



# Newsletter

"...When we see land as a community to which we belong, we may begin to use it with love and respect." ... Aldo Leopold (1886-1948), *American Forester*

## THE FISH AND THE WATERSHED

by Sandy Sharp

I am sure most of you have heard tales of the vast quantities of fish that historically spawned in our coastal rivers. The legend claims that "the fish were so plentiful you could walk across the rivers on their backs" - a slippery proposition at best.

As recently as 20 years ago numerous salmon and steelhead trout spawned in Salmon Creek.

Now it is rare to see a steelhead, and it has been several years since a salmon has been identified. Populations are down to the point of being listed by the government as threatened or endangered from central California all the way up the coast.



Especially in the Salmon Creek watershed, I wanted to know what happened to the fish. Why did they leave? And what, if anything, can we do to convince them to return?

To find answers to these rather nebulous questions I spoke with a number of people in different areas of environmental studies, whom I would like to thank. These included most notably Dr. Michael Banks, a geneticist with UC Davis doing research at the Bodega Marine Lab on salmonid populations; Katie Etienne and Jim Tischler, long time activists with Trout Unlimited, with a particular interest in Salmon Creek; Joe Pozzi, Gold Ridge Resource Conservation District (GRRCD); Liza Prunuske, a founder of Prunuske Chatham, Inc., an environmental restoration company; and Linda Esposito, a botanist who is studying, among other things, the native plant populations of lower Salmon Creek. I am particularly grateful to Dr. Banks who generously agreed to discuss his work and the watershed. (Continued on p. 2)

*Bodega Land Trust*

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Member: Land Trust Alliance



There is general agreement on a few basic points. When asked whether we might be observing the results of a natural cycle, Dr. Banks replied simply, "who knows?" Natural cycles can cover long periods of time and there is not enough data to know what's going on long term. A hundred-year flood, for example, could so change a spawning stream that the fish would reject it.

We do know, however, what conditions the fish like for spawning. They like shallow, gravelly beds, a gentle flow of pure water, and plenty of shade. In fact, if the whole creek isn't shaded enough the water will heat up to the point that the fish will reject it. The worst enemies of these desirable conditions are siltation, which buries the gravel beds, effectively destroying the spawning grounds; pollution, making the water too distasteful to consider; low water flow due to drought or excessive water use upstream; and a lack of riparian, shade-giving vegetation.

These conditions are interrelated. Siltation is caused mainly by erosion due to a lack of roots to hold the soil. Low water flow concentrates pollutants, and allows silt to build up. Overhanging riparian growth not only keeps the water cool but also is a barrier to large animals, keeping them from eroding the banks. Without sufficient water, the riparian cover won't grow. In lower Salmon Creek siltation has made the creek bed shallower, slowing the flow and allowing more siltation, a real catch 22. Clearly a two-pronged solution is needed here: increase the flow and stabilize the sources of erosion.

At present a few juvenile fish survive in the side creeks. There are more young in the creeks closer to the ocean than in the upstream tributaries. Hatchlings remain in creeks one to three years before swimming out to sea in the high water of Spring. They return, usually to their native creeks after four or five years. Dr. Banks reports seeing fry (about 1" long) in upper Nolan Creek (along Joy Rd.) and in upper Salmon Creek (above the school). They are too small to tell if they are steelhead or salmon, but it is highly unlikely that they are salmon. Nonetheless, it is a very hopeful sign to find fry this far from the ocean. In mid-September I observed three different sizes of juveniles in Fay Creek. These, according to Banks, represent three different runs, whose survival is also a good sign.

"What about simply stocking the creeks with fry from the fish hatchery until enough come back to reestablish

