



Using Macro Focus to Photograph Pond Plants

Water lilies are often photographed from directly above, but using a digital camera with macro focus can result in spectacular shots of lilies and other pond plants. The digital camera allows you to experiment with getting as close as you can to different sized blooms, and shooting from different angles, without investing in a lot of unwanted photos. Shooting water lilies from a low angle results in a dramatic view, including a sense of setting in the blurred background, not seen in overhead shots. Keeping the camera a safe distance above the surface of the water can be a challenge. Overhead shots with the blossom off center can also be pleasing. Experimenting to find the best way to photograph pond plants can be fun and satisfying. The hardest part will be waiting until next season to get started. These thoughts and photographs are offered by Club member, Norm James, who took the pictures with a Canon PowerShot A610.



Genesee Valley Pond & Koi Club Newsletter

"Wet -n- Dry" "News -n- Views"

Last Month

The Round Table Discussion format worked very well again this year. Everyone had a chance to participate and present their views of our problems, solutions and successes with the various pond, water garden, fish and plant issues this year.

We also touched briefly on some additional and new ideas regarding winterizing and preparing the fish and gardens for winter. While this is an annually repeated program, it seems that each year has something new to offer, either through commercial products or innovative introductions from our own members or through information from other ponders, clubs or magazine articles. This shows that the hobby is still actively growing and that there is sufficient interest to support the development of new and interesting approaches to the hobby.

We also voted to renew our contract with the RCGC for our meeting location and a tentative date schedule to reserve our meeting nights.

Coming events

In preparation for our scheduled elections at the November meeting, the request for new and additional candidates was moderately successful. There was some reluctance by individuals to run as a candidate for an office in a solo position for fear that they did not have sufficient experience or the necessary knowledge and background to fill the opening. However, we were successful in recruiting additional members to share the duties with current Board members. This seems to be a good

alternative. It will help us to obtain additional input for planning yearly activities and will also provide us with trained personnel who may be willing to assume the solo responsibilities in the future after they have gained some experience.

The proposed slate so far is:

Pres: Larry Hursh

Vice Pres: Bob Wheeler

Sec'ty: Kathy Hursh

Treas: John Roguski/Les Saiers

Pond Tour: Norm James/Les Saiers.

There will be a final call for additional nominees and volunteers prior to the vote so there is still time for anyone to become a candidate.

The discussions during last month's Round Table indicated that there was an interest in learning more about air and water pumps as well as some of the piping and flow parameters. Since there were no other topics suggested for this month's meeting, it was agreed that these would be a good topics to cover. We hope to have handouts on some of the materials. We will also have some samples of fittings, air pumps and other components where possible.

Our Christmas Party will be on December 1st at 7:00 PM in the Castle. We will open the Castle around 6:30 to allow more time for socializing and to provide ample time to set up the various food dishes.

This will be a pot luck type party with the club providing the meat dishes and beverages and the members attending are requested to bring side dishes to round out the menu. The following is the suggested schedule for side dishes based on the first letter of your family name:

A-H bring a dessert

I-P provide salad/vegetable type

dishes

Q-Z responsible for appetizers

The entertainment for the evening will be our new format of Pond Jeopardy provided by Bob Wheeler. For the new members, the jeopardy material is based on the information and trivia that was presented in this year's newsletters and meetings. It serves as a review of this year's progress in helping everyone to better understand our hobby.

To make your reservations and list the dish that you will be bringing, please call Yvonne Wheeler at 461-5315 or Kathy Hursh at 473-6276 by Monday, November 27th. Slight changes regarding the letter guidelines may be necessary to keep the menu in balance.

There will be no general meeting in January 2007. The Officers and Board members, however, will meet in early January to prepare a possible list of topics and events for the year. If there is a particular topic, problem or event that you would like to have included in these plans, please let us know at the November or December meetings or call Larry at 473-6276.

Worth noting.

Now that fall and cooler weather is here, have you ever noticed how the bees, especially bumblebees, seem to concentrate on and be more attracted to darker and more purple colored blossoms? A recent study by the University of Cambridge and the University of London indicated that the bees prefer the warmth of darker colors that absorb more heat. The researchers further pointed out that a bee can't fly unless its body temperature is at least 86 degrees F. Landing on and feeding from a warm flower would help it to retain its body heat. This also explains why they seem so le-

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thargic and almost dormant on cool mornings.

Most of us have fallen victim to the stubborn pollen stains that may accidentally occur from handling members of the lily family. These are some notes on that subject from an article that I recently read.

To minimize the possibility of being stained, remove the pollen bearing anthers (the pollen bearing part of the stamen) as soon as possible. This is best accomplished by turning the blossom upside down and snipping the anthers off with a scissors. Gravity allows the anthers to drop off without contacting or transferring the pollen to the petals. It is recommended that you again check the petals after the anthers have been removed to assure that no pollen is on them.

