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# TRIBUTARY TRIBUNE



**STORIES AND ART BY MEMBERS OF  
THE WATERSHED STEWARDS PROJECT**



The Watershed Stewards Project's (WSP) mission is to conserve, restore, and enhance anadromous watersheds for future generations by linking education with high quality scientific practices.



A project of the California Conservation Corps, WSP is administered by California Volunteers and sponsored by the Corporation for National and Community Service.

The confluence of the Klamath and Salmon Rivers, Somes Bar, CA  
Image by Emily Hirschman

**THE TRIBUTARY TRIBUNE SHOWCASES THE ADVENTURES, INSIGHTS, AND ART OF MEMBERS OF THE AMERICORPS WATERSHED STEWARDS PROJECT. FOR 18 YEARS THE WSP HAS BEEN SERVING COMMUNITIES THROUGHOUT CALIFORNIA'S COASTAL WATERSHEDS. THIS ISSUE FEATURES STORIES AND ART BY MEMBERS FROM OUR NORTHERN REGION, PLACED IN COMMUNITIES THROUGHOUT THE KLAMATH, SALMON, SCOTT, SHASTA AND TRINITY RIVER WATERSHEDS.**

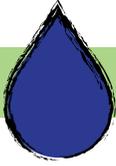
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Placed at US Forest Service Orleans



## Spawning Ground Surveys

To the tune of Auld Lang Syne

**By Karly Wagner**

Placed at DFG Yreka

Can dead salmonid be forgot,  
And never scaled again?  
Can dead salmonid be forgot,  
And left to rot alone?

Chorus:

'Cause spawnings done, my friend  
'Cause spawnings done,  
We will take a break from fieldwork  
now  
'Cause spawning's done!

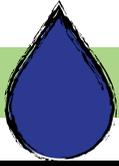
We all have walked along the  
rivers,  
And stumbled down the rocky  
paths,  
But we have gathered many  
exquisite samples  
'Cause spawning's done!

We all have waded up the  
streams  
From dawn until we are done,  
But now the fish have come and  
died  
'Cause spawning's done!

And now is a time to stop and  
breath,  
And give us a chance to teach,  
And we will take a goodwill rest  
'Cause spawning's done!

And surely they will spawn again next year,  
And surely we will get more samples!  
And we will take a break from fieldwork now.  
'Cause spawning's done!





# How to Process A Carcass for Dummies

By Bonnie Bennett and  
Hannah Hourie

Placed at US Forest Service Lower Trinity

**Step 1:** Leave the warm office and go to the river.

**Step 2:** Find a dead fish...hopefully not a fuzzy one.

**Step 3:** Haul carcass to the side of the river and onto the flattest section you can find. Did you wrestle in high school? Those skills may come in handy for the higher weight class fish.

**Step 4:** Use a knife of personal preference to flake scales from the left side “sweet spot” and place them in a, hopefully, not too soggy envelope.

**Step 5:** Carve out a pound of flesh... I mean... get a tissue sample and put it in a different soggy envelope.

**Step 6:** The fun part! If your fingers are not frozen by now, wrap your hands around the top of the head and firmly grasp the eye sockets for leverage. Cut into the head and expose the brain cavity.

**Step 7:** Make like a zombie and fixate on brains. Remove the brains to find the hidden treasure called an otolith. Hopefully two intact specimens will be placed into yet another soggy envelope.

**Step 8:** The best technique will take time to master but is well worth the effort. Hold the fish up with one hand by firmly grasping the tail. Close your mouth and hack at fish until you have two separate pieces. It is like a bad dance move from the eighties--we call it the “one hand machete chop”. New Kids on the Block have nothing on you now because you are really ‘Hanging Tough.’ The older the carcass is, the more exciting the grab-and-hack technique becomes, as smelly gooey insides may spray everywhere while processing. Remember to slightly avert your face to avoid gut spray, but always keep an eye on your hands and surrounding area while wielding the machete.

**Step 9:** Carefully toss all of the pieces back into the river while still averting the face to avoid any leftover gut splash.

**Step 10:** Congratulate yourself on a job well done! I like to pat myself on the back after I rinse my frozen hands in the ice cold river.

