



Mouth of Lake Sarah



Everyone is welcome to join the fun on Sunday, July 22nd at the *19th Annual LSIA Picnic*. It will be held at Ron & Mary Jorgenson's property at 4594 Shady Beach Circle. The LSIA Summer Membership meeting will start at 3:00 p.m. and the picnic will start at 4:00 p.m.. There will be activities, games, and contests for the kids and plenty of good eatin' and socializing for all.

Last year's event was an outstanding success with an estimated 150 persons in attendance. The big hit for the kids was a huge water slide rented by Ron and Mary Jorgenson. This, along with games and contests hosted by Lisa Spencer and face painting by Pat Peterson (Mike's mom) kept the kids entertained all afternoon.

At this year's picnic, **LSIA will be providing a Taco Bar prepared by Salsarita's Cantina, as well as hotdogs.** Please bring a hot-dish, salad, or dessert to share as well as your beverages & lawn chairs.

A special 'Thank You' to LSIA Picnic Chair, Pam Peterson, for her hard work as well as to Ron & Mary Jorgenson for the use of their property, canopies, chairs & tables and the very popular water slide!



We had great weather for last year's picnic held at Ron & Mary Jorgenson's place

PICNIC FUN!!

Mark your calendars for Sunday, July 22nd for the 19th Annual LSIA Picnic

- Everyone is Welcome!!
- Summer LSIA Membership Meeting starts at 3:00 p.m.
- The picnic starts at 4:00 p.m.
- Activities, games, and contests for the kids start at 4:30 p.m.
- Dinner is served at 5:30 p.m.
- LSIA will be providing a Taco Bar prepared by Salsarita's Cantina, as well as hotdogs.
- Families can bring a side dish or dessert, their favorite beverages, and some lawn chairs
- And most important...have fun!!





July 4th Boat Parade

Be sure to participate in the 10th Annual July 4th Boat Parade, either as a spectator or as one of the many entrants in the boat parade. It's a great time for kids and adults!

This year's Boat Parade judges are Tom & Sue Mizell. There will be 2 prizes— Most Patriotic and Most Creative decorated boat. So get the kids involved and decorate your boat in a patriotic theme or really get creative and come up with your own theme! We've seen everything from pirates, to Iwo Jima, to Santa, to political figures, to Hawaiian themes.

Meet at the boat landing at 2:30 p.m. sharp for the start of the July 4th Boat Parade around Lake Sarah.



2006 Winner - Most Patriotic, Englund / Grist (photo by Kris Ehrman)



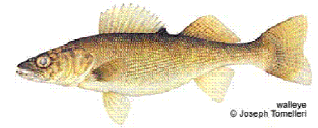
2006 Winner - Most Creative, "Pirates", Kraig Smeby family (photo by Lisa Spencer)

And spectators - be sure to get those lawn chairs set up early!



Best Spectators!

Walleye Enthusiast



The Lake Sarah Walleyes program secured the permit from the DNR to stock walleye fry for the second consecutive year. The walleye stocking for Spring 2007 was completed on May 30. Our resident 'Walleye Guy', Joe Slavec, with help from Scott Walsh and Dan Forster, introduced 200,000 walleye fry to Lake Sarah!! The fry were set in the lake in four different areas and it is expected that a percentage will reach 4" - 6" in length by the Fall of 2007. Thank you to the many contributors who helped to raise over \$2,000 in private contributions for this spring's stocking!

Last spring, the project's initial effort, stocked approximately 90,000 fry in Lake Sarah. This project is funded entirely by private contributions and receives no financial support or assistance from the Minnesota DNR (beyond their issuance of the appropriate permit, of course).

The program, '**Lake Sarah Walleyes**', was started in September, 2006 by Joe Slavec with the sole purpose of supporting a privately funded walleye stocking program on Lake Sarah (DNR 27-0191). The Lake Sarah Walleyes program was subsequently integrated into the Lake Sarah Improvement Association in October, 2006 - a move that will bring a much needed tax deductible status to contributions to help fund the walleye stocking program.

There will be a second stocking of walleye this Fall. Joe will be using the remainder of our fund to stock finger-

lings. These are already 4" when they are stocked in the lake and as a result have a much greater percentage of survival. We have raised \$600 so far with a goal of \$1000 - this will allow for 1,100 fingerlings.

If you would like to contribute towards the next stocking, mail your tax deductible contributions payable to LSIA/Walleyes, P.O. Box 25, Loretto, MN 55357. All funds contributed will be used to purchase walleye fry or fingerlings for Lake Sarah.



