



THE MCKINLEYVILLE LAND TRUST NEWSLETTER

WINTER 2017/2018 NUMBER 34

Chah-GAH-Cho's Thatching Ants

By Tom Lisle

With wonder or horror, many of you may have noticed large mounds of conifer needles and bits of dried grass teeming with ants at our Chah-GAH-Cho property, located behind the Mill Creek shopping center in McKinleyville. These are nests of thatching ants, native in our area and ranging over the mid to high latitudes of the northern hemisphere. Thatching ants are medium-sized with red heads and thoraxes and dark abdomens, but their distinguishing characteristic is their monumental nests. The largest nest in Chah-GAH-Cho (near the trail to Healthsport) is about 5 feet in diameter and 2 feet high.

Why go to all this work to build such an edifice? Insects function best when their muscles and organs are warm. A primary purpose of the thatch nest is to provide warm brood chambers. Interior nest temperatures commonly range from 68° to 86° F. They accomplish this by establishing their nests in sunny spots with a southern exposure. The

well-insulated nests passively absorb radiant heat during the day and store it after nightfall. The ants also bask on the nest surface and cycle in and out of the nest to transfer their raised body heat to the interior. Lastly the thatch in the nest generates heat as it decomposes. Ants regulate the rate of composting by exchanging new and old material from the top of the nest to underground passages. During summer, the ants weave an open thatch to allow circulation of air. During winter, they tightly weave the thatch surface and plaster it with soil, leaving only a few entrances.

You may have noticed swarms of flying ants on warm days in early fall. The queens in these swarms mate, drop to the ground, shed their wings, and find some place in the ground to hunker down for the winter with prospects of laying eggs and starting a new colony the following spring. Thatch ants, however, have a different strategy. New queens and drones spend the first part of winter in their toasty thatch suites, tended by their ladies-in-waiting (workers), and wait until spring ready to fly off to find a mate. If you visit Chah-GAH-Cho on a sunny late morning in March or April, you may see the grand sendoff, with new queens (big red heads) and drones (small black heads) climbing to the tips of grass stems and launching themselves into the air as the workers swarm over the nest below. Once fertilized, a new queen can start a colony at the beginning of the season of plenty. Some new queens return home and serve in reserve in case the reigning queen dies or march off with a cadre of workers to start another colony. Both colonies will share territory and remain compatible, even after the new queen produces her own offspring. Queens typically live for about a decade, and nests can persist for multiple generations of queens.

Thatch ants, like other ants, are major players in their ecosystem. As generalists targeting high-energy food sources, they prey on and scavenge other arthropods. They also tend to aphids who suck nutritious fluids from plants and pass it through to ants as "honey dew." In exchange, the ants ward off predators and may keep dairy herds of aphids in their nest during winter.

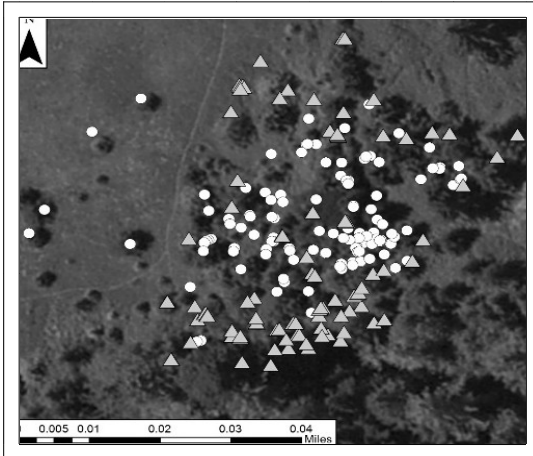
Chah-GAH-Cho provides ideal habitat for this fascinating species—undisturbed coastal grassland with borders of conifers and shrubs—and one you can appreciate all year round. Take the time to look deeper into the world of small creatures, and you will be rewarded with wonder and beauty.



INSIDE THIS ISSUE:

- 2 STUDENT LED RESEARCH
- 2 MRB UPDATE
- 3 DPEW UPDATE
- 3 WELCOME NEW BOARD MEMBERS
- 4 VOLUNTEER TRAIL STEWARDS
- 4 CHAH-GAH-CHO
- 5 FUNDRAISING — THANK YOU
- 6 SAVE THE DATE FOR MARCH 11 DINNER!

Student Research on McKinleyville Land Trust Properties



Map of the thinned area at Chah-GAH-Cho. A triangle indicates the location of a standing tree, and a circle indicates location of a cut stump.

