



Number 3

Winter 2012

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Upcoming Events

AGM in April

The 2012 FCCPAS AGM will be held on **Saturday April 21, 2012** beginning at 10:30 a.m. at the Dog Greek Community Gymnasium. Our Annual business session will be followed by a light lunch and an afternoon hike into Churn!

If you are a member or just interested, please come.

Check our website at www.friendsofchurn.ca for more details.

Activities Update

New Logo

After considering many design options, FCCPAS has adopted our first “official” logo (see upper left hand corner of this newsletter). It is adapted from a petroglyph of a bighorn sheep and is endorsed by the Stswecem’c Xgat’tem First Nation (formerly Canoe Creek Indian Band). It will be used to “label” FCCPAS initiatives and for marketing and communications endeavors.

T-shirt Sales

Using our new logo we have produced for sale a selection of t-shirt sizes in olive green and grassland yellow at the low, low price of \$20 each. Contact any of the directors to get yours today and remember that all proceeds go towards furthering the goals of FCCPAS.



Contact us:
 PO Box 4144
 Williams Lake, BC
 V2G 5E2
 Website:
www.friendsofchurn.ca

Activities Update continued

BC Parks 100 Celebration

On August 13, 2011 BC Parks 100th year anniversary was celebrated in Churn Creek Protected Area. Hosted by BC Parks, Stswecem'c Xgat'tem First Nation, and the FCCPAS, more than 150 people attended the event. The day included unveiling of the new information kiosk, a lunch complete with an anniversary cake, lahal games, and guided tours in Churn Creek Protected Area. The celebration was made possible by the generous support of Mountain Equipment Co-op, Sona Resources, BC Parks, Save-on Foods, McDonalds, the Water Factory and the Fire Centre as well as countless hours of volunteer time from the Stswecem'c Xgat'tem First Nation and FCCPAS.



Unveiling the new kiosk at the Parks 100 celebration

Project Updates

Design and Construction of a New Information Kiosk

The FCCPAS, in cooperation with BC Parks and the Stswecem'c Xgat'tem First Nation, spearheaded the design and construction of a new information kiosk for Churn Creek Protected Area with financial support from the BC Parks Community Legacy Fund. The kiosk is a unique and very special design that reflects a traditional Secwepemc (Shuswap) pithouse, complete with a traditional style ladder prepared by Stswecem'c Xgat'tem First Nation members. Envisioned by Phyllis Webstad of FCCPAS, the design and specifications were completed by David Nairn and Assoc of Vancouver and the kiosk was constructed by Zirnhelt Timber Frames of Williams Lake with many hours of assistance from FCCPAS volunteers and BC Parks staff. The kiosk is a tribute to cultural co-operation and a jewel in the BC Parks system—a must see for Cariboo visitors!



Project Updates continued

Interpretation Panels for New Kiosk

FCCPAS is currently completing 12 new park interpretation panels for the new kiosk. Topics include geology, settlement history, grassland zones, fire, fish in First Nations culture, birds, mule deer and bighorn sheep, native plants, and invasive plants. Many hundreds of volunteer hours have been devoted to preparing these panels. Final design and production is being done by SpeedPro Signs in Williams Lake.

One of the 12 new kiosk panels



Invasive Plant Species Management

Our ongoing project to reduce the number of invasive plants (weeds) in the protected area continued during the past year. To date, the focus of our project has been on removing hounds tongue and burdock. Over the past year, FCCPAS pulled and monitored burdock in Onion Lake. We will also be assisting BC Parks with a management strategy for all invasive species in the protected area.

New Trail Project

FCCPAS, in cooperation with BC Parks, Cariboo Regional District and the Stswecem'c Xgat'tem First Nation, has submitted a proposal to the Provincial Community Recreation Fund to develop a short, fully accessible trail near the site of the new kiosk. We are hopeful that this proposal will be successful and that work can begin in 2012.

Membership and Fees

Friends of Churn Creek Protected Area Society cannot continue without support of members. Now is the time to renew your membership and encourage a friend to join. Volunteers are always welcome!

FCCPAS is a charitable society and receipts for income tax purposes can be provided for all donations other than membership. Membership fees remain at \$20, due for renewal by April 1, 2012.