Joe Slavec stocking Lake Sarah with walleye fry on May 30, 2007

Lake Sarah Lake Levels

Mike Peterson

If you've been looking at Fred Lang's lake level reports you know Lake Sarah is the lowest it's been this early in the season since 1999. As of 6/8/07, Lake Sarah has lost 11-inches since 4/14/07 (979.74 minus 978.82). As of 6/8/07, we are 3-inches lower than 2005, the next lowest year.

As of 6/8/07, Lake Independence is at 956.92, the lowest reading at this time of year since 2001. As of 6/8/07, Lake Independence has lost 8.4 inches since 4/13/07 (957.62 minus 956.92). They are currently 4.56 inches lower than 2005, the next lowest year. Note: For some reason, Lake Independence was also low at this time of year in 2000 (956.26), even lower than they are now. (Lake Sarah was actually high in 2000.) Were it not for 2000, they would also be at the lowest level at this time of year since 1999.

Lake Independence and Lake Sarah are both experiencing unusually low water levels for this time of year. **WE ARE NOT ALONE!** Looking at records that go back to 1996, it appears

that Lake Independence follows a very similar pattern to Lake Sarah from year to year.

Without a doubt, the level of the weir is a factor, but it's not the only one that's affecting Lake Sarah's level. Significant impact to Lake Sarah's level can also be attributed to other factors, including: elevations down stream of the weir, lack of rain, high temperatures, levels in the aquifer, previous year's drought, wind, evaporation, seepage, use of lake water to water lawns, vegetation growing in the outlet, and ice in and ice out dates.

What can we do now? Keep your fingers crossed for rain, have a GREAT summer, participate in the July 4th Boat Parade, come to LSIA's Summer Membership Meeting and Annual Picnic on July 22nd. The picnic is a GREAT time for young and old!

LSIA is your association. Get involved, volunteer, voice your opinions, become a member.

Where Do You Fit In?

WHAT IS A LAKE ASSOCIATION?

Each lake is unique and each has its own group of people, the property owners and users of the lake, that are passionate about the quality of the lake and its future. It's human nature to protect what we care about, and it's up to everyone who cares about a particular lake to leave it clean as a legacy for future generations to enjoy.

Lake Associations are organized groups of people who come together because they do care about a specific lake, and as a group they can determine and carry out the best actions to protect the lake. Lake Associations represent the first line of defense for protecting the water quality and ecological integrity of the lake. (reprinted from Minnesota Lakes Association)

Ask yourself these questions:

- Am I passionate about the quality of Lake Sarah?
- Do I really care about its future?
- Do I really care about leaving it clean for future generations?

I sincerely believe most of you do. Recently, there was an article in various local newspapers explaining how Lake Sarah is *not going to be fit for fishing and recreational use*. I heard from a lot of people, a couple unhappy ones, but the big majority were saying 'it's about time we're doing something', and 'how can I help?'. These are the people who care and know as a group they can determine and carry out the best actions to protect the water quality and the ecological integrity of the lake.

The unhappy ones were saying, 'How can I sell my house on a lake that's not fit for fishing and recreational use?' or 'You're lowering my land values by saying such things' or 'These are

unfounded statements'. I certainly understand that thinking and it would be more valid if the pollution of Lake Sarah had not been happening for years. Everyone was invited to an informational meeting put on by John Barten, who is probably the most knowledgeable expert in this area, to get educated on exactly what is happening. If you were there, you heard, for instance, that if nothing is done, *Lake Sarah will be unfit for game fish, will not be suitable to swim in and that the exotic choking weeds will take over.*

This isn't news. Lake Sarah has been going downhill for years and anyone who has lived on or used the lake for any length of time, knows it. It's time to get passionate about the quality of your lake. It's time to really care about the future of your lake. I know we have a lake level issue, among other things to correct, but our first concern should be cleaning up the lake. It's time to put principles before personalities.

The Clean Water Task Force is going to need a lot of help starting next month. If you are one of those who care and want to help, please contact me. Even if it is to say you want to get on the list of those in favor of cleaning up the lake, contact me.

Thank you for reading this and thanks for caring.

Jerry Wise
LSIA President
jerrywise@frontiernet.net
763-479-2228

LSIA Directory & Membership Report – NEW RECORD!

Brad Spencer

As of June, we've received 156 paid memberships, a new record! LSIA thanks you for your continued support!

Tax deductible contributions included with 2007 dues totaled more than \$2000 year-to-date.

83 member households (53.2%) are currently participating in the LSIA/Veolia group discounted residential trash service program.

Lake Sarah Directory Project

The Lake Sarah Directory has been updated for 2007 and will be distributed to all LSIA member households shortly.

In the future, if you know of new neighbors or corrections that need to be made to the directory or mailing list, please call or email any board member so we can keep our database up to date.