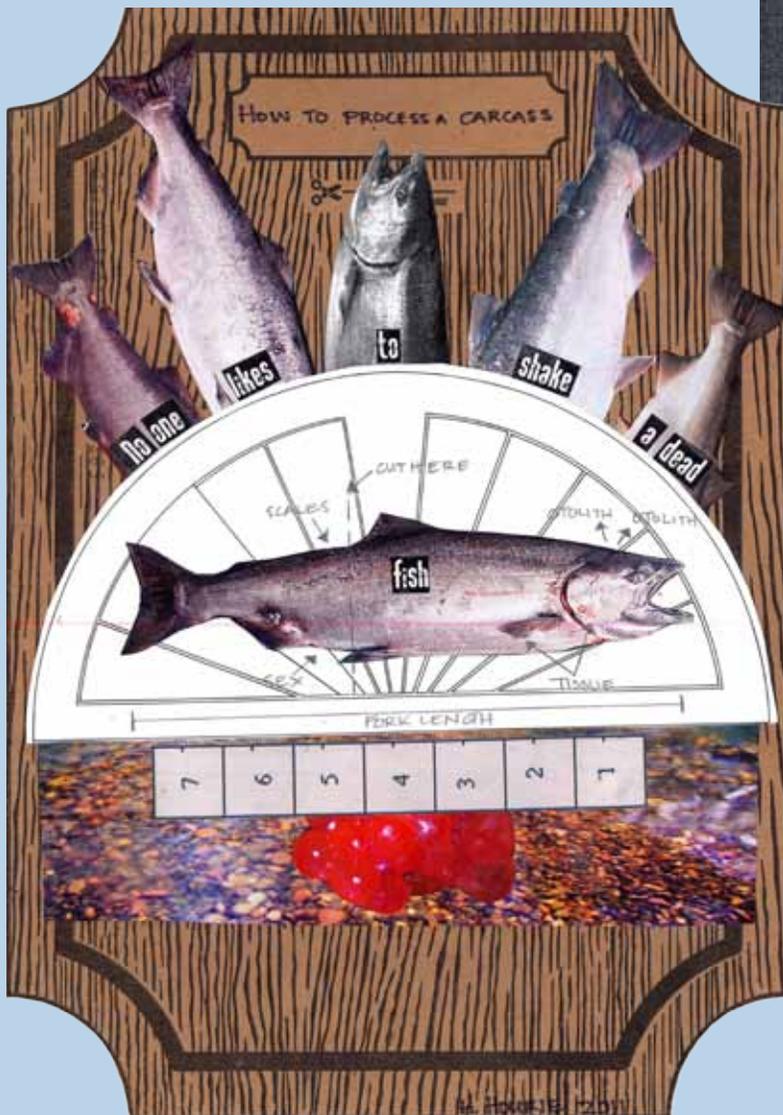
**Step 11:** Relax and enjoy. This is science and you are a biologist now!

**Having fun yet? Don’t worry, there’s more!**

**Now repeat steps 1-11, 40 more times!**

## Helpful tips for the especially fuzzy ones...

- Avoid breathing.
- Swing away from yourself.
- Sharp knives will shorten exposure time to the unique aroma of rotting fish.
- A painter’s gas mask may come in handy but they are hard to haul down the river.



Collages by  
Bonnie Bennett and  
Hannah Hourie



## Klamath River Limericks

By Mia Wapner

Placed at the Yurok Tribe Environmental Program

Grab bacteria samples for human health testing

The sun is just rising, barely cresting

LES, TG, TC

Don't forget TR and WE

For 11 1/2 hours, we have earned our resting

Oh to admit the summer is gone

No more calibrating the data sondes

A few months of dark

We will surely embark

On the day we can finally carry on

To the river to take a flow!

Through bald hills prepare for the snow

Oh please let it rain

Our flow can only gain

When the bomb holds our meter below

Photo by Brian Pierce

Placed at Mid Klamath Watershed Council

# Gypsy Moths: The Silent Killers

By Jimmy Peterson

Placed at Mid Klamath Watershed Council

I awoke one morning in the spring of 2005 to my father stating that we had some new friends in the yard. At first I assumed that it must be something good but as we walked through the yard, I saw what I initially thought was a massive spider web surrounding the majority of the crown of one of our crab apple trees. I was not too pleased that these were the new friends my father had spoken of, because I am fairly squeamish around arachnids of any kind. Upon closer inspection of the nest, I saw that it was filled with a withering black mass of hairy worm-like creatures. That's not much better. This was the first of my many encounters with these nasty little critters that plague the landscape.

