Greetings to members and supporters:

I am pleased to report to you after another year of operational success and advancement.

Desert Centre visitations in 2008 were slightly higher than the previous year and it was our first season with solar power. This year will start with the huge benefit of a new piped water supply, thanks to the Town of Osoyoos service extension to the landfill site.

What this year will bring, of course, is anyone’s guess—but mine is that we could see more Canadians touring the province and our region, making up for a short fall in recession-impacted overseas visitors.

We have defied a reputed negative trend in volunteerism by recruiting three more directors. This brings our number to nine and we are well served by this dedicated and very well qualified board. We have also been most fortunate in attracting new volunteers to swell our numbers and take some pressure off the existing cadre of dedicated people.

Denise Eastlick has now completed her first year as Executive Director and I have nothing but praise for her enthusiasm and diligence, and know that we are in most capable hands.

As I live in and observe our landscape I cannot help a growing concern, tinged with pessimism, that the 10,000 year old habitat we call the “antelope brush ecosystem” is headed for extinction. The valley bench lands are a rich and enormously diverse community of plants and animals, but the human rapacious instinct for unsustainable development may leave all that as nothing more than a memory. It is against this outcome that we should focus our efforts.

Thank you for your interest and support.

Roger Horton
President, Osoyoos Desert Society
A WINTER VISITOR
by Greg Byron, Owner Operator
Great Horned Owl Eco Tours

One of the more diminutive members of the owl family is the Northern Pygmy owl (Glaucidium gnona) which is 7 - 7.5” (18 - 19 cm) in size. The pictures on the right (taken January 8th, 2009) show a front and back view of the bird’s head. From the rear, it appears as if the owl has “eyes in the back of its head.” This must be very confusing to both predator and prey. In fact, according to ornithologist Dick Canning, “the eye spots are directed at mobbing birds, perhaps keeping them from making serious attacks from behind that could injure the owl.”

The Northern Pygmy owl is closely related to the Ferruginous Pygmy owl, whose range is the southwestern United States. Both the Northern and Ferruginous owl are diurnal (opposed to most owls which are nocturnal) and active from dawn to dusk.

The ability to have better vision at night is a function of the number of rods and cones present in the eye. Cones are adapted to distinguish colour and rods are adapted for low light. Owls have many more rods in the retina of their eye than do humans. The eyes of some owl species are approximately 100 times more sensitive to light than those of humans, giving them extremely good night vision.

In the Okanagan the Pygmy owl makes its home at the higher elevations between 700 and 1500 meters during the breeding season. During the winter months of December and January it is regularly seen on the valley floor where the snowfall is less and prey more abundant.
In the fall of 2007 an artificial lined pond was constructed at the Desert Centre in partnership with the Puddles to Peepers project. The constructed pond, designed to provide a breeding site, is similar to the natural ephemeral wetland habitat used by the spadefoots. In the spring of 2008, with the help of water supplementation, spadefoots successfully laid eggs and metamorphosed from the pond. Following is a look back – and a look ahead – by the project’s coordinator, Sara Ashpole.

NEW POND A SUCCESS FOR SPADEFOOTS
by Sara Ashpole, Puddles for Peepers

In May of 2008 many species were observed using the pond, including mule deer, coyotes, racers, countless bird species and bats. After more than a week of observation, spadefoot tadpoles as tiny as a pea were seen hovering in the sand. A triumphant moment for spadefoots and habitat restoration!

The pond was monitored weekly for the rate of water evaporation and spadefoot development. Few insects were observed in the pond water, so dry cat food was added once a week to provide a food source for the tadpoles and to help reduce any cannibalism. Spadefoot tadpoles appear to naturally blend and camouflage with their environment. However, spadefoots can be easily observed basking in the sun and, as soon as they develop lungs, one can see them come to the surface to gulp air. An estimated 250 spadefoot tadpoles were counted at any one time and, as the weeks progressed, the number of developing tadpoles remained high. At least 75 metamorphosed spadefoots emerged in less than four weeks. As soon as able, the little frogs disappeared into the desert and the pond was allowed, just like a natural ephemeral pond, to dry out.

Continuing to monitor the spadefoots and the pond will be important in determining the long-term benefits of the wetland restoration project. Continued habitat enhancement will include native vegetation planting and additional wetland features. Natural cover objects will be placed in the pond to provide the spadefoots with increased shade protection and refuge from possible predators.