Membership forms are available on our website (www.friendsofchurn.ca)

Feature Article

Termites in Churn Creek Protected Area

by Dr. Rob Higgins

As an entomologist specializing in the ants of British Columbia, I find myself spending a lot of time lifting rocks in grasslands and forests, and opening woody debris. When you do this often enough you find interesting species that are uncommon on the landscape.

A little over a year ago, while hiking just southwest of the Onion Lakes in Churn Creek Protected Area, I opened a small dry piece of woody debris and was surprised to find termites.

Termites are known to occur in British Columbia although only a handful of species have been identified. Lacking a collection permit for the protected area, I was unable to remove any specimens for certain identification of the species, but it was most likely a species known as the western subterranean termite (*Reticulitermes hesperus*). I noted the find and tucked away the information as probably being interesting only to myself. I had never encountered a termite so far north in British Columbia. A few months ago, Dr. Rudolph Scheffrahn (University of Florida), a termite expert working on global termite distributions, found his investigations directed toward BC. It appears that this type of termite (i.e., a termite in this genus, *Reticulitermes*), has never been found at a higher latitude, north or south, globally. The Churn Creek Protected Area will be entering the scientific literature as a notable location.

Termites are social insects living in colonies in which each member is part of a specialized caste or group. Most termites have three castes, reproductives (dominated by the queen that lays eggs), soldiers, and workers. They are often mistaken for ants and although both are social, termites are almost always a creamy white colour (hence the common name 'white ant'), and in an evolutionary context, unrelated to the ants. Termites are clearly less successful than ants at higher latitudes.

Termites are best known for their ability to consume wood. In North America they cause billions of dollars in damage annually to buildings, although in British Columbia they are not a major problem. Although many ants also nest in wood, and carpenter ants are certainly known for their destructive potential, ants only use the wood as a nesting site and cannot actually digest the wood they excavate. Few animals have found a way to actually digest cellulose from wood. Termites have single celled organisms living in their guts that can break down cellulose efficiently, turning the



Subterranean termites (*Reticulitermes* sp.) worker (top) and soldier (bottom). Photo by Alex Wild (www.alexanderwild.com).

forests and buildings of the world into a giant cafeteria. As larval termites emerge from eggs, older workers regurgitate their stomach contents into the mouths of the new larvae to pass along these assistants. A termite without its gut colleagues would find itself helpless.

In British Columbia there are two main groups of termites. The termite found in the Churn Creek area belongs to a group often called subterranean termites, and as a group, are the most likely the cause structural damage to buildings. The other group is known as the damp wood termites. These are generally larger termites and more common along the coast, living, as their name suggests, in very moist wood. I found several colonies of these this past summer in the Gulf Islands (Quadra and Pender). These termites are known to extend up the coast to the Haida Gwaii and are probably found in the Alaskan panhandle. In a Canadian survey of insects in 1985, one sample of these termites was recorded in Dunkley, just north of Quesnel. This odd record, although it officially stands, is almost certainly a result of the distant transport of wood from coastal or southern BC to the mill at Dunkley.

A few years ago I accompanied a colleague who was interested in the ecology of invasive species to New Orleans, in search of the Formosan termite (*Coptotermes formosanus*, a relative of the termite found in the Churn). This termite originated in China and invaded the southern US in the early 1900s. I was amazed by the extent of the damage caused by this termite in New Orleans and the effort the city was forced to undertake to protect its buildings. One paper published in the American Entomologist even noted that the failure of the dikes in New Orleans during Hurricane Katrina may have arisen as these termites infested and digested fibre that was used as fill within the dikes.



Damp-wood termite *Zootermopsis* sp. collected on Quadra Island, BC. Photo by Rob Higgins.

One notable evening, my colleague and I went out for supper in the French Quarter on a night when this termite had begun its mating flights. The large winged queens were absolutely everywhere and were even interfering with a celebrity photo shoot occurring beside the pool at our hotel. When our meals arrived we had to constantly pick off the queens that were landing on us and our food. If you didn't look directly at food about to enter your mouth you had a good chance of eating a queen. The owner of the restaurant began to look very nervous, worried that his entire clientele might suddenly panic and bolt for the doors, probably letting in thousands of additional termites. Fortunately the locals seemed to take this in stride and I was left amazed at the resilience of the termite given the enormous eradication efforts. Termites can be truly impressive.

Whether living in the urban jungle of hot and humid New Orleans or in a sun baked log lying on a parched slope in the Churn Creek area, termites represent one of the most successful assemblages of animals on the planet.