If you do get the pollen on your clothes or other materials, do not touch it with your hands or put water on it. This will only set the stain and make it more difficult to remove. Instead, gently brush it with a tissue to remove as much of the loose pollen as possible. Then, place the fabric in direct sunlight until the stain disappears.

Waterlily points of interest

Rowena Burns highlighted these interesting facts about waterlilies in a recent sidebar that was presented in *The Water Garden Journal*.

“Thought by ancients to be the home for water fairies and water nymphs, the flowers typify the emergence of beauty out of the primeval mud.” The Latin or proper botanical name of *Nymphaea* reflects this ancient belief, since it translates to nymph or fairy from the Latin base word. With an overactive imagination, one can almost visualize the fine wings of a dragonfly or even a damselfly as the source of the fairy connection.

Various waterlily species grow throughout the world from cold to tropical climates. The waxy leaf tops help them to use the water system as part of their surface and life support system. The stomata or pores of the leaves are on the upper side of these leaf pads and can draw essential oxygen down through the stem to the rhizome through the summer. This is why they can survive and even thrive in the nearly anaerobic conditions in the black pond or pot “goo”. (This is something that most of us have experienced when dividing or re-potting water plants.) In fact, some of the hardy waterlilies will survive through several winter months without a direct oxygen source and yet still show some tiny leaves throughout those hard times.

Some other interesting facts concern their ability to adjust to fluctuating water levels. The petioles or stems of the leaves are longer than necessary to just reach the water surface. Sometimes, they are what we would consider as extremely long. This allows the floating leaves to adjust automatically by moving closer or farther from the center of the plant as the depth changes.

If the level change is too drastic, they are capable of elongating their stems very rapidly. They can increase the length of the stem by as much as one to two feet within 48 hours if necessary.

Although strong winds, water turbulence or passing wildlife may turn the pads upside down, the waterlily can twist its stem to turn the leaf back over to the correct side. This is necessary to prevent the underside that is shielded from direct sunlight from burning or drying out when exposed to direct sunlight and air. “It is thought that the waterlily does this by elongating the cells alternately on each

side of the stem thus making it twist” which causes the leaf to flip over.

Finally, waterlilies, both tropical and hardy, have been known to survive periods of drought simply encased in mud for several months at a time. They are revived and start to re-grow as the water level returns and increases to a suitable depth.

Still More-Getting Ready For Winter

Try to cut back your marginals before they are nipped by frost. The stems will be firmer and easier to work. Remember that the hollow stemmed plants should be cut at least 4 -6 inches above the water level. If you cut them too low, water may enter the stems and may cause the plant to rot away.

Since the hardy marginal plants naturally live in shallow water, they tend to go dormant and can remain in the shallow water as long as there is enough water to cover the top of the container. Note: Pickeral rush, however, has a somewhat tender root system and would do better if placed near the bottom of the pond by your hardy waterlilies.

If you have Parrot’s Feather and you want to over winter it, cut it back severely. Then place the selected plant(s) anchored in a container of gravel toward the pond bottom also next to the hardy lilies.

Floaters should be treated as annuals since they are usually inexpensive plants. You would probably spend more in time, effort and money in keeping them alive than they would be worth.

It is preferable to feed your fish a wheat based food as the temperature lowers. Never feed corn based foods as the weather is getting colder.

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Do not allow debris to build up at the bottom of the pond. It will allow harmful bacteria to grow and it could also become a good home for parasites. Therefore, clean the pond as much and as often as you would at other times of the year until it starts to ice over.

For those who travel or are gone for long periods during the winter months, the usual recommendation is to use a heater type device to maintain an open air channel. It requires less monitoring and it can be worry free unless the power goes off.

A good target date is to have the pond fully winterized by Halloween. Weather changes may dictate doing this earlier to minimize working through the ice and to avoid the possibility of frost bitten hands, toes and other exposed surfaces. Try to plan ahead, keep it as simple and easy as possible so that it doesn't become a drudgery.

Koi Senses

Koi are equipped with a good range of senses. They have mechanic receptors for hearing and touch, they have visual perception and chemo- reception which would include smell and taste.

In Koi, the mechanoreceptor focuses more on the detection of pressure waves in the water than on the physical pressure of touch. Sound passing through water creates pressure waves which in the fish is detected in their inner ear. Chambers within the ear contain otoliths that are lined with sensory hair cells. The otoliths are more dense than the fishes body so that they can vibrate at a different rate and thus detect the sound and send nerve signals to the brain.

The swim bladder also vibrates at a different frequency from the rest of the body since it is filled with a gas. There are specialized backbones, called Weberian ossi-

cles, that also connect the swim bladder to the inner ear. This connection increases their sensitivity to sound.

