



Native Plant News

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Fall 2010

Land of trees 'n sand



PHOTO BY CHET NEUFELD

The mighty William and MacFarlane rivers were impressive sights as they carved their way through the Athabasca Sand Dunes before spilling into Lake Athabasca. The dunes are home to 10 endemic plants found nowhere else on earth.

Exploring the Athabasca Sand Dunes a rare treat

By CHET NEUFELD
NPSS Executive Director

This summer I had the incredible opportunity to go to the Athabasca Sand Dunes Provincial Wilderness Area as part of a scientific team studying the endemic plants of the area.

For those of you who don't know, the Athabasca Sand Dunes are located

on south shore of Lake Athabasca in the extreme north-western corner of Saskatchewan. They consist of a series of dune fields stretching approximately 100 km along the shore of the lake. They are the largest active sand surface in Canada and one of the most northerly sand dune field in the world! They also have some of the highest dunes in Canada, with some towering over 30 meters.

Due to the unique habitat that exists here, the sand dunes harbour an incredible 10 different endemic plant species. These endemic plants (found nowhere else on earth) have adapted to life in the sand, which means that they are regularly subjected to blowing sand, erosion and deposition.

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Tara Mulhern Davidson 778-5006

Executive Director:

Chet Neufeld 668-3940

Newsletter Editor:

David Freeman 791-0047

NPSS Address:

Native Plant Society of Saskatchewan

P.O. Box 21099, Saskatoon, SK S7H 5N9

Phone: (306) 668-3940 Fax: (306) 668-3940

E-mail: info@npss.sk.ca Website: www.npss.sk.ca

Native Plant News is a quarterly publication of the Native Plant Society of Saskatchewan (NPSS) and is one of the benefits of membership. Members are invited to submit articles, news, views, photographs and comments. Views expressed by the authors are not necessarily those of the NPSS.

Deadlines:

	Submission	Publication
Winter Issue:	November 1	December 15
Spring Issue:	February 1	March 15
Summer Issue:	May 1	June 15
Fall Issue:	August 1	September 15

Membership Dues (Year End November 30th)

Individual	\$30
Family	\$45
Student/Low Income	\$15
Corporate	\$200
Life	\$500

Please contact the NPSS office for information about the lifetime membership instalment payment option.

NPSS AGM set for Feb. 11 and 12

The NPSS's 16th Annual General Meeting will be held on Feb. 11 and 12, 2011, at TCU Place in downtown Saskatoon.

As 2011 has been declared the International Year of For-

ests, the proceedings will focus on elements of Saskatchewan forests. Speakers will explore our relationship with forests and their conservation.

Proposed changes to the Society's bylaws will also be presented to the membership during the business portion of the meeting. Details of these changes will be presented in the next issue of the *Native Plant News* and also on the NPSS website.

Saskatoon's TCU Place is within walking distance of several major hotels and a variety of restaurants and other amenities. Ample parking will be available close by and Saskatoon has excellent bus and taxi services.

So, mark the dates on your calendar and watch for details and registration information in the next issue of *Native Plant News* and the NPSS website.

We hope to see you there! *

Board member profile: Jennifer Lohmeyer

As Program Coordinator for the Projects and Partnerships branch of the Saskatchewan Watershed Authority, Jennifer

Lohmeyer is responsible for writing funding proposals, coordinating projects, and administering funding for Source Water Protection Plan Implementation.

She attended the University of Regina where she received her Bachelor of Science in Biology and Geography, with Distinction.

Jennifer is rejoining the NPSS Board of Directors, as she previously served on the BOD from 2001 to 2003.

It's hard for her to pick a favorite native plant, but she has chosen Wild Columbine

because it reminds her of her youth, growing up in the Boreal Shield of Manitoba. *



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Collecting native seed draws great interest



PHOTO BY CHET NEUFELD

A good-sized crowd gathered at Nora Stewart's property near Arcola, Sask., on Sept. 11 to learn about harvesting the seeds of native plants.