Neighbor's Pet Shot

Please Report Animal Abuse Immediately

I was disturbed to receive the following letter about a neighbor's pet being shot. Being a cat owner myself, I can't imagine finding my pet wounded, whether the act was accidental or deliberate.

I'm not sure if the LSIA newsletter would be an appropriate forum for this, but I thought my neighbors should know that someone in our area shot a member of our family. On Sunday evening, June 3rd, Ali, our eleven year old cat struggled home wounded and limping. We found a puncture wound, and took her to the vet Monday morning. The vet located a pellet in her shoulder, but advised against removing it for fear of causing further damage. The pellet traveled several inches under her skin in her shoulder and Ali is in pain, and barely able to walk. The vet also identified another pellet from about four years ago that we thought was a bone chip.

Ali is known by most of our immediate neighbors and has always been well liked. She is a small tabby cat with white face, feet, chest and belly fur, and brown/gray stripes on her back half. She is an active hunter and has done a great job of controlling the small rodent population for us and our neighbors. She stays within a few houses of home around the Lake Sarah Heights Circle while hunting, and always comes home to sleep. She has been an indoor/outdoor cat her entire life, keeping her indoors would be a prison sentence to her.

Evone and I have always enjoyed the "watch out for each other" atmosphere of our neighborhood. We have taken care of lost dogs several times while we located their homes for the safe return of these furry kids. Now someone has decided that it's OK to shoot (pick one or more of the following): cats, pets, anything small that moves,

anything they want to.

We hope that this is the action of a child. If this is true, a parent somewhere needs to know that their kid is shooting pets. This is animal abuse, and is an indicator of a troubled individual.

A more dismaying possibility is an adult doing this. Is this the neighborhood you want - one where you can justify shooting your neighbor's pet?

If this was an adult, we need to talk. If this was your child, you need to act.

Sincerely, Paul and Evone Williams

From the MN Humane Society website:

There are two forms of animal cruelty. *Passive cruelty* or neglect is caused by lack of action, such as inadequate shelter, starvation, dehydration, and failure to seek needed veterinary care; *active cruelty* is an intentional act to harm an animal.

When reporting a case of animal abuse or neglect, contact both the local police department and the cruelty investigator assigned to the area in which the abuse or neglect is occurring. Contact information for cruelty investigators is listed below. We also suggest contacting the appropriate sheriff's department as well. All three of these agencies are responsible for enforcement of anti-cruelty laws. **Animal abuse and neglect is a crime, and all law enforcement agencies need to be alerted.**

Contact Information:

If an animal's life is in immediate danger, please call 911. Animal Humane Society of Hennepin County Investigations (763) 489-2236

Beware of Firewood

Minnesota Conservation Volunteer

Campfires are a central part of camping, but be careful where you get your firewood because it might harbor forest pests, says Ed Quinn, State Parks Resource Management Coordinator. Proposed restrictions aim to prevent potentially infested firewood from being brought into state parks and other DNR lands.

Forest pests, such as the emerald ash borer, gypsy moth, and Asian long-horned beetle, pose grave dangers to Minnesota's trees. The emerald ash borer is of particular concern because its larvae eat the inner bark of ash trees. Ash borers have killed millions of ash trees in Michigan, Ohio, and Indiana, as well as Illinois and Maryland. Minnesota has the third largest volume of ash timber in the nation. **And firewood is an ideal carrier for ash borers and other forests pests.**

The DNR hopes to slow the spread of forest pests in Minnesota with proposed restrictions that would create strict requirements for bringing firewood onto any DNR-administered land, including state parks, state forests, and wildlife management areas. The proposed restrictions are part of a broader effort by the DNR, Minnesota Department of Agriculture, U.S. Forest Service, and Federal Animal and Plant Health Inspection Service to combat invasive species.

The DNR, MDA, and other state agencies are working together to provide information on firewood and forest pests to national firewood distributors, private campgrounds, large chain retail stores, and other firewood sellers.

Value of Aquatic Plants

Minnesota DNR

If you've spent any length of time at your favorite Minnesota lake, chances are you're no stranger to aquatic plants. Maybe you've cast into lily pads looking for bass, watched minnows dart to safety in plant beds, pulled in an anchor covered with green vegetation, or waded through a few plants while swimming.

Unfortunately, most people see aquatic plants as problems. They perceive lakes or lakeshores with lots of so-called "weeds" as messy and in need of cleaning. But this weedy mess is an essential part of a lake's ecosystem. Without aquatic plants, lakes would have fewer aquatic insects, minnows, and other wildlife. If too many aquatic plants are removed from lakeshores, fish and wildlife populations may suffer. Aquatic plants are an essential part of the natural community in most lakes.

