

# Watershed connections

## feature

## The Tod Creek Watershed

### Welcome

to the first issue of *Watershed Connections*, a publication for the Tod Creek watershed that will be distributed in February, June and November each year.

The purpose of *Watershed Connections* is to connect the community and provide information that will assist watershed residents to live and work in an ecologically sustainable manner, in harmony with the watershed environment.

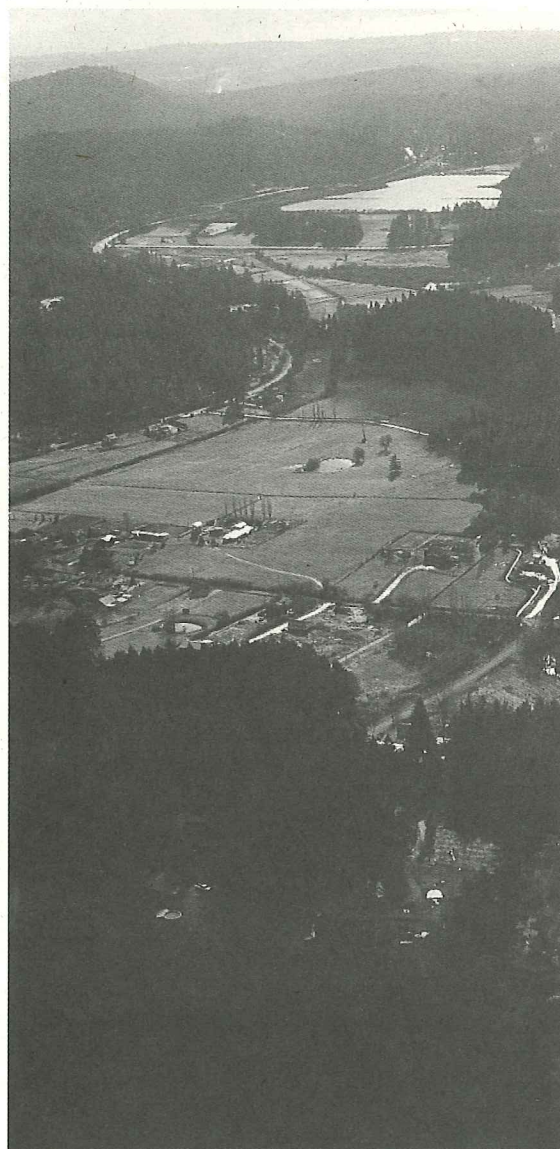
*Watershed Connections* is produced by three members of the "Friends of Tod Creek Watershed" stewardship group, with articles contributed by watershed residents.

We invite comments and submissions from members of the community. Please contact us at 479-1956 or email [wconnections@shaw.ca](mailto:wconnections@shaw.ca)

We hope *Watershed Connections* will prove to be informative and enjoyable for residents of the Tod Creek watershed, and that it will provide a forum to stimulate thought and discussion about environmental issues. Although the foundation of the publication is environmental stewardship, the articles will cover a range of related topics to ensure that *Watershed Connections* has relevance to a broad and inclusive readership. To that end in each issue we will feature articles on natural history, cultural history and land use, community concerns, a section for children, and a profile of a watershed resident so that we can meet and get to know each other. The Tod Creek watershed is home not only to a fascinating diversity of plants and animals, but also a varied group of interesting, talented and unique people — all your neighbours!

Why choose the watershed boundaries for our readership? It makes both ecological and social sense to consider ourselves as members of a watershed community. A watershed is a web of interconnected ecological processes that should be considered as an integrated whole. All life in the watershed, including people, are part of these natural systems. All of us affect the watershed and are dependent on it. As we live and work on our land, we create a collective influence on the natural systems of the watershed. The effects of our individual activities are not isolated to discrete pieces of personal property but are part of ecosystem processes that operate at the watershed level.