The wetland restoration project is built on amphibian monitoring studies conducted since 2003. The artificial pond at the Desert Centre is strategically placed to provide high quality protected breeding habitat that connects movement corridors for the threatened spadefoot. More so, the placement of the spadefoot pond will be significant in educating the local community and visitors on the importance of wetlands and their function in a desert landscape. The interpretive volunteers and staff at the Centre have the ability to share the science and natural history of the local wildlife and ecosystem with visitors. To support interpretive presentations, a sign—in partnership with the World Wildlife Fund, the Habitat Stewardship funds, and the Osoyoos Desert Society—will be erected close to the pond this spring.
Many mammals, birds, amphibians, reptiles and insects have adapted to adverse climate conditions by hibernating or migrating. During the winter months in North America, the environment seems almost devoid of animals. Where did they all go? How did they evolve these specialized strategies? Among certain animal groups there are even inconsistencies as to whether to hibernate or migrate.

Hibernation occurs in animals through a period of inactivity, their metabolism slows down, there is a lowering of body temperature, and breathing rates are depressed. When hibernating, animals conserve energy and tap into energy reserves of body fat at a slower rate.

Of all of the animals that hibernate in winter, probably the animal that comes to mind immediately is the bear. In North America there are three species of bear: black (Ursus americanus), grizzly (Ursus arctos) and polar (Ursus maritimus). The black and grizzly hibernate throughout the winter and pregnant female polar bears enter a modified hibernation state, known as walking hibernation, prior to giving birth. With the exception of the polar bear, bears are omnivorous—that is, they eat both plants (herbivorous) and meat (carnivorous). So, why would they hibernate if there is a food source for them in the winter (i.e. fur bearing mammals)? The answer probably has to do with the fact that many of the small mammals they prey on, such as marmots, also hibernate. In addition, the calves of ungulates, such as deer and elk, are not born until the spring.

For black bears that live in the warmer areas of North America there is no need to hibernate. For instance, black bears that call Florida home only go into a den to give birth.

A form of temporary hibernation that some animals use is called torpor. In this case the body temperature and rate of metabolism are lowered to conserve energy for portions of the day. During the active part of their day, these animals maintain normal body temperature and activity levels, but their temperature drops during a portion of the day (usually night). Torpor is often used to help animals survive during periods of colder temperatures, since it allows the organism to save the amount of energy that would normally be used to maintain a high body temperature.
When we think of migration we usually think of birds; however, as a survival strategy many other animals also migrate. Bird migration refers to the regular seasonal journeys undertaken by many species of birds. Bird movements include those made in response to changes in food availability, habitat or weather. Not all birds migrate; those that remain year round are called resident birds.

In the Okanagan Valley there is tremendous movement of birds during the migration months in the spring and fall. While vast numbers of birds arrive in the spring, equally large numbers of birds who spent the winter here depart for their breeding ranges further to the north. This cycle repeats itself starting in late summer when the birds which arrived in the spring head south and the birds that went north in the spring return to enjoy the milder climate and winter over.

Do birds hibernate? Of all of the thousands of bird species that exist throughout the world there is only one which hibernates, the Common Poorwill (*Phalaenoptilus nuttalii*). The Poorwill can be found in the Okanagan, is nocturnal and preys on insects. Poorwill of the Okanagan do migrate south in the winter; however Poorwill that live in California and New Mexico hibernate in the winter.

Most bats that are found in the Okanagan hibernate in caves during the winter; however, one species—the Hoary bat (*Lasiurus cinereus*)—migrates to the southern United States in the fall. Other North American mammals that migrate include the caribou, many whale species and butterflies.

### Migration and Global Warming

For some time now experts have been issuing warnings about the impact of global warming on the migration pattern of many bird species. An article published in February of 2009 by the National Audubon Society stated that analysis of data from the past 40 years reveals that nearly 60% of the 305 widespread species that winter on the continent have shifted significantly north. Forest birds such as pine siskin, boreal chickadee and purple finch have moved an average of over 250 miles further north in the boreal forest in search of suitable food and habitat. Likewise waterfowl such as red breasted merganser, ring-necked duck and American black duck can now find warmer waters further north. However, only 10 of 26 grassland species have moved significantly north. Because of the destruction of essential grassland habitat for human uses, many grassland species are likely not able to move, despite warmer northern temperatures.

The report goes on to say that, “Experts predict that global warming will mean dire consequences, even extinction, for many bird species, and this analysis suggests that the process is well underway. We’re witnessing an uncontrolled experiment on the birds and the world we share with them.” (Audubon President, John Flicker)
FOR VOLUNTEERS

YOU’RE INVITED!
To a Volunteer Open House

To say “Thank You” to our current volunteers—and welcome those interested in finding out about volunteer opportunities with the Society—the Desert Centre is hosting a special Volunteer Open House.

Saturday, April 25, 2009
1:00—3:00 PM
Osoyoos Desert Centre

~ Visit with friends and welcome new faces
~ Find out what’s new this season at the Centre
~ Enjoy some tasty treats and refreshments
~ Learn about volunteer opportunities available with the Desert Society

Bring a friend—everyone is welcome!