For over five years, the McKinleyville Land Trust (MLT) has been partnering with local Humboldt State University students and faculty on student research projects. These projects have ranged from mapping invasive plant species at Mad River Bluffs, to developing a bird and bat habitat plan for the Dow's Prairie Wetland, to prioritizing properties in McKinleyville for conservation planning. The concepts for these student research projects are typically developed in collaboration with the Land Trust and the students with the end goal of a project that will help achieve our mission to conserve local open spaces for ecological, historical, agricultural, educational, recreational and scenic values. Once the project idea is developed, Land Trust board members are available for guidance and questions, but the projects are student directed and driven from start to completion. The end results have been impressive, to say the least.

One project, completed in 2016, focused on evaluating the forest thinning efforts that took place at Chah-GAH-Cho in the summer of 2016. Though the thinning of the forested area on the southern end

of the property has visibly opened the site, there was no quantitative study of the treatment. For her senior study project, Annie Allen collected height and diameter measurements of the trees in the project area and mapped the stumps remaining following the thinning treatment. Out of 224 stumps and trees she measured in the project area, 119 were stumps, indicating that approximately 53% of the trees in the area were cut. The species removed were mostly conifer (i.e., Douglas-fir or Sitka spruce; 81%) and red alder (18%). The species composition of the trees remaining after the thinning was red alder (53%), Douglas-fir (29%), and Sitka spruce (8%) with blueblossom, English holly, and red elderberry in the understory.

Future research at Chah-GAH-Cho could help the Land Trust monitor the growth of the trees and understory in the thinned area to determine if future treatments are necessary. Annie Allen's paper and other student research papers are available to the public on the MLT website.

Mad River Bluffs - A Forest by the Sea

This spring, our Mad River Bluffs property was the lucky recipient of a restoration project designed and organized by Emily Moloney of the California Conservation Corps Watershed Stewards Program. More than thirty hard-working, congenial, multi-generational volunteers braved morning rain to put in a 4+hr day of gathering and placing woody material on eroding bluffs, building a split-rail fence to deter unauthorized and dangerous trails down bluff faces, and planting native shrubs for stabilization.

In addition to the Watershed Stewards and neighborhood volunteers who provided labor, tools, and expertise, many thanks go to the Mill Yard and Miller Farms for their generous contribution of materials, and to Eureka Natural Foods, Starbucks, North Coast Co-op, Wildberries, Ray's, Arcata Scoop, and the Sweet Spot for supplying a picnic lunch for us all.

This kind of community spirit supports both the McKinleyville Land Trust in its dedication to the conservation of our valuable local open spaces, and the Watershed Stewards Program in its mission to protect and restore anadromous watersheds for future generations.



News from the Dow's Prairie Educational Wetland

During Arbor Day week 2017, Humboldt State University Natural Resource Capstone interns planted 24 native plants (osoberry, ninebark, and maple), with the Dow's Prairie School in attendance, at the MLT Dow's Prairie Educational Wetland (DPEW). A variety of watering devices were installed to enable the new plants to survive the summer drought. The interns utilized their research and experience for their final HSU Capstone project and presentation.

The sheriff's SWAT team pulled up Scotch broom last December and June, adding greatly to our burgeoning burn pile. At this writing, we plan to carefully alight the pile, during the cool rainy season, so that we will have a clean slate to add additional biomass. Scotch broom, a very invasive non-native weed that negatively impacts native ecosystems, is a chronic problem at DPEW, and we are thankful to the SWAT team and to the Arcata office of the Bureau of Land Management, who has freely lent us weed wrenches.

Plans in 2018 include finishing a draft DPEW plant guide focused on ethnobotanical plant descriptions with photos. We will be soliciting the Humboldt Wildlife Care Center to provide a presentation on raptors to the students. Tom Lisle, MLT Board VP, will provide a presentation on ants, particularly thatch ants (see page 1) to the students. Later this winter/spring, the children will be able to watch the second largest breed of draft horse in the world pull up Scotch broom from the wetland. The horse's owner is Susan Morton, a landscape artist and co-owner of Arcata Artisans. She has been painting at DPEW, and we are looking forward to seeing her artistic interpretations of the site.

Hello to MLT's Newest Board Members



In 2017, we said goodbye to Zia Schatz, who joined our board bringing great energy and ideas to our efforts. While with us for a short time, she was able to facilitate the use of the Watershed Stewards Program of the California Conservation Corps to two of the MLT properties. We wish Zia all the best.

While we lose Zia, we welcome two new members, Monica Bueno and Steffen Allan, to the MLT Board. Monica lives in Dows Prairie with her husband and two boys, having lived in McKinleyville since 2003. She has a bachelor's degree from UC Santa Cruz in Environmental Studies with an emphasis on Agricultural Ecology and a master's degree from UC Davis in Wetland Ecology and Restoration Ecology. She also has a teaching credential from Cal State Dominguez Hills and taught elementary school for several years in southern California. She considers herself an ecologist with a deep interest in historical ecology. Preserving open spaces is important to Monica and a primary focus of the MLT. Welcome aboard Monica!