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Aerial view looking south towards the distant Tod Creek flats behind the Red Barn Market. Wallace Drive is on the left. Photo: Shelagh Levey



# natural history



Photo: Frances Hunter

## The Superbox and California Tea

*Kudos to Saanich for its quick action and cooperation in helping us steward this rare plant population!*

Those who drive Goward Road may have noticed the fading orange flagging tape festooning the branches just east of 230 Goward Road. These mark a small population of California Tea (*Rupertia physodes*), a rare plant in the pea family. We discovered these plants the day after they switched our mail delivery to the "superbox" on Stevens Road. On our first evening stroll to the new box I noticed dark green three-parted leaves poking through the grass in the ditch and road right-of-way. I immediately knew that it was a plant I had not seen before. I guessed it to be in the pea family, and Leah remembered a pea-family plant that the Conservation Data Centre listed that was known from a collection taken at Prospect Lake over 30 years ago, among other places. A quick check in George Douglas' *Rare Native Vascular Plants of British Columbia* and our suspicions were confirmed.

Why had we not noticed this plant before? Its shiny dark green leaves are very distinctive. Then it came to us that this area is mowed by Saanich each year, so the plants never get to bloom or set seed. I notified Saanich the next day, and they met me at my driveway three hours later, flagged the population for the mowing crew (which arrived the day after that)

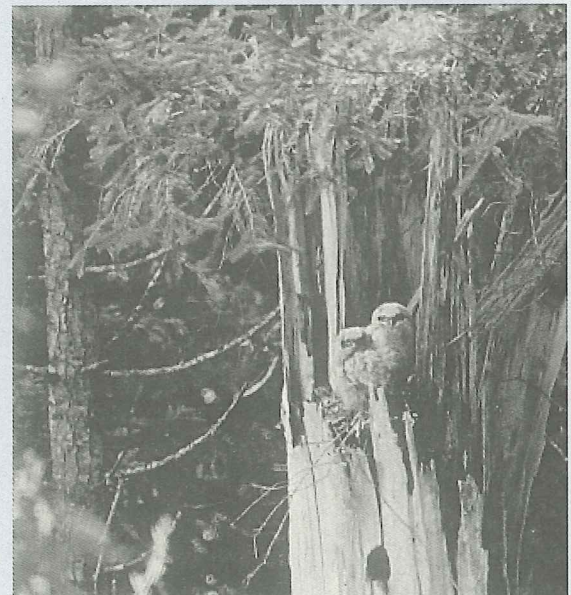
who lifted their blade and spared the California Tea. Last year the plants flowered and set seed, likely the first time in many years.

The challenge will be to maintain this population. Unmowed, the ditch will revert to Snowberry, Scot's Broom and Ocean Spray, which will quickly shade out the California Tea in a few years. Mowed too early this population will never set seed. We have undertaken the job of removing the broom, and will mow the brush every three or four years, after seed set, to keep the site open enough.

Since this, I have found California Tea on Stevens Road (opposite the mailboxes!) and on Castlerock Road, and Richard Hebda told me that he had a plant pop up after a burn on his Durrance Road property. Likely other populations occur on the peninsula — if you find some, report them to the Conservation Data Centre at <http://srmwww.gov.bc.ca/cdc/contribute.htm> — DAVID FRASER

DAVID FRASER is the Endangered Species Specialist at the Ministry of Air, Land and Water Protection, LEAH RAMSAY is the zoologist at the B.C. Conservation Data Centre. David and Leah are in the process of entering into an agreement with Habitat Acquisition Trust on managing their Goward Road property for rare species and ecosystems.

## Watershed Gallery



Woody Thomson photographed these Great Horned Owlets in their nest atop a 40 foot snag at Maltby Lake. We are interested in publishing any local pictures you may wish to share. Please contact us.



