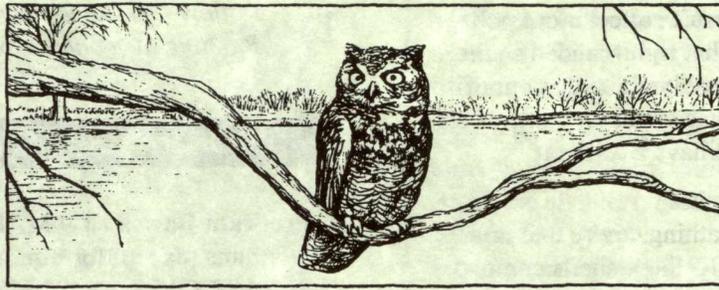


STILLMAN NEWSLETTER



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SINISTRAL SNAILS

-- Mark Spreyer

*"Will you walk a little faster?" said a whiting [fish] to
a snail,
"There's a porpoise close behind us, and he's treading on
my tail.
The further off from England the nearer is to France--
Then turn not pale, beloved snail, but come and join
the dance.*

--Alice's Adventures in Wonderland
(The Lobster-Quadrille, st. 1 & 3)

While watching my college class work through a lab exercise, I was glancing at a key of aquatic macroinvertebrates. That's a mouthful isn't it?

Aquatic, of course, means that they live in water. Macro means large, but not huge. It really means you don't need a microscope to see them.

The "them" are invertebrates. Invertebrates have skeletons on the outside unlike vertebrates, like us, that have skeletons on the inside. I jokingly tell my students that when you step on a bug (an invertebrate), it goes crunch-squish. When you step on a vertebrate, it goes squish-crunch.

However, there are some invertebrates that wouldn't go crunch-squish. With names like long-solid, spike, and pink heelsplitter; some of the mollusks can be tough customers.

The ones mentioned above are mussels native to the Midwest. Besides mussels, the Phylum Mollusca includes

limpets, clams, and snails which brings me back to the invertebrate key.

You see, we often catch aquatic invertebrates here at Stillman when school classes come to do pond study. Animated critters such as crayfish and dragonfly larvae attract most of the attention. Although, the tiny (less than an inch long) clams and snails the students find do hold a certain appeal.

Left Turn Lane

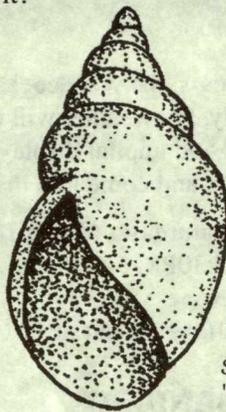
I was in the mollusk section of the key when I was given the following choice: shell sinistral or shell dextral.

No, this is not a choice between evil and coordinated shells, rather it is a choice between left-handed and right-handed shells. This begs the question: how can organisms that only have one muscular foot (used for locomotion) be either left-handed or right-handed?

O.K., take a look at the illustrations. If you hold the snail from the top, at its point, and see the opening facing you on the left; you are holding a sinistral snail. If the opening is on the right, you've found a dextral snail.

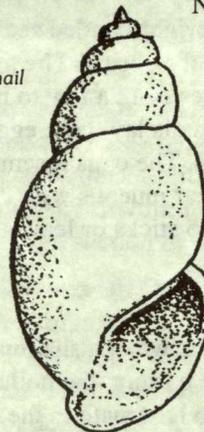
I have a confession to make. I never noticed the difference until glancing through the key. This spring, though, I'm going to take notice when the kids find snails. Why?

These snails are indicators of water quality. Both types of snails are somewhat tolerant of pollution. However, as



Sinistral or
"left-handed" snail

Dextral or
"right-handed" snail



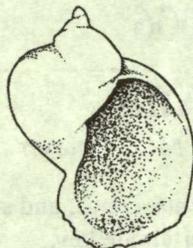
STILLMAN NATURE CENTER

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the degree of pollution increases, you'll be left with left-handed snails.

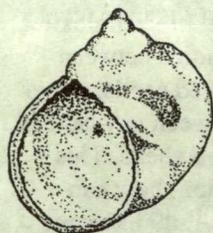
No, one type of opening doesn't collect more pollutants than the other. It turns out that right-handed snails use an internal gill to transfer dissolved oxygen out of the water. Since polluted water has lower amounts of dissolved oxygen, gilled snails will have a difficult time surviving.