We also say hello to Steffen Allan. Steffen has lived in Humboldt County for 35 years, developing a deep appreciation for the open spaces of the county. Steffen has worked with the Redwood Community Action Agency on restoration and trail projects. He has worked on riparian restoration, invasive species management, erosion control, and trail construction projects. Steffen has work experience with two MLT properties, Chah-GAH-Cho and Mad River Bluffs, having been heavily involved in the construction of both trail networks. Steffen also holds a position on the board of the Humboldt Trails Council (HTC), from which the Volunteer Trail Steward program is operated and seeks to bridge efforts between MLT and HTC, especially as it relates to the two aforementioned trail networks. Welcome aboard Steffen!



McKinleyville Land Trust Volunteer Trail Stewards

Do you enjoy spending time in the splendor of our local trails? Would you like to gain hands-on experience improving these trails? If so, we enthusiastically invite you to get involved with a new Volunteer Trail Stewards group on McKinleyville Land Trust properties! Volunteer Trail Stewards (VTS) is a grass-roots program of the Humboldt Trails Council. VTS volunteers help support our beautiful trails by assisting with much needed maintenance, invasive plant removal, and minor repairs. VTS volunteers also serve as community

eyes and ears whenever they are out walking, running, or riding the trails. VTS groups are active throughout the Humboldt Bay area including along the Hammond Trail, Arcata Community Forest, Eureka's Hikshari' Trail, North-coast Regional Land Trust's Freshwater Farms Nature Trail, and Friends of the Dunes' Humboldt Coastal Nature Center. The McKinleyville Land Trust is excited to enlist the help of VTS, and we'd love to get you involved. We will be holding volunteer days once a month to alternate work between the Mad River Bluffs trail and the newly constructed Chah-GAH-Cho trail. If you have the time and desire, please contact Steffen Allan at stef-fen@nrsrcaa.org to be added to our mailing list. You will be notified of future work days and other volunteer opportunities that may arise. Thank you in advance for your time and commitment to our community!

Chah-GAH-Cho - the Best View in McKinleyville

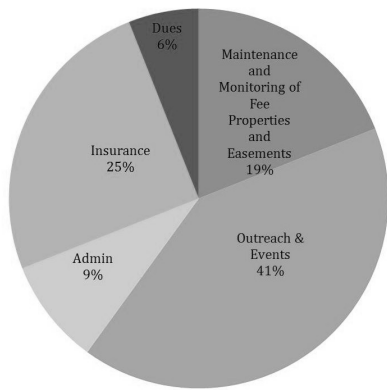
As the Mad River flows towards the Pacific and fog slowly swirls through the Arcata Bottoms and Lanphere Dunes, it's often sunny and clear up at the southwest corner of Chah-GAH-Cho from arguably the best view in McKinleyville. A little over a year ago, the land trust held its grand opening of the Chah-GAH-Cho Trail - a project twenty years in the making. Much has changed in McKinleyville since 1997 when a determined group of McKinleyville residents pursued legal recourse for sediment impacts to Mill Creek during the development of the Mill Creek shopping center. Their actions led not only to the conservation of the Chah-GAH-Cho property for public enjoyment and habitat, but also to the formation of the McKinleyville Land Trust. We thank those founding community members for their foresight as we celebrate the first anniversary of the formalized trail system at Chah-GAH-Cho.



If you haven't been to Chah-GAH-Cho since the grand opening, today is always a good day for a walk - plus some changes await you! Several more benches along the trail provide for resting spots, beautiful views, and casual conversation. Land Trust volunteers have continued to remove invasive ivy and conduct vegetation management to bring more light and sightlines to the forest trail loop. In addition, a collaboration with the Watershed Stewards Program this past spring allowed us to remove ivy and enhance habitat deeper into the forest. The Land Trust has also planned a prescribed burn in the meadow for next fall with assistance from fire professionals from Redwood National & State Parks and UC Cooperative Extension. The burn and subsequent plantings will encourage the growth of more native plants for habitat and cultural values.

So visit your neighborhood trail during any season, whether with your furry four-footed friends or two-legged companions. A new Volunteer Trail Stewards program will offer a monthly opportunity help maintain the trails; in addition, the Friends of Chah-GAH-Cho meets occasionally to plan activities. Review this newsletter for more information about how you can get involved to help ensure Chah-GAH-Cho remains a welcoming neighborhood trail with the best view in McKinleyville!

**McKinleyville Land Trust
16/17 Fiscal Year Expenses**



MLT greatly appreciates your generosity.

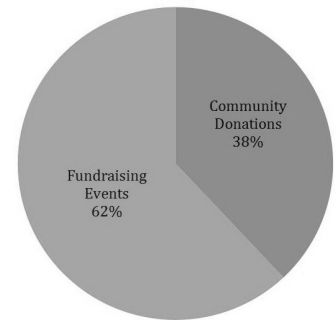
The distribution of MLT’s expenses demonstrate our commitment to caring for our fee properties, monitoring conservation easements, conducting community outreach, and ensuring the sustainability of the organization.