## Local Butterflies

Of the approximately 40 species of butterfly found on southern Vancouver Island, I have observed 23 in the Tod Creek watershed. Some are rare, but a number are readily seen, though fewer in number over the years. Declining populations are due to habitat disturbance, either through development or suppression of fires that formerly kept meadows open, to the invasion of non-native species, and to the use of pesticides (including the "environmentally friendly" BT).

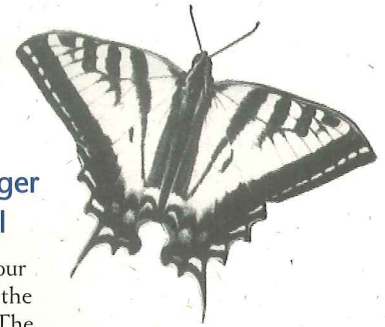
### Late Spring/Early Summer Butterflies

Emerging earlier in the year, the **Western Tailed Blue** and the **Western Spring Azure** can still be seen in June. The **Grey Hairstreak**, a lovely silver grey butterfly with orange and black spots on its tailed hind wings, is still around in early June, with a later brood appearing in July-August. All three may be found in riparian habitats.

Throughout June, into July, the **Purplish Copper** is found by roadsides, in fields and by water. The male has a purple cast to its upper wings, while the female is ochre and brown. Both have black spots on their wings, and an orange zigzag on the lower margin of the hind underwing.

Our most spectacular butterflies are June flyers. Look for the **Red Admiral**, with its black, white-spotted forewings, striped with orange-red, and dark brown hind wings margined in orange. The first Red Admirals to appear migrate from further south, but the later ones hatch here. The larvae feed on nettles — leave a patch in your garden! **Lorquin's Admiral** is a dark brown-black, with orange wingtips and a white band on each wing. — NAIRN HOLLOTT

NAIRN HOLLOTT lives near Trevlac Ponds and is a member of The Friends of Tod Creek Watershed. She is a long time participant in the Victoria Natural History Society butterfly count.



### Western Tiger Swallowtail

Largest of all our butterflies are the Swallowtails. The Western Tiger (7.6 cm) is a brilliant yellow and black. It feeds on blackberry, lilac, sweet rocket, and thistle. The large caterpillars with big,

blunt heads, eat alder, apple and willow. The Swallowtail's tails are a defence mechanism as birds will grasp the tail rather than the butterfly itself.

### Protect and encourage our butterflies by:

1. Using no pesticides.
2. Maintaining wild areas on our properties, from which non-native plants are removed, and native butterfly food plants are encouraged or introduced. This is particularly important in riparian zones, beside streams, lakes and ponds, and in areas where Garry Oaks grow.
3. On larger properties, keep areas open as meadow or mature forest with little understory.
4. Being less tidy in our gardens, since butterfly pupae often overwinter in plant debris.
5. Providing nectar sources in our gardens.
6. Providing a mud puddle for butterflies, such as the Spring Azure, Lorquin's Admiral, and the Swallowtails, that gather round shallow puddles to obtain dissolved salts.

## Observing Wood Ducks

Oo-eeek! If you've heard this, you've heard a wood duck. These shy, once endangered cavity nesters have accepted wooden nest boxes, nesting even up to 1.5 km away from fresh water. Our own nest boxes (6 m up) have 20 cm of fir shavings to allow the female to bury the daily-laid egg until incubation starts 10 to 12 eggs later. After brooding for about one month the secretive



Above: two ducklings poised to jump from the nest box. Below: A female wood duck cares for foster ducklings as well as her own — a total of 19!

female lands below the nest box and signals her day-old ducklings with a soft flat trill. In one minute the popcorn shower of ducklings is over. (This spectacular leap is actually necessary for their psychological development.) Mom leads her brood to water and the relative safety of rushes, weeds and swampy areas. These clean, quiet birds ask only for privacy and safe habitat. — BECKY SHAW

BECKY SHAW is a 32-year Prospect Lake resident who watches birds and bird behaviour on and around the lake.

