



## **Brown Pelicans in the Northwest**

*Just visiting  
... or permanent residents?*

-- See page 3 --

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### About Save Lake Sammamish

**SLS** is a non-profit Washington corporation established to promote the water quality of Lake Sammamish and its watershed by:

- Increasing community awareness of the lake and its watershed, and
- Fostering greater public awareness of the environmental and wildlife concerns relating to Lake Sammamish and its watershed, and impacts of any potential development thereon.

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Did you know that this and past editions of the Newsletter are also available on our web site – in COLOR? We announce their availability via E-mail before you receive the copy in the mail. You also have the option of not receiving the hard copies, thereby saving trees and mailing costs.

Check out our web site at: [savelakesamm.org](http://savelakesamm.org)

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# Just Visiting

## *A Brown Pelican Lands on Lake Sammamish*

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On June 8, 2008, a brown pelican (*Pelecanus occidentalis*) appeared on the beach of a Lake Sammamish residence and stayed for a couple of hours. He was reported to be very docile. The resident took pictures and e-mailed the [Seattle Audubon Society](#) for information. Rachel Lawson, Master Birder, replied:

*" ... That is, indeed, a very unusual place to see a brown pelican! As you probably know, the brown pelicans that nest off the coasts of Southern California and Mexico were in dire straits [in the mid-20th century due to eggshell thinning] due to DDT. Since the banning of DDT, they have made a remarkable comeback. They don't breed in Washington, but we have been seeing them on the Outer*

*Coast as post-breeding wanderers, birds whose breeding attempts have failed, or immatures. As the population increases, we are seeing them at almost any time of year, and they seem to be coming down into Puget Sound more frequently than before, but Lake Sammamish certainly is not where you'd expect to see one. Thanks for the report; I'll forward your message to Tweeters, the listserv for Washington birders, so it will be part of the permanent record."*

All pelicans are known as colony nesters. They are very social birds that build ground nests on isolated islands along coasts and in bays and estuaries, away from human and other predators. Depending on which nesting sites you

visit, pelican populations can range between a couple of dozen to a couple of thousand pairs. Their range is the American Pacific coast from western Canada to northern Peru, and the American Atlantic coast from northern United States to northern Brazil; within each range, migratory movement from northern to southern regions occurs.

Pelicans are known to wander widely after breeding, sometimes as far north as British Columbia in the west and Nova Scotia in the east. As Rachel Lawson indicated in her response, our Lake Sammamish pelican may have been one of these wanderers.

Apparently, however, the brown pelican is beginning to like this part of the country. Just recently, Nature Vancouver's Rare Bird Alert webpage reported a number of sightings of brown pelicans even further up the coast:

Date	Brown Pelican Sighting
August 23, 2008	Tsawwassen ferry terminal in Delta
August 25, 2008	Tip of Iona Island
August 29, 2008	Semiahmoo Bay
Sept. 21, 2008	A flock of 8 brown pelicans was seen flying south near Steveston in Richmond
Sept. 26, 2008	On the water between Cates Park, North Vancouver and Barnett Marine Park, Burnaby
Sept. 29, 2008	Steveston jetty at the mouth of the Fraser River
October 5, 2008	Immature brown pelican in English Bay off southwestern Stanley Park in Vancouver



*Thanks to Patty Sherman and her daughter Alisa for photographs of the brown penguin.*

In case you happen to see another brown pelican -- or any other rare bird - in your area, here are some Rare Bird Alert hotlines to report new sightings or to learn the latest on Northwest rarities.

**Washington Ornithological Society (WOS) Birdbox**  
 206 364-1162, Gene Hunn  
[enhunn323@comcast.net](mailto:enhunn323@comcast.net)

**Southeastern Washington and Northern Idaho**  
 (208) 882-6195, Kas Dumroese  
[dumroese@uidaho.edu](mailto:dumroese@uidaho.edu)

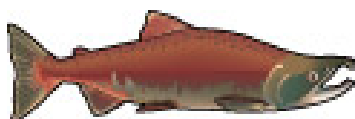
**South Idaho**  
 (208) 236-3337

**Oregon**  
 (503) 292-0661

# Kokanee Update

by Joanna Buehler, President, SLS

The Spring 2008 SLS Newsletter (<http://www.scn.org/savelake/NL.Spring.2008.pdf>) reported on the perils, progress and opportunities facing the unique, wild, native Lake Sammamish Kokanee. A year ago, things were not looking good, but were not quite hopeless. My assessment this year is that the predicament of our native Kokanee has not improved. Indeed, they may have slid even closer to extinction.