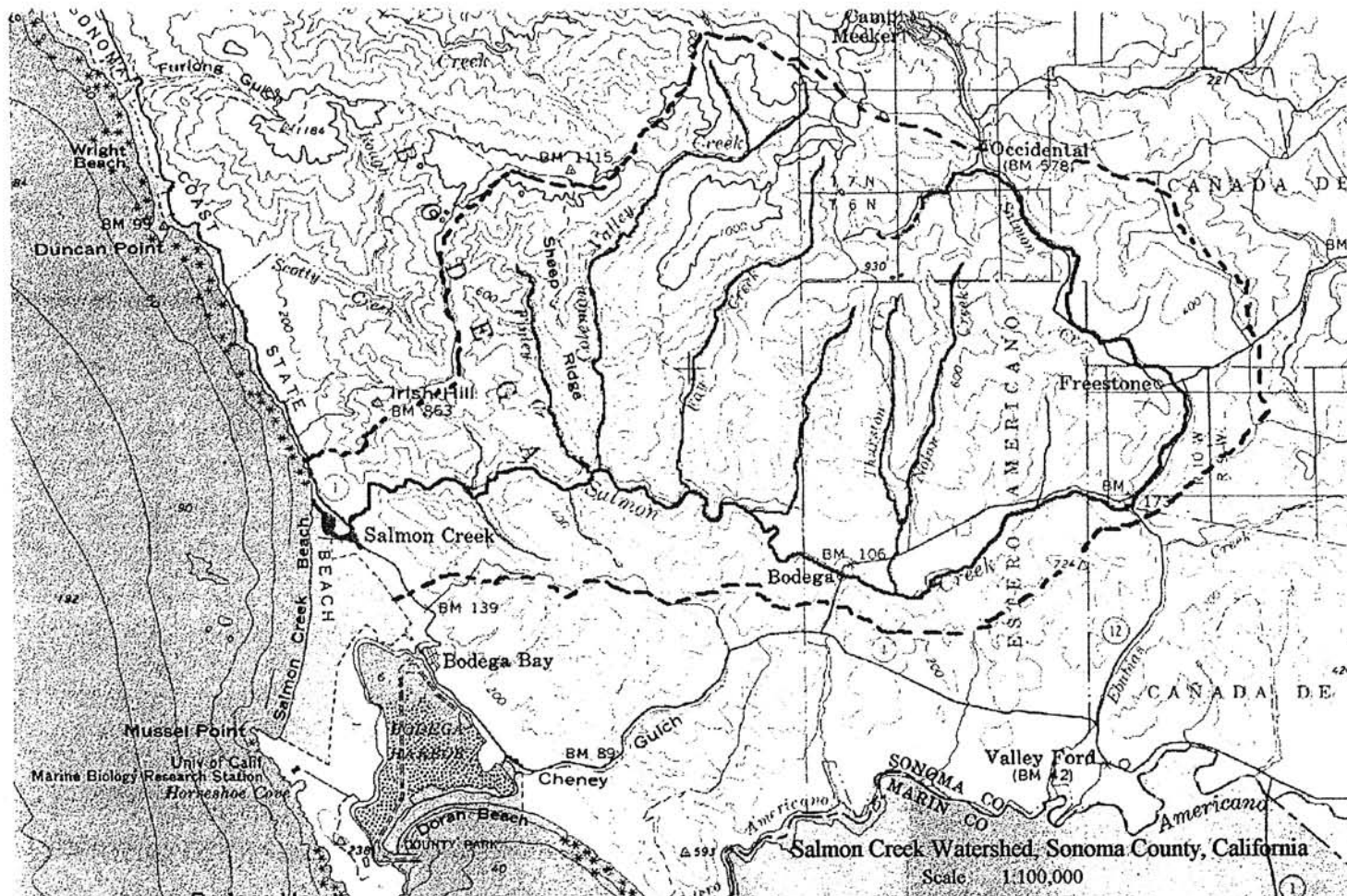
the runs", I asked innocently. Again there was general agreement: this would be a genetic disaster.

The viability of a population depends on genetic diversity. Banks' work has allowed him to analyze the genetic differences between native populations in such detail that he can distinguish not only stream-specific groups, but the different annual runs within a stream. By isolating, quantifying and comparing parts of the genome known to mutate easily, called micro-satellites, Banks and his co-workers can determine the diversity of a group. They have been able to demonstrate that the wild populations are more diverse than hatchery fish, as well as being stream-specific. To introduce foreign genes into this delicately balanced situation could destroy a local run forever, as well as weaken the wild gene pool in general. A gene bank has been established at the Bodega Marine Lab, partly to guard against the extinction of distinct groups. It can be used to strengthen existing groups but would only be used to restock a stream if it was clear the native run had disappeared, and Banks is not yet convinced this is the case in Salmon Creek.

Chinook like long runs such as the Sacramento and Russian Rivers, but Coho prefer short runs. Coho survival is therefore dependent on the health of small coastal watersheds such as ours. No Coho have been trapped recently in Salmon Creek. However, Coho are showing up in Laganitas Creek in Marin, where in the last few years extensive restoration work has been done under the direction of Prunuske Chatham Inc. Since Coho sometimes like to explore different creeks at spawning time instead of just making a beeline for their home creek it is possible that the Laganitas Coho are effectively the same as those from Salmon Creek. If conditions in Salmon Creek improve enough, runs of Coho may return.