Photos: Michael Shaw





# The Tod Creek Watershed

Continued from page 1

## Our Watershed A Few Facts

The Tod Creek watershed is approximately 2,200 ha in extent. The principle surface water features are:

**Lakes:** Prospect, Big and Little Maltby, Killarney and Durrance. **Creeks:** Bleathman, Meadowbrook, Durrance, Heal and Tod Creek, which empties into the headwaters of Tod Inlet. From there the water flows through into Brentwood Bay and Saanich Inlet.

## What is a Watershed?

The definition of a watershed is: "an area of land delineated by topographic boundaries, usually a height of land, that creates the dividing line from which surface streams flow in two different directions. This area of land drains water, organic matter, dissolved nutrients, and sediments into the watershed lakes and streams". This is informative, but a bit dry. However — this definition makes intuitive and ecological sense.

Watershed boundaries contain the topography, geology, soil, nutrients and water that in conjunction with climate shape the land and

water ecosystems of a watershed. The result is the mosaic of connected habitats across the watershed landscape containing distinctive soils, vegetation and animal life that we are all familiar with, delight in, live within, depend on for our livelihoods and share as a home with a myriad of other life. The watershed provides the basic requirements for all life, including ours, to thrive. — *Deborah Tubman*

REFERENCES Prospect Lake/Tod Creek Action Plan. 2001. Saanich Planning Department

Tod Creek/Prospect Lake Rehabilitation Study. 1992. Prepared by UMA Engineering Ltd. for the Capital Regional District.

# cultural history of the land

## Invitation to Contribute

I hope that you the readers, neighbours in this watershed, will share your land stories — historical accounts, family histories, tall tales, and anecdotes from the past or present. Pictures and maps will be most welcome. Please respond to 479-1956 or email wconnections@shaw.ca. I look forward to hearing from you.

**T**his section will be a regular installment featuring stories about the cultural and ecological history of our watershed. It is based on the belief that people are part of the ecosystem where they live and work, and that our cultural history is inextricably linked to the ecological history of the land in a reciprocal relationship. Our endeavors and experiences are shaped and informed by the land. Likewise the land is shaped and affected by how we choose to live and work.

People have lived and worked in the Tod Creek watershed for thousands of years, beginning with First Nations through to the present. Each of us, as individual, family and community, has a unique relationship to and understanding of the land, which creates both a cultural and ecological story through time. These land stories are spoken and written both in the words of our cultural experience and understanding, and on the land itself by the influence of our activities. Our individual land stories are woven into the larger tapestry of the story of the watershed landscape. Our

