Dear Supporters:

With the holiday season almost upon us and another year drawing to a close, it’s a good time to highlight several of our activities during the past year and our plans for things to come.

At the beginning of 2012, the Board of Directors developed a new Five-year Business Plan for the Osoyoos Desert Society which lays out our priorities and what we hope to accomplish. Now that we have a 30-year lease on the Desert Centre site, the Board believes it is time to explore ways of improving the boardwalk and building a permanent facility on the site to replace the old trailer units.

The boardwalk is now more than 15 years old and definitely showing signs of wear and tear. Each year, we do a certain amount of repair but it’s time to consider a plan to replace entire sections with a wider, more stable structure which will serve our purposes for many years to come. In addition, the four kiosks need to be refreshed and sealed to protect them from the elements.

Last April, members of the Osoyoos Desert Society took part in a half-day workshop designed to generate ideas regarding a new facility on the Desert Centre site. The result was a ten-page document which describes what such a new facility might look like, what purposes it might serve, what features it might incorporate and where it might be located on the site. The Board is hoping to find someone who will take our summary report and develop some illustrations and drawings which we could then use when we start a fundraising campaign.

The Board is very much aware that its plans are ambitious and achieving them will be challenging. However, we also realize there is a tremendous opportunity to enhance our valuable asset at the Desert Centre site and provide for even better educational experiences for residents and visitors alike in the years ahead. Please let us know if you can assist us in any way and wish to be part of the endeavour.

All the best over the holiday season and in the exciting new year to come!

Regards,
Mat Hassen
President, Osoyoos Desert Society
STAFFING NEWS
The Desert Society recently hired Jamie Leathem as the new Restoration Coordinator. Jamie started work last June and hit the ground running—her first days were spent in the field monitoring and collecting data at the six vineyards participating in the Society’s Vineyard Cover Crop study. Since then, she has been busy with a variety of projects, including seed collecting, upgrading the native plant demonstration garden, and additional seed study research. She is also hard at work finishing up a Masters in Botany from the University of British Columbia. We are delighted to have Jamie on board and look forward to having her meet many of you in the months ahead. We also wish our former Restoration Coordinator, Mike Epp, a very fond farewell and best wishes at his current job with the Ministry of Forests, Lands and Natural Resource Operations.

RESTORATION UPDATES
This fall saw the implementation of Phase II of our Vineyard Cover Crop study. We analyzed results of the three native seed mixes planted two years ago in Phase I, and created a new “Master Mix” based on the grasses and flowers that grew best at participating vineyards. We sowed this mix in five vineyards in October and November and look forward to seeing the results in spring! Native plants in vineyards not only increase habitat for native fauna, they can also benefit grape production. By attracting the native insects that naturally prey on pests such as the cutworm and leafhopper, they contribute to healthy, bug-free vines.

Also, a big thanks to everyone who helped at restoration work parties, we look forward to resuming them in the spring!

CONSERVATION EFFORTS
In addition to our ongoing habitat conservation efforts, the Desert Society is also pursuing ways to become “greener” in our day-to-day operations. As part of this effort, we are transitioning to an electronic newsletter. Tax receipts for donations, and confirmations for memberships, will also be sent via email.

You can help us save paper and other resources by providing us with your email address (if we don’t already have it). If you don’t have email, or prefer we stay in touch by mail, that’s not a problem. We are happy to accommodate what works best for you!

EDUCATION PLANS
Winter is a busy time for the Desert Society, including a full schedule of education programs and activities. Over the next few months, a number of new educational signs for the Desert Centre will be completed, as well as several hands-on exhibits for the interpretive building. In February and March, the Society will once again host its annual Winter Program series. Be sure to check out the Events section of this newsletter for details. Or, visit www.desert.org and check our website for information. We are continually making upgrades to the website, including the addition of Constant Contact and social media platforms. The changes will make it possible for the Society to communicate more effectively and reach a broader audience.

Do Your Holiday Shopping With Us!
The Desert Society has a great selection of unique items perfect for holiday gift giving. Book and puppet gift packages for children are available, as well as ‘Advice From Nature’ t-shirts, colouring books, pocket field guides, and more.