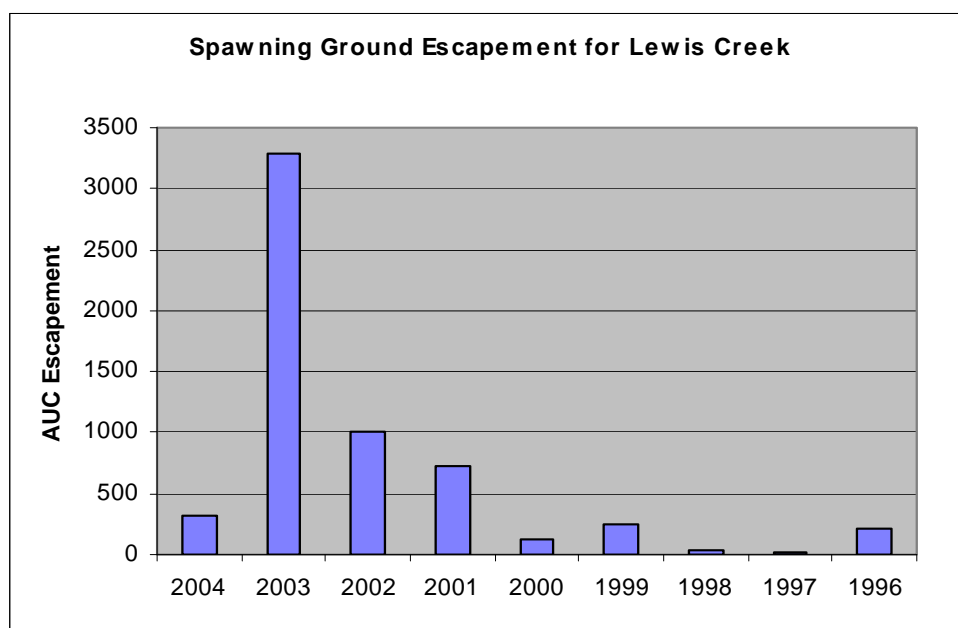
On the other hand, this species came into being as an adaptation to the challenges posed by the last Ice Age, 13,000 years ago. These are not wimpy little fish! The summer run in Issaquah Creek succumbed to the weight of urbanization and the historical management practices of the State's Department of Fisheries.

So far, the winter run has managed to cling to existence in spite of the logging, mining, and agricultural activities in the watershed during the last 170 years.

Kokanees' natal creeks have been denuded of trees, channeled, and squeezed into culverts (see I-90 and East Lake Sammamish Parkway); wetlands – the kidneys of the watershed – have been filled and built upon (see the Commons and Pickering Place); mountainsides have been stripped of trees and top soil (see Lakemont, Chestnut Lane and the Issaquah Highlands); and groundwater recharge areas, which supply the creeks with clean, fresh water, have been paved over (see Fred Meyer, Home Depot, etc.).

Yet a few Kokanee still survive! Human activities profoundly affect the hydrology of the streams that feed the Lake and support the Kokanee. Replacing trees with pavement causes destructive winter flooding, erosion, and pollution, and reduces summer groundwater flows.

The graph below is evidence that Kokanee counts in Lewis Creek have been able to bounce back from minimal numbers in the recent past:



Despite the flood of December 3, 2007, which devastated last year's run, hopeful and hardy volunteers manned the fry trap in Lewis Creek to count out-migrating Kokanee fry. The numbers were terribly low: 196 for 2007/2008, extrapolated to approximately 1,000 out migrants for Lewis, none of which were counted prior to April 30th. It appears that the December 3, 2007, flood had devastating effects on the redds made

prior to December, with only a few created after. By comparison, the out migrating fry counted in Spring 2007 were 2,272 from the Kokanee that spawned winter 2006-07.

The table below shows how many Kokanee returned to spawn in the south Lake Sammamish creeks during the last dozen years.