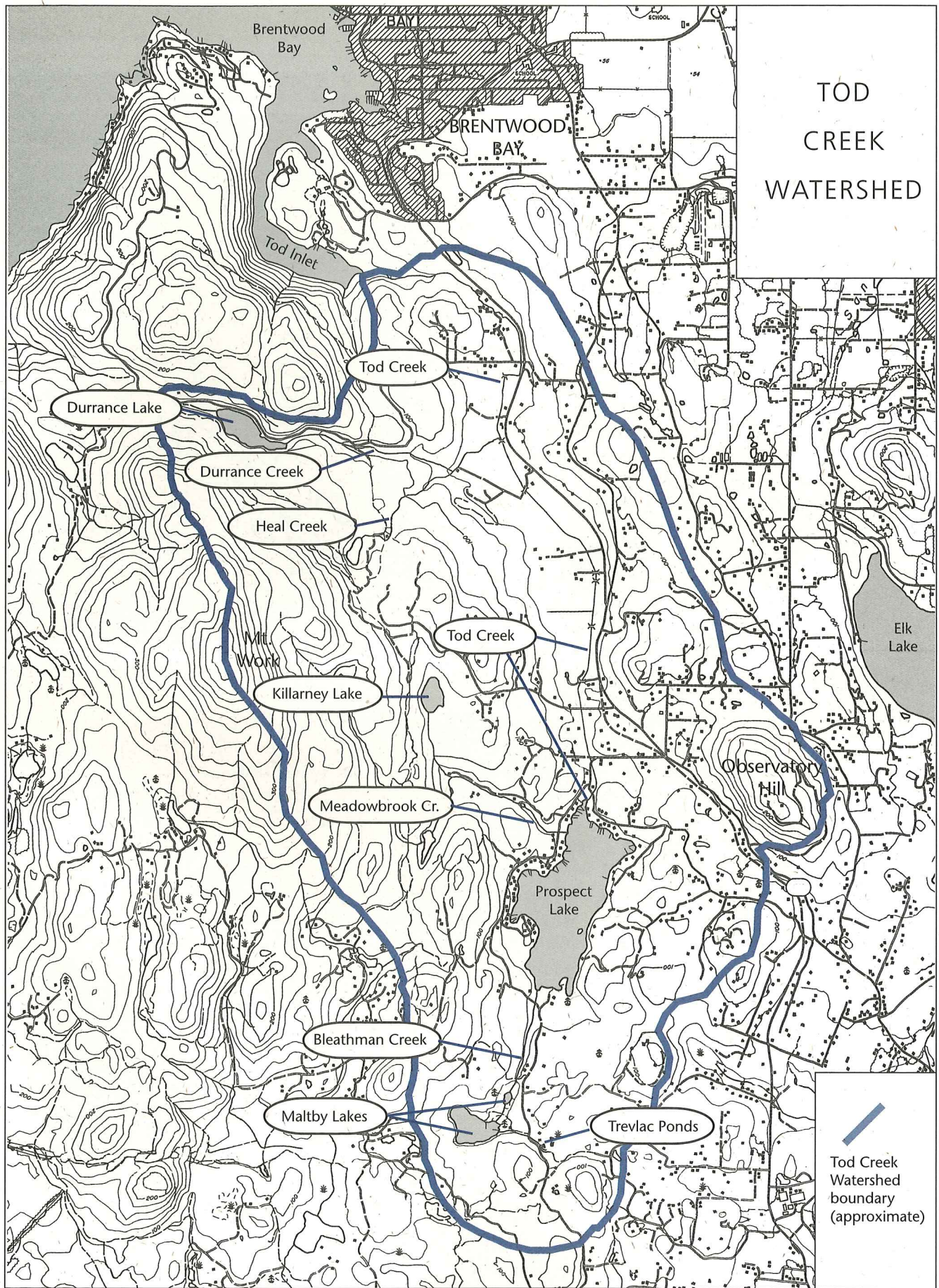
collective land stories encompass the past, influence and describe the present and reach into the future. These land stories, both cultural and ecological, are our shared inheritance, describe our lives lived now, and constitute a legacy to future generations.

It is my hope that by sharing our stories we will create a positive, lasting sense of our collective shared history. That by examining the relationship between land use and the environment, between our cultural history and ecological history, we will gain insight into how our activities, both past and present, affect the function of natural systems and the ecological health of our watershed. I hope this will open the door for helpful and respectful discussion between neighbours about the practical ways we can realize our individual aspirations while caring for the ecological integrity of the watershed as a whole. And last but not least, I believe we will have fun and enjoy discovering our shared history. It is my hope that this column will make us truly aware of our Watershed Connections.

— *Deborah Tubman*

DEBORAH TUBMAN is a fourth generation resident of Greater Victoria who has lived in the Prospect Lake area for 16 years. She is currently completing a diploma in Restoration of Natural Systems at the University of Victoria.