By CHET NEUFELD

NPSS Executive Director

On Saturday, Sept. 11, roughly a dozen people showed up to the Native Seed Collection Workshop hosted by the NPSS and lead by Nora Stewart on her farm near Arcola.

Don and Nora ran a native seed nursery for many years and Nora recently wrote a book entitled *Cultivating our Roots: Growing Authentic Prairie Wildflowers and Grasses*.

Despite poor weather the previous day, the weather on the seed collection event on Saturday proved to be nice and sunny (if a little windy!). Nora took participants to visit the seed plots, and also lead a hike through various native habitats on their land, identifying native

plants in seed along the way.

At the midpoint of the afternoon, she led the group up a hill to get a beautiful view of the Moose Mountains and surrounding plains. The view alone was worth the drive, but workshop participants got much more than pictures.

Nora answered questions, explained procedures and did a great job, in general, demystifying the growing of native plants, leaving everyone a lot more comfortable with trying to grow their own at home.

After the workshop, Don and Nora graciously invited people into their home for tea and cookies, topping off an already wonderful afternoon.

To buy Nora's book, visit our website, www.npss.sk.ca, and click on the **Store** tab. ✱

Award brings Society reward

It's the perfect win-win situation.

Native Plant Society of Saskatchewan President Tara Sample was recently named a SaskEnergy employee who demonstrates social responsibility by investing in our environment due to her involvement with the Native Plant Society, among other activities.

In recognition of this, a \$100 donation was awarded to a non-profit group of her choice.

Tara chose the NPSS and the donation will be directed to maintaining the Regina Plains Native Prairie Seed Nursery.

Congratulations Tara and thanks for supporting this worthwhile project! ✱

Upcoming Events

November 2010

2010 Canadian Weed Science Society Annual Meeting

Nov. 16 to 18

Delta Regina Hotel
Regina, Sask.

The theme of this year's plenary session is "New Crops and Crops with Second-Generation Traits: Weed Management Challenges." Also, three workshops will be held concurrently on Wednesday morning. Go to the website for details or to register.

www.weedscience.ca

PCAP Native Prairie Speaker Series

Nov. 17

Swift Current, Sask.

Technical session (12:10 to 12:50 p.m.): To be held at the AAFC-Semiarid Prairie Agricultural Research Centre with speaker Mike Schellenberg (AAFC SPARC), who will speak on native prairie restoration. **Public session** (7 to 8 p.m.): to be held at Swift Current Composite High School in the lecture theater with speaker Brian Weedon and presentation "A producer's perspective of the oil and gas and ranching relationship. For more, visit the PCAP website.

<http://www.pcap-sk.org/>

December 2010

Foraging Into the Future VI: The Business Side of Ranching

Dec. 8 and 9

Credit Union I-Plex
Swift Current, Sask.

Registration is \$80.

To register, or for a complete agenda, contact the Ministry of Agriculture Office in Swift Current at 306-778-8294 or email trevor.lennox@gov.sk.ca

PCAP Native Prairie Speaker Series

Dec. 14

Royal Saskatchewan Museum Auditorium
Regina, Sask.

Technical session (12:10 to 12:50 p.m.): Steve Davis (Environment Canada) – Sprague's Pipit Research. **Public session** (7 to 8 p.m.): Trevor Herriot – Grassland Birds. For more, visit the PCAP website.

<http://www.pcap-sk.org/>

To submit your native plant related event to our events list, send your information (including date, contact, phone number and location) to info@npss.sk.ca.

FNU garden plants seeds of future success



PHOTOS BY FIDJI GENDRON

Kids were very enthusiastic about playing plant identification games at the FNU demonstration garden. Here, a group of young girls correctly identified bergamot (*Monarda fistulosa*).

The Holts win spring spot the crocus contest

The results of our Spot the Crocus contest are in and Neal and Margaret Holt are the winners. Congratulations!

