The Inland Koi Connection

THE OFFICIAL NEWSLETTER OF IKS
ISSUE 317
JULY 2025

SUNDAY 7/27/25

WWW.INLANDKOISOCIETY.ORG

IKS GENERAL-POTLUCK MEETING

3:00 - 6:00 PM

SUNDAY, JULY 27TH

ROB & DEANNA FALES

951.279.0181

760 LA CUMBRE ST,
CORONA, 92879

BRING CHAIRS AND A DISH FOR THE POTLUCK!

It's **July**, and what better place is there for a koi club meeting than the mountain themed desert retreat at the **Fales home in Corona?!**

Rob and Deanna are the original homeowners who bought their home and lot in **1988**. It was nothing but desert shrubs, brush, and a couple of trees the developer included, everything else is a **labor of love** that took only 36 years! They inherited some koi from her father, four of which are still part of the pond!

They built the pond and waterfall with a little help and realized after joining the club there were some things they should have done for better water quality and flow. The waterfall that cascades down the hillside is one of the centerpieces. It is still a work in progress as the pond undergoes continuous improvements. They have also developed the open space behind their yard into an attractive cactus and succulent garden with well **over 100 species and plants.**

Hamburgers and hot dogs will be served off the grill – so plan on bringing pot luck items with a summer barbeque theme. **Shade will be provided** but bring chairs you will be comfortable sitting in during the meeting. Late July promises warm days, but there will be **plenty of shade to sit in!** Hope to see you there at **3 PM on July 27!**

Have you noticed foam on top of your pond? Even though you have a good filter, is your water sort of 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.

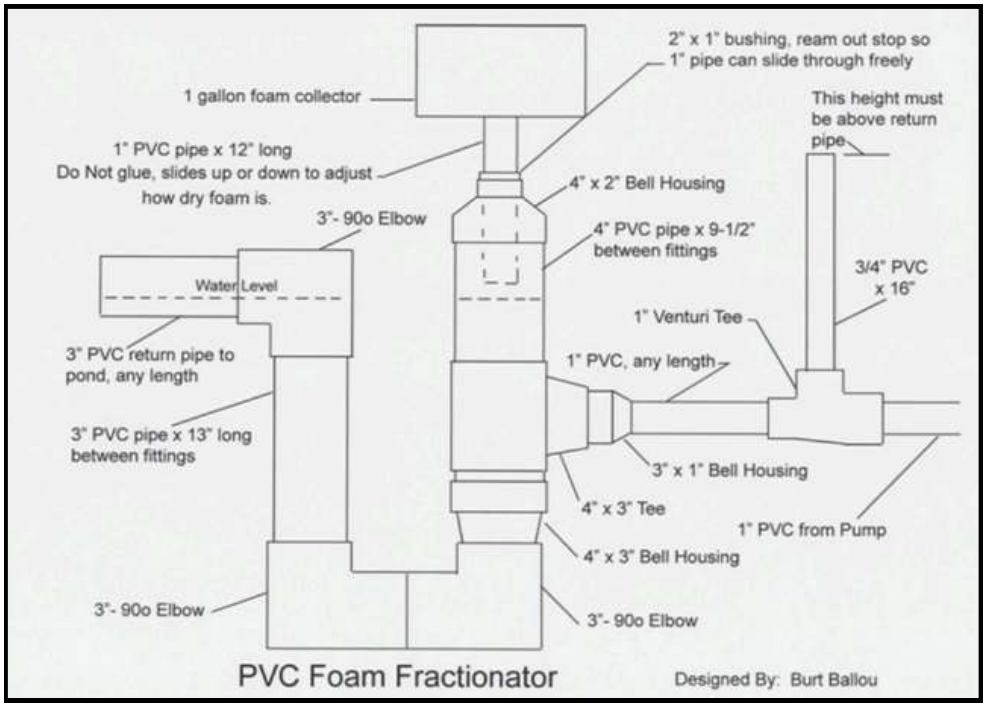
Dissolved organic solids build up through the metabolism of Koi and other aquatic organisms, depositing their products of digestion into solution into pond water. Protein levels within the water can also increase rapidly through the over feeding of high protein fish foods. Compounds from uneaten fish food can leach into the water, leading to the formation of foam. 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 these materials combined, causes an enormous quantity of different organic solids dissolved in the pond water. When these dissolved solids are subjected to water agitation such as waterfalls, they 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 carries 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/water interface must be generated
- Water containing dissolved organic solids must be allowed to flow through the air/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.

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” 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 handy with using ABS or PVC pipe. The cost of building this apparatus should be less than $100.

The water is pumped through the venturi, in which fine bubbles are introduced, and enters the skimmer body. The input of air from the venturi creates a large volume of oxygen rich water which passes through the main column. The foam and air then rises above the water surface and passes 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.