# community report

## Trail Building

*Something there is that doesn't love a wall,  
That sends the frozen-ground-swell under it  
And spills the upper boulders in the sun,  
And makes gaps even two can pass abreast.*

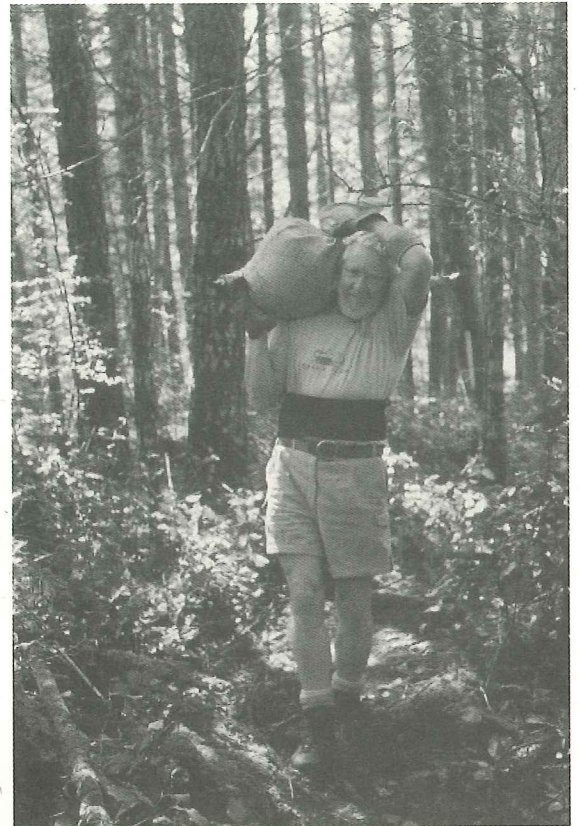
*The final touch  
was a bit of  
shovel work  
and some  
well placed  
rock in order  
to "persuade  
the water"  
to stay in  
the ditch.*



Photos: Shelagh Levey

The lines run through my head as I work on the trail we are building. The first thing we learned at the trail building workshop was that there are three things that do not love a trail. They are water, gravity and people. A well built trail works to mitigate the demands of these three. Water takes the course of least resistance. Build trails so that water will sheet off. Streams and rivulets forming in the tread will mean maintenance later. Gravity pulls what is above to a more comfortable level below. Make sure the grade above a trail slopes back to prevent an easy route down for rocks and other detritus. Be sure the tread is firmly on the flat so that the trail does not migrate down hill. People, like water go the way of least resistance. Keep the trail obvious and block places where people might take short cuts. This is all such obvious advice I wondered why I hadn't thought of it myself.

Obvious advice it may be, but faced with the ground on which we were to build, we were daunted by the task in front of us. How do we turn these wise words into practice? This is where our master trail builder, Greg Carmichael, came to the rescue. He flagged the route for the trail taking into account the three things that do not love a trail. Go with the contours to avoid water finding an easy route down the trail. Find places that are wide enough to contain a narrow trail so that it does not migrate. Most of all try to think like a trail user who is in a



Woody Thomson, member of the Friends of Tod Creek Watershed, carries a heavy rock on a Saturday morning trail building work party.

hurry. Is the person more likely to go straight to where he can see the next bit of trail, or will he walk around an obstacle on an inviting grade? The yellow flags went in the most appropriate spots.

Now the real work began. A rake was the tool of choice. Rake out a narrow path. Prune the odd branch that would push people off the trail but leave the sides intact in order to discourage heavy feet from straying from the chosen path. With Greg's help the first pass through went fairly smoothly. We had the beginning of an interesting little trail.

There were unavoidable spots on our trail where we had to take positive action to accommodate the three things that do not love a trail. As the trail left the road it crossed a little ditch. What was needed was a collection of cobbles and smaller stones carefully placed in the ditch in order not to block the flow of water. This was followed by a paving of larger flatter rocks for a walking surface that would not become an ankle breaker. The final touch



was a bit of shovel work and some well placed rock in order to "persuade the water" to stay in the ditch. Until Greg said that, I had not thought it was possible to persuade water, but I found if I thought that way I could begin to feel like a trail builder. A little farther along was a spot where the trail went up a bit of a bank. Greg took that spot on and built a very sturdy cribbing rock and a step that are mostly buried with soil and forest duff. In its finished form the spot is unremarkable, and the places for feet are obvious. It is a very subtle testament to Greg's ability to think like water, gravity and hurried people.

