Oregon Lakes Association

A Voice for Our Quiet Waters

Workshop Set for Florence Lane County Courthouse Annex

Plan to attend the next Board meeting and workshop at the Lane County Courthouse Annex in Florence (corner of Hwy. 126 and Quince St., follow signs from Hwy 101) on **May 15, 1993.** The workshop will address issues including 5-year goals for OLA and whether OLA should consider hiring an executive director.

The workshop will run from 9 AM till noon. The Board meeting will run from 2 PM to 4 PM. Lunch is on your own.

The meeting will be interesting and thought provoking. The Rhododendron Festival is occurring the same weekend, so bring your family. Be sure to reserve hotel space ahead of time.

Presidents Message - Ela Whelan

The draft annual plan was mailed to all OLA members in December, 1992, and has been finalized with minor modifications. There were no major changes to the draft, and since the costs of mailing were significant, the final version will be mailed only on request. Please call me at 650-3474 to request a copy.

OLA is involved in the review of several documents affecting lakes throughout the State. Comments were submitted by OLA on the State Scenic Waterway Program review by the Oregon State Parks and Recreation Department. OLA members and the Legislative and Government Affairs Committee are reviewing both the Forest Practices Act and the Water Quality Standards currently under review by DEQ.

A list of persons to contact for reviewing documents is being developed by the Board. If you have expertise in a particular area, or a special interest, call Stan Geiger at 503 245-4068 to have your name and topic listed. You will receive a copy of documents that require review. This will expedite the consideration of lakes in public policy in Oregon.

The next **OLA Board Meeting** and retreat will be held Saturday, May 15, at the Lane County Courthouse Annex in Florence. While work is proceeding to raise awareness of the need to protect lakes, progress is slow, and active members are few. The retreat will examine where OLA would like to be in 5 to 10 years, and how we might get there. A proposal to hire an executive director has been discussed at Board meetings and will be further explored at the retreat. Grant funding would be required to hire any assistance because the funds available from dues are insufficient. All members are welcome to attend the retreat, or to provide input about the direction of the organization and the concept of an executive director.

We hope to improve our program to preserve and protect Oregon lakes with your help. Please write to me

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at the address listed on page 6, or fax your comments to 503 650-3026.

Two OLA Directors were misidentified or omitted in my last message. Directors of OLA are:

Richard Raymond	503 752-4271
Andy Schaedel	503 229-6121
Anjala Ehelebe	503 378-3449
Richard Petersen	503 725-4241

Officers and directors are listed on page 6.

1993 Conference is in Eugene

Lakes of Oregon and the Willamette Valley

Mark your calendar for September 17 and 18, 1993, and plan to join all the other members of OLA at the Valley River Inn in Eugene for the Fourth Annual OLA Conference. A block of rooms is set aside at a special rate so mention the Oregon Lakes Association when you make your reservation.

A great program is shaping up. We will take you on a picture tour of the lakes of Oregon, explain the intricacies of the operation of the Willamette River reservoirs, and give you hands-on experience in water quality sampling and field analysis. Come and learn about how new laws concerning wetlands may affect your lake restoration effort, and take a field trip to a local lake.

More information will be coming as the program is finalized. Reserve the date now so you don't miss out!

Oregon Lakes: A Watershed Perspective

Coming Soon to a VCR Near You?

OLA has submitted an application to the EPA Environmental Grant Program to make a video on Oregon lakes. A recommendation on the application will be made by EPA in May. If the grant is funded it will provide $25,000 to OLA to produce a video that describes how the conditions of a lake depends upon activities in the watershed. The video will illustrate watershed activities that affect lake water quality, describe the changes associated with cultural eutrophication of lake, and show how individual actions can help alleviate problems and restore good water quality.

The video will be an educational tool to help citizens of Oregon understand lake ecology and the causes of water quality degradation. It will also publicize OLA, our activities, and our capability to address critical water resource management issues in Oregon. A match of $8,333 is required for the grant. We will meet this requirement through in-kind services of OLA members including script writing, editing, production assistance, and distribution. Everyone is encouraged to be part of the production. Please consider how you can help either through a gift of time or by a cash contribution. For more information contact Dr. Mark Sytsma at 684-9097 (W) or 650-0343 (H).