I moved to California from Minnesota about four months ago in the fall of 2011, and was startled when, within the first few days of field work, I began to notice these same mass of webs encompassing many of the madrone trees in the area. I had not known that the same pest which had infested my father's yard over 2,000 miles away had spread to inhabit a good majority of the United States. Having previously dealt with these nasty little "worms," I was curious to find out more about them. The only thing that I had previously known was that they are bad news and they kill the trees they inhabit. Since it was Tributary Tribune time, it seemed like a good idea to write a little about my far-reaching friend.

After some research, I discovered that these "worms" are actually moth larvae from the Gypsy Moth (*Lymantria dispar*). The two groups I had observed are both Gypsy

Moths, however each have distinct places of origin and slightly different life cycles.

One species is indigenous to Europe, while the other hails from Asia. They were first introduced in the Northeastern United States, sometime around the 1860s. Since then, they have spread throughout the country. Gypsy Moths are masters of defoliation and, since their introduction; they have been credited with defoliating millions of acres of forest habitat.

One of these "worms" can eat up to a square foot of leaves a day. Additionally, any part of the tree that is covered in their massive web usually dies or becomes extremely susceptible to disease. For areas with large infestations, there can be massive amounts of trees that can die out within a single life cycle. In areas that have frequent summer fires, these infestations can lead to increased amount of brush and fuel for summer wild fires.

After additional research, I began looking into the methods that are being used to control their impact. I had always either burned the nest or used a pesticide that was available. The most common method of control is a microbial insecticide called "Bt" which uses *Bacillus thuringiensis kurstaki*, a bacteria which is found in soil that is deadly to the species in a number stages of its life cycle.

The larvae usually hatch in spring or summer which is when you will see the most of the nests, although the nests do stick around without any inhabitants for quite a while.



**Left:** A Gypsy Moth larva can eat a square foot of foliage each day.  
*Photo courtesy of Associated Press*

**Right:** Swarms of Gypsy Moths have contributed to defoliation throughout the Northern United States since their introduction in the middle of the 19th century.  
*Photo courtesy of Wikimedia Commons*



# Working in a Wondrous Land

**By: Sarah Gossman**

Placed at the Yurok Tribe Environmental Program

I have always found the idea of working five out of every seven days of your adult life to be daunting. After graduation I was not sure how to tackle this situation. I turned to AmeriCorps so I could volunteer instead.

I hear that if you have a job you love, you'll never have to "work" a day in your life. Luckily for me, there are a lot of things to love around here. I love the rivers and the redwoods and I even find myself loving getting up at 4:30 am so I can put in an 11 hour day taking grab samples.

Okay, maybe "love" is a little strong for that last one. At the very least, those long, crazy days are satisfying. I'm going out into the field and gathering scientific data that will be used to understand the bigger picture that is the Klamath River. I get to hike down steep, rocky slopes with a backpack full of monitoring equipment, and when I get to the bottom, there she is: the mighty Klamath River in all her glory.

This isn't work. This is love.

## Photos by Rosa Albanese

Placed at DFG Yreka

Below: Two Chinook salmon carcasses found while conducting spawner surveys on the Scott River.



Left: Is it a beaver? Is it an otter? Snap photo first, ask questions later. It turned out to be debris perfectly piled in the shape of a fuzzy river creature. Oh well. It makes for a fun guessing game to play with your friends.



Above: Ice-cold springs near Mt. Shasta supply a year round supply of cold clean water to the Shasta River. This provides a refuge of sorts from the warm temperatures and low flows found elsewhere and is a critical habitat to Coho salmon survival.



Above: The end of the day when you're tired and can't possibly look at another stinking salmon carcass you finally make it to the end of the reach and behold—a waterfall.



Left: Rosa Albanese, placed at DFG Yreka, with Chinook salmon carcasses on a spawner survey.



## TOP 10 INDICATORS THAT YOU REALLY LOVE FIELD SEASON

By Travis Burnham  
At US Forest Service Orleans

10. You consider your thermos your most valued possession.
9. You wonder why someone is actually paying you to do this.
8. An eight a.m. start means you're "sleeping in."
7. The words "office work" sound threatening.
6. You have forgotten the color of your house.
5. You refer to water temperatures above 40 as "warm."
4. You have dreams involving Coho.
3. An ideal first date involves waders.
2. Processing the last carcass of the day makes you hungry for dinner.
1. You make up excuses to convince your mentor that you need to work on weekends.



Chinook salmon swim upstream near Missouri Bar on the south fork of the Salmon River to spawn in their natal streams.



