# OSPSNEWSEETTER

OKANAGAN SIMILKAMEEN PARKS SOCIETY

**Spring** 2011

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# 46th ANNUAL GENERAL MEETING

# OKANAGAN SIMILKAMEEN PARKS SOCIETY



with special guest presenters

## Jeff and Sue Turner

"The Bear Man of Kamchatka"



Film & Question Period

### **AGENDA**

- Election of Directors
  - ✓ Financial Report
    - Discussion

## **CENTRE STAGE THEATRE**

Rosedale Road, Summerland March 25, 2011 • 7pm

ALL WELCOME Refreshments NO CHARGE Donations Welcome

## Take a Walk Through The Spring Issue With Us

im currently typing this page while sitting at a window table at a local coffee shop. It wouldn't be such an important point except that the sun is shining through, the sky is an eternal blue and the trees and plants look ready to bloom even as some brown leaves from last year blow around near the sidewalk. In short I am ready to get out there and go for a walk in one of our local parks.

This issue of our newsletter is kind of similar to a stroll or a hike through a favourite place. It starts out with an invitation to the Annual General Meeting of the Okanagan Similkameen Parks Society and the opportunity for you to meet up with old friends and make new ones. Sometimes walking or climbing with others is the way to begin your adventure. Enjoying a presentation with Jeff and Sue Turner and their wonderful film is just the beginning. Maybe new executive members will be elected and proposals for business will be dealt with.

This is the One Hundredth Anniversary of parks in British Columbia. It was in 1911 that Strathcona Park was designated and during the ensuing one hundred years it, and other parks, have undergone a great deal of changes. As you puruse this Spring issue think about what a park has come to be known as and how with even slight changes in policy or practice it could all be altered. It won't take much and you are one of the stewards of parks of the future.

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Please used the enclosed membership form on the back page to help us carry out our mission.

# River Roads Films – Jeff and Sue

eff and Sue Turner are a Canadian husband and wife team based in British Columbia that have been making natual history documentary films for the past 25 years. They have directed, shot, written and produced more than 30 documentary films for the BBC, CBC, PBS, Discovery and Animal Planet Channels in setting throughout the world.

They have won numerous awards for their work, including a British Academy Award Nomination and their films have been seen around the world on television networks in more than 50 countries. For the past 18 years Jeff and Sue have been making films almost exclusively for the BBC.

#### **FILMOGRAPHY**

2009 – "The Great Salmon Run – Nature's Great Events Series BBC – 60 minutes • cinematography, producer, director, writer

2008 – "Earth" – Disneynature – 90 minutes • feature film cinematography

2007 – "The Edge of Eden: Living with Grizzlies" - CBC – 90 minutes
• cinematography, producer, director, writer, narrator – planned worldwide theatrical release

2006 – "The Bear Man of Kamchatka" – BBC, CBC – 50 minutes • cinematography, producer, director, writer, narrator – BBC The Nature World, CBC The Nature of Things

2006 – "Bear Diaries" – BBC – 5 x 30 part series • cinematography, presenter – Discovery US

2006 – "Planet Earth— Episode 8: Plains" – BBC - 50 minutes • cinematography, Discovery US

2005 – "Planet Earth- Episode 2: Mountains" – 50 minutes • cinematography, Internet- Discovery US

### The Bear Man of Kamchatka

**BBC** Natural World

#### **BILLING**

The grizzly bear is considered by many to be the most dangerous animal in the world. But there is one man, Canadian Charlie Russell, who thinks differently. He believes that grizzlies are misunderstood animals and that our fear of them is not only unnecessary but driving to extinction. His beliefs have taken him to Russia where he has been raising orphaned grizzly bear cubs for the past ten years in the wilderness of the Southern Kamchatka peninsula. Becoming their surrogate mother he struggles to keep his clubs alive and teach them everything they need to survive a life in the wild. But will it be enough?

Producers: Jeff and Sue Turner Series Editor: Tim Martin

#### **FILM SUMMARY**

The story of man's mission to raise grizzly bear cubs in the wilderness of Russia allowing them to grow up wild and free and take their place in the world of the grizzly bear.

The film follows Canadian bear expert Charlie Russell as he rescues two orphaned cubs from a squalid Russian Zoo where they are soon to be killed and takes them to his cabin, that he built himself 10 years previously, in the remote South Kamchatka Sanctuary. He calls the cubs Andy and Melisse.

