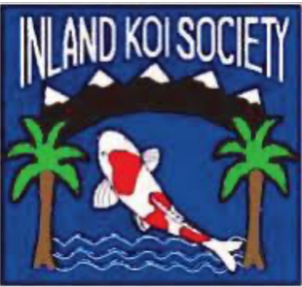


The Inland Koi Connection



THE OFFICIAL
NEWSLETTER
OF IKS
ISSUE 300

SUNDAY 1/28/24

WWW.INLANDKOISOCIETY.ORG

PRESENTATION STARTS
AT EXACTLY 3:00



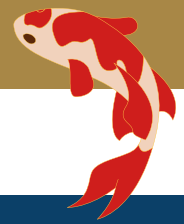
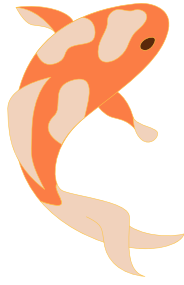
IKS POTLUCK MEETING
2-5 PM
SUNDAY, JANUARY 28TH 2024
HOSTS: LARRY & DEBBY LEVERETT
5349 JASPER LANE RIVERSIDE 92506
951.781.3887
BRING FOOD AND CHAIRS !



2024
HAPPY NEW YEAR !!!

JANUARY HOST PROFILE

Because we are not certain as to what the weather will be like at our January meeting, we are prepared to stay warm and dry indoors. **Larry & Debby Leverett** are opening up their home to us where we will sit inside the garage for a Zoom presentation with guest speaker from the east coast, **Bill Layman**, who will talk about the **Kohaku** fish. Of course, we will all still need to bring our chairs and a food dish to add to our yummy buffet.



In 2007, Larry built this beautiful concrete pond with the help of the **AKCA Guide to Pond Construction**. The pond is a total of 4,500 gallons and uses three 300-gallon filters run by 1/4 horsepower pumps. This is enough to turn over the water every hour! From these filters, the water flows to two waterfalls and back to the pond. This ecosystem that the Leveretts' have created is home to about 50 fish all of vibrant color.

In 2012, Larry rebuilt a 400-gallon quarantine tank by his orchid house, a rockscape corner with waterfalls; it's at your left as you enter the garden gate. It has a 1/8 hp pump, a Bio Force 2000 filter, and a 40 watt UV light.



Larry is a very social, honorable & giving man with a spontaneous wit. He collects orchids and enjoys begonias.

He is a plant and vegetable gardener using his green thumb wisely and always shares fruits of his labor. His interest in Koi started accidentally. The gazebo came with the house they bought in 1989, but it was withered and the spa was not used.



So, they moved and changed the personal spa to create a small pond complimenting the new Amish Style gazebo they had built. Larry inserted some water plants and dozen goldfish to test the waters, but by this time saw a few other fish called Koi that he fell in love with. They bought a few Koi and learned of The Inland Koi Society by the fish dealers. Being beginners, They decided to try that club, hoping to gain more information and friends.

Boy! Did the Leveretts really get into Koi!

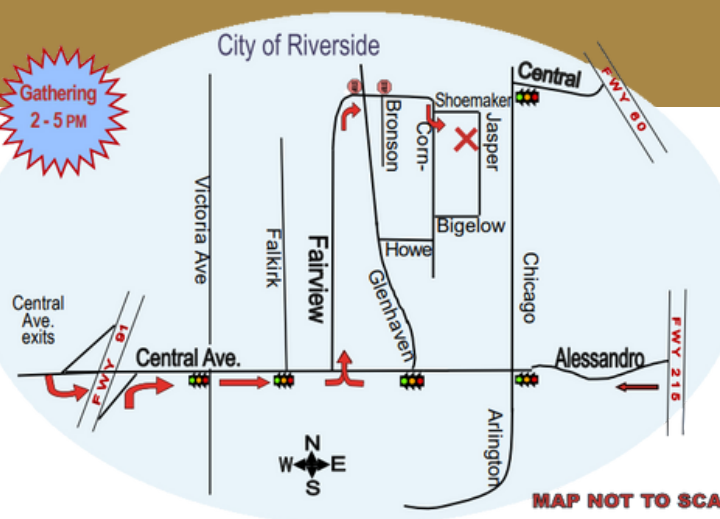
Debby is a creative, giving, and a humble woman. She is also interested in gardening, but mostly with flowers. She use to be a printer in Riverside and became interested in colors & different styles of fonts. With the original newsletter being two sided and in black and white, Debby decided it needed more. She redesigned the whole newsletter by adding pages, colors, and fun designs.