To arrange a shopping time contact the Osoyoos Desert Society
250-495-2470 ~ 1-877-899-0897
mail@desert.org
FLIGHTS OF FANCY—BUTTERFLIES & MOTHS

Butterflies and moths belong to the order Lepidoptera, meaning “scaly wings.” All Lepidoptera have two pairs of wings which are covered with overlapping rows of tiny, pigment-bearing scales. These scales come in an amazing diversity of colours and patterns, which vary from species to species. To date, about 150,000 species of butterflies and moths have been identified worldwide, living on every continent except Antarctica. In British Columbia, approximately 200 species of butterflies and more than 2000 kinds of moths have been recorded.

“The caterpillar does all the work but the butterfly gets all the publicity”
~ Attributed to George Carlin

For most butterflies adulthood is brief; fourteen days is considered a long life. The overwintering stage is often the longest part of a butterfly’s life cycle, and most species survive colder temperatures by over-wintering as eggs, larvae or pupae. A famous exception is the Monarch Butterfly. Adult monarchs emerging in the spring and early summer live four to five weeks, but individuals emerging in late summer or fall live up to nine months. The late arrivals migrate thousands of kilometers to warmer temperatures in the south, eventually completing a round-trip journey spanning several generations.

“Butterflies are self-propelled flowers”
~ R.H. Heinlein

Butterflies and moths serve an important ecological role as pollinators and food sources for other animals. In British Columbia, loss of habitat is threatening the future of many Lepidoptera species. You can help by planting butterfly host and nectar plants in your garden, and avoiding the use of pesticides. Choose a sunny site for your butterfly garden, protected from the wind, with natural (un-mowed) vegetation nearby. A source of soil moisture is important, too – butterflies “puddle” on damp soil to obtain both mineral nutrients and water. For information about plants for your butterfly garden, visit www.desert.org and download our booklet, “Native Plant Landscaping for the South Okanagan-Similkameen.”

“Butterflies lead you to the sunny side of life” ~ Jeffrey Glassberg

We often think of butterflies as brightly coloured insects active during the day, and moths as their more drab nocturnal counterparts. While this is generally true, there are exceptions. Some moths are diurnal and brightly coloured, while some butterflies are plain to avoid detection by predators. Dark colours, like those found in many alpine species, can also help a butterfly regulate its body temperature by absorbing heat.

So, what is the most reliable way to tell a butterfly from a moth? Look at the antennae. Butterflies have a ball, or club, at the end of their antennae; most moths have feathery or thread-like antennae. Body width and resting wing position can also provide clues. Moths are usually chunkier and, unlike butterflies, rest with their wings apart instead of together. Their pupae are different, too. A moth’s pupa is surrounded by a silk-spun cocoon, a butterfly’s pupa (called a chrysalis) is not.

SPECIES PROFILE

BUTTERFLY PROGRAM—February 9th

Follow the incredible migration of the monarch butterfly in a special film presentation, then take a close-up look at BC’s butterflies with lepidopterist Denis St. John. See the Events section for details.
2013 Winter Program Series
Hosted by the Osoyoos Desert Society
Sponsored by Watermark Beach Resort

BUTTERFLIES – Movie & An Expert
February 9th from 2-4 pm
at Watermark Beach Resort
Watch a film chronicling the incredible migration of the Monarch Butterfly, then take a close-up look at British Columbia’s butterflies with lepidopterist Denis St. John.

CAVITY NESTING BIRDS – The Inside Scoop
February 23rd from 2-4 pm
at Watermark Beach Resort
Join Sherry Linn, with the South Okanagan Bluebird Trail Society, for a multi-media presentation about our native cavity nesters—featuring bluebirds, house wrens, tree swallows and more!

SALMON – Movie & An Expert
March 9th from 2-4 pm
at Watermark Beach Resort
Watch millions of salmon return to the streams where they were born in the stunning documentary, 'The Great Salmon Run.' Following the film, learn more about this year’s historic salmon run with naturalist Lee McFadyen.

BIRDS OF PREY – Behind-the-Scenes
March 23rd from 2-4 pm
at the South Okanagan Rehabilitation Centre for Owls
Space is limited ~ Registration required ~ 250-495-2470
Tour the SORCO facility with Executive Manager Lauren Meads. Get a behind-the-scenes peek at the rehabilitation and release process and meet Houdini, the Great Horned Owl!

For more information contact the Osoyoos Desert Society
250-495-2470 ~ mail@desert.org

Admission by donation
THANK YOU, FRED HAMILTON
Dr. Fred Hamilton, a long-time director of the Osoyoos Desert Society, retired from the Board this past April. Fred was one of the founding members of the Society, and provided invaluable guidance and leadership for more than 20 years. He contributed to the Society’s growth and mission in countless ways, including a very active role in habitat restoration. Over the years, Fred devoted many hours to planting native species at the Osoyoos Golf & County Club as part of the Society’s ongoing restoration partnership with the golf course. He was a thoughtful and effective advocate for our local habitat, and the Desert Society is immeasurably grateful for his involvement and support.

