



WATERLINE

September 2003

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WALPA's lakes survey results helpful

By Joe Ravet, graduate student, University of Washington

In May 2001 the Washington Lake Protection Association (WALPA) sent a survey to 1,075 lake association members and/or lakeside property owners in the state. The intent of the survey was to better understand this group's views regarding the conservation and stewardship of Washington lakes. WALPA received 289 responses to the survey, that's a 27 percent response rate.

Content and format of survey

WALPA's lake user survey consisted of 50 questions that fall within eight broader categories: 1) aquatic plants, 2) lake water quality, 3) watershed activities, 4) recreation, 5) lake level management, 6) organizational and funding issues, 7) fisheries and 8) waterfowl and wildlife. The survey group was asked to rate each of the 50 topical questions on a scale from 1 to 5 (1 being low importance or relevance and 5 being high importance or relevance). To conclude the survey, participants were asked to list the five issues (from the aforementioned group of eight) that rate of highest importance to them.

The following table provides a list of the lake associations that surveys were sent to as well as the number of surveys that were sent to each group.

Surveys were sent to 250 current and past WALPA members; 120

surveys were sent to the Long Lake Association and 100 surveys each were sent to Lake Lawrence Association, King County Lake Stewardship program, Washington State Department of Ecology lake monitoring volunteers and Aquatic Plant Management EIS applicants. Thirty to 75 surveys each were sent to Liberty Lake Association, Washington State University Washington Resource Center list of lake associations, Snohomish County volunteer monitoring, Lakes Improvement Association (Olympia, Lacey), Barnes Lake Association and the Lake Leota Association.

Results of survey

The five topics that rated of highest importance to survey participants were, in order of rank: 1) controlling nuisance waterfowl, 2) impact of new development on shorelines and wetlands, 3) invasive aquatic plants, 4) working with government agencies on lake issues and 5) responsible pesticide and fertilizer usage within lake watersheds. These five specific issues received an average ranking ranging from 3.75 to 3.94 (on a scale of 1 to 5), with more than 60 percent of the respondents rating their degree of importance as 4 or 5.

Topics that were rated among
continued on page 2

Ecology announces opening of lake grants for 2004 funding cycle

The Washington Department of Ecology (Ecology) announces the opening of the fiscal year 2004 funding cycle for the Aquatic Weed Management Fund (AWMF). Approximately \$300,000 will be available on a competitive basis for freshwater aquatic plant projects this funding cycle and \$100,000 will be reserved for early infestation projects. The application period will begin Oct. 1, 2003 and end Nov. 3, 2003. Grant applications must be received by Ecology by 5 pm on Nov. 3. Early infestation grants are offered on a first-come-first-served basis and are available year-round.

The AWMF provides grants to counties, cities, state agencies, tribes, and special purpose districts to reduce

the spread of freshwater weeds and to manage the problems these weeds cause. The types of activities funded include: planning, education, monitoring, implementation, pilot/demonstration projects, and mapping and surveillance projects.

Ecology will conduct public workshops to help local governments and others eligible for funding, as well as citizens learn more about the grant program and application procedures. Ecology staff will provide workshop participants with information to complete application forms and determine eligibility requirements.

The Lacey workshop is Sept. 25 at

the Ecology auditorium. The Spokane workshop is at the Ecology regional office, second floor conference room, on Sept. 30. Both workshops will be held from 10 am to noon. If you are unable to attend a workshop, you may obtain a grant application and guidelines from Kathy Hamel at kham461@ecy.wa.gov or 360-407-6562. The grant guidelines and applications are also available at www.ecy.wa.gov/programs/wq/plants/grants/index.html.

Publications on lakes available from EPA

The U.S. Environmental Protection Agency (EPA) has produced a variety of educational materials on water topics, including lakes, to celebrate the accomplishments of the Clean Water Act.

The lake materials include a waterproof fact sheet called "Do Not Pick Up Hitchhikers" urging boaters to protect lakes by removing aquatic plants and animals from boats, leaflets "Adopt Your Watershed" and "Before You Go to the Beach," door hanger aimed at boaters and campers with tips on preventing lake pollution, publication "Shipshape Shores and Waters, A Handbook for Marina Operators and Recreational Boaters," a poster "The Nation's Lake Resources," and fact sheet "Dip Into Volunteer Monitoring." To order lakes materials, call 1-800-490-9198.

For information on Year of the Clean Water, www.epa.gov/water/yearofcleanwater.

WALPA's lakes survey results helpful *continued from page 1*

those of least importance or relevance included beaver problems, construction and removal of piers, how to organize a lake association, fishing regulations and placement or maintenance of buoys.

The average rating of questions grouped within each of the eight large categories is listed in the table below (on a scale of 1 to 5 where 5 represents highest importance)

| Issue | Mean Rating |
|------------------------------------|-------------|
| Lake Water Quality | 3.38 |
| Watershed and Shoreline Activities | 3.29 |
| Waterfowl and Wildlife | 3.25 |
| Aquatic Plants | 3.21 |
| Organizational and Funding Issues | 3.19 |
| Fisheries | 3.02 |
| Recreation | 2.97 |
| Lake Level Management | 2.81 |

Results are helpful

The results of the 2001 WALPA lake user survey have thus far been used to develop sessions and presentations for the 2002 and 2003 annual WALPA conferences, and to inform state and county natural resource management agencies. Through the process of invoking public participation and opinion polling, WALPA strives to become a better advocate for the protection and management of lakes in Washington.

