The Inland Koi Connection

THE OFFICIAL NEWSLETTER OF IKS . ISSUE 285 . MAY 2021



Sunday, May 22 Potluck Meeting Hosted by Francine Hossman ~ 2 - 5pm







See page 3 for more info

CLUB NEWS. . .

NOTES FROM MAY 1 IKS BOARD MEETING

- The IKS Board met at Scott Zehm's and agreed there was enough space for him to host the June general meeting. His is a very small yard, but a sunroom will seat 25 or more theater-style, and we will be close outside, but his is a pond and koi collection not to be missed. Gardeners will be impressed too. *Plan to be friendly!*
- Meetings: May, June and August meetings were confirmed, and July is tentatively set, based on the host's travel schedule. We still hope to be able to hold a meeting at Norco High School, to visit the pond built by the students under the direction of IKS members. Hosts are still needed for meetings for this year and next. Please contact Brenda Aker to offer your pond for a visit....
- Treasury: We received a \$100 donation from the owner of koi rescued in April. Looking into a new storage alternative.
- Koi Auction: The Board is beginning the multiple tasks of planning for an auction on October 22. It takes about 40 people to man the entire event which includes the koi auction, a used equipment sale, and providing a lunch for everyone, plus parking control and security, and all the work surrounding checking in koi sellers and buyers, maintaining up to 10 tanks of bagged fish, water quality control, fish handling, recording sales, and cashiering. Please decide that you want to be a part of this, a major fundraiser in any year.
- **Rescue**: A rescue on 4/10 added eight koi in the 18" range. Ed has about 30 koi in his QT which are all available for purchase, \$50-\$200 depending on size and quality...less than retail! Contact Ed. &

5/1	IKS BOARD MTG ~ 5:30 pm / Host: Scott Zehm 6726 Dove Dr, Riverside 92506 ~ 951.237.2508	
5/22	POTLUCK MTG ~ 2-5pm / Host: Francine Hoffman 5720 Via Conejo, Riverside 92506 ~ 951.781.8209 Program: "Back-up Equipment for Emergencies"	
6/5	IKS BOARD MTG ~ 5:30 pm / Host: the Kushners ~ 1556 Vandagriff Way, Corona ~ 951.520.0092	
6/26	РОТLUCK МТG ~ 2-5pm / Host: Scott Zehm 6726 Dove Dr, Riverside 92506 ~ 951.237.2508	
7-10	IKS BOARD MTG ~ 5:30 pm / Host: Theo Zoetemelk 1407 2nd Street, Norco 92860 ~ 951.735.9896	
7-24	POTLUCK MTG ~ 2-5pm / Host: Ben Israel (hopefully) 10361 Sungrove Circle, Riverside 92503 ~ Program: to be determined	

Board of Directors

Welcome to our Newest Members ~ look for unfamiliar faces and greet them!

Raymond Aguilar (9/21) 1384 Detroit Str., Norco 92860 951.275.2446 ~ xrayra@gmail.com

David & Belinda San Jose (9/21) Rowland Heights CA 91748

Jason & Kristine Zara (9/21) 9739 Palmetto Ave., Fontana 92335 760.970.9338 ~ jasonazara@gmail.com

Kris ~ 760.970.9334

Richard & Janna Grushen (10/21) 22775 Gierson Ave, Wildomar 92595 951.775.7755 ~ koikeeper@ca.rr.com

Howard & Kimberly Newton (12/21) 43200 Vista Bonita, Temecula 92590 949.285.9902 ~ 949.285.1679 NewtonAvocadoManor@gmail.com

Paul & Angel Palacios (2/22) 42299 Oregon Trail, Murrieta 92562 951.712.2631 ∼ dr.breeze@hotmail.com

Look for these members & welcome them back: John & Cricket Mouw ~ Riverside Chuck & Ping Hille ~ Riverside

2021 Officers & Directors

Ed Kushner, President	951.520.0092		
Koi Re-Homing ~ Web Liaison			
Brenda Aker, V.P.	951.316.0263		
Meeting Sites & Speakers			
Monica Dirac, Secretary	909.887.7497		
Nick Milfeld, Treasurer	951.780.7395		
Membership			
Peggy Milfeld, Editor	951.780.7395		