**Lake Sammamish Kokanee Escapement Estimates  
using AUC methodology:  
Assumption: 10 day stream life**

Year	Lewis Creek	Laughing Jacobs Creek	Ebright Creek	Pine Lake Creek
1996	219	170	70	16
1997	10	29	15	11
1998	43	0	40	0
1999	247	27	134	8
2000	143	92	362	7
2001	722	2	110	3
2002	1,002	384	319	4
2003	3,296	232	1,063	111
2004	442	18	134	1
2005	217	44	135	1
2006	330	65	292	26
2007	111	15	21	0
2008	50*	2*	25*	0*

*\*These numbers are preliminary*

What causes these wild fluctuations in the numbers? Frankly, no one knows. However, until the last century, these fish spawned in Lake Sammamish creeks in the hundreds of thousands, if not in the millions. They have a four-year life cycle, so the 2008 class year are the progeny of 2004, which in turn were the progeny of the 2000 spawners.

A greater effort is being made to understand what happens to these fish during their four years in Lake Sammamish. Funded by King County, Trout Unlimited, SLS, and other grants, Kokanee will be tagged (see the *Adopt-a-Kokanee* article later in this Newsletter). Transponders will be set up at various

locations around the Lake. This should show where the kokanee hang out – areas they use for feeding and places they avoid. Continuing counts of the out migrating fry by Trout Unlimited volunteers adds information, as do the spawning counts.

The City of Issaquah removed a major blockage to upstream spawning grounds in Lewis Creek last summer, by creating a gradual gradient with resting ponds. The City also removed sediment the blocked and rerouted the creek at the 185<sup>th</sup> Place SE bridge in December 2007. Regrettably, the rains of December 2008 undid that work, as the creek carried more sediment downstream and into

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Lake Sammamish. The US Fish & Wildlife Service (USFWS) is reviewing the Petition to list our Kokanee for protection under the Endangered Species Act.

In the calculus of survival, the above fall on the plus side. On the other hand, USFWS and Washington Department of Fish and Wildlife (WDFW) have dithered for a decade. After nearly three years of meetings, the Kokanee Conservation Workgroup still has not identified priorities nor agreed upon actions to conserve the Lake Sammamish Kokanee. Recent irresponsible park development in the

headwaters of Lewis and Ebright Creeks by the cities of Bellevue and Sammamish, respectively, have destabilized these creeks and increased erosion. This, despite the dedicated efforts of a few individual scientists in the various agencies involved.

A skeptic might think that the official policy is to fiddle until the Kokanee disappear! Lake Sammamish would lose an icon and a major part of its heritage. SLS's advice:

***Get involved and stay tuned!***

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## King Co. Lakes Monitoring Program

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After 19 years with Metro and King County, Jonathan Frodge, Ph.D., left King County's Major Lakes Monitoring Program to work for the City of Seattle in December 2008.

Departing, Frodge said to his colleagues, "I will really miss working on the lakes and streams of King County. I have had the opportunity to work on some of the most beautiful waters in the world, from the Newaukum Creek sampling site, that in the fall looks like a postcard, to Lake Sammamish that sometime in the fog makes you think you're back on Lake Squak a hundred years ago. Protecting and restoring these amazing resources are why we work here and why this organization exists. Thank you for that opportunity."

Jonathan designed the protocols and analyzed the water quality variables to determine the health of the County's streams and large lakes – Washington, Union and Sammamish. Using his work as the scientific foundation, 22 ug/L Phosphorus became the benchmark for Lake Sammamish water quality. Eventually, the County adopted the Sensitive Lake Protection Standards as part of its Stormwater Regulations for the specific protection of water quality in Lake Sammamish.



***Dr. Jonathan Frodge***

Jonathan's scientific integrity is exceeded only by his commitment to protect the resources he studies. His departure from the County's program is a loss. However, we hope Jonathan will remain involved with Lake Sammamish as a volunteer with SLS. His institutional memory, in-depth understanding of both science and politics will be invaluable in our work.

Deb Bouchard and Dean Wilson will continue the Major Lakes monitoring program for King County - <http://green.kingcounty.gov/lakes/>

Sally Abella at **206-296-8382** is King County's Lake Stewardship Program Manager.

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# Can Beetles Be the Answer to Milfoil Problems?

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SLS was recently contacted by an individual in Michigan about a company that introduces beetles into lakes to control milfoil. The process, developed commercially by Enviro-Science, Inc., of Ohio, is called "MidFoil®."

The Midfoil process uses an aquatic beetle native to Canada and the northern U.S. that specifically feeds on Eurasian milfoil. The beetle is intentionally introduced into the waterbody where milfoil is a problem in order to establish a resident population to control the milfoil on a long-term basis

It sounded like a wonderful alternative to pesticides for controlling milfoil in Lake Sammamish, especially if it worked long term and without undesirable side effects.