Luckily, the Salmon Creek watershed is in exceptionally good condition. Circuit Rider Productions recognized this in a 1987 survey, and according to GRRCD it is still true today. Salmon Creek has become recognized as a good example despite the loss of the fish. But this is no reason for complacency. It is time to ask, "what can we do to help restore our spawning grounds and restore our fishery?"

Several of the people I talked to observed that the greatest impact on the watershed in the last 15 years comes from the increase in water use due to an expanding



Salmon Creek watershed. If you live inside the dotted lines you are part of it.

Map courtesy of Jim Tischler

population. Every home and ranch puts a small drain on all our resources. It's important to remember that some water company does not pipe our water in from somewhere else. All the water we use is drawn out of the watershed and depletes the potential flow into the creeks, so the most important thing is...**don't waste water!** Just paying attention to simple things like not letting the water run while brushing your teeth, and using your wash water to water your plants can make a tremendous difference if we do it together. The kids can get involved too. They could make a game of seeing how many ways they can find to save water and estimating how much is being saved (not bathing is **not** an option).

Erosion around the home is another area where we can make a difference. When it rains, see if your down spouts cause erosion, and check the flow off your driveway. Paved and improperly graded roads, especially in the hills, concentrate runoff and funnel silt into the creeks.

If you have a serious erosion problem, or own part of a creek and would like help with riparian planting, or fencing, please call us. There are several government agencies that can provide up to 90% of the cost of materials, and we have volunteers who will help with the labor.

Now supposing you have become the best watershed steward in the world and your place is in great shape. What's the best way to make sure it will stay that way after that inevitable time in the future when you no longer own it? Here's where a local land trust can really be of service. We can help you write a conservation or agricultural easement for your property that will keep it the way you want it, and may provide a nice tax break as well. Just give us a call and we will be happy to send you information on how easements work.

By working together we can look forward to a healthier, happier watershed. And check the creeks this winter - there may be a Coho in your future!





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by Anne Greenfield

I would like to honor a Bodega man who died in May – Frank Ryan. I was affected by his death not because we were intimate friends or close working associates. Rather, I went to his funeral service to be with my community in mourning the loss of one of our major supports.

Frank had been holding his second term as president of the Bodega Volunteer Fire Department, an organization he'd been dedicated to for almost 20 years. With his information-gathering and computer skills, he was essential to an organization enmeshed in the bureaucracy of county and state. We volunteers and staff would often ring Frank for advice, or for the final word on an organizational matter.

Frank was also special in that his relationship with the community was not just a business one. He liked people; he spent time with them and reached out in friendship to his associates.

Frank was a noteworthy and most beloved individual. But what I found most remarkable about him was that he hadn't sprung from the community, though he seemed so integral to it. He was a city boy from San Francisco, only a fairly recent Bodega resident (since 1975), educated at San Francisco State University, and employed by Hewlett-Packard. His favorite pastimes were reading, attending the symphony, and traveling. Many of us who arrived in Bodega in the 1970's came from similar backgrounds, and the native populace we encountered looked very different. The community was then comprised mostly of families who had been in Bodega for 2-3 generations, mostly engaged in sheep, cattle, or dairy ranching, and deeply rooted in the land and their local community. I personally felt like an alien when I arrived and it took me many years to feel that I could find a place for myself.

Obviously, the differences needn't separate us as Frank was able to bridge the differences and become an active community member within a couple years. And after 20 years he had become a "pillar" of the community, as one person at the funeral praised him. Another old-time Bodega resident gave Frank one of the highest compliments I can imagine: "He was one of us."

What was it about Frank that allowed this connection? An attitude? An openness to people? His generosity of time and energy?

Our community increasingly draws many different kinds of people. I once attended a workshop that made a ceremony out of differences. We all made a line, holding hands, then spiraled around – encountering each individual in the line. To each person we repeated, with sincerity, the phrase "we are different than each other . . . but not really."

As I sat in the church for Frank's funeral service, I felt the solidarity of the community around me, as we all deeply grieved the loss of a man who was part of us

B.L.T.'s mission includes the support and preservation of community, and as a board member I propose Frank Ryan's life as an example of successful community involvement. Within any community there exists a number of opportunities for involvement, and the satisfaction of connection is there for everyone. Let's not let the so-called "differences" get in the way.