Officers

Directors Rob & Deanna Fales**Raffles ~ Koi Re-Homing**

951.279.0181

Larry Leverett 951.781.3887 Properties Manager Linda Kushner 951.520.0092

Alvin Watson 951.764.6387
Scott Zehm 951.237.2508
Theo Zoetemelk 951.735.9896

Buffet & Banquet Supplies

It's been a few years since we visited *Francine Hoffman* and her marvelous gardens. Her half-acre property is at the dead end of a cul-de-sac, just what she wanted so she could create a place full of pockets of peace and privacy, comfortable corners for quiet conversations, undisturbed even in a crowd. I haven't been able to visit her this week, so I don't know how many changes she's made in the past few years, for she is always doing something! What I loved the most is the number of private or secluded places there are to sit down with a friend or with a group and not be disturbed or overheard by others in the yard.

Come early so you can choose your favorite spot for the day and have time to wander from there to see all the whimsy this garden offers — one woman loving every inch of her domain! There are gazebos, multiple statues, mature trees and shady spots, walking paths, and bridges to cross. Her collection of plants, potted trees and water features allow you to see her personality and what owning a home for a long time can accomplish. I wonder if she still has the named areas like *Peacock Hill, Pomegranate Corner, Stone Creek* and *My Mountain Corner*, all showing off her imagination. And this is Spring, so the garden should be in full bloom with a riot of color!

Francine designed the koi pond and Dave, her electrical engineer nephew, built it for her. The full-sun koi pond is about 10 x 25 feet and 5 feet at it deepest; the system capacity is about 4000 gallons, with an in-wall skimmer, a bottom drain, and a Savio waterfall-type filter. Eventually the goldfish in the koi pond needed a place of their own, so she had a second pond built — a rectangular covered pond, with a low corner waterfall and space to sit all around it on its low walls.

Francine earned her teaching credential and taught second grade for 10-15 years, then was asked to change to kindergarten. She loved the freshness of those littlest ones and taught them until retiring in 2005 to fight a personal battle with cancer. She has authored a collection of short stories about her lifelong friends.

We usually enter thru the gate to the far right of the front door, unless she has the driveway gates open (if you come that way, be sure to wander). In the yard, watch for uneven ground. As I said, come early, bring your potluck items and chairs (there really is a lot of level ground for gathering together). We will gather in the patio area for our speaker's presentation.



◆ Exit on CENTRAL/Watkins BLVD.

◆Turn West onto CENTRAL AVE.

- ◆ Turn Left onto CHICAGO AVE.
- ◆ Turn Left onto COUNTRY CLUB DR.
- ◆ Turn Right onto INTERVALE DR.
- ◆ Take the 1st Left onto VIA TIOGA.
- ◆ Take the 1st Left onto VIA CONEJO
- ♦ 5720 is at the end of the cul-de-sac.



Remembering Big Old Bob...

Remembering Bob Henry...

As you all may have read, my dad, Big Bob, passed away with the sunset on March 16, with his family by his side. He was a very private man in regards to his health and was hospitalized for some 40+ days in hopes of receiving a new heart. But what a tall order for such a big-hearted guy! He enjoyed the koi club and keeping his fish in a pond he built himself; it may not have been fancy, but it was just his style.

He was really looking forward to the May arrival of his granddaughter Saoirse (pronounced *Sear-Sha*). He was a great man but an even greater dad. I know he has left an impression on many of you, despite how quiet he was. He was taken much too soon and will be missed dearly. He didn't want a funeral, but we are hoping to have some type of a memorial gathering sometime this Summer. We thank you all for your friendship over the years, your kind thoughts, and your love; it really means a lot.

I am trying to put together a memory book for my little one on-the-way so she can know a bit about him. If you have any special memories you'd like to share, or if you wanted to be kept in the loop in regards to a memorial gathering, please email me. Thank you,

> ~ Erika Henry Vazquez erikah1220@yahoo.com

MISSING & MISSED! Monica Dirac, IKS Secretary

We've missed seeing Monica at the March and April meetings, both Board meetings and the general meeting. She had been staying away from people and potential exposure or infection in anticipation of surgery April 4.

Following that, of course, she is recuperating and still staying in isolation.

Say a prayer for healing and that we will see her again soon!