Over the course of one season he has to introduce Andy and Melisse to their new home, teaching them everything he can about a life in the wild. The cubs have to learn the lay of the land in their new home territory, what plants to eat, how to catch fish and how to escape from predatory male bears.

Everything is going relatively smoothly when two strange bears suddenly show up around the cabin. It turns out to be two of Charlie's cubs from last year – cubs that had disappeared and he thought had died – returned to the only home they know and the only mother they know – Charlie.

Now Charlie really has his hands full as he

has to provide for all four of his cubs. And on top of that the younger cubs are nervous of their older half-siblings. There are many dangers that young cubs face growing up in the wild and their survival is far from assured. Charlie does all that he can to keep the cubs safe but in the world of the Russian Grizzly Bear there are no guarantees.

Raising orphaned grizzly bear cubs, Charlie has been given a rare insight into the world of bears. He has learned that grizzly bears are not the fearsome aggressive killers that so many believe but rather are a gentle peaceful creature. And that although our misplaced fear of them is driving them to the edge of extinction it is possible for man and bear to live together peacefully and safely, sharing this earth.

#### **GRIZZLY BEAR FACTS:**

- grizzly bears are the largest land based predators in the world. The largest adult grizzlies can weigh up to 1000lbs.
- grizzlies are fast they can run in short bursts of up to 50 km/h
- grizzlies bears are designed as meat eaters but spend most of their time eating plants
- during the autumn grizzly bears exhibit hyperphagia – this is where their bodies ability to feel full or satiated on food is turned off so that they can eat and eat and eat and put on massive amounts of weight in a short time
- during hibernation a bear can lose up to 40% of its body weight
- grizzly bears are an endangered species in the lower 48 states of America, and in western Europe. But in Canada, Alaska and Russia they are considered a big game species and sport-hunted as trophies.
- grizzly bear gall bladder, dried and powdered, is highly valued for Chinese Traditional medicines. Many bears are killed illegally to supply the black market trade for this product.

TAKE A WALK continued from front

Also included in the vista of this issue are the flora and fauna of our parks and some thoughts about the roles that they play in our lives and those of our loved ones. Its amazing but when the Spring roles around again each little patch, or large expanse, of nature teems with life and the possibilities inherent in it. Our parks should be reservoirs and incubators for all of the species that are observable or unnoticed. This newsletter attempts to draw your attention to this awakening.

There is always an individual on the trail making use of some aspect of current technology, be it an iPod or a GPS tracker. For our technology reference the society has launched our new website in time to be mentioned in this issue. You can not only read the current issue on the web but also look up past issues and other information if the desire moves you.

You will find many other reviews and pieces of inspiration among the pages of this Spring issue of our newsletter. We welcome you to write to us with input, responses, ideas or new insights. Whatever your views, we hope that you enjoy this issue and our little journey. We hope that you particularly enjoy the Spring and all that it holds for you.

# correction...

The editor wishes to apologize to Harold Braumbrough of Naramata, who was mistakenly indentified as a director of the O.S.P. Society in the Winter Issue of this newsletter. Harold has been a very valued presenter at past AGMs of the Society. We apologize for any misunderstandings that may have arisen due to this error.

## What Is A Park?

BY IAN GRAHAN

hat is a park? Is it a place or a physical location or is it an idea or a state of mind? Does it serve a single purpose or does it provide a venue to deal with multiple objectives and goals? These are issue that must be weighed, considered and assessed by each individual in the particular time and space that they are in.

As a grandfather of five delightful youngsters from ages of three to nine, living in a semi-rural location in the South Okanagan in the Spring of the year I have my own views on the questions. I am looking at parks of all sizes, shapes and ages as repositories for knowledge, and experiences, for the youth of our species and others. They will need the various environments in, at least, their present condition in order to, if not actually survive, then survive in a manner that offers a standard of emotional and social living that is healthy.

There are so many species of both plants and animals that we know little about. The consequences of diminishing, or destroying, these species may be major negative alterations in our species well being. Parks are one of the ways that we can address these possibilities of disaster.