*B.L.T. invites P. O. V. columns from the public, either complete or as suggestions.  
 Mail to: B.L.T., Box 254, Bodega, CA 94922.*

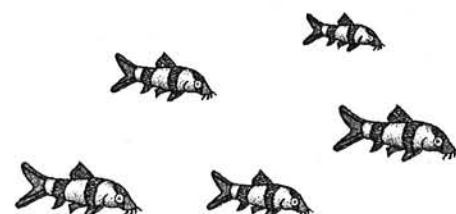
## Richard King speaks at B.L.T. General Meeting

A meeting for members and friends will be held at McCaughey Fire Hall in Bodega on Oct. 23<sup>rd</sup>, at 7:00 p.m. Richard King, Area Ecologist with NRCS, will speak followed by an open forum for discussion, questions and suggestions. Desserts and coffee will be served.

Mr. King will present his intriguing views on "Developing goals for natural resource management". He has worked with the Natural Resources Conservation Service (the former Soil Conservation Service) for twenty-two years as a range and pasture management specialist. He is well known and respected by many area agriculturists through his time as District Conservationist of the Santa Rosa office. Richard's current role as the Area Ecologist involves him in one of the nation's hottest land use debates - development vs. preservation of wetlands.

Richard relies on an approach known as holistic resource management. This method stresses consideration of production, environmental and personal goals as an interconnected whole. An important element of holistic resource management is the effect on individuals, their families and community.

His personal and work experience provides the background for an insightful discussion of how to prioritize and achieve goals.



## 5.5 Miles of Riparian Corridors

B.L.T. is very pleased to announce that we now have commitments from willing landowners for conservation easements on approximately 5.5 miles of stream banks in the Salmon Creek watershed.

One of the most exciting is a 3/4 mile long corridor along Fay Creek. A riparian restoration project for the whole corridor is being developed and coordinated by a botanist who specializes in the study of the native plants of our watershed. It will occupy about 7 acres and, if approved, take several years to complete.

At present the proposal includes three phases. The first involves biotechnical repair and revegetation with native willows and shrubs to control erosion. In the second phase a 25 foot wide strip next to the creek will be planted as a willow thicket using local willows, dogwood, ninebark and twinberry. It will provide shade for the stream, stabilize the banks, and provide bird and insect habitat.

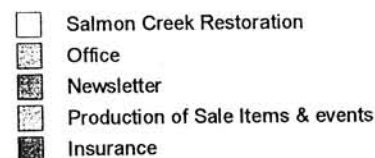
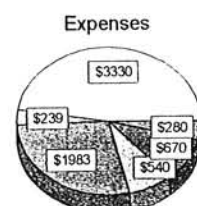
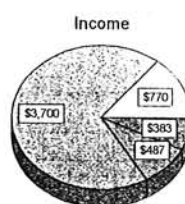
In the third phase, the outer terrace will be planted as a mostly winter-deciduous riparian forest using such local trees as box elder, buckeye, bigleaf maple, Oregon ash and coast live oak, and shrubs such as hazelnut, Mexican elderberry and hawthorn. We also hope to include special plantings of rare and unusual native species such as the Western leatherwood, which has been identified only in the Bay Area and on lower Salmon Creek. Ultimately the project will create a native habitat not only attractive to wildlife, especially riparian birds, but also to us less wild ones who want to learn more about our native plants.

Funding is being sought from several governmental agencies that provide materials and assistance for riparian enhancement. We expect that much of the labor can be accomplished by volunteers. Plants will be propagated from local seeds and cuttings and then brought to the site for transplanting. We hope that many of you will want to make this wonderful project a real community effort by coming out and digging in (literally) when the time comes. If you are interested let us know at 876-1806 or 876-3422. We will keep you posted!