2011 Bob Henry

Year ~

2011

APRIL GENERAL MEETING

I stand corrected! Evidently the IKS <u>has</u> met at the Fales in the past — when Mac McClain was club president. I must have slept since then!

It was a beautiful day for a return visit to *Rob & Deanna Fales*' fascinating yard, and 45 members were there. It took about an hour for everyone to explore and finish their lunch, and suddenly Ed was called to go home because the police were there responding to an alarm. Just in time to miss running the meeting, so Brenda and Rob stepped in to cover for him. Rob and Deanna team-talked about the development of their pond, backyard, and the new cactus garden outside the back fence, and to keep it from being boring the lawn sprinklers came on and everyone scrambled in surprise!

Once settled down again, our five club Experts took center stage and Rob fielded questions. It was quite a

lively exchange that lasted about 45 minutes. We met our new members, Paul & Angie Palacios, whose pond is just 6-8 months old: a 6500-gallon concrete construction with 4" bottom drains, variable speed pumps, and no plants. Paul tests his water daily and admitted that he's still on the learning curve to being comfortable and confident with what he has, so there was quite a discussion around his questions and issues.

Scott got a couple of easy queries...

When we start buying koi, how do we know how many we can have...or what's too many?

How often should I make water changes, and how much do I change?

There are old rules of thumb for each of these. First, you allow one koi for every 299 gallons of pond water (round it to 300 gallons to do the math), but remember that they grow exponentially. Most problems experienced by beginners are related to overstocking. The true stocking potential for your pond is measured

- by the weight of fish rather than number
- by pond volume and filtration capabilities
- by the knowledge and experience of the pond keeper

As for water changes, The rule of thumb is 10% per week in the Fall and Winter, and 20% in Spring and Summer. Depending on your water source, chlorine in the water may be an issue, as suppliers may treat the water without notifying the public. You can check with your supplier and then treat accordingly. Regular tap water contains around 4.0 PPM (Parts Per Million or mg/l) chlorine. The ideal level of chlorine for the fish pond is 0.00 PPM. In the treatment plants, chlorine is added at the last stage



Club Experts (L to R) Tom Wright, Scott Zehm, Orville Hanson, Nick Milfeld and Larry Leverett; host Rob Fales, was the moderator.

of the water treatment process to kill pathogens. An extra dose of chlorine is added to the water so that it can kill the pathogens remaining in the pipeline. Therefore, your tap water contains chlorine and chloramine.

Chlorine is toxic to fish, damaging the gills through which fish absorb oxygen from water. Fish die due to a lack of oxygen, i.e., by asphyxia or asphyxiation. Therefore, removing chlorine from your tap water is a must before you add the water to your pond. A basic practice is to spray the water into the pond, not just lay a hose in it; a lot of the

chlorine will evaporate as it is thus aerated. There are also chemical dechlorinators which are easy to use; <u>before using them</u>, you should measure the chlorine and chloramine content and then dose according to the manufacturer's instructions.

How do you distinguish between Showa and Sanke? Both these koi are tri-color in appearance, but there is a distinct difference.

- Sanke is a white koi with red and black markings, but the sumi (black) usually stops short of the head.
- *Showa*, on the other hand, is a <u>black koi</u> with both red and white markings, although the black may not always predominate; the *sumi* is the giveaway, as it is <u>nearly always present on the head</u>.

Larry noted that the quickest way to tell them apart is to look inside the mouth! Ask him why....

Have you noticed foam on top of your pond? Even though you have a good filter, is your water sort of a dark color? These conditions are generally caused by excess dissolved organic solids, a condition that generally cannot be cleared by the filter alone. Water changes will tend to clear the water; however, this will most likely be a recurring condition after a short time. One needs to find the cause for these conditions and a way to prevent them in the future.

Foam can be annoying...