Whether a park is just a little strip of land next to a creek feeding one of our lakes or a tract of land that climbs the mountains of our region it can be home to an array of plants that have managed to find a habitat in that particular location. Even if there are multiple numbers of the plant located throughout the region it is still important to maintain the plants in the park for the enjoyment, education and exploration of future generations.

Animals need habitat, migration corridors, nesting and calving sites and other environment that allows them to eat, rest in live relatively stress free. Be they birds, mammals, reptiles, insects or other creatures we need to have, at the very least, areas that are conducive to their survival. Parks can provide such areas.

The Okanagan Similkameen Parks Society has been supporting studies and inventories of flora and fauna in some of our remoter parks and lands that may become parks. You too can conduct an inventory on your strolls, hikes, bike rides and runs. Count and compare the birds nests next to your path, take account of the ant hills or woodpecker holes that you notice as you ride or notice the animal tracks in the mud or sand as you take part in your picnic by the lake. Notice the changes in vegetation as you move. Identify the types of trees that are closer or farther from the water.

Whether we envision parks as repositories or test tubes, viewing sites or preserves, the plants and animals of our parks must be protected. We owe it to ourselves but we also owe it to future generations so that they are able to live healthy fulfilling lives and can be stewards for the parks in order to hand them on better than they received them to even more future generations.



#### **DESERT SOCIETY NEWS - DECEMBER 2010**

# Brittle Prickly Pear Cactus

by Michael Epp, Restoration Coordinator, Osoyoos Desert Society

British Columbia you may find it growing in many arid regions, especially at low elevation along the southern Rocky Mountain trench, dry plateaus and grasslands, sagebrush slopes, openings in ponderosa pine forests and on rocky outcrops.

Brittle prickly pear has both nutritional and medicinal values. It was considered an important native food source in times of famine. In spring, the stems of the cactus were gathered by native peoples living in the interior. The stem could be roasted, pit-cooked or boiled. The outer layer of the cactus had to first be peeled because the plant has numerous tiny, barbed glochids (hairs) that are easily dislodged when the plant is touched. They cause considerable discomfort if they become stuck to the skin. First Nations used the cactus to treat coughs, skin sores, infections, and as a diuretic.

Brittle prickly pear is a great choice for use in xeriscaping. It is an attractive plant that grows readily on mineral soil and requires very little water. Additionally, prickly pear is very resilient and responds will to transplanting. The reason for this is tied to its reproductive cycle. With the slightest touch, the prickly

pear cactus breaks off at the stem. With its sharp spines, the detached pod attaches itself readily to desert animals (or people) and is dispersed for short distances. The transplanted pod can survive short distances. The transplanted pod can survive a long time and, when conditions are ideal, will set down roots directly from the pod.

The next time you find yourself with a hitchhiking cactus stuck to you, why not consider planting it in your garden? The results may surprise you!

Did you know? – the pancake prickly pear (opuntia chlorotica) from the Mojave and Sonoran desert can reach a height of 7 feet!

### THE MAGAZINE OF BC NATURE - WINTER 2010 - VOL. 48 NO.4

# Okanagan Ecological Reserve Wardens Share Information and Experience

by Eva Durance

n October 12, nine of the 16 wardens for ecological reserves (ERs) in the Okanagan, Similkameen and Shuswap areas were able to attend the annual meeting and field trip organized by South Okanagan Senior Park Ranger Sara Bunge and hosted by BC Parks staff in Penticton. This is the seventh year we have had this event, which is always a valuable combination of information exchange and field outing.

The meeting began with John Trewhitt, Parks and Protected Areas Section head, presenting certificates of appreciation to wardens with 10 or more years of volunteering in this capacity. Wardens then gave brief reports on their ERs. These verbal reports are very useful for other wardens and staff to learn what the situation and concerns are in the various ERs; at times, problems arise in more than one ER and the meeting is a good place to discuss ways to deal with them.

North Okanagan Area Supervisor Kevin Wilson went through a PowerPoint presentation, recently completed by ER staff in Victoria, for wardens and staff to use in public presentations. It can be revised to include material on specific ERs so will be very helpful to educate the public. I was particularly pleased as the need for more public awareness of ERs was pinpointed at the provincial Wardens' Gathering in Kamloops in 2003, and just such a generic presentation was suggested as a good way to address the issue.