For more details, call 250-495-2470

SPRING CLEANING at the Desert Centre

Opening Day at the Desert Centre is almost here!
To get everything ready to welcome visitors, the Desert Centre is having a Spring Cleaning Day.
All helping hands are appreciated!

Thursday, April 16, 2009
1:00—4:00 PM
Osoyoos Desert Centre

Sweets and beverages provided.

For more details, call 250-495-2470

RESTORATION WORK PARTIES at the Desert Centre

Get involved in on-site restoration projects underway this spring at the Desert Centre.

Don’t forget your hat, and feel free to bring your favourite gloves and gardening tools.

Tuesdays, 10:00 AM—Noon
May 5, May 19,
June 2, June 16

VOLUNTEER FAIR at the Desert Centre

Sunday, April 19, Sonora Community Centre

~ Hosted by the South Okanagan Volunteer Centre—a newly launched network designed to promote volunteerism and help volunteer organizations recruit new members.

Be sure to stop by the Desert Society’s booth for a visit and free notecard.

~ This event is focused on bringing awareness and support to Volunteers and the Not-for-Profit Organizations that are an integral part of our communities.
UPCOMING EVENTS

Annual General Meeting (April 8)
Join the Desert Society for their annual general meeting starting at 7:00 PM on Wednesday, April 8 at the Osoyoos Golf and Country Club. Well-known author and ecologist Don Gayton will be the featured speaker. Don writes for popular magazines and journals, and is also the author of several award-winning works of creative non-fiction, including Interwoven Wild (2007), Kokanee (2003), Landscapes of the Interior (1997) and The Wheatgrass Mechanism (1990). He currently lives in Summerland, BC, where he works as an ecologist specializing in grasslands and dry forests.

Desert Centre Opening Day (April 26)
The Desert Centre will be kicking off the 2009 season on April 26th with a special day of presentations, tours and activities. At 1:00 PM gardener and naturalist Eva Durance will be on hand to discuss native landscaping and sign copies of her new book, Cultivating the Wild - Gardening with Native Plants. Children’s crafts and family-friendly activities will also be available (10:30 AM to 12:30 PM) as well as guided tours along the boardwalk (10:00 AM, 11:00 AM and 3:00 PM).

Road 13 Events (May 3 & 9)
On Sunday, May 3rd Road 13 Winery is hosting a Weiner Dog Day featuring gourmet hot dogs. Proceeds from the event will be donated to the Osoyoos Desert Society. On May 9th, the winery will be hosting a native plant event that includes a 2:30 PM presentation by Tamara Bonnemaison, the Desert Society’s restoration ecologist.

Meadowlark Festival Events (May 15 & 17)
The Desert Centre will be hosting Night Tours at the Centre on May 15 and 17 (7:00 PM) and a native landscaping workshop on May 14 (2:00-5:30 PM). Tickets can be purchased by contacting the Meadowlark Festival at 250-492-5275.

10th Anniversary Party (July 2)
Be sure to join us for a special day of festivities to celebrate the Desert Centre’s 10th birthday on July 2.

SOCIETY UPDATES

Lease—The process for renewing the lease on the current Desert Centre site is well underway and should be finalized within the next few months.

Website—The Desert Society’s website (www.desert.org) is being re-designed and updated. The newly renovated website is scheduled to be complete by the end of April.

Memberships—A sincere thanks to everyone who has renewed their membership. Please note, memberships can be renewed on-line on our website (www.desert.org), by email (mail@desert.org) or by calling 250-495-2470.
Romancing the Desert

August 8, 2009
6:00 PM to Midnight

Experience the beauty of the desert under the light of a full moon. Proceeds support the conservation efforts of the Osoyoos Desert Society.

~ Gourmet Food & Wine Pairings
~ Guided Boardwalk Tour
~ Silent Auction

Tickets $60 per person ~ advance booking required
Call 250-495-2470 ~ 1-877-899-0897 or email mail@desert.org

Romancing the Desert - 2009 Ticket Form

Name: ____________________________________________ Phone: _________________________
Address: ____________________________________________ Email: _________________________

Yes! I would love to attend Romancing the Desert 2009. Please reserve _________ tickets @ $60 each.

No, I cannot attend, but would like to make a donation to the Osoyoos Desert Society. $______________

☐ Please find a cheque enclosed.
☐ Please bill my VISA/Mastercard: Number_________________________________ Expiry_______________

Signature________________________________________________________ Total $________________

Please send form to: Osoyoos Desert Society, Box 123, Osoyoos, BC V0H 1V0
You will receive a confirmation letter via mail or email prior to the event. Please note: paper tickets are not issued. Tax receipts for the amount of your donation ($60 or more) will be issued after the event.