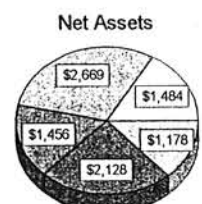


## BODEGA LAND TRUST FINANCIAL SUMMARY FOR 1996

CASH ON HAND			
	IN	OUT	
<b>OPEN Jan. 1, 1996</b>			<b>\$1161.42</b>
Memberships:	770.00		
Interest on savings:	480.57		
Sales of promo items:			
T-shirts: 143.00			
Cards: 240.00			
Total:	383.00		
Cost of promo items & and events:		540.93	
Office expenses:		239.63	
News letters (nos. 1 & 2):		412.21	
Fees (services & memberships):		220.00	
Education:		60.00	
Misc. (Petty cash):		50.00	
<b>TOTALS:</b>	<b>1633.57</b>	<b>1522.77</b>	
<b>CLOSE Dec. 31, 1996</b>			<b>1272.22</b>



GRANTS			
TITLE	OPEN	CLOSE	CHANGE
Salmon Creek Restoration Fund:	1456.56	1456.56	0.00
Rex Habitat Restoration Fund:	6000.00	2669.15	-3330.85
Received In 1996:	Date opened	Amount	
TPL Development Fund:	July 8	3700.00	2128.88
<b>TOTALS:</b>	<b>11,156.56</b>	<b>6254.59</b>	<b>-4901.97</b>



ENDOWMENT FUND			
Donations in 1996:	0.00	1484.22	1484.22
			0.00



# The Making of the *Bodega Potluck Cookbook*

by Hazel Flett and Stephan Gross

The *Bodega Potluck Cookbook* was inspired by a comment at a Bodega potluck that "these are the only potlucks I go to where there's so much food I can't find a place to put my dish down." What a vision of bounty! Of course one could also think: "We need to set more tables." We did that, too!

I wanted to celebrate this bounty and began inviting friends and neighbors to contribute their potluck recipes. We advertised in the Newsletter and in the post office. I wrote down recipes as people cooked at home, at potlucks, and over the phone. The formation of a committee brought in cooks much better than I to edit and proofread the recipes.

If you weren't asked personally or missed the deadline your contribution is still welcome. We plan to do a second, enlarged edition when we have enough material. Just send your recipe to the B.L.T., Box 254, Bodega, 94922.

The Cookbook would not look so beautiful without the creative efforts of Maureen Lomasney, founder of Tannery Creek Press. Maureen designed the book, chose the fonts, and researched the papers used in the book. She also did most of the seemingly endless computer layout necessary to move from a word-processed document to a book. She wanted a hand-made, country look: the hand-printed covers, and the linocut illustrations by Serge Etienne of Freestone, give it that character.

The paper she chose is very unusual. It is a smooth paper made from bamboo, which, unlike trees grown for pulp, takes only four years to mature. Contract farmers

in Thailand plant and harvest the bamboo. It is processed into pulp, leaving only a non-toxic effluent which is used to irrigate upcoming crops. The pulp is then shipped to Appleton, Wisconsin where it is made

The covers are equally unusual. They are made from acid-free and elemental chlorine-free paper. The paper is made of organically grown, naturally colored cotton Fox Fiber without using bleach or dyes. The cotton grows in natural shades of green and brown. The use of organic cultivation methods, along with small-batch custom production ensures a high-quality paper with archival durability.

Maureen's Tannery Creek Press has published two beautiful books for personal entries: "My Life", and "From Here to There and Back Again: a Travel Journal", on display at Quicksilver Mine Co., Sebastopol. Her current works "This Is My Tribe", a photo exhibit, and "My Life In Crates", an environmental installation, will be on view at her studio during the Open Studio tours Oct. 18, 19, 25, and 26. Her studio is located in Graton at Atelier 1, no.23, 2860 Bowen St..

Production was done by G-WIZ Graphics and Printing in Sebastopol, using soy ink for the covers.

The Bodega Potluck Cookbook has been a very popular fundraiser for the land trust and is now in its second printing. It makes a wonderful gift - something to keep in mind during the upcoming gift-giving season. We hope you will give them generously and thank you for your continuing support. If you can't find a copy please call Ann Cassidy at 876-1806.

## Where to buy the cookbook:

<b>B.L.T.</b>	876-1806
<b>Bodega:</b>	Artisans' Coop Roadhouse Coffee
<b>Guerneville:</b>	River Reader
<b>Occidental:</b>	Hand Goods
<b>Sebastopol:</b>	Copperfield's Books Food for Thought Frizelle-Enos
<b>Santa Rosa:</b>	Copperfield's Books Food for Thought



## THE POTLUCK COOKBOOK



BODEGA COOKS FOR THE BODEGA LAND TRUST

## WHAT'S COMING UP AND NOT TO BE MISSED

### **Salmon Creek Watershed Conference Meeting**

A Salmon Creek Watershed Conference and Fair is being planned for Spring, 1998. The next plenary session will be held at 6:00 P.M., **Nov. 3** at 611 Bohemian Highway in Freestone. Everyone interested in helping to create a spectacular community event please come.