They spotted the first prairie crocus (*Pulsatilla patens*) of the year on April 2. Neal and Margaret live just outside of Regina on an acreage. They now have bragging rights until next spring.

On an interesting note, the recent cold snap followed by warmer weather has apparently tricked some crocuses into blooming again. During the surveys for salt cedar (see Page 5) near Findlater, Sask., on Sept. 24, we found dozens of crocuses just starting to bloom – again! ✱

By FIDJI GENDRON

First Nations University of Canada

Now in its seventh season, the native prairie garden at the First Nations University of Canada in Regina continues to educate and inspire local residents and children about native plants.

As you've read before in the *Native Plant News* (Vol. 13, No.4 – Winter 2008), the native prairie located at the FNU of Canada is a public use area that was restored in 2003. The goal of this project is to create a space where people – especially children – can learn about native plants and their traditional use.

Here are some of the activities that we organized this past summer:

- We planted native plant seedlings in the blue and red sections of the Four Directions Medicine Wheel and in the pathway that was restored this summer. It was the third year that the SaskPower Shand Greenhouse has kindly agreed to grow seedlings from seeds that we collect on site.

- Thanks to an Environment Canada EcoAction Community Funding grant, we partnered with Al Ritchie Health Action Centre. Youth from the core area in Regina spent two afternoons a week making crafts related to nature, helping with our vegetable garden and learning about native and invasive plant species. Children had fun playing plant identification games, but the best game was when they got to remove invasive species – the group that removed the most sow-thistle plants (*Sonchus spp.*) in a specific amount of time won.

- Sarah Vinge, a former NPSS board member, and I offered two workshops this spring at the Regina Public Library. We distributed some seeds and it was interesting when people shared their gardening stories. We gave a workshop in May in the native prairie where gardeners were invited to pick out plants growing in the wrong sections in the demonstration garden. We also distributed seedlings grown at the Shand Greenhouse. Given the difficulty of finding native plant seedlings in Regina, this was a well attended workshop!

- Last spring, I gave seeds to the Saskatchewan Science Centre, which grew the seedlings in its greenhouse. Seedlings were displayed all summer and it was a great way for the public to learn more about native plants.

- In July, I toured the native prairie with a group of teachers who wanted to learn about medicinal and native plants. At the end of the tour, we drank mint tea from leaves collected on site!

- At the end of August, Sarah Vinge and I collected seeds with workshop participants.

The native prairie and demonstration garden is a great space in Regina and I encourage everyone wanting to learn more about native plants to come to one of our workshops. ✱

Search for an unwelcome guest

By CHET NEUFELD

NPSS Executive Director

The morning of Aug. 30 came as any other morning does, but it soon turned out to be one of the worst mornings for biodiversity in Saskatchewan in a very long time.

I received notification on that day that salt cedar (*Tamarisk sp.*) had been confirmed at not one but two separate locations in Saskatchewan.

One population of six salt cedar plants was found in a gravel pit near Findlater, Sask. It was found by an environmental consultant conducting surveys of the area. The area has since been isolated, the plants eradicated and a search of the surrounding area was completed on Sept. 24 – during which no more plants were found.

As the plants were estimated to be about 5 years of age and some were flowering at the time of discovery, it is assumed at least some seed was produced in previous years. Due to this, and to ensure there is no re-growth of the destroyed plants, many years of monitoring will ensue.

The second occurrence of salt cedar on that day was a single plant found just south of Swift Current. Since its discovery, a Salt Cedar Discovery Day was held on Sept. 21 to give local stakeholders more information about the invasive plant.

The Swift Current specimen was eradicated, but the plant was estimated to be three years old and had begun to flower meaning there is a possibility that it was able to produce seeds in previous years. Monitoring will be needed to ensure that it doesn't return.

Although there is no way of knowing exactly how the salt cedar was introduced to these sites, it is likely that contaminated heavy equipment may be the culprit.