...to

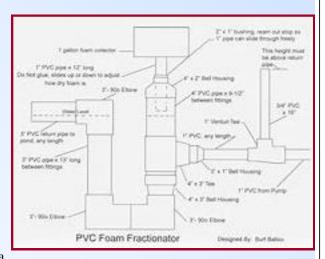
Dissolved organic solids build up through the metabolism of Koi and other aquatic organisms, depositing their products of digestion into solution into pond water. Protein levels within the water can also increase rapidly through the inappropriate use of high protein Koi foods. Compounds from uneaten Koi food can leach into the water, leading to the formation of foam. Some other compounds causing foam include a variety of fats, fatty acids, carbohydrates, metals, detritus, phytoplankton, and trace elements. Spawning activity can cause a foaming pond because of the release of large amounts of protein matter (in the form of eggs and sperm) into the water. All of these materials combined causes an enormous quantity of different organic solids to be dissolved in the pond water. These dissolved solids, when subjected to water agitation such as waterfalls, result in the formation of foam.

Foam fractionation, or protein skimming, is a process by which dissolved organic compounds are removed from a liquid by adsorbing* them onto the surface of fine bubbles. The bubbles collect proteins and other dissolved substances and carry them to the top of a device where the foam collects in a cup. Here the foam condenses to a liquid, which can then be easily drained from the system. The material that collects in the cup appears as a pale greenish-yellow liquid. Constant removal of these compounds will help clear pond water and result in better overall water quality.

All foam fractionators have key features in common. For one to function effectively, the following features must be present:

- A large amount of air and water interface must be generated.
- Water containing dissolved organic solids must be allowed to flow through the air and water interface.
- ♦ The bubbles must accumulate to form the foam.
- ◆ The water in the foam must partially drain without the bubbles popping prematurely.
- The drained foam must be separated from the bulk water and discarded.

Bubble size is the most important of these parameters and is controlled within the design of the protein skimmer. An efficient air diffuser or venturi plays an important part in generating the bubbles that are as small as possible, ensuring maximum surface area for the adsorption* of the organic compounds. Smaller bubbles also rise more slowly, allowing more contact time with the process water.



The 1" dia. x 12" pipe slides up and down inside the reamed out bushing. You should make this kind of an interference fit so that it does not slide too freely or else the foam collector will not stay elevated to any fixed location.

By Don Harrawood, SKAPA (Southwest Koi and Pond Association)

The foam collector can be any size. For example, use a gallon bucket, with a hole drilled in the bottom, and assembled with a 1-inch bulkhead attached to the bucket and the pipe with appropriate fittings. A hose can similarly be added to the bucket to drain the foam.

This is a typical protein skimmer that can be built by anyone who is handy with using ABS or PVC pipe. The cost of building this apparatus is less than \$100.

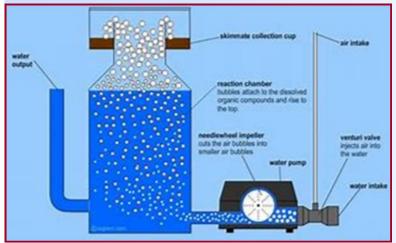
The water is pumped through the venturi, in which fine bubbles are introduced, and enters the skim-

mer body. The input of air from the venturi creates a large volume of oxygen rich water, which passes through the main column. Foam and air then rise above the water surface and pass through the 1-inch stand pipe, collecting the foam in the chamber above, which requires either manual emptying or is fitted with a drain to waste. The main water flow then empties back into the pond through the 3-inch return pipe.

When a foam fractionator is first installed, large quantities of foam

and greenish-yellow liquid are first formed. Over time, as the DOC concentration drops, so does the rate at which the foam is formed and removed. When run continuously, once it has cleared the residual problem, it should keep the water free from excess dissolved organic solids. After operation for a few days, a noticeable improvement of water clarity is generally realized.

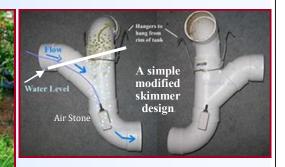
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I apologize for the quality of the illustration here. As it accompanied the article in a PDF from K.O.I., I could do nothing with it to make it less blurry. I did find the image online, but enlarging it made it even worse.

If you are interested in having a better look at it, I would be happy to forward the PDF file to you. Just let me know.

I found many other designs online which may be helpful too; you can do a search....



* Choosing the right word:

Adsorption: The adhesion (sticking firmly, or making firm contact) of a thin layer of molecules of some substance to the surface of a solid or liquid, as onto the surface of bubbles.

Absorption: Soaking up (uptake of liquid into the fibers of a substance); incorporation (of something into a larger entity); assimilation (passage of material through the lining of the intestine into the blood or through a cell membrane into a cell.