The New (?) State and Federal Emphasis on Watersheds

The interest in improving the state's watersheds isn't really new. We've had the Governor's Watershed Enhancement Board which has provided stimulus for restoration through its grant program. DEQ's water quality management emphasis has shifted in recent years to watershed management through work in the Tualatin River basin, Columbia Slough, and Willamette River. EPA recently reorganized its regional structure to create a Watershed Section.

There is obvious recognition of the need to do more for watersheds. House Bill 2215 allows the creation of local watershed councils and directs the Strategic Water Management Group (SWMG) to assist watershed councils. SWMG consists of the directors, or their designee, of state natural resource agencies under the Governors direction. The bill directs SWMG to assess watershed conditions in Oregon once every 5 years and to identify high priority watersheds. Watershed councils could help improve water quality and thereby improve the quality of watershed lakes.

Mark Sytsma, OLA member and scientist at KCM, noted that the language in the bill is nebulous. It mentions watershed "health" and "productivity" without definition. Mark feels that there should be some provision for creation and funding of a central GIS data base for the data generated by watershed assessments.

The bill has some rough sailing, but has been referred to the Appropriations Committee. A hearing will be scheduled. For more information on its status you can call 378-8152 in Salem.

An invader is knocking at the door - Hydrilla

By Mark Sytsma, KCM

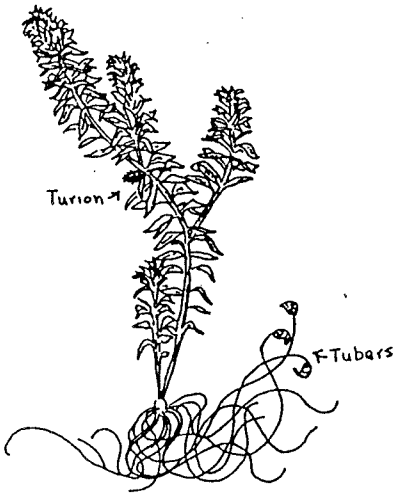
Hydrilla verticillata (L.F.) Royle, or hydrilla, is a submersed aquatic plant that could be coming to a lake or river near you! Hydrilla is not native to the United States. It was first found on the west coast of Florida in 1958 and has since spread across the South and as far north as the Potomac River , in Washington D.C., and Iowa in the Midwest. California has an established population in the Imperial Valley and funds a statewide monitoring and eradication program in the rest of the state. Hydrilla has been found in the Redding, CA area, 120 miles from the Oregon border. Hydrilla has not been reported in Oregon yet, but it is clearly a threat to Oregon's lakes and rivers. The Oregon Department of Agriculture has placed hydrilla on its "A" list of noxious weeds.

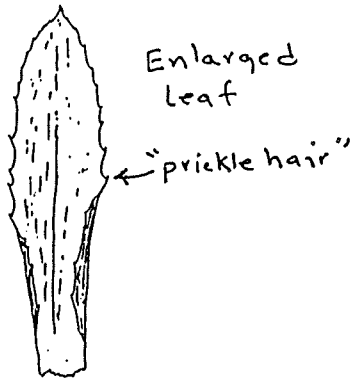
Hydrilla is probably the most troublesome submersed aquatic weed. It grows rapidly under very low light levels, in a variety of aquatic habitats from static to flowing water and at depths from an a few cm (one inch) to 15 meters (50 ft.). The stem branches profusely in the upper parts of the water column, forming a canopy that inhibits growth of native species and interferes with recreational use of infested lakes. Until 1982, only dioecious, female plants were found in the United States, but in 1982 a monecious strain was collected in the Potomac River. Monecious plants have both male and female flowers on the same plant and consequently monecious plants can reproduce sexually and form seeds. Both the monecious and dioecious strains can be spread by fragments. In addition, and very importantly from a management perspective, both strains produce specialized propagules that facilitate distribution and perrenation (survival during adverse conditions, e.g., winter or drawdown) of the plant. Tubers form on the roots in the sediment, and turions form on the stem in the water column. Tubers produced in the sediment sprout in the spring and maintain an established population. Turions are smaller and are easily carried by water currents, thus providing a mechanism for long distance dispersal.

Tubers and turions are produced abundantly, and complicate control strategies. There is currently no technique, short of dredging, to remove tubers from the sediment once they are formed. Herbicide treatments can kill vegetative parts of the plant but do not affect the tubers. Biological control methods are currently under study, but they are only marginally effective, and as yet no biocontrol agent has been found that can effectively attack tubers in areas with even mild winters.