Our heartfelt thanks to retired director Fred Hamilton for his many years of service to the Osoyoos Desert Society, and his ongoing commitment to conserving the South Okanagan’s unique ecosystems for future generations.

CONGRATULATIONS
Congratulations to Ruth Schiller on receiving the prestigious Queen’s Diamond Jubilee medal this past September. The award was in recognition of her many contributions to the community. Like Dr. Hamilton, Ruth Schiller was a driving force behind the creation of the Osoyoos Desert Society and the Osoyoos Desert Centre.

VOLUNTEER APPRECIATION
Plans are already underway for our next Volunteer Appreciation Event! We thought it would be fun to get together in February—it’s a great time of year to celebrate the (almost) end of winter, catch up on what everyone’s been doing, and look ahead to the coming spring.

We look forward to seeing you all then, and hearing about your exciting travels and adventures over the winter.

We will be in touch once a date has been confirmed. In the meantime, have a wonderful holiday season, and best wishes for a happy and healthy year ahead!

GET IN ON THE ACTION!
A variety of interesting and worthwhile opportunities are available for volunteers interested in getting involved with the Desert Society, including:

♦ Covering Front Desk reception shifts at the Desert Centre
♦ Leading guided tours
♦ Helping maintain the Native Plant Garden
♦ Participating in habitat restoration projects
♦ Tackling maintenance projects
♦ Assisting with special events

In addition, the Desert Society needs volunteers with expertise in the following areas:

♦ Members with fundraising experience to join our Fundraising Committee.
♦ A volunteer with technology expertise to provide computer, website and social media assistance.

If you are interested in volunteering, please contact us or check the ‘volunteer interest’ box on the membership form.
Naturalist Lee McFadyen provides some answers to a commonly asked question—
what happens at the Desert Centre in winter?

WINTER AT THE DESERT CENTRE
by Lee McFadyen, Board Director

It is winter and the sun has retreated to the Southern Hemisphere. At the Desert Centre, the vibrancy of ‘the growing season’ has passed. Migratory creatures have returned to their winter feeding grounds and those that choose the Desert Centre site to mate, nest and breed are lucky, as their territory will be intact when they return in spring.

October’s brilliant patchwork of fall leaves has dropped to the ground, providing nature’s mulch to be slowly absorbed into the earth as part of the soil’s nutrient cycle. The straw-coloured grass stems remain erect—many of them have dropped their seeds which, along with the abundant berries found on native plants, provide essential winter food for the furred and feathered wildlife which live at the Desert Centre year-round. Enough seed will lay dormant until spring moisture and temperatures trigger germination for a new season of growth.

Many seeds wear a hard, protective coat that is impervious to water and gases. The seeds will not germinate until this coat is altered physically by a process known as scarification. Fortunately, nature has several devices to affect this process. Falling onto hard ground, freezing and thawing temperatures, microbial activities and passing through the digestive tract of various animals modify the seed coat, facilitating spring germination. Undigested seed expelled from the digestive tract often accounts for the ‘traveling’ or colonization of plants from one spot to another.

Even the dreaded poison ivy has significant value! Many small animals and deer are not allergic to it and consume all parts of the plant. Birds depend on poison ivy berries during the fall and winter months when food is scarce. This adaptable plant can grow as a bush or a vine, often forming very dense patches under which small animals seek shelter.

Below the soil surface millions of diverse soil organisms responsible for turning organic matter into nutrients essential to plant growth are adapting to the cooling soil temperatures. Some go dormant, some migrate by burrowing deeper below the frost level (earthworms can migrate six feet down) and some die off leaving behind eggs or spores which will flourish when spring sun again warms the soil.

When we raise our eyes and look at the mountains we see a blanket of snow slowly accumulating. If we are lucky, as the days get colder this blanket will cover the ground at the Desert Centre, storing essential water for a slow release into the soil during spring melt.