SETTING UP TO QUARANTINE



Basics for a Quarantine Tank

Larry Leverett outlined the five component pieces of an effective quarantine tank that you can build yourself: a TANK and a COVER, a HEATER and a FILTER, and a PUMP. Plan ahead! Choose a site before you need to quarantine. Put it near a water and power source, but <u>not</u> in

direct sunlight. Level the ground

#1 The TANK should be as large as possible to hold several koi, allowing 10 gallons water to 2 inches of fish. A simple Rubbermaid stock tank with a bottom drain is fine; it doesn't need to be overly expensive.

and get building!

- **#2** A TANK COVER keeps the fish from jumping out and predators from getting in. Tree netting, draped over and weighed down will work, as will a window screen. Float a piece of Styrofoam on the water surface to provide shade and a hiding place.
- #3 A HEATER is optional and expensive—\$800-1000, plus fuel—but is important if you need to raise the water temp to check for KHV. Alternatives include keeping fish in QT until the water naturally heats up to 78°F (which may be two months or longer depending on the season), or by using an insulated tank outside-wrapped with foam.
- #4 A FILTER is as important in quarantine as in your pond. You may buy or build, but remember that it takes time for a filter to mature. If you can, take a piece of filter media from your pond system and quick-start the QT system with it. But don't put that media back into your pond system without sterilizing it first: you will be adding any foreign bacteria and viruses into your otherwise 'safe' system.
- **#.5** The **PUMP** is obvious to run the filter, circulate the water, and add aeration. You can find a reasonable model online for about \$25; there's even a \$10 aquarium pump available at Wal-Mart. (May cost more today with inflation.)

The Do's and Don'ts

Do control water quality; it's the #1 problem maker and problem solver. If you can't take care of the water, don't bother with the QT.

Don't quarantine a single fish. Koi are social creatures that thrive in a community. Risk losing one of your lesser koi by pairing it with the fish in isolation. You are introducing both to new pathogens: what the new is bringing in and what is already in your pond. Consider always keeping two fish in QT; Orville has a 25-gallon tank with fish that are still 6" after 7-9 years!

Don't use clear plastic or glass over the QT tank they will over-heat the water. [Although that may be the desperate way to raise the water temp, you will need to keep a watchful eye on a thermometer in the tank.

Do take bio-security measures to prevent cross-contamination. Wash everything, especially your hands after contact with OT.

Don't use nets, bowls or other tools/equipment on both the QT and pond; keep separate equipment for each.

Do supervise kids' and animals' access to both systems.

Don'T feed fish in QT the first few days; they need time to relax after the stress of being moved about.

Do treat the QT water. You can salt it at 0.3%, or use necessary chemicals; feed with medicated food to prevent macroscopic crustacean parasites like anchor worm or fish lice.

Do quarantine fish purchased at Auction. Stress from the event often brings on spawning, a mess you don't need in the pond.

Do sacrifice <u>all</u> QT fish if one dies in QT. Then, thoroughly clean the QT tank and filter with bleach and dump the water—but NOT back into the pond! Unlike *Parvo* virus in dogs, which can survive up to a year without a host, KHV without a host will die in a matter of hours, but in koi in 60°F water, it can live forever!

Don't ignore and repeat others' mistakes; <u>learn from</u> them!

☑ Between 74°F and 78°F, KHV start spreading rapidly and kills within 2 to 3 days. Raising water temps to 85°F kicks the immune system into high gear, creating a fever, and the KHV virus slows down: the virus can't replicate itself at high temps.

Good Info from Inland Koi...

Healthy Koi Keeping

As a beginner it is easy to get the impression that the skill of koi keeping is knowing how to treat health and disease problems. Not true! While this is often seen as proper hands-on fish keeping, the real skill in any kind of fish keeping lays in preventing health problems.

The skilled koi-keeper is not the one with fingers ever stained from applying disease treatments but the person who rarely has fish health problems. If we accept that most problems are related to pond water conditions then we see our main task is to maintain a good and healthy environment for our fish rather than continually applying disease treatments. Regular water testing will help to show when something is amiss but it is important to understand that water test-kits check only a few parameters - albeit very important - and there are other considerations.