There is more to come as we work slowly and carefully away at our trail. Greg is leaving us on our own more now. Like the good teacher that he is he realizes we need to work out our own solutions to the problems we come across. We have the basics and are gathering the experience. We have many trails to build and hours to go before we stop. — *Mary Haig-Brown*

MARY HAIG-BROWN and her husband, Bernie Bowker, have lived on Meadowbrook Road for thirty years. They raised their four children there and are having fun with their grandchildren.

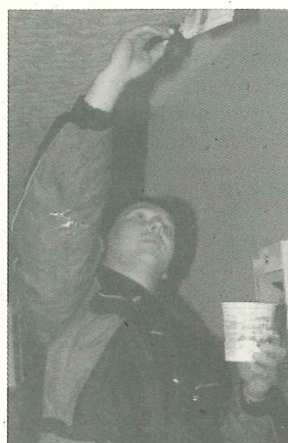


Photo: Shelagh Levey

### Hall Painting

Above: John Grabavac, a Friend of Tod Creek Watershed, painting the Basil Oldfield Room at the Prospect Lake Community Hall. The Friends appreciate being able to hold their meetings at the Hall. The colours were chosen by Dale Morrison of Decorator Den. Dale donated her expertise. Geoff McLean donated the paint.

### Broom Bash

Twenty-five enthusiastic volunteers participated in a Broom Bash on Little Saanich Mountain. A 30-cubic metre dumpster was filled solid with broom. The removal of the invasive broom will allow native flowers to re-establish.

Rick Appleby bashing broom.

Photo: Leslie Glover

Another Broom Bash is planned for October. For information please contact Leslie at 727-0944.



## Demystifying Saanich bylaws

Even to Saanich staff, the bylaws we have are not always easy to understand. I have been working at Saanich for more than four years and still have to interpret the bylaws as we try to apply the language to real situations. This column will try to unravel the mysteries behind our bylaws as they apply to watershed protection. During the Prospect Lake/Tod Creek Watershed Action Plan process, I became very aware of the powers municipalities have, and sadly don't have, when it comes to protecting the environment.

Why do we have bylaws, development permits areas, zoning, permits, and other methods of controlling development? Don't they take away our rights as landowners? Think of the alternative...do you want to live in a watershed like Tod Creek, or for example, an urban watershed like Bowker Creek? Most of Bowker Creek is culverted as it flows in unnaturally linear fashion from the University of Victoria to Willows Beach. It has dangerously steep slopes designed to carry the water away quickly so that homes don't flood as huge parking lots and thousands of driveways direct stormwater pipes into the creek. No one meant for Bowker Creek to become what it is today. It is the combined result of thousands of little actions which made a fish-bearing creek into drainage infrastructure. Bowker Creek is beyond the assistance of regulation. Now it is up to the community and government to put countless hours and dollars behind a long-term program to salvage some of the creek's former function. Looking at the vision statement in the Action Plan, your watershed is going to improve with everyone's help, and one of the tools are municipal bylaws.

If you have any questions regarding Saanich's role in protecting the environment in your watershed, please call me at 475-5494, ext. 3556. — ADRIANE POLLARD

ADRIANE POLLARD is the Manager of Environmental Services in the Saanich Planning Department. She is an ecologist and a member of the Planning Institute of British Columbia.





## meet your neighbour

**H**arriet Critchley chose to be interviewed in her garden in the Tod Creek watershed on a calm, sunny afternoon. She looked around and said, "I'm so happy here — I can't stand it! Everyday I thank my lucky stars and my real estate agent."