While the soil is descending into a state of rest, birds must remain active, feeding each day and finding dense cover to protect them from cold and predators. As temperatures drop, and food becomes scarcer, some Desert Centre winter residents manage these obstacles to survival by spending time in a state of torpor, a type of low-grade, short-term hibernation which only lasts for a few hours.
The few degree reduction in body temperature and the slowing down of heart rate and respiration conserves energy until feeding conditions return. Studies have shown this ‘slowing down’ saves a significant number of calories from being burned off overnight. Desert Centre residents and visitors which practice torpor are black bears, raccoons, skunks, some mice, and bird species such as the chickadee. During cold springs hummingbirds will also go into torpor.

Torpor also has disadvantages: during torpor animals are very sluggish and may be completely unaware of their surroundings. They cannot just wake up and become active instantly—it takes time to bring their body temperature, heart rate and breathing back to normal levels. If an animal is attacked while in torpor, it has very little ability to defend itself or get away. Before descending into torpor, animals find a safe place, such as a hidden burrow or dense thicket, so they will be relatively secure while in their defenseless state. These secure places also provide protection from the weather. Some birds and mammals will gather in a natural cavity, crevice or burrow, thus benefiting from each other’s warmth.

The body temperature of cold-blooded animals varies according to the temperature of their surroundings. Because their muscle activity depends on chemical reactions which run quickly when it is hot and slowly when it is cold, cold-blooded animals are much more active in warm environments than cold. The frogs, spadefoots, salamanders and snakes inhabiting the Desert Centre retreat into the ground to spend the winter below the frost level in a state of hibernation.

On the surface, a human visitor to the Desert Centre in winter may see the site as rather bleak and barren. Bird species will be visible, but much of the other life that makes this site a vibrant and special reserve for a variety of common, red and blue listed species will be tucked away. They’ll be in rock crevices, burrows, or taking up space deep in the mud or dry soil, relatively safe in the stable underground temperature, hibernating. They don’t move for days or weeks and it is hard to wake these animals. Warm spring weather will signal an end to hibernation. Some true hibernators living at the Desert Centre are chipmunks, bats, frogs, toads, salamanders and snakes. A woodchuck is the biggest true hibernator. Its temperature drops from approximately 37 to 5 degrees C, and its heartbeat slows from 80 beats per minute to just four!

If one is in the right place at the right time, a quick movement may reveal a Desert Centre resident which remains active during the winter—the Nuttall’s Cottontail. It spends the winter looking for moss, twigs, bark and leaves to eat, and uses torpor to survive weather extremes. At dusk or dawn you may be lucky enough to see this charming rabbit, whose water needs are met by the moisture in its food, eliminating the need for standing water in its environment.

When visiting the Desert Centre, summer or winter, one needs to ‘look’ beneath the surface. Below, in the soil, is where most of the activity takes place, and from which grow the plants that provide sustenance for all the creatures—from microscopic size to the largest mammal.

Red and Blue lists serve two purposes: (1) To provide a list of species for consideration for more formal designation as Endangered or Threatened, either provincially under the British Columbia Wildlife Act, or nationally by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). (2) To help inform setting conservation priorities for species/ecological communities considered at risk in British Columbia.
As 2012 draws to a close, the Osoyoos Desert Society would like to acknowledge and thank all the government agencies, foundations, businesses and individuals who generously supported us throughout the past year. We could not succeed without you!

THANK YOU TO OUR FUNDERS —
- Community Foundation of the South Okanagan
- Fortis BC
- Gaming Branch, Ministry of Housing & Social Development
- Osoyoos Golf & Country Club
- RBC Foundation
- Real Estate Foundation of British Columbia
- Regional District Okanagan-Similkameen
- Suncor Energy Foundation
- TELUS
- Town Of Osoyoos

THANKS TO OUR DONORS —
Our sincere appreciation to all the individuals who gave donations to the Society throughout the year, as well as the businesses who kindly donated services and products to support our programs and projects.

THANKS TO OUR ‘ROMANCING THE DESERT’ SUPPORTERS —
And a big thanks to all our Romancing the Desert supporters. The Desert Society’s annual fundraiser would not be possible without the generosity of the participating restaurants and wineries, and the many local businesses and individuals who contribute to the event. Thanks to you, this year’s Romancing raised more than $10,000 to help support our conservation efforts!

AND SPECIAL THANKS TO OUR DEDICATED VOLUNTEERS AND MEMBERS —
As always, a very special thanks to our volunteers and members. Your support makes it possible for the Osoyoos Desert Society to exist and pursue its mission of habitat restoration, education and conservation.

Your support makes difference.

Memberships and donations help fund the Desert Society’s habitat conservation, restoration and education efforts.

To find out how you can help, please see the attached membership/donation form.

Thank you!