Morphologically, hydrilla resembles Brazilian elodea (*Egeria densa*) and canadian pondweed (*Elodea canadensis*), which are common in Oregon. Hydrilla can be differentiated from those species by the presence of tubers and turions and by the small prickle-hairs found on the leaf margins. Distinguishing these species can be quite difficult, if you find a plant that resembles the illustration consult your county weed specialist or the author.

Oregon has enough problems with invasive, non-native aquatic plants. Let's not let this one gain a "roothold" here. Be on the lookout and HELP HALT HYDRILLA!





Mercury in Oregon Lakes and Reservoirs

Mercury (Hg) is a metal that occurs naturally in the environment in a variety of chemical forms. It is used widely in thermometers, pesticides, paints, batteries, and mining gold and silver. It is volatile and easily enters the atmosphere where it can be dispersed widely. Mercury can accumulate in body tissues and be passed up the food chain with adverse effects on human health and wildlife. Methyl mercury, the most toxic and easily accumulated form of mercury, is produced by the action of microbes on mercury in the aquatic environment.

In the aquatic environment, mercury accumulates in fish tissue. This accumulation can have an adverse effect on the reproductive success of eagle, mink, and otter that consume contaminated fish. In humans, mercury attacks the central nervous system and leads, at low concentration, to the loss of sensation in the hands and near the mouth and, at higher concentration, to unsteady gait, slurred speech, tunnel vision, loss of hearing, convulsions, dementia and death. Developing fetuses are particularly susceptible. The US Food and Drug Administration has set an advisory level for human consumption at 1.0 parts per million (mg/kg). A more conservative value of 0.5 mg/kg has been used elsewhere.

Natural deposits of cinnabar (mercuric sulfide) occur in Oregon. The major source of mercury in Oregon appears to be natural, associated with volcanic and geothermal activity, rather than from cultural sources. Normal weathering and activities such as mining can cause release of mercury to the environment. A number of mercury, gold, and silver mines found throughout Oregon may have contributed mercury-rich sediments to the aquatic environment.

High concentrations of mercury are often found in fish collected from newly impounded reservoirs where there is no apparent industrial or municipal waste discharge. It is hypothesized that this is because of bacterial methylation of naturally occurring mercury in the flooded soil.

Limited studies by the DEQ, the US Army Corps of Engineers, and Oregon State University have examined mercury concentration in several Oregon lakes and reservoirs. Fish tissue and sediment have been monitored from Cottage Grove, Dorena, Applegate, Owyhee, Antelope, and Ochoco reservoirs, and from Big Squaw and Upper Big Squaw Lakes in the Rogue River basin. Mercury concentration in fish tissue was found at or above the FDA action level at Cottage Grove, Ochoco, Owyhee, and Antelope reservoirs and at Jordan Creek. Health advisories have been posted for these water bodies.

To address the potential risk of mercury contamination in a coordinated manner, the DEQ has formed a Mercury Working Group consisting of representatives from various state and federal agencies and universities that are involved in natural resource, land and water management activities. This group consists of representatives from the Oregon Department of Environmental Quality, Department of Fish and Wildlife, Department of Geology and Mineral Industries, Health Division, and Oregon State University; the US Geological Survey, Army Corps of Engineers, Bureau of Land Management, Forest Service, Bureau of Reclamation, and Fish and Wildlife Service.

The major goal of the group is to coordinate agency efforts and resources in addressing mercury problems in Oregon. The group will meet periodically to consider ongoing research, and to develop strategies for dealing with mercury problems, actual or potential. Since last August, the group has met three times to: 1) share information on mercury studies conducted in Oregon; 2) review methods and comment on monitoring and analysis currently underway in Cottage Grove, Ochoco, and Owyhee Reservoirs; 3) discuss overall monitoring and information collection strategies including reconnaissance level surveys of lakes and reservoirs to better determine the extent of mercury contamination and follow-up surveys in contaminated reservoirs; 4) comment on the proposed Milltown Hill Reservoir in Douglas County; and 5) discuss strategies to better alert the public when elevated mercury concentrations are found.

For more information, please contact Barbara Stifel with the Department of Environmental Quality at 503 229-6982 or 800 452-4011.

Grass Carp

The Oregon Fish and Wildlife Commission voted to approve the petition by the Devils Lake Water Improvement District to stock additional grass carp in Devils Lake. The petition asked to introduce 5,000 additional grass carp in 1993 and 1,000 per year for the next several years to replace fish that have died.