-Don Harrawood

Officers

06

- President —

Scott Zehm ~ c 951.237.2508
scottzehm@eee.org

- Vice President — Location Chair

Rob Fales ~ 951.279.0181

- Secretary —

Monica Dirac ~ c 909.754.1944
monicadirac@aol.com

- Treasurer —

Nick Milfeld ~ c 951.892.4269
Nick Milfeld-@inlandkoisociety.org

- Newsletter Editor —

Braelynn Zoetemelk ~ c 951.529.3328

Directors

- **Brenda Aker** ~ 951.316.0263
@inlandkoisociety.org
- **Gavin Alexander** ~ 951.922.5868
gamial@aol.com
- **Tony Coby** ~ 951.486.1816
Jazzman19@gmail.com
- **Deanna Fales** ~ 951.279.0181
@rob_fales@sbcglobal.net
- **Linda Kushner** ~ 951.520.0092
@lindakushner1@gmail.com
- **Larry Leverett** ~ 951.500.2157
@inlandkoisociety.org
- **Theo Zoetemelk** ~ 951.735.9896
@inlandkoisociety.org

Upcoming Events

07 27 ~ IKS Board Meeting
12:30 pm
Rob & Deanna Fales
760 La Cumbre Street, Corona 92879
Interested members are welcome to attend, but please call hosts to let them know beforehand 951.279.0181

07 27~ IKS General/Potluck meeting
3:00pm - 6:00pm
Rob and Deanna Fales
760 La Cumbre Street, Corona 92879

08 Summer Siesta!
No Meeting
Enjoy your summer and remember to stay cool!

09 22~ IKS Board Meeting
5:00 pm
TBD

There are three basic types of ponds, Water Features, Garden Ponds, and Koi Ponds. The differences are quite obvious when discussed. A water feature is merely a fountain or a small pond that circulates water for beauty and provides the soothing sounds of a waterfall. Most water features do not have fish because the water contains a high level of chlorine (which kills fish) to discourage plant and algae growth.

Most ponds are garden ponds. They are generally constructed about 1.5’ to 2.0’ deep, use a liner for water containment, and are filled with rocks or gravel. Typically these ponds have shelves along the sides to support water plants and marginals. A waterfall and a skimmer at opposite ends of the pond provide the total water circulation in the pond. A submersible pump located inside the skimmer provides the pumping power.

Disadvantages of the garden pond for Koi keepers are numerous. A few are as follows:

- Water at the bottom of the pond becomes stagnant, since all the water circulation is moving top water into the skimmer and pumping it into the waterfall. There are no bottom drains.
- Rocks and gravel in the bottom of the pond collect debris that decays and cannot be removed without removing the rocks and cleaning the pond.
- Shelves along the sides provide a platform for predators to damage or kill fish.
- These ponds have no filters or ultraviolet lights for providing good water quality. The fiber pads in the skimmer catch only the large debris. Without filtration, most of these ponds will receive algae blooms and green water very quickly in warm weather.

Now let’s discuss Koi Ponds.

A true koi pond possesses most or all of the following attributes:

- Koi Ponds are designed and shaped to eliminate dead spots in water circulation. This is the elimination of little nooks and crannies that will have no flow and will become stagnant.
- Koi ponds have smooth bottoms so that drains can pull excess settlement materials from the pond bottom. There should be no stones or rocks in the water. These impede water flow along the pond bottom and provide traps for detritus and mulm.
- Water depth should always be a minimum of 2 feet deeper than frost level to protect Koi from cold in the winter, sun burn in the summer, and give them room to escape predators. Pond sides should be straight down, with no shelves along the edges. This also protects from predators.
- Koi ponds are usually constructed with liners or concrete/shotcrete. Both types of water containment are good, and each has their own short comings. Liners are less permanent and can be easily torn if not handled properly. They should have an underlayment (old used carpet) for protection from damage when someone walks inside the pond. Liners come in many types of materials. The very best and recommended liner material is EPDM rubber of 45 mil thickness, and should last a lifetime. Liners generally have large folds when they are assembled. These folds should be taped to prevent the trapping of decayed debris. Concrete provides an excellent pond shell – and can be composed of mortared blocks or shotcrete. All types of concete require plaster or another form of liner. Plaster cracks may be easily repaired with pool epoxy putty, which can be used under water. New concrete ponds require some way to stabilize pH – either dropping the pH to 3 with acid, holding for 48 hours and then refilling, or using a non-alkaline sealer that is safe for fish.
- Bottom drains, also known as bottom suction ports, are a required feature in Koi ponds. Without them, the pond bottom water becomes stagnant and resulting decayed materials cause hydrogen sulfide gas, which is poisonous to fish. Bottom drains are needed to help keep the pond bottom clean.
- A skimmer is desired to trap floating materials. A new pond owner who assumes he will hand skim the pond daily will soon be discouraged, but aftermarket skimmers are available although never as efficient as those built in during construction. Floating materials should be trapped and disposed of in order to reduce the amount of debris settling to the bottom of the pond.