We contacted Kathy Hamel at the Washington State Department of Ecology to find out if there had been any local scientific studies performed to determine the effectiveness of this approach. She pointed us to a recent research study on *"Population Variations and Augmentation of the Milfoil Weevil, Euhrychiopsis lecontei, A Potential Biological Control Agent for Eurasian Water Milfoil."*

The study indicated that the milfoil weevil has been implicated in causing declines of Eurasian milfoil in Midwestern and Northeastern States. Studies in Vermont found that both adults and larvae negatively impact Eurasian water milfoil by reducing its biomass and causing the plant to lose buoyancy and collapse

The weevils spend their entire life cycle on milfoil. The adults eat leaves on the



*A weevil sits on milfoil  
(Photo: Middlebury College, VT)*

growing tips, and larvae mine into the stem causing a reduction in plant buoyancy.

During the summers of 2002 -2003, the Department of Ecology conducted a weevil rearing and augmentation study to meet three objectives:

- to gain experience collecting, rearing, and releasing the milfoil weevil,
- to monitor the introduced milfoil weevils and aquatic plant community at a study site,
- to determine whether fish target the milfoil weevils as a new or more prevalent prey item.

Mattoon Lake, located near Ellensburg in Central Washington, was selected as the milfoil weevil introduction site. It is a small, shallow, man-made lake, with a maximum depth of about 16 ft.



*Mattoon Lake, located near Ellensburg in Central Washington, was selected as a site to study Eurasian water milfoil control using weevils native to North America.*

Aquatic plants grow throughout the lake, but the dominant submersed plant in water 2-12 feet deep is Eurasian milfoil.

Through the summer of 2002, a total of 705 adult weevils were collected from Stan Coffin Lake in Grant County and were kept in aquariums at the Fish and Wildlife Department buildings in Yakima for between 5 and 14 days for breeding. At the end of this period, the weevils and their progeny were introduced into Mattoon Lake at designated release sites.

This cycle of rearing and release continued throughout the summer, and by the end of summer nearly 3,000 weevils of all life stages had been released.

To monitor the milfoil weevil population at Mattoon Lake, two methods were used:

- a qualitative check for weevil damage on milfoil plants, and
- quantitative sampling at points throughout the lake.

For the qualitative check for weevil damage, experienced weevil-hunting snorkelers conducted visual searches in selected areas of the lake, including

those sites chosen for weevil introduction. No signs of weevils or weevil damage were observed during either of the inventories in 2002, 2003 or 2005. However, in 2007 weevils were abundant, and extensive damage to the Eurasian milfoil was evident.

The quantitative data were obtained by collecting milfoil stems from locations in the lake. In the lab, each plant was inspected for presence of all weevil life stages and weevil damage using a dissecting microscope. No evidence was found of an established milfoil weevil population from plants collected during 2002, 2003, or 2005. However, in 2007, milfoil weevils and stem damage characteristic of milfoil weevil grazing were observed.

While the Department was encouraged to find that weevils did survive in Mattoon Lake, they were disappointed that they did not establish at the levels high enough to impact milfoil growth until 2007.

The Department of Fish and Wildlife did another fish inventory on Mattoon Lake in October 2007. They are currently analyzing the data to assess changes that could have allowed the milfoil weevil population to expand.

Many more details about this study can be found on the Department of Ecology's website at:

<http://www.ecy.wa.gov/programs/eap/lakes/aquaticplants/index.html#annualsurvey>

As these data are analyzed they will be published and added to that website.

At this time, the Department of Ecology is clear that they do not want Midwest weevils or Midwest milfoil introduced to Washington waters. However, the company selling the weevils has been working with the Department to explore the idea of setting up a weevil rearing facility in Idaho.

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# An Apology on Behalf of Mother Nature

*by Tom Holz*

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Mother Nature wishes to convey a deep and heart-felt apology. She is very sorry that her science is so unrelenting and thus so inconvenient for humans. She has mandated that clearing of forests will cause damage to stream channels. We have noted that clearing even as little as one-third of a watershed causes her to retaliate by destabilizing and eroding stream beds regardless of how grumpy that makes us.

She has ordained that even minute amounts of impervious area in a watershed will seriously harm aquatic life. If only 5% of a watershed is paved and the pavement is connected to the stream, half of the health of the stream is lost regardless of our screams of how unfair it all is.