The favorable vote was based, in part, on the strong community support for the program, the active progress the District is making on dealing with watershed management issues, and the particular conditions of Devils Lake.

The Commission gave no indication that grass carp will be approved for use in other lakes or water bodies in the state.

Lake Handbook Available for Lake and Homeowner Associations

OLA has been working with DEQ to develop a handbook for lake and homeowner associations and public, not-for-profit members. The handbook is intended to be a handy reference for information related to lake management. It consists of material available free or for low cost and organized into several sections.

1. **Contacts** - people to call for information about lakes.
2. **Lake Management** - information on approaches to lake management.
3. **Organizing lake users** - tips on how to organize lake users to more effectively protect your lake.
4. **Protecting your lake** - tips on watershed management.
5. **Monitoring** - how you can get involved in the Oregon Citizen Lake Watch Program and other monitoring efforts in your watershed.
6. **Aquatic weed programs** - how to identify and deal with nuisance aquatic weeds.
7. **Lake organizations** - information about the Oregon Lakes Association and the North American Lake Management Society - two helpful organizations.
8. **Clean lakes program** - water quality of Oregon lakes, and funding opportunities through the EPA Clean Lakes program.
9. **Other publications** - forms for other publications.

Initial material for this handbook was organized by DEQ staff. Materials were purchased with support of a US EPA lake water quality assessment grant. Handbooks will be sent to current members in the lake and homeowner and public not-for-profit categories. Annual updates will be sent out with membership renewals in these categories. OLA is looking for ideas and suggestions for improvements to the handbook. For more information contact Andy Schaedel at 503 229-6121 or 800 452-4011.

Accepting Proposals for 1994 OLA Conference

The 1994 OLA annual meeting and conference will be held on September 16 and 17 (Friday and Saturday) at the Seaside, Oregon, Convention Center. There is ample room for a wide variety of activities. We have reserved a main meeting room and several separate smaller rooms. What we put in those rooms will be up to your interests and imagination.

Do you want a room devoted to a poster session? How about a room with videos related to lakes and watersheds, or a room of your own to display your latest discoveries or products?

Call Anjala Ehelebe (503 945-7474) with ideas for speakers, exhibits, or exhibitors. Let Anjala know if you would like to serve on the 1994 Conference Committee.

Geiger Bows Out

Stan Geiger, President-elect of OLA, has resigned his office. Stan says that the demands on his time would not allow him to do justice to the office. He will still be active in OLA affairs following developments in State programs on lakes, wetlands, and aquatic plant control.

A replacement will be chosen according to OLA bylaws.

Clean Water Act Conference

The first annual Clean Water Act Conference will be held at the Washington State Convention Center in Seattle on June 10 and 11. Presented by the Puget Sound Water Quality Authority with the assistance of Heller Ehrman White & McAuliffe, the conference will address key issues affecting water quality, including:
The Clean Water Act, federal water quality criteria, state

water quality standards, national toxics rule, NPDES permit system, biomonitoring, enforcement, storm water permits, watershed initiatives, and more.

For more information, contact the Puget Sound Water Quality Authority, PO. Box 40900, Olympia, WA 98504

Find a Member!
Become a Member

Help us be a voice for Oregon's Quiet Waters. If you are not yet a member of OLA, please join. If you are a member, introduce OLA to someone else. Oregon needs a strong voice to work for protection and wise management of our lakes and reservoirs.

You can join our diverse membership of lake users, property owners, public agencies, lake associations, scientists, and consultants dedicated to describing the use and condition of Oregon's lakes, informing the public on lake management issues, and developing programs and legislation that will protect and restore our lakes.

To join OLA send a card with your name, affiliation (if any), address (include street address, city, state, and zip), phone number, and any comments or questions to:

Oregon Lakes Association
PO Box 586
Portland, OR 97207

Please include a check or money order for the correct amount: Student ($5), Individual ($10), Association or non-profit ($25), Corporate ($50), Sustaining ($100).

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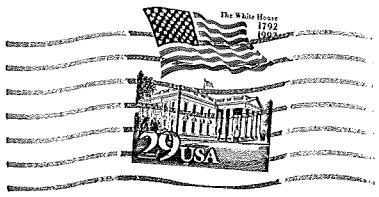

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