Minnesota is home to about 150 species of aquatic plants, most of which are native species. When native plants interfere with boating or swimming some control may be desired. But what most native aquatic plants need is protection, not elimination, so they can continue to function as part of healthy aquatic ecosystems. Some aquatic plants in Minnesota are not native, such as Eurasian Milfoil or Curly Leaf Pondweed, and they may cause problems. Control of these species may be done to reduce interference with boating or swimming, to reduce the risk of spread of these invaders to un-infested water-bodies, or in some situations to produce ecological benefits such as increases in native plants.

Native aquatic plants are a natural part of our lake and provide many benefits to fish, wildlife, and people. In lakes, life depends--directly or indirectly--on water plants. They are the primary producers in the aquatic food chain, converting the basic chemical nutrients in the water and soil into plant matter, which becomes food for all other life. Aquatic plants serve many important functions:

Provide fish food

More food for fish is produced in areas of aquatic vegetation than in areas where there are no plants. Insect larvae, snails, and freshwater shrimp thrive in plant beds. Sunfish--Minnesota's most sought-after game fish--eat aquatic plants in addition to aquatic insects and crustaceans.

Offer fish shelter

Plants provide shelter for young fish. Because

bass, sunfish, and yellow perch usually nest in areas where vegetation is growing, certain areas of lakes are protected as fish spawning areas during spring and early summer. Northern pike use aquatic plants, too, by spawning in marshy and flooded areas in early spring.

Improve water clarity and quality

Certain water plants, like bulrushes, can absorb and break down polluting chemicals. Nutrients used by aquatic plants for growth are not available to algae. This reduces algae abundance improving water clarity. Aquatic plants also maintain water clarity by preventing the re-suspension of bottom sediments. Algae, which thrive on dissolved nutrients, can become a nuisance when too many submerged water plants are destroyed.

Protect shorelines and lake bottoms

Aquatic plants, especially rushes and cattails, dampen the force of waves and help prevent shoreline erosion. Submerged aquatic plants also weaken wave action and help stabilize bottom sediment.

Provide food and shelter for waterfowl

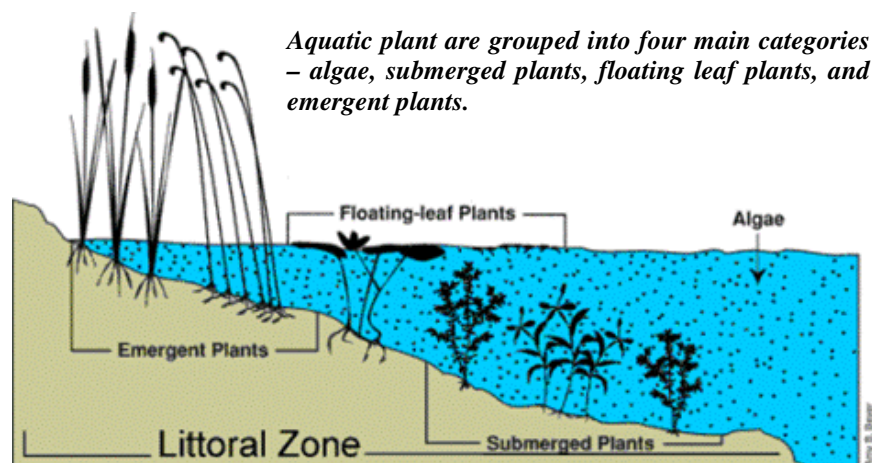
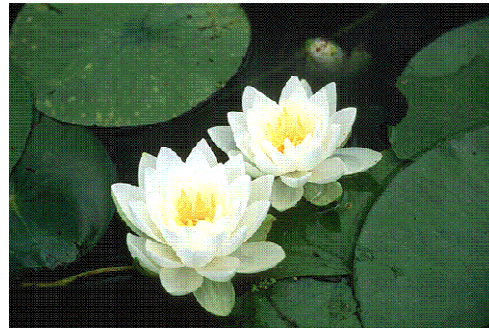
Many submerged plants produce seeds and tubers (roots), which are eaten by waterfowl. Bulrushes, sago pondweed, wild celery, and wild rice are especially important duck foods. Submerged plants also provide habitat to many insect species and other invertebrates that are, in turn, important foods for brooding hens and migrating waterfowl.

Improve aesthetics

The visual appeal of a lakeshore often includes aquatic plants, which are a natural, critical part of a lake community. Plants such as water lilies, arrowhead, and pickerelweed have flowers or leaves that many people enjoy.

Provide economic value

As a natural component of lakes, aquatic plants support the economic value of all lake activities.