Two more presentations completed the morning. The first was by Senior Wildlife Biologist Orville Dyer on red and blue-listed amphibians that wardens may want to look for, especially the western toad and spotted frog. This was a follow-up to his discussion last year on similarly listed plant species.

The second was Dr. Tom Northcote's overview of the history of research at Mahoney Lake, the ER for which I am warden, and the

current state of this very unusual and worldrenowned merimectic lake. Dr. Nothcote, with Dr. Ken Hall, has carried out research on the lake since the 1960s, and so was able to give us a very comprehensive account of how it has changed over the past 50 years. The water levels are now lower than at any time since records have been kept, and one result is the beginning of a breakdown in the layer of purple sulphur bacteria that blankets the water a number of metres below the surface. This is having serious effects on the makeup and abundance of lifeforms in the lake and therefore on other creatures such as water birds. The latter's species and number abundance has declined sharply in the past few years.

After lunch, wardens, staff members and Tom and Heather Northcote went on a blustery but enjoyable hike through Skaha Bluffs Provincial Park. As always, we had a most informative and enjoyable day. Thanks again to BC Parks staff, especially Sara Bunge, who make sure this meeting happens each year.

NEWS RELEASE: COPY BY FRIENDS OF THE STIKINE SOCIETY - WEDNESDAY, MARCH 24, 2010

# Kettle River and "Sacred Headwaters" Jointly Top BC's Most Endangered Rivers List for 2010 –

Need for Water Policy Reform and Protection of Northern Rivers Highlighted

he Kettle River and a remote northern widely known as the "sacred headwaters" have tied for top spot on British Columbia's most endangered rivers list for 2010.

The Kettle River runs through BC's southern interior near the towns of Midway, Rock Creek and Grand Forks. This river, already suffering from seasonal low flows and high

water temperatures, is threatened by significant new water extraction proposals near its source. Unless greater efforts are made to address this issue, the fate of this beautiful interior stream and its fish stocks may well foreshadow what many other streams in the region will confront in the face of ongoing climate change. "Most importantly, the issues unfolding on the Kettle highlight the urgency of updating BC's outdated

Water Act so as to ensure the needs of fish and river ecosystems are adequately considered before making decisions on water extraction for various industrial uses", said Mark Angelo, Rivers Chair of the Outdoor Recreation Council and an Order of Canada recipient. The province is currently seeking public input on Water Act reform.

THE MAGAZINE OF BC NATURE - FALL 2010 - VOL. 48 NO. 3

# Province Gets Failing Grade in Conserving Ecological Integrity in Parks

Editor's Notebook – Dawn Hanna

BC's Ministry of Environment is failing to conserve ecological integrity in BC's parks and protected areas.

The above statement doesn't hearken from an opposition party, an environmental organization or an "eco-fascist" (as Minister of Energy, Mines and Petroleum Resources Bill Bennett is wont to characterize those who advocate for parks). No, this assessment comes from the Office of the Auditor General, an independent entity that describes itself as serving the people of BC "by conducting independent audits and advising on hew well government is managing its responsibilities and resources."

The report Conservation of Ecological Integrity in BC's Parks and Protected Areas notes that the ministry has a 'clear vision' for conserving ecological integrity, but also notes that the BC Parks Program Plan (2007-2012) hasn't even defined what they mean be ecological integrity, hasn't developed any performance targets, doesn't have the baseline information to set targets, doesn't uphold existing conservation policies and has management plans that are either outdated, incomplete or non-existent.

And while the province may boast that it has a provincial protected area system larger than any other province in Canada and third largest in North America, the report notes significant flaws with some biogeoclimatic zones (e.g. Coastal Douglas-fir and Bunchgrass) inadequately represented, with some parks and ecological reserves too small to maintain ecological integrity and long-term viability.

The report also notes that the ministry is not adequately addressing impacts to parks such as climate change, inappropriate use, invasive species and adjacent land use (e.g. mining, logging and land development). There is more that the report notes but these examples provide an idea of the depth and breadth of the problems.

I suppose it should be comforting to know that there is now an independent, unbiased voice that confirms what many park advocates have known for years.

So why does my blood boil when I see those "You Gotta Be Here" ads from Tourism BC, featuring celebrity British Columbians such as Ryan Reynolds, Kim Cattrall, Steve Nash and Michael J. Fox standing in front of what Tourism BC calls "some stunning BC backdrops?"