Photos by Brian Pierce  
Placed at Mid Klamath Watershed Council

# Alumni Spotlight: Erin Brown

**Service Year:** 2005 (Year 12)

**Placement Site:** Department of Fish & Game in Yreka

**Q:** What was the best part of your WSP service term?

**Erin Brown (EB):** I really enjoyed the exposure I received to salmonids and the opportunity to see and handle these amazing fish at all stages of their life cycle. I had studied watersheds, but I had not taken any fisheries courses or ever actually seen salmon spawning. WSP exposed me to how amazing salmon are, working at a site where they travel hundreds of miles from the ocean.

**Q:** Was there one experience that was especially memorable? Why?

**EB:** Spawner surveys while it was snowing were really beautiful and fun. I remember finding carcasses frozen in blocks of ice in the creek, and I was chipping the ice away to get the carcasses out to take tissue and measurements of it. The Marble Mountains were a beautiful backdrop to any work that we did in the Scott Valley and I have lots of memories of the breath-taking scenery.

**Q:** Why did you decide to accept a staff position with South Coast Habitat Restoration?

**EB:** I always wanted to get into watershed restoration. That was partly why I went back to graduate school. There aren't that many groups and organizations doing large scale watershed restoration projects in Southern California. South Coast Habitat Restoration gave me the opportunity to be involved in every aspect of implementing watershed restoration projects and stay in Santa Barbara after finishing my Masters degree.

**Q:** What are your title and responsibilities in your current job?

**EB:** I am the Project Manager. I oversee the implementation of all aspects of our restoration projects. This includes the construction

phase, re-vegetation efforts, maintenance, and monitoring of project sites. I also write SCHR's newsletter, maintain our website, work on grant applications, compile reports to different granting agencies, and I work a lot in the field with volunteers and the Watershed Stewards.

**Q:** What is different from when you were in WSP?

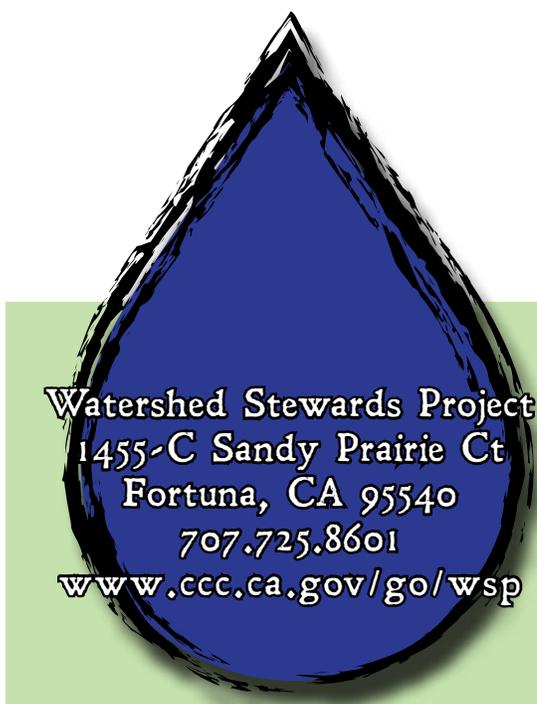
**EB:** In WSP, I did a lot of fieldwork related to life cycle monitoring of salmonids. Now I get to work on large-scale restoration projects that aim to remove migration barriers and improve conditions for southern steelhead. I like being involved in watershed restoration because I feel like I am making a bigger impact on salmonid recovery.

**Q:** What advice would you give current WSP members?

**EB:** Get the most out of your year. Try to get involved in as many different things as possible. You may not think certain projects or field tasks are interesting, but you never know where different experiences will take you. I know that if someone had told me that I would be chopping rotting salmon carcasses in half with a machete for a good portion of my year of service I would have thought twice about joining WSP, but the reality is that it was one of the best jobs I have ever had and an amazing experience. I really miss spawner surveys, even the days in Bogus Creek.

**Q:** How do you like being a co-mentor to WSP members?

**EB:** I really enjoy it. It's nice for them to know that I was in their shoes before. Even though the program is always getting updated the overall mission and requirements are still the same. We have two great members who work very hard and make my life easier.



## Who are we?

**Carrie Lewis - Project Director**

**Kristin Kovacs - Northern Project Manager**

**Jody Weseman - Southern Project Manager**

**Stephanie Hedt - Member Coordinator**

**Brenda Syverson - Office Manager**