Incremental Change

Minnesota DNR



Most of us refer to plants that grow in water with the all-encompassing word 'weeds'. I did until I went to work for the DNR. Instead of weeds, we refer to these plants as aquatic vegetation. Not a term that exactly jumps off the page but it at least steers us away from the inaccurate word.

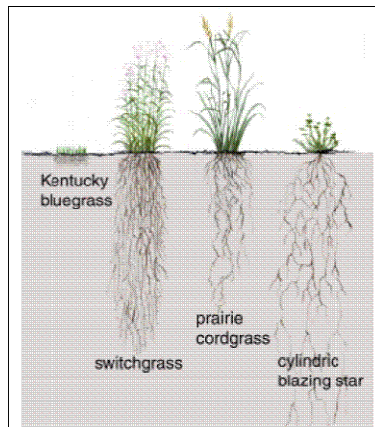
And admit it, many of us can't tell a weed from a turnip. Which may be part of the reason why we have such an obsession with getting rid of weeds in and along our lakes. Little do we realize, apparently, that most of those plants are not weeds at all and by killing them off we are contributing to the very demise of the lake itself.

There are regulations concerning what we can do in terms of removing aquatic vegetation from in front of our shoreline property. Basically, removal is allowed only to facilitate access to the lake. That allowance, however, is obviously not satisfactory to some.

As development around lakes in Minnesota continues at a furious pace, aquatic vegetation is disappearing. And too often it is being cut, pulled or poisoned illegally. **In the year 2007, a sizable portion of our citizenry still does not realize that those weeds help keep the water clean and provide the habitat that fish and wildlife depend on for survival.** Aren't those the very qualities that persuade us to purchase lakeshore property in the first place? Why destroy it?

Maybe for the same reason that some lakeshore property owners insist on cutting down trees and other growth on their land and mowing the grass right to the water's edge. They want a better view of the lake. And they want their property to look nice and neat. Every bit of it. In the end, they aim to improve

nature by making it unnatural. Manicured lake property lawns that allow toxins to enter the water and illicit aquatic plant removal are slowly but surely ruining our lakes. Drive by some of these lakes in the summer and take a close look at the water. It is no mystery how they have reached such a state. The mystery is how to convince more local regulatory authorities and lakeshore property owners that it is in their own best interest to preserve lake weeds and shoreline vegetation.

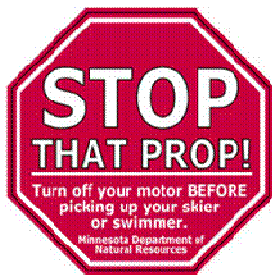


Natural vegetation has a deeper root system, filters more contaminants, and prevents erosion better than grass.

There is another word that is apropos in this matter. The word increment is defined as a small positive or negative change in a variable. **Lakes become degraded in increments, not overnight. They become degraded when incremental changes are made in the watershed that contributes to the runoff of contaminants into the lake.**

Increased runoff caused by buildings, roads, driveways, and patios. Increased contaminants leaking into the groundwater and surface waters from improperly maintained sewage systems. Increased lawn-to-lake manicured shorelines with poor filtration, replacing natural vegetation or a mature woodland. Increased suburbia, replacing diversity that promotes an ecosystem resistant to disease and erosion, and supports a healthy environment for plants and wildlife.

Your shoreline is a portrait of your values and ecological wisdom. Just as every litter bit hurts, every little change around a lake, good or bad, makes a difference. Not overnight. Incrementally.



Stop the Prop

Minnesota DNR

The Minnesota Department of Natural Resources (DNR) reminds boat operators to make sure they turn off their engines when people are in the water near the back of the boat.

This safety message comes after an

accident in the Twin Cities where a man was injured by a boat propeller.

"Even a slowly turning propeller can inflict serious or fatal injuries to anyone caught by its spinning blades," said Tim Smalley, DNR boating safety specialist. "Sometimes the propeller can be

turning even when a motor is in neutral, or someone can bump the shift lever into gear accidentally, and injure or even kill anyone in the water near the stern of the boat," he said. The DNR has a new sticker available that warns boaters to shut off their engines when picking up or dropping off skiers or tubers.

A "Stop that Prop" sticker can be obtained for free by calling the DNR Information Center at (651) 296-6157 or toll free at 1-888-MINNDNR (646-6367). Computer users may e-mail the DNR at info@dnr.state.mn.us.

Why Should I Maintain My Septic System?

A well maintained system saves you money and protects your drinking water and the natural environment. Neglect or abuse of your septic system can cause it to fail and cost money for system repairs or replacement. An improperly cared for system could also result in decreased property value.

If you have your septic system inspected and maintained regularly, you can catch and troubleshoot problems in their early stages before they become serious and expensive to correct.