Because I know that some of those "backdrops" are located in provincial parks e.g. MacMillan Provincial Park, Cypress Provincial Park, Monkman Provincial Park and Cultus Lake Provincial Park, to name a few. And I know that the ecological integrity of those same parks is at risk because of many of the problem that the Office of the Auditor General has identified in the report. And because I know that the operating budget of the Parks and Protected Areas Division was cut by \$2.3 million last year (to \$31.58 million) and is looking at further cuts over the next few years.

And I know that next year marks the 100th birthday of BC Parks. (BC's first provincial park, Strathcona, was created in 1911, protecting 250,000 hectares of varied habitat, native flora and fauna.)

If the BC government really wants to show its vision of ecological integrity and dedication to its stated principles, it would heed the Auditor General's recommendations and restore – or better yet, increase – funding so that, as the BC Parks Program Plan (2007-2012) states, that "BC Parks is recognized for its leadership in the proactive stewardship of ecological and cultural integrity."

WILDLANDS ADVOCATE - THE ALBERTA WILDERNESS ASSOCIATION JOURNAL - DECEMBER 2010 - VOL.18 NO.6

# Wild Ecosystems and Climate Change – the Seminal Work of Dr. Camille Parmesan

BY CAROLYN CAMPBELL, AWA CONSERVATION SPECIALIST

met biologist Dr. Camille Parmesan at a conference on "Collaborative Responses to Climate Change' in April 2010. a professor at the University of Texas at Austin, she was one of the few academic scientists who attended the Copenhagen international climate change conference in December 2009. Four months later she was sharing her impressions of the Copenhagen climate change policy negotiations.

Parmesan was pleased state leaders accepted the scientific consensus that a temperature increase limit of 2 degrees Celsius is needed to prevent dangerous human-caused interference with the climate system. But she was disappointed that a phrase about the need to minimize biodiversity loss and preserve ecosystem services was dropped from the negotiations. She thought the idea that 'human society and health depend on healthy ecosystems' was already accepted by decision makers – but it turned out that no, biodiversity and ecosystems were perhaps still perceived as a "special interest" agenda of conservation NGOs. It was not a high enough priority for the lawyers and policy people who advise the politicians. She thought scientists had a crucial role to play in informing the public and elected leaders about the current understanding of climate change science and impacts to inform today's policy decisions.

At the break, I complimented her on her presentation and said I worked for AWA. She told me some of her work analyses wild ecosystems including some in Canada. Only later did I realize that I had met one of the world's foremost authorities on the impacts of climate change on wild ecosystems. Not only has Dr. Parmesan co-authored several of the most widely cited papers on global warming, she has also appeared in many popular publications and on television, practicing what she preaches about informing the public about climate change and possibilities for dealing with it. Here are some highlights of her important research.

Parmesan's PhD work initially was not climate

change related; it started as basic research on the Edith's checkerspot butterfly. But in 1991 significant biological evidence of global warming's impact on species had not yet been established. Having already worked several years with the Edith's checkerspot, including reviewing decades of historical records, she knew it was very sensitive to climate variability. As she told a ScienceWatch.com interviewer in early 2010, "this butterfly could be a bioindicator of climate change. It could be more sensitive than a thermometer in some ways."

Parmesan obtained a NASA fellowship to study possible climate change impacts. Guided by historical records, she visited many Edith's checkerspot sites from Mexico to Canada to asses whether or not its habitat was still suitable and whether or not known local populations still could be found. She discovered strong evidence that, over the past century, the butterflies were shifting their range northward and to higher elevations, even when much of their southern range habitat still appeared suitable.

That study was published in 1996 to wide acclaim. There were only two other studies that had been published by then on biological responses to climate change – one on marine invertebrates, the other on Swiss alpine plants. Her research helped convince both biological researchers and climate scientists that there was biological evidence of a global warming signal.

Parmesan next worked with butterfly scientists in Europe, where there were distribution records over hundreds of years in Great Britain, Sweden, and Finland. She and her colleagues did field work on the southern edge of species' ranges in Spain, France and northern Africa. They found very strong indications of a climate change signal, and published their results in Nature in 1999. At the northern ranges of habitat boundaries, 65 percent of the 57 species they studied had moved north of "their" historic ranges and were colonizing northward by 200 to 400 kilometres. The southern range popula-

tions were more stable but nearly a quarter of species were contracting northward and had been extirpated (become locally extinct) at their southern range boundary.