Salt cedar is a highly invasive plant brought to North America from Asia for use in landscaping. It produces thousands of seeds that germinate and quickly grow to outcompete surrounding vegetation.

Salt cedar destroys habitat by concentrating salts at the soil surface, rendering the area useless for other plants. It is also able to consume incredible amounts of water.

Despite its highly invasive nature, it



PHOTO BY CHET NEUFELD

Volunteers help conduct a survey for salt cedar near Findlater, Sask., on Sept. 24.



PHOTOS BY STEVE DEWEY, UTAH STATE UNIVERSITY

Salt cedar (*Tamarisk sp.*)

was still sold in Saskatchewan nurseries as late as this summer and is known by names such as tamarisk and variety names like pink cascade. With the upcoming update of the provincial *Weed Control Act*, the plant will be declared a prohibited noxious weed and any sale of it will be banned.

However, there are already many plants lurking in yards around the province, producing thousands of seeds that blow and wash into natural areas. All it takes is one seed to establish a plant population.

You can help by destroying any salt cedar growing in your yard, and by notifying us of any salt cedar you see growing elsewhere. Salt cedar in your yard can be destroyed by digging it up, double bagging it and burning it, or by using an approved chemical to kill it.

The NPSS has long been aware of the

destructive potential of this plant. Since 2007 we have been warning landowners about it and teaching people how to identify and eradicate it in our invasive weed workshops. We have actively pursued the discontinuation of its use in Saskatchewan by working with greenhouses to stop carrying it, working with gardeners to prevent them from buying it, removing existing plants and by nominating it as a prohibited noxious weed on the update of the *Weed Control Act*.

We have also been collaborating with the Canadian Food Inspection Agency on early detection and rapid response measures for salt cedar, as well as working with neighbouring provinces and invasive species councils across Canada to help prevent its spread. The NPSS sits on the Horticultural Invasive Plant Committee of the Invasive Plant National Working Group and we were involved in the organization of the recent search for salt cedar near Findlater.

For more information on salt cedar, please contact the NPSS or visit the Saskatchewan Invasive Species Council at www.saskinvasives.ca.

For information on the infestations, call Harvey Anderson with the Saskatchewan Ministry of Agriculture at (306) 933-7695 for information on the Findlater site or call Stacey Spenst with the Swift Current Creek Watershed Stewards at (306) 778-5027 for information on the Swift Current site. 🌱

Endemic plants of the sand dunes

Continued from Page 1

Incidentally, one of the adaptations that most of the endemic plants have is that they are covered in fuzz, which helps to protect them against both blowing sand and cold temperatures. These plants are true psammophiles (sand lovers). In fact, they are so well adapted that despite being non-existent elsewhere, they are some of the most common plants found on the dunes.

On Aug. 9, the team of 12 surveyors – including myself – flew to the sand dunes and over the next 10 days conducted surveys of the endemic plants and their habitat. This information would, in part, help researchers estimate the population of the endemic plants, identify specific plant-habitat associations and map the distribution of endemic plants throughout the dunes.

Samples of soil and plant material were also collected to determine the effects of acid rain on the endemic plants and to assess the potential for the occurrence of other genetically distinct plant species.

Due to the isolation of the area, we



PHOTO BY CHET NEUFELD

The advancing front of the dune fields can completely devour the boreal forest.

were flown in and out by float plane. The scale of the sand dune complexes meant long daily hikes to complete our transects (my longest was 24 km in one day) and the need to be ferried between sand dune complexes by helicopter.

From the helicopter, it was interesting to see the patterns on the ground that formed as a result of the shifting sands;

the advancing fronts of the dune fields, in places, devoured the boreal forest, leaving standing skeletons of trees in their wake. The forest, though, was also advancing in the wake of the retreating edges of the dune fields, stabilizing the sand and re-establishing vegetative cover.