If you have a septic system, you may also have a well for drinking water. Proper maintenance of your septic system will prevent contaminants in wastewater from entering your water supply. Any contaminant coming from your system may eventually enter groundwater, streams, and other water sources. This may harm the wildlife that rely on those water sources and make the water unfit for drinking, swimming, or fishing.

To prevent this from occurring, ensure that you properly maintain your septic system! Care for your drainfield.

- Plant only shallow-rooted plants over and near your drainfield to avoid damage from roots.
- Don't drive or park on the drainfield.
- Water flowing from gutters needs to be diverted away from the drainfield. Hoses can be attached at the downspout to direct the water to another part of the lawn (**not** the driveway). Prevent rainwater from forming puddles near the system.
- **Inspect and pump your system regularly.**

Individual system needs may vary; keep records of maintenance and become familiar with your system's needs.

How does a Septic System Work?

A septic system consists of four main components: the pipe, the tank, the drainfield, and the soil. A pipe from the home carries wastewater to the septic tank, where treatment begins as solids settle to the bottom and are digested by microorganisms such as bacteria. As new wastewater enters the tank, the partially treated wastewater is pushed along into the drainfield for further treatment. The water is then distributed to perforated pipes for further treatment by the soil.

Percolation into the soil provides final treatment of wastewater by removing harmful bacteria, viruses and nutrients. Suitable soil is necessary

for successful wastewater treatment.

When Should Septic Systems Be Inspected?

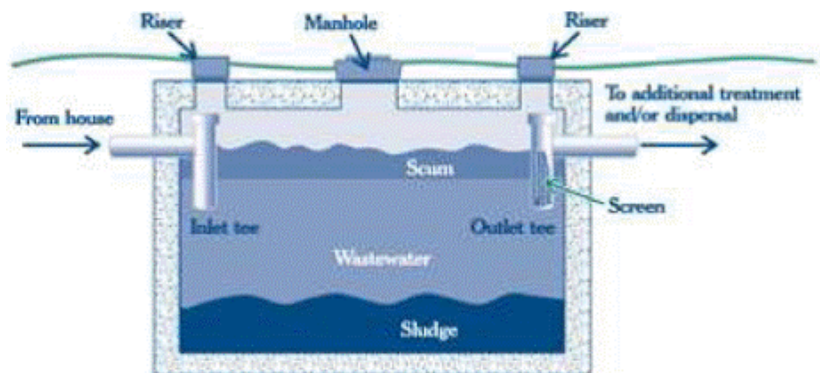
- It is recommended that most systems be inspected annually and pumped every 3-5 years. However, individual system needs vary depending on the size and age of the system, the number of people it serves, and the system's past performance.
- Systems should be inspected at the time of a property transfer.
- Inspection may also be necessary during changes or repairs to your home.

Signs of Septic System Failure

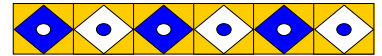
- Pooling water or muddy soil around your septic system or in your basement.
- Wet, spongy ground or lush-plant growth that appears near a leaky septic tank or drainfield.
- Slowly draining or backed up toilets and sinks.
- Sewage odors.
- Unpleasant taste and odor to well water.
- Visible sewage or noticeable sewage odor in streams or other bodies of water.

Some Causes of Septic System Failure

- Household toxics poured down the drain, including oil-based paints and wood stains.
- Large amounts of household cleaners poured down the drain. Cleaners can vary in toxicity. Terms like "Nontoxic" and "Septic Safe" can be deceiving; regardless of labeling, use only small amounts to none.
- Excessive use of the system. Septic systems are designed to handle a certain amount of water. Inefficient water use can overload the system.
- Incorrect siting or design of the system.
- Insufficient or improper maintenance.



Create a Butterfly Garden



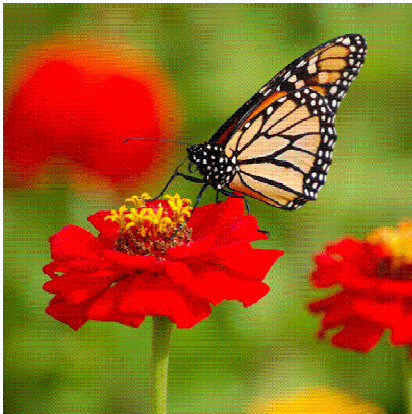
What is the difference between MOTHS and BUTTERFLIES?????

MOTHS-- fly at night, have feathered antennae, and rest with their wings open...

BUTTERFLIES-- Fly during the day, have knob-ended antennae, and rest with their wings closed...