Parmesan accepted an invitation to contribute as one of the biologist experts on the Intergovernmental Panel on Climate Change (IPCC). Leading up to the 2001 report on climate change impacts, there were differences in opinions among IPCC scientists on how compelling the biological evidence of climate change impacts was. In response, Parmesan teamed up with U.S. economist Gary Yohe to produce a landmark study published in Nature in 2003 entitled "A globally coherent fingerprint of climate change impacts across natural systems."

This 2003 study tested for a climate change influence or "fingerprint" using data evaluation methods that satisfied economists (and other non-biologists) about the rigour of the conclusions. Reviewing all suitable multispecies studies, Parmesan and Yohe found that the range limits of 99 species of birds, butterflies and alpine herbs had moved on average 6.1 km per decade northward or 6.1 metres per decade upward. They found a life cycle timing shift (to earlier spring timing) of 2.3 days per decade on average for 172 species of plants, birds, butterflies and amphibians.

Looking at less detailed and single species studies of 1,570 species, they found that 74 to 91 percent of the species that had experienced changes in their populations did so in accordance with climate change predictions. Not surprisingly to Wild Lands Advocate readers, Parmesan and Yohe concluded that land-use changes are probably the strongest driver of 20th century wildlife population changes. However, even after allowing for the flaws in long-term biological data, they found compelling evidence that climate change is a persistent, important driver for wild species population changes.

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### FOREST PRACTICES BOARD - 2009/2010 ANNUAL REPORT

## Excerpted from Dr. Bruce Fraser – Chair Message

s a province, we are good at the local operational level but are not good at Adealing with cumulative impact of the many resource developments and public recreational uses taking place on the same ground. The effects of forestry operations on range values, the effects of independent power developments on managed forest land, the footprints of resource and wilderness tourism developments, the rapidly expanding motorized vehicle impacts on sensitive ecosystems, the expanding corridors of invasive species are all examples of cumulative impacts that must be assessed and managed at the landscape level. This is beginning to change with the introduction

of the Resource Management Coordination Project, but the initiative will need to go far beyond the integrated facilitation of development to reach for integrated facilitation of effective stewardship. Our concerns at the landscape level are accentuated by the march of climate change that will affect the growing conditions of our forest and the effectiveness of current practices as change accelerates.

One of the recurring themes in our complaint investigations is the public concern for water supplies, both as a result of harvesting and road building, and with changing hydrological conditions coming with climate change. Concerns range from the security of domestic water supply from harvested watersheds, to the seasonal peaks and hollows of stream flow that influence flooding of lowlands at one extreme and reduce the habitats for fish at the low flow end of the year. The volatility of precipitation patterns in coastal watersheds is leading to greater potential for landslides form major rainstorms and the emergence of drought is leading to greater concerns for domestic and irrigation water supply in the southern interior. Forest engineering practices of the future are likely to need modification to reflect the rising value of water in relation to the value of fibre.

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For the last two years, Parmesan's work and public outreach has included more controversial ideas about what actions should be considered to prevent extinction of those species most vulnerable to climate change. These are species with severe barriers to movement, such as mountain top species. Led by Australian coral reef biologist Ove Hoegh-Guldberg, Parmesan and other scientists co-authored a paper published in Science in 2008 that proposed a risk assessment framework for relocating some of these vulnerable species into new range sites where they might have a change to survive.

Their overall recommendation is that, in very specific cases, assisted colonization, also known as assisted migration or managed relocation, should be considered as part of a broader conservation strategy in a region. The best candidate species for assisted colonization would have four characteristics. First, they would be at high risk of extinction from climate change. Second, their colonization would pose low risk of doing harm to a recipient community, which would preclude predators, parasites, or species with other aggressive growth or behaviour. Third, they would be easy and inexpensive to capture and move. Fourth, they would have high inherent

biological or societal value.

