. I'm just enjoying that little piece of the basket at the time."

What Jeremy calls "the healing qualities" of basketry, Gabriel compares to collective memory. "When I actually sat down with my grandfather and made my first basket," he says, "it wasn't like I was learning something. It was like I was *remembering* something. All of the process, through making it and harvesting it, is something that is deeply connected to my ancestors. Even the smell when you walk into a basketmaker's house. It's difficult to explain. It's like when you hear a song that you haven't heard in a very long time, and it brings you back to that very first moment. That's the connection."

The ash borer threat has Jeremy experimenting with pliable metals, maybe even silver and gold, and Gabriel looking at plaiting with copper. They don't like the idea of abandoning the ash, but they do want to keep producing. "It's hard to predict what you're going to do," Jeremy says, "but certainly this issue is going to dictate a large part of my future."

Atop one of Eldon Hanning's potato baskets rests a portrait of his mother, a traditional Micmac basketmaker, who taught him both harvesting and weaving techniques.

The Freys are open to experimenting, but plenty of basketmakers bristle at the idea of using another material. Vermont basketmaker Judy Dow thinks that's a mistake; she's been encouraging Native basketmakers to change materials since the borer first showed up.

"I think the most important skill is the ability to adapt and accept change," says Dow, an Abenaki from Essex, Vermont, who makes baskets from things like yogurt containers, pantyhose, flannel shirts, and electrical wire. Dow worries that basketmakers who cling to ash are ignoring the Native American history of adapting. Fancy baskets themselves were an adaptation in form in the 19th century, she points out. To cater to tourists, tribal weavers shrank basket sizes to fit into the luggage of a visiting buyer.

"For me it's traditional to adapt to social, political, environmental, and economic changes," she says. "So changing the material is just another form of adapting. If you don't adapt, if you don't accept change, it'll pass you by."

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Back in the ash stand, Eldon Hanning weaves around dozens of the decaying, moss-covered stumps of old harvested trees to get closer to the thriving trees he's after. He stands at the base of one mature ash and squints, his gaze moving up along its narrow trunk to the tuft of lively green leaves high overhead. Hanning lets the young ones grow so that his grandchildren will, hopefully, have something to harvest. He presses a mud-stained hand against the tree's trunk and caresses its smooth skin.

"See the bark, okay?" he says. "That's a straight stick." Hanning's harvesting operation is so fast and productive that it's been compared to a factory, even though all of the work is done by only three men out of a shed so filled with old splints that you have to wade through them to get from one end to the other.

From his mother, a sixth-generation harvester and basketmaker, he learned

how to find an ash tree by sight, sound, and smell; he found one of his favorite stands, he says, by hearing it from his truck as he was tooling down a nearby road. From his mother, he learned how to drop a tree and pound off its growth rings, work traditionally reserved for men. His mother also taught him what long has been women's work: the weaving and the selling. In his mother's case, that meant weaving potato baskets late into the night for farmers in Houlton. She sold her baskets for 50 cents apiece.

It's hard work, harvesting and weaving, and Hanning wasn't much interested in it until a basket gig fell into his lap about 30 years ago. Back then, he was a young man trying to get his footing after moving back home to Houlton.

His tribe, the Micmac, hired him to make 100 potato baskets, which they planned to resell to a seed company in central Maine. They paid him $1,800 for the work—almost 10 times what he made in a week as a farmhand. Hanning and his mother wove day and night to finish the order. After it was all done, Hanning went to the farm to tell his supervisor that he was quitting.

"I pulled out my wallet and pulled out my check, and I said, 'This is what I made in a week of making baskets,'" Hanning says. "And my supervisor looked at me, and he looked at the check, and he looked at me. And he says, 'You made that in a week?' I says, 'Yup.' And he says, 'Well, if I was you I'd quit, too.'"

Since then, ash has been his life.

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The day of the June harvest, Eldon Hanning's house was filled with half-finished potato baskets headed for an upcoming tribal-arts show, and boxes and boxes of bread baskets commissioned by Jordan's Restaurant in Bar Harbor to hold its famous popovers. There were so many baskets in the house that his wife, Judy, had to roll a few down the couch just to sit. In his spare time, Hanning weaves his mother's style of utility basket, brings them down to a craft fair on Mount Desert Island, tags them for 40 bucks or so, and challenges passersby to sit on them to test the strength of the wood.

That day, as he smoked his Pyramid 100s at his kitchen table under a faded photograph of his mother, Hanning seemed calm when it came to the borer threat. "You got to be adaptable," he said. "That's the only thing you can do. Try to find the ash."

TO HIS SON, ELDON HANNING WILL PASS ALONG THE MAIN THING TO HOLD ONTO: SELF-SUFFICIENCY.

But months later, with the borer now attacking New Hampshire, Hanning has revised his definition of adaptation: He's started harvesting and weaving cedar. He plans to teach his son to work with cedar instead of ash in case the tree disappears. You can't split it like ash, and he's not sure whether grown men will be able to sit on the baskets it makes, but still, it's pretty good. And if Hanning can teach his son to make baskets with cedar, he'll pass along what he considers to be the main thing to hold onto here: self-sufficiency.

"He'll never be broke as long as he knows how to make baskets," Hanning says. "That's the reason why my mother taught me how to make baskets. She told me that as long as you can make a basket, you'll never be broke. You can take an axe, go out, cut the tree down, pound it, make a basket in the woods, take it down, sell it, make money."

Simple?

"Yup," he says. "Simple as that."

Can the Ash Tree Survive?

At Ohio State University in Columbus, plant pathologist Enrico Bonello heads up the only group in the world researching ash resistance to the borer. He's trying to understand the way ash is immune to EAB in Asia, where years of parallel evolution alongside the beetle have created what Bonello calls an "arms race" in which the tree mutates to resist the beetle, the beetle mutates to attack the ash mutation, and this back-and-forth maintains a stalemate. The thinking is that these hardier trees can be crossbred with vulnerable trees to improve the Western ash's resistance to the bug.

"What we need most is funding in support of research," Bonello writes in an email. "The only sources of funding for this work are federal agencies, but even those ebb and flow over time. Usually, after the initial euphoria out of panic, funding precipitates rather abruptly in the case of invasives. Some fatigue sets in, as it's difficult for people to understand why we don't have a solution after 10 years. But in many ways, this is harder to achieve than curing human cancer, because in the ecological context of forests, there are a large number of variables, outside of basic genetic resistance of the host, that affect that resistance, and we don't yet understand all of them."

In the summer of 2003, shortly after the borer was discovered in lower Michigan, a team of entomologists tempted the bug with three kinds of ash—green, white, and black—and five other varieties of trees, including black walnut, privet, and American elm. They wanted to see whether EAB was attracted to something other than ash. The bug laid twice as many eggs on all of the ash as it did on the alternatives, except for privet, although even privet didn't rival the ash. Moreover, any baby bugs that were laid on non-ash were doomed. "Galleries on the alternative species appeared to be small and malformed," the scientists wrote, "suggesting larvae would be unlikely to complete development."

For the borer, it appears to be ash or extinction. *—S.D.*