Left-handed snails use a breathing cavity that is similar to a lung. Not surprisingly, these snails come to the surface to periodically fill this cavity. The thin tissue that lines the cavity filters out the oxygen and delivers it to the snail. (Remember, 78% of our air is made up of nitrogen.) Obviously, lunged snails are better equipped to survive in oxygen-poor waters.



There are other interesting differences between these two categories of snails. Most lunged snails are hermaphroditic while most gilled snails have separate sexes.

While self-fertilization is possible for hermaphroditic snails, they generally mate with another individual. As zoologist and author Robert A. Wallace wrote, "As a group, snails have the most bizarre sex lives of any animal." I think we'll just leave it at that.



Both left and right-handed snails lay their eggs in the spring. The number of eggs ranges from a few to hundreds. Lunged snails lay more eggs than gilled snails. The eggs resemble a small glob of clear mucous with dots

inside. We often find these clinging to sticks or leaves during our pond study classes.

Tough Going

When the going gets tough, that is, when a shallow pond either dries up or freezes to the bottom, the pollution-tolerant lunged snails are able to hibernate in the mud. Their life cycle is generally through in a year or less while most gilled snails live from 2 - 5 years.

Given the number of things that eat them, it is surprising that snails live as long as they do. A partial list of their predators includes fish, reptiles, waterfowl, and amphibians as well as other invertebrates such as crayfish, leeches, water beetle larvae, and dragonfly larvae.

Snails, as those of you who have had an aquarium know, feed on algae plus decaying plant and animal matter.

Now that we've learned about snails, is there anything we can learn from snails? I'll leave that to John Donne who wrote the following doggerel to Sir Henry Wotton:

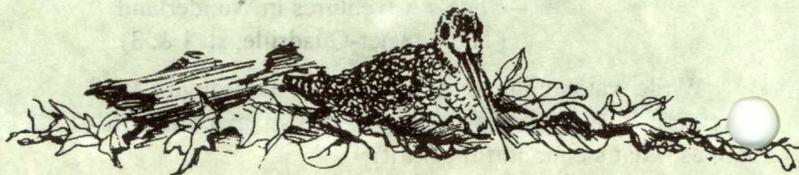
*And seeing the snail, which everywhere doth roam,
Carrying his own house still, still is at home;
Follow-- for he is easy paced-- this snail,
Be thine own palace, or the world's thy gaol [jail].*

PROGRAMS

Program Basics: TO MAKE RESERVATIONS for programs (except for bird banding open houses), PLEASE CALL US AT 428-OWLS(6957), OR EMAIL STILLMAN AT: stillnc@flash.net. Remember to include your name, phone number, and the number of people that will be attending.

If less than 5 - 10 people (varying with the activity) have called two days prior to a program, the program could well be cancelled. So, don't forget to call the nature center in advance. If you discover that you are unable to attend, please call to cancel your reservations. This courtesy will be greatly appreciated.

WOODCOCK WATCHES



In past years, the woodcocks have put on quite a show. Hopefully, the weather will cooperate and will have another good nuptial display this year. Bring your binoculars and come join the fun!

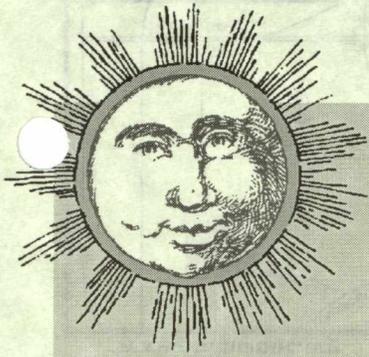
Date: Saturdays, March 18 & 25
Time: 5:30PM
Fee: None
Age: 10 years and up

BIRD BANDING

Watch Mark Spreyer, a licensed bird bander, measure, weigh and record data about our resident and migratory birds. Birds are not caught in a predictable manner, so come prepared to hike the trails. With luck, you'll see a bird in the hand and two in the bush. If it is raining, the banding open house will be cancelled.

Dates: Sundays, April 2
& May 7
Time: 9:00AM to Noon
Fee: None





SPECIAL EVENT!