We can avoid many potential health problems by regular pond and filter maintenance. Though they may vary in design, the correct general aim for all ponds is to maintain good filtration and to keep the system clear of solid muck. This will provide conditions that are suitable for beneficial micro organisms while discouraging undesirable, opportunistic organisms.

New pond syndrome

The most important part of a pond is the filtration system. This keeps water clean, clear and free of toxins such as ammonia and nitrite that are produced directly or indirectly by the fish and from decaying organic matter in the pond. Efficient filtration relies on the presence of beneficial micro organisms such as bacteria, algae and protozoa. However, it takes a while for some of these organisms to become established in sufficient numbers to be fully effective. During this time water quality may be less than perfect, creating a situation commonly described as 'new pond syndrome'.

While the filter is maturing it is most important to make regular checks on water conditions and, if needed, carry out water changes, reduce or stop feeding and limit stocking levels. It is also advisable not to use a UV lamp for the first six weeks, as UV radiation will kill bacteria including nitrifiers. It can be useful to

have some zeolite available if ammonia levels increase but only use it as an emergency measure, not permanently. Simple nitrification can be established in 4 to 8 weeks in our tropical climate, but full maturity of the filter can take a whole year.

Stocking levels

A major consideration is stocking. Most problems experienced by beginners are related to overstocking. It is natural and understandable to want to fill the pond with your beloved fish - after all, that's why you spent so much time and money on building the pond. But as stocking levels increase so must the skill and experience of the koi-keeper. By increasing stocking levels we progressively reduce the margin between good and poor conditions. In doing so, we move away from the 'balanced' garden pond towards an intensive fish culture system that relies heavily on good 'management' to keep problems at bay.

This...





...or this?

The stocking potential of a pond, measured by the mass or weight of fish rather than number, is determined by pond volume, filtration capabilities, and one of the most important criteria — the knowledge and experience of the pond keeper. It is all too easy for beginners to stock beyond their capability, reaching a point where the system collapses and disease starts to spread. This is the proverbial straw that breaks the camel's back. Be patient and increase stocking levels slowly so your system and your knowledge can keep pace with one another. This way, it becomes a pleasant, relaxing hobby rather than a constant stressful upset.

~ Thank you to Inland Koi for always providing good information!



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Thank you to Chien Lee of NIIIKAWA USA and to Sandy Caldwell of ULTRA BALANCE supplying IKS with a supply of nutritional Koi ReHoming





Pandasia Koi and Garden

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for so graciously

koi food for its

PROGRAM



Koi Organisation International

Current Accurate Useful

May 2022



Are You attending a Koi Show?

- Help K.O.I. by staffing a booth
- · We'll send all supplies needed
- Have fun, meet fellow hobbyists
- Provide info about K.O.I.
- We'll buy your banquet ticket!

Contact pattist@snet.net for info



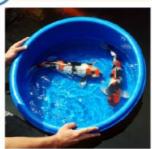
Nutrition Course - Opening Soon

Originally offered by Professor Richard Strange

- Now Taught by Syd Mitchell
- Sign Up in May for Course Starting in June
 - Common Feeding Myths Exposed!
 - · Why feeding Koi is different
 - Ration Components
 - How to Select a Diet

Learn More: https://koiorganisationinternational.org/koi-314how-why-koi-nutrition-coming-soon

TIP OF THE MONTH



Examine Your Koi Properly!

- · Relax, Breathe, Slow Down
- Have a 2nd person hold bowl vertical, half in and half out of water
- Use Large, Flat, Round, Koi Net on Long Pole
- Bring Net Up UNDER Koi
- DO NOT TOUCH KOI WITH NET
- . No part of KOI is ever out of water
- BOWL should NOT BUMP Koi
- Bring Koi close to surface
- GUIDE Koi into bowl using net

When Koi is in half-submerged bowl,

- SLOWLY tilt bowl upright
- Bring bowl close to you
- Examine Koi in bowl
- You may slowly tip some water out of bowl towards you

NO STRESS for Koi or Owner!





Pondside

- June 4
- Spike Cover
- Retrofits

Details: https://koiorganisationinternational.org/newrenewal-perks-2022



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Return Service Requested





Visit our website: www.inlandkoisociety.org