Survey results will be posted in the near future on the following URL: www.nalms.org/walpa/lakeuser.htm

To view a PDF version of the 2001 WALPA lake user survey please visit www.nalms.org/walpa/documents/survey2001april.pdf

For information, or if you have any questions regarding the survey, contact Joe Ravet by e-mail: jlrvet@u.washington.edu.

Waterline accepts ads

The *Waterline* accepts advertising for environmentally-friendly, lake-related products or services.

For advertising information and rates, call Paula R. Lowe, 360-491-0109, or e-mail her at pmrlowe@attbi.com.

Have you seen this snail?

By King County staff, Lake Stewardship Program

The Chinese mystery snail (*Cipangopaludina malleata var chinensis*) was first documented in the Pacific Northwest more than 40 years ago, but very little has been written about its introduction nor have its impacts on native snails or ecosystems of local lakes been studied since then. The Chinese mystery snail was reported living in Seattle's Green Lake in the 1960s and in a lake in the San Juan Islands. Recently, it has been identified in several other lakes in King County, leading to questions about how widespread it may actually be in our region.

There are anecdotal reports as far back as 1892 that the snail was offered for sale as a food item in Chinese markets in both San Francisco and Vancouver, B.C. However, it is equally likely that it was introduced into our waters from hobby aquariums emptied into nearby ponds and lakes. The snails are offered in pet stores for controlling algal growth on the glass walls of aquariums and for reducing the accumulation of litter by their habit of feeding on bottom detritus.

The Chinese mystery snail is popular with hobbyists because their



large size makes them very conspicuous, as well as less likely to be eaten by pet fish (especially compared with the much smaller native freshwater snail species).

Their size also makes them easier to see in the shallow water of lakes. They appear to prefer the warmer water near shorelines and can be seen inching along the bottom, looking for food, when the water is clear.

In addition to their size, other identifying characteristics include the smooth outside of the thin shell, its greenish brown color, and a hard covering of the shell hole called the operculum. A similar species about which even less is known, the Japanese mystery snail (*Cipangopaludina japonica*), may also be present in some local lakes. It looks very similar, but can be distinguished by subtle differences in shell characteristics.

While they may be eaten routinely in some parts of Asia (one Web site offers a recipe for Mystery Snails in wine sauce), the lack of information about the snail's

hosting of parasites should make the would-be gourmet pause before gathering and cooking them. In their native habitat, they are known to harbor parasites such as flukes and schistosomes (the parasite group responsible for swimmer's itch in our area). Eating them is definitely not recommended until more is known.

Describing the impact these snails have had on native species may prove a difficult task. Various local lakes have been managed in the past for fish communities, sometimes with little known about the effects that management techniques might have on other animals living in the water. For example, several lakes have been treated with toxic chemicals such as rotenone to kill off nuisance fish species, and this certainly could have affected other animal species as well. The introduction of the Chinese mystery snail might well have been into communities that were already under extreme stress or even missing altogether.

If you see a snail in a King County lake that looks like the one pictured here, please report it to the Lake Stewardship Program. This will help us estimate the snail's population and document the lakes where it has been located. Contact Sally Abella 206-296-8382 or sally.abella@metrokc.gov.

WALPA gives scholarships to undergraduates and graduate students

By Shannon Nobel, board member, WALPA

WALPA is pleased to announce a scholarship to support undergraduate and graduate students in their pursuit of a degree specializing in the field of limnology. WALPA will present two \$500 scholarships at the annual conference in April 2004. Scholarship funds may be used by recipients to cover the costs associated with education and/or research expenses. Eligible applicants must be enrolled as a full-time undergraduate or graduate student in an accredited college or university in Washington state and be

completing course work or research related to biology, ecology, management or restoration of lakes in Washington. Both scholarship recipients will receive a one-year membership in WALPA and a waiver of registration fees for the 2005 annual conference. Scholarship recipients will also be invited to present their research at the 2005 conference. For more details visit the WALPA website at www.nalms.org/walpa/ or e-mail Shannon Nobel at shannon.nobel@ttisg.com



If you would like to contribute to the WALPA scholarship fund, call Shannon Nobel at 206-728-9655.

Lake Focus on Sacheen Lake

Compiled by Kurt Marx, Taylor Associates

Sacheen Lake is located in Pend Oreille County, about 34 miles north of Spokane and 12 miles west of Newport. Sacheen Lake is about two miles long and lies at an elevation of 2,234 feet. The lake encompasses about 280 to 320 acres, with an average depth of 24 feet and a maximum depth of 40 feet. Public access is located on the northeast shore. Sacheen Lake has a 43-square mile drainage basin. Moon and Star Creeks are inlets to the lake, while the lake drains via the west branch of the Little Spokane River. The lake holds eastern brook, rainbow, and brown trout (often planted). There have also been reports of bass, catfish, perch, and crappie.