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PHOTOS BY CHET NEUFELD

(Above): Floccose tansy (*Tanacetum huronense* var. *floccosum*) grows in the sand.

(Right): A ventifact – rocks that have been shaped by wind (sandblasted) over millennia.



10 endemic plants of the Athabasca Sand Dunes:

- **Turnor's willow**
(*Salix turnori*)
- **Felt-leaved willow**
(*Salix silicicola*)
- **Tyrell's willow**
(*Salix Tyrellii*)
- **Short-capsuled willow**
(*Salix brachycarpa* var. *psammophila*)
- **Impoverished pinweed**
(*Lechea intermedia* var. *depauperata*)
- **Sand chickweed** (*Stellaria arenicola*)
- **Floccose tansy**
(*Tanacetum huronense* var. *floccosum*)
- **Athabasca sea thrift**
(*Armeria maritima* ssp. *interior*)
- **MacKenzie hairgrass**
(*Deschampsia mackenzieana*)
- **Large-headed woolly yarrow**
(*Achillea millefolium* var. *megacephalum*)

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On the ground, there was also plenty to see. Large areas of the sand dunes were dominated by gravel pavement, essentially a thin and fragile layer of small rocks that have been exposed due to wind blowing the sand away. Though few plants grew in these desert pavements, interesting ventifacts could be found. Ventifacts are rocks that have been shaped by wind (sandblasted) over millennia.

Not least of all, there were many different types of plants and habitats that created a patchwork mosaic over the dunes. From lone tussocks of grass in the sand to wet inter-dune slacks harbouring round-leaved sundew (*Drosera rotundifolia*) and pockets of black spruce (*Picea mariana*) carpeted in pillows of moss, it seemed like there was always something new to see over the next dune.

Last but not least, there was sand. Lots and lots of sand. Sand as fine as sugar that got into everything. Sand that made my food crunchy. Sand that is still coming out of my pockets in the wash months after the trip. But without this sand we wouldn't have one of the most unique habitats in the world.

The results of the studies we collected data for are still pending, however, we will present the findings as soon as they are compiled.

This project was a joint venture between Environment Canada/Canadian Wildlife Service, the Saskatchewan Ministry of Environment and the University of Saskatchewan – with collaboration from other organizations, including the NPSS.

This year was the second and final year for data collection in the field.✱



PHOTOS BY CHET NEUFELD

(Above): The field researchers conduct a ground survey of the endemic plants of the Athabasca Sand Dunes. (Below): Many plants in the dunes have evolved a fuzzy texture, like this felt-leaved willow (*Salix silicicola*), that help to protect them from blowing sand and cold temperatures.



Membership fees are due once again

Well, it's that time of the year again.

For those of you paying by the year, your NPSS membership fee is now due. But, don't forget, renewing your membership is now easier than ever!

Just go to our online store at our website (www.npss.sk.ca) and pay with any major credit card. It's fast, easy and secure, and you'll save the cost of a stamp.

However, if you still want to mail a cheque you can do that, too.

Do you want to avoid having to remember to pay altogether? Why not buy a lifetime membership. It's cheaper, in the long run, and you can pay in installments if you can't afford, or don't wish to pay, a lump sum.

Thank-you to for supporting the NPSS in 2010 with your membership dues and donations of time, support and money! *



NPSS membership

Name: _____ Postal Code: _____

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Please indicate if you would prefer to receive the *Native Plant News* electronically (if yes, make sure to include your correct e-mail address), otherwise a paper copy will be sent to you.

Even if you wish to receive a paper copy of the newsletter, please provide your email address, as we will use it to send you event reminders and contact you at short notice.

Return this form and your payment ASAP to ensure your membership continues for another year or to begin your membership with the society.

- _____ \$30 for 1-year Membership
- _____ \$45 for 1-year Family Membership
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- _____ Donation (The NPSS gratefully accepts donations which will be directed toward our membership activities and conservation programs.)

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