People who love to garden also tend to enjoy watching butterflies flitting about. After all, butterflies are just as pretty to look at as the flowers that they visit. Gardeners can entice even more butterflies to visit their gardens by creating gardens specifically for butterflies.

It's quite easy to create a butterfly garden. You may even find that you already grow some flowers that attract



butterflies. With just a little effort you can create a beautiful haven for these lovely winged creatures, and the butterflies will appreciate your efforts.

If you're starting from scratch and will be creating a new planting bed for your butterfly garden, you'll first want to learn how

to properly create a planting bed for your plants. You can find information on preparing raised planting beds on the Internet or your favorite bookstore.

When deciding where to locate your butterfly garden, choose a spot that is not isolated from other plants. Butterflies will be more likely to find your garden if there are other flowers nearby to lead them to your butterfly garden. But if your butterfly garden is the only patch of flowers in a vast sea of grass, butterflies won't have much reason to be in the area. If you have a border of flowering shrubs and other butterfly-enticing plants are scattered around your yard, the butterflies are much more likely to spend time in your garden.

The butterfly garden should include a variety of plants that attract butterflies, and those plants should be in a variety of colors and heights. Consider planting azaleas, rhododendrons and lilacs for height. Fragrant 'James McFarland' lilacs seem to be especially attractive to butterflies. Weigela, with its flowers like dainty trumpets, is another good

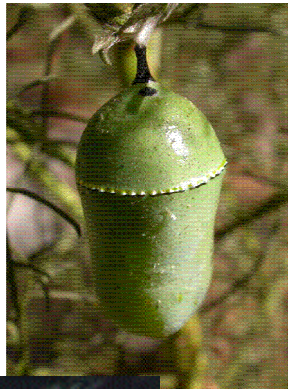


Milkweed is essential to the life cycle of

shrub for attracting butterflies.

In order to have a successful Monarch Butterfly garden, you must first plant at least one

milkweed plant. The milkweed is essential to the life cycle of the Monarch Butterfly. **Milkweed is the only plant Monarch Butterfly caterpillars can eat.** The female Monarch Butterfly is attracted to this plant like a magnet. The female monarch butterfly knows this plant by site. It is the only plant she will lay her eggs on. Even if your milkweed has no flowers on it, the female Monarch Butterfly will stop and lay her eggs on your milkweed plants. Usually she will lay her eggs on the underside of the milkweed leaves, but they have been observed laying their eggs on the tops of the leaves, on the seed pods and on the stems of the milkweed.



You may want to plant several milkweed plants and you may want to plant more than one variety of milkweed plant. If you're lucky, you may have Monarch butterflies laying their eggs on the milkweed and you can watch the entire life cycle, from caterpillar to chrysalis to butterfly

Many other commonly grown flowers will attract butterflies, including hollyhocks, purple coneflowers, Black-eyed Susans, cosmos, huechera, zinnias, beebalm and cleome. Buddleia, also known as butterfly bush, is a must in any butterfly garden. If you have room for this large plant, Mexican sunflower will attract many butterflies and hummingbirds with its sunny orange blooms.

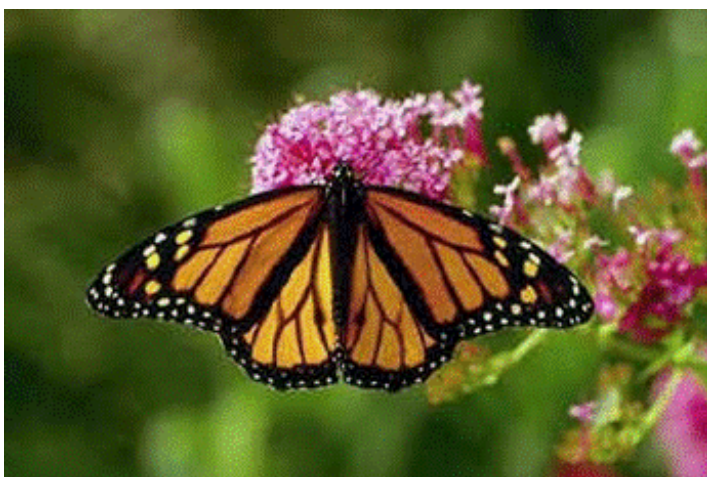
Plan your butterfly garden so there are blooms all season long. The rhododendrons, azaleas and lilacs will provide a spring snack for butterflies, followed by summer-blooming plants such as the buddleia and asclepias. In the fall, butterflies will sip nectar from asters and 'Autumn Joy' sedum. In addition to providing food for butterflies, your butterfly

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(Continued from page 10)

garden should also provide a resting place along with shelter from the wind and cold. Include flat rocks in your garden where the butterflies can sun themselves. It's even better if the rocks have shallow depressions where water will puddle and provide a place for butterflies to gather for a drink. If possible, the garden should be planted in a sheltered, sunny area away from strong wind. A hedge or wall makes a good protection. A small log pile will provide shelter from the weather for butterflies.