In 1922 the Washington State Department of Fish and Wildlife built a low dam two miles below the lake. This dam is a fish passage barrier. Between the lake and barrier dam are several beaver dams that, in years past, were often the target of residents armed with dynamite.

In the 1970s Eurasian watermilfoil (*Myriophyllum spicatum*) appeared and the water quality declined. Landowners started a Phase I water quality project (granted by Washington State Department of Ecology).

In the 1990s, work done by Eastern Washington University and others found that the lake was phosphorus limited. Loadings from tributaries and wastewater leachate were targeted for reduction, as well as internal loading. As part of the Phase II program, In 1995 Sonar® was applied to the lake to combat the Eurasian watermilfoil, known to add phosphorus to the water column (K. Pittman and R.A. Soltero, EWU, 1997).

The Sewer District had a preliminary engineering design for a sewer system, but the cost was exorbitant (\$6 million), so no further work has been done. (It is interesting to note that the Sewer District was formed in the early 1970s to address lake water quality problems, but was never voted any



Sacheen Lake. Photograph by Dave Lamb.

money until the 1990s when the Phase I - II projects began.)

Since the Phase II project was completed in 1998, the lake residents through the Sewer District and Betterment Association (homeowners group), have been focusing their efforts on the on-going beaver dam maintenance and on milfoil controls.

In late July 2003, volunteers from Sacheen Lake Sewer District and Betterment Association installed beaver dam drain pipes in the three beaver dams closest to Sacheen Lake on the west branch of Little Spokane River

The whole-lake Sonar treatment was very effective (99% +/- of the 70 acres present at the time of the treatment), but there was a re-infestation and the locals switched to using 2,4-D for spot treat-

ments, typically 5 to 15 acres per year. Volunteers continue to do basic water quality monitoring.

Sources of information in this article:

- Special thanks to Dave Lamb, lake management consultant, Sacheen Lake Sewer & Water District.
- Lakes of Washington, Volume II – Eastern Washington, Ernest E. Wolcott. Third Edition, Olympia, Wash., 1973.
- www.washingtonlakes.com
- www.gamefishin.com/reports/pendorielle/sacheenlk.htm
- www.geology.ewu.edu/conf/lakes.htm

NOTE: WALPA makes no guarantee to the accuracy of this information.

To suggest a lake to highlight, contact
Kurt Marx, marx@taylorassoc.net.

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Diquat permitted for use in Washington

By Kathleen Emmett, environmental planner III, Washington State Department of Ecology

Two general permits issued by Washington State Department of Ecology (Ecology) for noxious and native plant control were modified March 4, 2003 to include Diquat Dibromide – 6,7-dihydrodipyrido (1,2-a:2',1'-c) pyrazinediium dibromine - (Reward®). Diquat is authorized for use in aquatic environments in Washington state to control submerged aquatic plants subject to all Federal Insecticide, Fungicide, Rodenticide Act (FIFRA) label requirements and the following conditions:

1. Treatment with Diquat is restricted to submersed plants, floating plants and filamentous algae. A two meter buffer from the shoreline must be used except for noxious weed control. Diquat is not allowed for use on emergent plants

2. Diquat treatments are subject to Washington State Department of Fish and Wildlife timing tables to protect fish runs.

3. No treatments are allowed where state and federal ESA listed species may be present until the appropriate agencies are contacted and a mitigation plan is prepared to protect the species. Buffers and other protective measures must be employed for any known endangered plant species when necessary to protect them.

4. The following buffers apply unless otherwise mitigated through an approved Integrated Aquatic Vegetation Management Plan or if treating noxious weeds:

a. Flowing water (e.g., rivers, streams, canals): Do not apply within 1,600 feet upstream of operating

potable water intake sites.

b. Standing water (e.g., lakes, reservoirs): Do not apply within 1,400 feet for rates at 2 gals/acre, or within 700 feet for rates at 1 gal/acre, or within 350 feet for rates equal to or less than 0.5 gal/acre of potable water intake sites. For rates between 1 and 2 gal/acre, distance may be adjusted (e.g., 1 _ = 1225, 1 _ = 1050, 1 _ = 875').

5. Except for early infestation of noxious weeds, the second treatment and treatments thereafter and whole lake treatments are only allowed under an approved Integrated Aquatic Vegetation Management Plan.

6. A 24-hour swimming advisory must be posted at all public entry sites to the treatment area warning that exposure to treated water may result in eye irritation.

7. Although allowed by label, pouring Diquat concentrate into water directly from the container is prohibited in Washington state.

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Waterline newsletter published quarterly

Waterline deadlines and publication dates for the next two issues:

| <u>Deadline</u> | <u>Issue date</u> |
|-----------------|-------------------|
| November 1 | December 1 |
| February 1 | March 1 |

Story ideas are always welcome. Send your ideas to *Waterline* Editor Paula Lowe, pmrlowe@comcast.net or call 360-491-0109.

Be sure to include the topic, suggested writer, contact person with phone number and e-mail address.

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