After a career in Strategic Studies at the University of Calgary, Harriet was ready for a change. She had been involved in examining how societies interrelate from the

point of view of disputes and threats between them. Harriet reported to the Ministry of Defence and was a director of the Royal Roads Military College. This meant that she made frequent visits to Victoria for a period of fifteen years. She was attracted to Victoria and as her new career enabled her to live anywhere she decided to settle here. An avid backpacker, Harriet formed "Women In The Wilderness" a back-packing experience for women over forty.

One day, a stranger walked by the house and said he had lived there as a boy. It was Thomas Homer-Dixon, author of the #1 National Bestseller, *The Ingenuity Gap*. Homer-Dixon is the Director of Peace and Conflict Studies in the Department of Political Science at the University of Toronto. How extraordinary that Homer-Dixon and Harriet were in the same field of study.

Homer-Dixon was happy to hear of Harriet's feelings for the property he had loved as a boy. Harriet feels strongly that she is a steward for her property and wants to protect it, "No buildings or other development because enough of that has already gone on in this area. I want to protect the stream, wetlands, native vegetation and the whole ecosystem in as natural and healthy a state as possible." — *Shelagh Levey*

*SHELAGH LEVEY is the editor of Watershed Connections. Shelagh has taught in England, East Africa, Ontario and Victoria. She has travelled extensively and has found no better place to live than this wonderful watershed.*

We appreciate the generosity of the anonymous donor who made this project possible and the support of Habitat Acquisition Trust and the Municipality of Saanich.

EDITOR  
Shelagh Levey

FEATURE WRITER  
Deborah Tubman

GRAPHIC DESIGNER  
Frances Hunter

Special thanks to calligrapher and naturalist Arlene Yaworsky who designed our masthead.

Opinions expressed in *Watershed Connections* should not be construed as being the consensus opinion of the Friends of Tod Creek Watershed. Each article is the responsibility of the author.

Additional copies are available at Oldfield's gas station.

## kid's corner

Dear Watershed Kids,

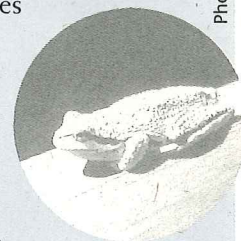
Everyone lives in a watershed, whether they live in a city, or countryside. A watershed is shaped like a bowl. All watersheds are different, some are like steep sided mixing bowls and others are like very shallow dishes.

When rain falls in a watershed in the countryside it seeps into the ground, or runs downhill into streams or lakes. If the watershed has plenty of trees and other plants rain soaks into the ground and is stored. But if the trees have been removed the water rushes downhill and washes away soil, and sometimes causes floods.

In our watershed we are lucky because we still have trees and wetlands to hold the water.

Our watershed is a great place for humans to live. Animals and birds like to live here too. They lived here long before humans did. It is important to leave space for wildlife and let them live peacefully.

Your watershed friend, *Shelagh*



Tree frog

Photo: Bruce Whittington

### watershed kids

How about drawing a picture with felt pens to show where you live in the watershed. Write two or three sentences to say why you like living where you do. Maybe we will publish your contribution.

Place your picture and writing in an envelope and leave in the mailbox marked Hunter at 203 Goward Road. Please include your name, age, and telephone number.



*Everyone who contributes will have their name placed in a draw for a watershed tour in a Cessna airplane!*

### An Invitation to Join The Friends of Tod Creek Watershed

The Friends of Tod Creek Watershed are a group of people who live in the area, and come together for companionship and to engage in activities that benefit the watershed. Their mission statement is to protect and enhance the integrity and biodiversity of the watershed. Action groups are currently working on: well water safety; mapping; trail building; water quality monitoring; riparian planting and restoration. Everyone is welcome to join the group. Meetings are held on the first Wednesday of each month, September to June at Prospect Lake Community Hall, 5358 Sparton Road at 7:30 pm. For information please phone 479-8801 or 479-5647.