This proposed management framework has set off a lively debate among biologists on the merits and risk of managed relocation. In conference presentations and interviews, Parmesan acknowledges that it is a very challenging idea in the field of conservation biology, a field traditionally opposed to the introduction of exotic species. "These are not normal conservation practices where you restore an area to its historical condition," she said in a presentation in January 2010 to a University of Arizona audience. "You would be converting an area to the state where you think it's going in the next hundred yars to allow colonization of species." This approach, she points out, also falls outside current legal frameworks for endangered species: it would place some species out of their historic range and also would suggest that unoccupied spaces may be far more important for the future of some species than currently occupied sites.

Parmesan emphasizes that assisted colonization is not envisaged on a mass scale or across great distances, but for a few species, for no more than several hundred miles. She argues that in the face of climate change, doing nothing carries risks just as assisted colonization carries risks, so the best course of action

is overall risk management. "Conventional conservation biology is suitable for lots of species; [assisted colonization] should be one of the options to be considered in a particular narrow set of circumstances."

In June 2010, Parmesan attended a conference in Edmonton and spoke about her research to the Edmonton Journal. She stated that "Canada will become increasingly important for preserving North American biodiversity because a lot of the U.S. species that are even common species, as they're moving up into Canada, they're dying out in the U.S.A. ... And so we need to be thinking more continental-scale in terms of conservation, not just country-scale. In other words, the U.S. should be partnering with Canada to try to preserve species that are moving into Canada." These observations confirm the importance of establishing large-scale conservation areas such as the Yellowstoneto-Yukon wildlife corridor.

From her path-breaking work establishing that there are strong biological signals of climate change, to her leading edge policy advocacy, Dr. Camille Parmesan stands out as one of the most important voices of our time in informing and challenging us on how global warming will affect wildlife and wild places.

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# Skaha Lake Sees a Decline in Kokanee Numbers

BY KRISTI PATTON – WESTERN NEWS STAFF – DECEMBER 31, 2010

okanee fish stock has shown a decrease in Skaha Lake this past year, but continue strong returns for the ninth consecutive year.

Paul Askey, stock assessment biologist in Penticton, said the Minister of Natural Resource 2010 survey shows the Skaha Lake kokanee count at 39,000 – a decrease from the 52,000 seen in 2009.

"On historical levels it was not a really bad year. So far I would just chalk the decrease up to natural variation that we see in these populations year-to-year, but if it keeps going down like that then we would be more concerned," said Askey. "Skaha Lake is being monitored pretty closely because there is an ongoing experiment right now to do with the sockeye introduction to the system that is led by the Okanagan Nation Alliance and Department of Fisheries and Oceans."

Askey said they are monitoring whether or not the sockeye introduction is negatively impacting the kokanee stocks, but it is too early to tell if that is the case. He added it is more likely the kokanee stocks are just undergoing a random change.

"The sockeye were added the year before too, and it was a better kokanee number," he said.

Overall, the main valley lakes counted 225,000 fish, representing a 38 per cent increase from 2009. This was primarily due to the strong return of shore-spawning kokanee estimated at 197,000. The stream-spawning kokanee population in Okanagan Lake also increased in 2010 by about 9,000 fish to approximately 28,000.

Kokanee stocks were at low levels in the 1960s when mysis shrimp were introduced to Okanagan Lake. It was believed the shrimp would make good food for the kokanee, but it ended up the two species were competing for food. That, combined with a bad spawning habitat and lower nutrient concentration in the lake, caused a decrease in the stock. The ministry and its partners have continued efforts to restore spawning and habitats to ensure the

long-term health of kokanee populations.

In the 2010 survey, Wood Lake had its largest return this decade with 20,000, Kalamalka Lake kokanee numbers totaled 23,100 and Coldstream Creek had a tally of 7,000 – which is below average, but counts along the shoreline were very strong at 16,000. Askey said for people choosing to fish kokanee this year there should be an abundance.

"It seems like these days a lot less people tend to target kokanee, and more people are fishing for rainbow trout or some of the other species," said Askey, explaining that those sport fishing tend to target the bigger varieties. "Kokanee are also food for the rainbow trout, so any way you look at it, it is good."



**CHEERS** — A \$2,500 donation from the Penticton Oktoberfest Society to the Skaha Rotary is earmarked for Trail Development in the Penticton area. From left to right: Bill Kolter (President of the Oktoberfest Society), Matt Kenyon (Skaha Rotary member), and Al Avdovich (Treasurer of the Oktoberfest Society).