SOLAR OBSERVING ON (what else?)... ...SUNDAY

Join the **Northwest Suburban Astronomers** and observe our nearest star with special telescopes and filters. See sunspots, filaments, and solar prominences in remarkable detail! This will be a fun and safe activity for the entire family.

After observing the sun, take a hike on your own or join a walk led by Stillman's naturalist and enjoy the life-giving properties of the sun as spring flowers and birds return to our area.

If you like, bring a dish and join us for a potluck picnic. Remember to call Stillman at (847) 428-OWLS and let us know if you're coming. If it rains, the event will be cancelled. If the weather is iffy, call Stillman for an update before making the trip.

Date: Sunday, April 9
Time: Noon - 4:00PM

SUNDAY MORNING BIRD WALKS

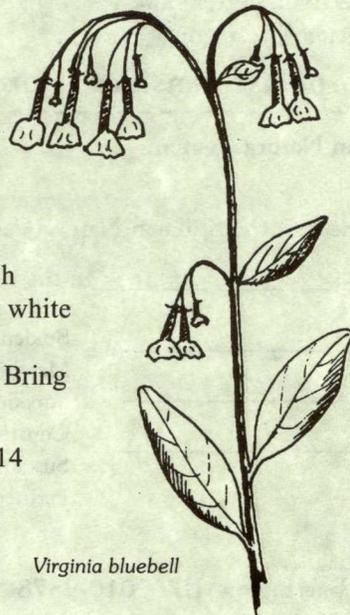
Mark Spreyer will lead a morning bird walk. Migration will be under way and you never know what we might find. Binoculars and field guides are a must. If you don't have any, don't worry, Stillman does. Please call 428-OWLS to make reservations.

Date: Sundays, April 30 & May 14
Time: 8:00AM
Fee: None
Age: 10 years and up

WILDFLOWER WALKS

Join us as we explore Stillman's woodlands in search of ephemeral beauties such as white trillium, may-apple, Virginia bluebell and jack-in-the-pulpit. Bring your camera!

Dates: Sundays, May 7 & 14
Time: 2:00PM
Age: 10 years and up
Fee: None



Virginia bluebell

SUMMER HOURS BEGIN IN APRIL

In March, Stillman will be open to drop-in visitors on Sundays from 11 AM to 4 PM. Starting in April, Stillman will be open Sundays from 9 AM to 4 PM.

Please note that the Stillman Nature Center is available, by reservation, during the week to school classes, Audubon chapters, garden clubs, and other organized groups. For a brochure that describes the programs and fees, just call (847) 428-OWLS or visit our website, stillmannnc.org.

CALLING VOLUNTEERS

Daria Sapp and her indefatigable landscape volunteers need help. Duties include buckthorn clearing, prairie burning and wildflower planting.

Stillman has the tools. We need healthy, outdoor-loving bodies to wield them. Thursday mornings are our usual work times. We start at 9:00 AM and wrap up around noon. Questions? Call 428-OWLS(6957) or email us at stillnc@flash.net.

NORDIC SKI CLUB THANK YOU

On Saturday, November 12, eight rugged members of the **Northwest Nordic Ski Club** met at Stillman. Armed with lopers and saws instead of cross-country skis, they joined us on a hike to a rarely visited corner of the nature center.

It is a rarely seen area because it is on the far side of the cattail marsh. This past summer's drought dried the wetland and made the corner accessible without needing a pair of waders. Splitting into groups of cutters and haulers, these hard-working volunteers cleared a tangled and overgrown section of fenceline.

Not long after they started, the rain came. Right-minded folks would have headed home but, then, these are cross-country skiers. They kept at it until dusk made continued cutting impossible. Darkness, unfortunately, did not deter the rain. So, the campfire was cancelled. Luckily, the Penny Road Pub is open rain or shine.

We truly appreciated the ski club's help. This winter, we had hoped to reward them with weeks of snow-covered trails but no such luck. The best we can do is mention their website. So, if you're interested in learning more about cross-country skiing in our area, go to: www.nwnordicskiclub.com

Finally, if you belong to a group that is willing to donate some physical labor, give Stillman a call or email us at: stillnc@flash.net

As the ski club reminded us, many hands do, indeed, make light work.



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If you aren't already a member, please consider joining us.

Yes, I'd like to become or continue as a member of the Stillman Nature Center.
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I'd like to help as a volunteer with programs or land management at the Stillman Nature Center, please call me.

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