- A waterfall is desirable for sound effects, but waterfalls are primarily used to aerate (supply oxygen) the water. Additional aeration should be provided with a device such as a venturi or air pump with air stones.
- Koi ponds must have good filtration. There are many types of filtration on the market such as vortex chambers, bead filters, and other media filters. Some pond owners make their own filters from various materials. Sand filters are not recommended for koi ponds because the large residue from the fish and other pond debris cause sand filters to clog or solidify the sand and cannot be properly back washed. A biological convertor is needed in Koi ponds. These convert ammonia (a by-product from fish respiration and fish waste) into nitrites and then into nitrates (less harmful to fish and very beneficial to plants). Both ammonia and nitrites are harmful to fish.
- U.V. Lights (Ultraviolet Lights) are used primarily to control green water algae. These lights, when properly installed, kill the algae, which clumps together and can be filtered out by mechanical filtration. U.V. bulbs must be changed every 12 months of use in order to remain effective in killing algae.
- Pumps and plumbing should be sized to accommodate the water flow needed for a pond. It is generally recommended that water flow per hour is equal to or exceed the total pond volume in gallons. External pumps are much more efficient (cheaper to run) and much safer for the Koi. Pond pumps are low pressure/high volume pumps that pull considerably less amperage than pumps designed for swimming pools.
- An Auto Fill Valve may be used to keep the pond at a constant water level while compensating for evaporation and small pond leaks if the source water is a well. A hose used for refill should always have a shut-off timer (very inexpensive at big box stores). If city water is used, de-chlorinator should be used BEFORE water is added to eliminate chlorine. Chlorine is a potent killer of Koi. Even if well water is used with a hose, it is always recommended to use a shut off timer to prevent too much new cold water from dropping the pond temperature and harming the Koi.
- Pumps in Koi ponds should operate constantly except for minor maintenance performed. Clear water is not necessarily quality water; therefore pond water should be tested for ammonia and nitrites on a regular basis and corrective measures taken when these are detected. Constant aeration is vital in summer months, since warm water does not hold as much oxygen as cooler water. Koi can die rapidly when water flow and aeration ceases for just a couple hours during the warm water season of the year. It is recommended to always use 2 air pumps plugged into separate circuits, and to have an additional air pump on hand for emergencies.

Without these features, a pond is considered a garden pond, not a Koi pond.

K.O.I.™ News!
Koi Organisation International
Current Accurate Useful
July 2025

Membership Coordinator Wanted!

Please volunteer to help your hobby!

- Learn and Use asimple AccessDB
- (requires Windows)
- Send Renewal Requests and Welcome
- Letters to
- Reply to queries from other K.O.I. staff
- Verify Gift Membership recipients
- Monthly meetings are FUN!
  On the job training provided
  Less than 6 hours/month

Please contact pattist@snet.net for more info

ARTIST WANTED!

- Stained, Glass, Painting, or Other Media
- Paid Commission – price to be negotiated
- Design & Execute 2025 Spike Cover Award
- Email pattist@snet.net

Pondside on Anoxic Filtration Rescheduled to July 12th!

(from June 28th)

CLUB SCHOLARSHIPS! Is your Koi club a K.O.I. member club? You may be eligible for a FREE CKK scholarship!

- All K.O.I. Member Clubs may select recipients for CKK Scholarships Students have 1 year to complete the 9 K.O.I. courses
- Help your own Koi, and then help others in your club!
- Before requesting a scholarship, please read what to expect at the K.O.I. website:

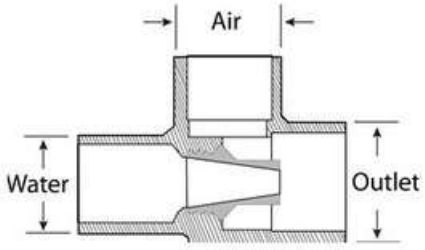
https://koiorganisationinternational.org/certified-koi-keeper-scholarships

---

TIP OF THE MONTH

Use a Venturi for Aeration

- A simple Venturi fitting can be cut into any pipe that is under water in your Koi pond.



- A vertical pipe must be connected that rises above the surface of the pond to access the air The Venturi is placed in the direction of the water flow through the pipe, and should be the same diameter as the pipe. Inside the Venturi, the flow is constricted and sped up. This sucks in air and jets out faster, oxygenated water. it can work with any pump on any existing water circuit, and costs zero to run!

Congrats!!

The Inland Koi Society is pleased to award Tom Wright with an Honorary Membership!

Thank you, Tom for all of the hard work and dedication that you have contributed throughout your years of involvement in the club!!

Please Welcome Our New Members!!

Joseph Elsissy - Redlands, CA

Prakash Gowda - Riverside, CA
(951) 522 - 5492
Pgowda2@aol.com

Closed on Sundays

Thank you to **Chien Lee of Nijikawa USA** and to **Iva Gaglione of Ultra Balance** for supplying the Inland Koi Society with a supply of nutritional koi food for its rehoming program!!!

Happy 4th of July

INLAND KOI SOCIETY
5198 ARLINGTON AVE., #146
RIVERSIDE, CA 92504

Return Service Requested

Visit Our Website: www.inlandkoisociety.org