You can also purchase butterfly shelters that look rather like tall, narrow birdhouses with several slots for entrances. These may attract butterflies, but in my experience wasps tend to move in, discouraging any butterflies from entering.



Here are some tips for creating your own garden:

- Sunny gardens attract the most butterflies, so plant in the brightest part of your garden.
- Some important details to consider are sunny spots for basking, shelter from wind and rain and sources of fresh water. Mud or sand puddles are used by adult male butterflies to obtain essential salts, needed for reproduction.
- *Nectar* plants provide food for a variety of adult butterflies, while different *host* plants, which supply caterpillars with food, attract specific species. Keep in mind that nectar plants may also serve as host plants to some species. You may want to include both in your garden.
- Most caterpillars feed only on specific types of host plants, so female adult butterflies deposit their eggs only on those plants their offspring will eat. By including host plants in your garden, you could witness the entire life cycle of



Butterflies 'puddling' in a mud puddle

the butterfly.

- Choose plants that will bloom at different times throughout the season. Try experimenting with a variety of plants that appeal to different butterfly species.



- Pesticides can harm butterflies, so avoid using them whenever possible.

Do some research before you begin planting to determine which plants to use and how much space is required. Butterfly gardening books and websites can help you make decisions.

Basking

Butterflies are cold-blooded creatures. They may need the sun to warm their wing muscles so they can fly. They fly best when air temperatures range from 75-90 degrees; so when it's cooler, they bask, using the sun's heat to warm their bodies. A large, flat rock in the butterfly garden provides a warm spot for basking when the temperatures are cool. When temperatures get too warm, butterflies seek shade.

The most common basking position is with the wings positioned flat, facing the sun. Butterflies that bask this way often have black bodies and dark colored areas on their wings. Most common among Satyrs (Satyridae) and Sulphurs (Pieridae) is lateral basking with wings folded and facing the sun. This is because the undersides of their wings are darker than the topsides, or the bases of the wings are darker than the edges. In a third type of basking, called reflectance, the wings are used to reflect the sunlight to the butterfly's body rather than absorb it. Butterflies that use reflectance basking, such as whites, have lighter colored wing ends.

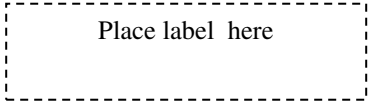
Puddling

Butterflies congregate at the wet edge of mud puddles or wet sandy areas, where they imbibe fluids rich in salts and nutrients. Butterflies require these extra salts and other nutrients to mate successfully. Typically, more males than females puddle. Males pass the nutrients on with their sperm and these nutrients are used by the females for reproduction. Nutrients gained from puddling also help in producing pheromone. This is the chemical sexual attractant released by males to attract females to mate.

Patrolling and Perching

For the purpose of mating, male butterflies search out female butterflies in two ways, by patrolling and perching. In

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patrolling, the male butterflies fly over areas where the female butterflies may be feeding or egg-laying. Butterflies do not, however, have sharp vision; so once a patrolling butterfly spots what he perceives to be a likely mate, he swoops down and examines it more closely. If it's indeed a female of his species, he will begin the courting ritual.

Some butterflies that commonly use a patrolling strategy include the Monarch, Sulphurs and Whites. When butterflies fly upward next to one another, they are either males combating one another for territory, or males trying to convince females to mate with them.

Instead of patrolling, butterfly species such as the Mourning Cloak (Nymphalidae: *Nymphalis antiopa*),

Black Swallowtail (Papilionidae: *Papilio polyxenes*) and Red Admiral (Nymphalidae: *Vanessa atalanta*) will perch on tall plants in areas along streams or ridges where the females are likely to occur. Once they spot something that might be a female, they will fly in to explore it closely. If they have found a female of the appropriate species, they will begin courtship. If the intruder turns out to be a male, the original male will give chase. Generally they will fly vertically for a few feet after which the original male returns to his perch.

One final thing that every butterfly garden should include is a comfortable bench placed where you can sit and admire the beautiful butterflies. After all, you've created this garden not only for the butterflies but also for your own enjoyment.

2007 LSIA Calendar

Mark your calendars for these upcoming 2007 LSIA events!

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|----------------------|---|
| Wednesday, July 4 | Boat Parade & Decorating Contest |
| Sunday, July 22 | LSIA Picnic & Summer Membership Meeting |
| Thursday, October 25 | Fall Membership Meeting |