For more info call Katie Etienne at 874-0100 (work) or 874-3353 (home).

### **B.L.T. Geology Walk**

Terry Wright, professor of geology at Sonoma State, will lead a hike on Sun., **Nov. 9**. Meet at 10 A.M. at the Bodega post office. Prof. Wright is an expert on Sonoma County geology and well known for his entertaining style. We will begin by visiting formations around Bodega and will then travel to Bodega Head to view "profound rock contrasts" visible along the San Andreas Fault. Wear sturdy shoes, and bring a bag lunch. If you can't make it, you can take a "virtual field trip" of Bodega Head and other Sonoma County geologic hot spots by visiting Prof. Wright's web site at <http://www.sonoma.edu/geology/wright/>.

### **B.L.T. Annual Dinner and Silent Auction Fundraiser**

More treats from the Potluck Cookbook will be served in McCaughey Fire Hall on Saturday, **Nov. 15th** starting at 6:00 p.m. Tickets are \$8 for adults and \$4 for children for the sit down dinner. Please make reservations and say whether you want a meat or vegetarian meal by calling 876-3402 or 876-3422.

After the meal, there will be a great chance to shop for Christmas (or yourself) at the B.L.T. Silent Auction: warm things, arts and crafts, services, and gift certificates for local stores will be among the items available. B.L.T. is seeking Auction items. Please call the numbers above if you have something to donate.



Have you joined or rejoined B.L.T. in the last year? If not, here's your **BIG CHANCE!**

## **BODEGA LAND TRUST MEMBERSHIP FORM**

I would like to become a member or continue my membership at ☐\$10 ☐\$20 ☐\$50 ☐\$100 ☐ Other

Please check your address on the other side of this form for accuracy and mail to:

B.L.T., PO Box 254, Bodega, CA 94922

Make checks payable to Bodega Land Trust

**All donations are tax-deductible**

#### **I am interested in being involved as:**

- ☐ an interest group participant
- ☐ an advisor
- ☐ a Board member
- ☐ an occasional volunteer
- ☐ other

My special interests are:

My special skills are:

A project I would like to see the Bodega Land Trust consider is:



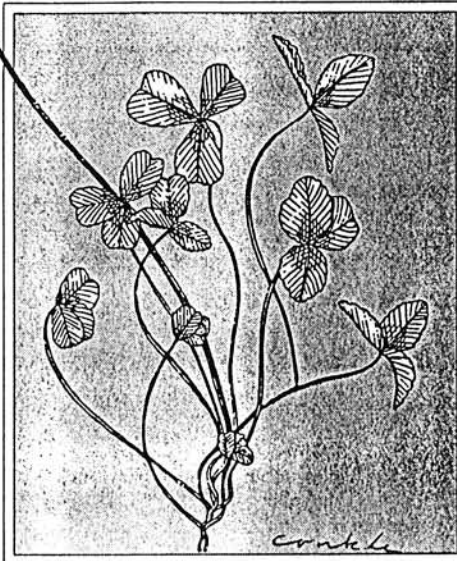
NANCY CONKLE'S

NOTECARDS FOR B.L.T. CONTINUE TO BE POPULAR

One of eight original drawings in the series "Wild Plants of the Salmon Creek Watershed". They are available as sets of notecards, at the following stores:

**Bodega:** Bodega Landmark Studio;  
Artisans' Co-op; Northern Light  
Surf Shop; Roadhouse Coffee  
**Occidental:** Natural Connections  
**Sebastopol:** Wild Things

Proceeds support B.L.T.



**White Clover** (*Trifolium repens*) - A long-lived perennial native to our fields and open forestland, white clover's fibrous root system helps it withstand drought and control erosion. As a legume, it adds nitrogen to our soil.

White clover's creamy white blossoms add beauty to a garden and can be turned under as a green manure.

Drawings by Nancy Conkle for B.L.T.



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*Board of Directors:* Mary Biggs, President; Sue Head, Vice-president; Sharon Welling Harston, Vice-president; Alistair Bleifuss, Secretary; Sandy Sharp, Treasurer



## ***SPECIAL WATERSHED ISSUE***



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