She requires that for her systems to continue to provide mankind with benefits, mankind cannot disturb them as much as is needed to maximize profits. She understands that we believe that every watershed must be 100% developed and turned to the purposes of providing habitat for autos and plastic flamingos. As reasonable as these aspirations are, She apologizes, but remains stubbornly attached to her constraints, unrealistic as they clearly are.

"Has the Woman not attended the stakeholders' meetings?", the stakeholders may shout. "Has She no reverence whatever for developers' profit margins?" the agencies in charge of stream protection lament. "Does She care not a whit for the educated opinion of the councils' campaign contributors?" our elected officials cry.



"She makes it exceedingly difficult to continue to deny facts," bemoans the Hearings Examiner. "My program for issuing DNSs [Determinations of Non-Significance] for the orderly destruction of the environment is in total disarray," grouses the Environmental Officer.

Mother wishes us to know that she feels our pain. However She wishes to point out that the rules were established well before we were born, and we were warned about them many times. She points out that children are eventually supposed to grow up and stop rebelling against their parents' rules.

... And She reiterates her standing admonishment that if you continue to whine over things you cannot change, She will give you something truly worthy of whining about.

On behalf of Mother Nature,

*Tom Holz*

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# Adopt-a-Kokanee

*... or a Cutthroat or a Pike!*

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In February 2009, the Bellevue/ Issaquah Chapter of Trout Unlimited, in cooperation with the King County Department of Natural Resources, the Washington Department of Fish & Wildlife, and the U.S. Fish and Wildlife Service, will begin a research program of placing acoustical tags on native: Kokanee, Cutthroat Trout, and Northern Pike Minnow.

The acoustic tags will track their movement throughout the Lake Sammamish watershed and its tributaries through strategic placement of listening stations. This research will give us a better understanding of the habits of these fish throughout their lives. This information is vital if we are to save our Kokanee!

To help support volunteer efforts on this and other projects, Trout Unlimited is offering you a chance to adopt a fish. With a **\$100 donation**, they will send you an 8" X 11" picture of your fish. Along with this photo you will receive its vital statistics, where it was caught, and information regarding its life history. You will also receive a periodic record of its movement as they track it around the lake. A **\$300 donation** will allow you to accompany their research crew on a trip to help collect and tag the fish you are adopting!

If you are interested in this fun and beneficial project, please send your donation as well as your name, address, and phone number to:

**Bellevue-Issaquah Chapter of Trout Unlimited**  
**P. O. Box 2652**  
**Issaquah, WA 98027-0121**

For more info, check out their web site at: <http://www.tu-bi.org/>

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## Learn All About Native Plants This Spring

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Sign up now for more information about Native Plant Stewardship Training. This highly popular and valuable training is being offered for the first time in eight years on King County's eastside.

The ten week training program will be held on Fridays from April 24 through June 26, 2009, in Bellevue. Top professionals will teach you all about native plants, habitat restoration and native plant landscaping.

**The training is FREE!**

In exchange, Stewards commit to providing at least 100 hours providing environmental education to others and on restoration in one of five eastside communities.



For more information contact the Washington Native Plant Society at 206-527-3210, [wnps@wnps.org](mailto:wnps@wnps.org), or visit their website: [www.wnps.org](http://www.wnps.org)



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*Thanks for your support in helping us save our little red fish!*



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A Non-Profit Organization

### Spring 2009

YES, I want to join Save Lake Sammamish or renew my membership. Enclosed are my dues of:

- |                                |            |  |                      |
|--------------------------------|------------|--|----------------------|
| <input type="checkbox"/> \$25  | Individual | <input type="checkbox"/> \$250           | Sponsor              |
| <input type="checkbox"/> \$40  | Family     | <input type="checkbox"/> \$500           | Lake Guardian        |
| <input type="checkbox"/> \$100 | Steward    | <input type="checkbox"/> \$1,000 or more | Water Basin Guardian |

I would like information about volunteering to help Save Lake Sammamish. Please contact me.

Please indicate any changes to your info. **Add your e-mail address if we don't have it so you can receive updates on SLS issues and events every couple weeks.** Only official SLS messages are sent. Your address will not be given or sold to other organizations.

Name \_\_\_\_\_ Phone \_\_\_\_\_

E-mail address: \_\_\_\_\_

Snail mail address: \_\_\_\_\_

\_\_\_\_\_

Contributions to SLS, a non-profit organization, are fully tax deductible by law.

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