FISCAL AND FUNDRAISING UPDATES

MLT depends upon contributions from our community in order to continue to ensure vital open space habitat and access to our public lands in northern Humboldt County. Community donations and local fundraising events, such as MLT’s Annual Dinner, North County Fair booth, and Pints for Non-Profits, make up the vast majority of MLT’s income. As an entirely volunteer organization, this means YOU can make a big difference! Consider making a donation to your local community land trust today and keep an eye out for upcoming MLT fundraisers. If you wish to make a tax-deductible donation to the MLT, you can use the PayPal button on our website, www.mlandtrust.org, or you can send checks to: MLT, P.O. Box 2723, McKinleyville, CA 95519.

MLT is also a part of “Amazon Smile” – sign up at smile.amazon.com, specify MLT, and a portion of your order price will go to us.

**McKinleyville Land Trust
16/17 Fiscal Year Income**



THANK YOU TO OUR VOLUNTEERS & DONORS OF 2017

Steffen Allan, Carmen Arguello, Leonel Arguello, Julian Barbash, Alan and Shirley Bird, Anna Mae Botley, Laura Bridy, Lynne Bryan, Monica Bueno, Greg Bundros, Carol Lawrence and Tom Cackle, California Conservation Corps, Michael Cipra, John Crater, Nancy Correll, Neal and Suzanne Crothers, Debbie Davis, Lori Dengler, Sabra and Jeff Dunk, Richard Duning, Linda Evans, Bob and Ginny Felter, Sylvia, Don, Ben and Jason Garlick, Barbara Georgiana, Healthsport, Lee and Chris House, Humboldt County Sheriffs SWAP, Humboldt Sanitation, Pete and Judy Haggard, Chris Heppe, Greg Jaso, John Jaso, Kmart, Jennifer Kalt, Nannette Kelly, Paul and Barbara Kelly, Joyce King, Dorothy Klein, John Kulstad, Tony LaBanca with Linda, Bailey & Malina, Nancy and Leo Leer, Gordon and Julie Leppig, Tom Lisle, Mad River Brewing Co., Larry Margler, McKinleyville Area Fund, Mckinleyville Sheriff Office, Ben and Amanda Moorehead, Adele Nipkau, Lois Nipkau Revocable Trust, Meighan O’Brien, Brenda and George Pease, Jim Pell, Robert Reichert, Richard Ridenhour, Gina Rimson, Jim and Pamela Ritter, Dave Roemer, Diane Ryerson, Samara Nursery, Singing Trees Garden, Six Rivers Brewery, Greg and Kristin Schmidt, Emily Sinkhorn, Darci Short, Emily & Jason Teraoka, Zia Schatz, Kurt Werner, Jennifer & George Wheeler, Carol Wilson, Melissa and Bill Zielinski, and more!

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Monica Bueno
Steffen Allan

MISSION STATEMENT

The purpose of the McKinleyville Land Trust is to conserve local open spaces for ecological, historical, agricultural, educational, recreational and scenic values.

For Everyone—Forever.

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McKINLEYVILLE
LAND TRUST

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SAVE THE DATE—MARCH 11 ANNUAL DINNER

Devastating wildfires in 2017 have rekindled much discussion about the use of prescribed fire as an option for managing lands. While not without risk, fire use has many positive benefits and a long tradition of use in our California landscapes. Federal agencies, such as the National Park Service (NPS), use fire in numerous ways to improve and nourish the landscape while providing some measure of protection from devastating wildfires. For private landowners wishing to restore fire on their property in California, the issues are more complicated. Private landowners have fewer resources to support their efforts to safely burn their land. This presentation will provide an overview of how the NPS uses fire to restore healthy ecosystems, focusing on examples from our local Redwood National Park. It will also delve into the issues of burning on private lands and the growing efforts being made in Humboldt County to increase prescribed fire use. Speakers will highlight Humboldt County's Prescribed Burn Association, a public-private partnership between the UC Cooperative Extension, private landowners, and other partners, the first of its kind in California, to increase the use fire on private land.



Our speakers are *Eamon Engber*, Fire Ecologist for Redwood National Park, Whiskeytown National Recreation Area, Orgeon Caves National Monument, and Six Rivers National Forest; and *Lenya Quinn-Davidson*, Area Fire Advisor for the UC Cooperative Extension, Director of the Northern California Prescribed Fire Council, and Coordinator for the northern region of the California Fire Science Consortium. Mark your calendars and join the MLT for this timely discussion on fire management during the **MLT Annual Fundraising Dinner and Auction** at Azalea Hall, McKinleyville on March 11, 2018. Doors open at 5pm, see you there!