Additional sound perception is achieved through the lateral line. This is a series of sensory pits lined with sensory hairs. It is a line that runs along the side and head of the fish. It detects changes in water displacement around the fish that may have been caused by predators or prey or reflected from objects near them. These changes trigger nerve signals to be sent to the brain.

The combination of these various structures and their responses, referred to as the acusto-lateralis system, enables the fish to efficiently detect pressure changes caused by either sound or movement. In addition to helping them to find prey, avoid predators and navigate around obstacles, it helps to explain how they can "hear" you coming and start looking for food before you even get to the pond.

Koi vision is very roughly similar to ours in eye structure and in that they see in color. A major difference is that they change focus by physically moving the lens back and forth versus our using muscles to change the shape of the lens. They also do not use an iris to alter the amount of light entering the eye, but they achieve this by changing the position of the photoreceptive cells in the retina. These cells then pass messages along the optic nerve to the brain.

They have both rod and cone receptors similar to us. The rods absorb the light in dimly lit conditions and the cones are used for color perception. There are distinct cones for absorbing red, blue, green or ultra-violet light.

Chemoreception is the detection of chemical signals through smell and taste. This can be a little

vague in aquatic environments since the signals are carried in water in much the same way.

Fish have structures called "nares" that are openings leading to nasal sacs. These sacs are lined with a highly folded sensory surface or epithelium where the cells are very receptive to chemical signals. These receptor cells then send signals to the brain that are used to find food or through pheromones to find mates.

Koi "taste" or detect food in the water through special taste buds in the mouth, throat, gill arches, gill rakers, barbels and their fins. These taste buds are coated with gustatory sensory cells which cause the appropriate messages to be sent to the brain. The barbels, an obvious feature of Koi, are adept at finding food particles in the substrate of lakes, rivers and our ponds.

In a pond situation, Koi can discriminate between different types of food by both taste and sight. If they have become accustomed to one type or quality of food, they will most likely need considerable encouragement to feed on a new or different type or quality food.

These sensory responses help to explain the way your fish may respond to your presence. When first added to the pond, they may be timid and only come to the surface after the food has been added to the water (a response to the smell and taste of the food). As they become more tame and associate your presence with feeding time, they will come to the surface and clamor for attention and food at the mere tremor of your footsteps when you approach or work near the pond.

Dues

Unfortunately, it is that time of year again and we have to start collecting the annual membership

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dues. The dues are still only \$25.00 and include the monthly newsletters and free pond tour, picnic and Christmas Party. We will actually start mailing the renewal forms with next month's newsletter.

Since there is no January meeting, you will have until the end of February to complete the renewal process. However, we would appreciate your early renewal so that we can provide information regarding our club status to our affiliated organizations early in the new year.



Board Members 2006

President: Larry Hursh
Vice President: Bob Wheeler
Secretary: Kathy Hursh
Treasurer: John Roguski
Pond Tour Chairperson: Brian Nagel
Refreshments: Yvonne Wheeler and Kathy Hursh
Newsletter Editors: Hursh, James, and Nau families
Webmaster: Norm James - gvpakc@attglobal.net

Purpose of the Club

- To promote, create and enlarge the hobby of keeping, breeding, appreciating and exhibiting Koi and goldfish.
- To promote and appreciate the hobby of Water Gardening.
- To disseminate information about Koi, goldfish and

We meet in a very friendly atmosphere at 7:00 pm, the first Friday of every month, at the Rochester Civic Garden Center (the Castle), 5 Castle Park, off Reservoir Ave., in Highland Park. Parking is free. Anyone interested in water gardening and/or Koi is welcome to join us. We ask that you consider joining the club after your third visit. For more information call Larry H. (585) 473-6276 or e-mail lkhursh@aol.com or visit the club website at www.ggw.org/gvpakc

Calendar of Events

November 3, 2006: Election of Officers and Board members. Topic/presentation will be on air and water pumps and piping and their operational parameters.

November 10, 2006: NFKPC monthly meeting

December 1, 2006: Pot Luck Christmas Party and year end celebration and information review in Pond Jeopardy game. This celebration will be the closing event for this our tenth anniversary year. Please come and join us to assure that we close out the year with another successful event.

December 8, 2006: NFKPC monthly meeting

January 5, 2007: There will be no meeting tonight or in the month of January. Hopefully, the Board will meet during the month to develop a tentative calendar of events and topics for the year.

February 2, 2007: First meeting of the year. We will discuss the plans and calendar proposed by the Board. The topic for the meeting will be announced in the monthly newsletter.

“Naturally Green” - A live gardening show every Saturday from **9-10 am** on **WYSL 1040 AM**.