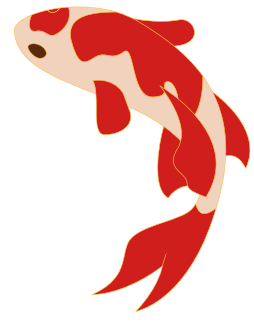
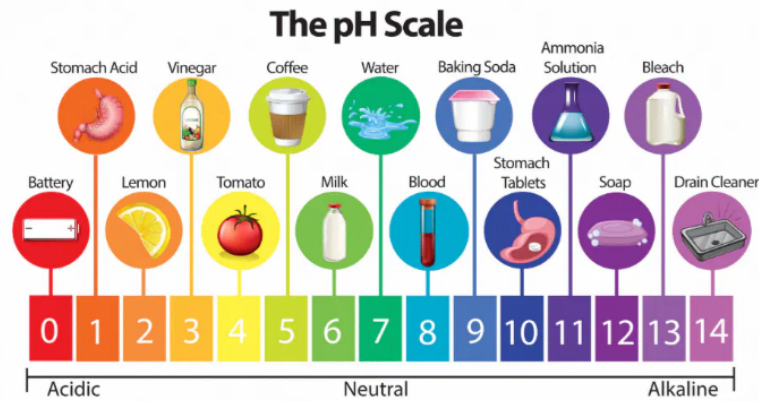
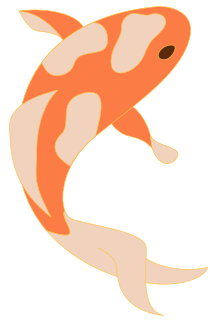
DIRECTIONS FROM THE 91 FWY:

- Exit off Fwy 91 at Central Ave and go east.
- Left on Fairview, past 2 stop signs to Cornwall.
- Forced right on Cornwall, quick left on Shoemaker.
- Forced right on Jasper, and 5349 Jasper Lane is the second house on the right.

DIRECTIONS FROM THE 215 FWY:

- Exit off I-215 on Alessandro and head west.
- Right on Fairview and continue as stated above





Most people think about hard water when calcium deposits are seen around faucets, or when soap or shampoo won't make suds. Some households use water softeners that exchange sodium for calcium and remove it from the water. While soft water may be advantageous in our houses, it is bad for our Koi ponds!

In a pond, hardness is a key factor in maintaining the water pH. Water that is soft is more acidic (lower pH) while water that is hard is more alkaline (higher pH). Alkalinity measures the mineral *anions* (negative charge) such as carbonate (CO₃), bicarbonate (HCO₃) and hydroxide (OH). Hardness measures the *cations* (positive charge) such as calcium, magnesium, aluminum, barium, copper, iron, lead and a few others. So, Alkalinity and GH are related, and their level then affects pH. First, Alkalinity or Carbonate Hardness will be discussed.

The largest source of these *anions* and *cations* is calcium carbonate (CaCO₃). The term KH means Carbonate Hardness (yes, it's still called KH even though Carbonates are spelled with a C) and is a measurement of carbonate (CO₃) and bicarbonate (HCO₃) ions. KH is critical to a pond because it acts as a buffer and prevents the water's pH from dropping to very low levels. This assumes that there are adequate KH ions to serve as an adequate buffer. The most important thing to remember about Carbonates is that they are consumed over time and need to be replenished. People, and nearly all life on our planet, are carbon-based life forms, and require the constant intake of carbonates to survive. Every single cell organism, plus all larger organisms in our ponds, consume carbonates every day.

Replenishing carbonates in our ponds is normally accomplished through water changes, but that assumes that there are enough carbonates available in the source water. Source water should be tested for KH at least once a month, especially if you are on a well, as it will vary seasonally. Some ponds require much more fresh water from water changes, because the source water does not contain much KH.

The dreaded pH "crash" occurs when acids overwhelm the buffering capacity of the pond and there is a sudden (and potentially deadly) drop in pH. With the carbonates being constantly consumed, and if there are insufficient water changes with enough KH, the KH drops and drops. When KH gets below about 60 ppm, there are not enough carbonates to maintain pH, and a pH crash can occur. When a pH crash occurs, every living thing in a pond, including plants, will die. Thus, testing for KH is at least as important as testing for ammonia and nitrites. Some say the single most important water test for a pond owner to perform regularly is KH.

Hardness (and alkalinity) is measured as mg CaCO₃/Liter of water. Soft water will have values less than about 75 ppm and hard water will have values over 200. A Koi Keeper's goal should be to keep KH at 100 mg/L (or ppm) at all times. This assures adequate buffering with Carbonates to prevent a pH crash.

Another term for measuring hardness is dH, which is "Deutsche Hartgrad" or "German degrees of Hardness" Most common KH test kits use this unit of measurement. 1 dH is 1 part CaCO₃ in 100,000 parts water, equal to 17.9 mg CaCO₃/Liter of water (or ppm). Thus, a test measurement of 1 dH would mean that your KH is ~18 ppm. A minimum safe measurement for a pond in dH would be 6 dH, or about 108 ppm.

Hard water reduces the energy required by Koi to replace electrolytes lost as waste. But remember that ammonia is more toxic in high pH, and thus it is critical to assure that there is zero ammonia measured in a pond before amending the water to increase carbonates. If a water test measures low hardness even after a water change, the best way to increase carbonates is by using inexpensive baking soda which is sodium bicarbonate. 1 pound of baking soda will raise the KH of 1000 gallons of water by 72 ppm.

GH is a term that means general hardness, which represents the dissolved solids such as calcium, aluminum, chloride, iron, magnesium, manganese, etc. If your water tests with low GH, carbonates may be increased through the use of crushed oyster shells, limestone, or commercial calcium carbonate buffer blocks. If the pond GH is over about 150 ppm, the solid shells, stone or blocks will not dissolve and accomplish anything. In Japan, melting snow which provides water for Koi ponds is usually low in GH, and thus bags of oyster shells are often seen in ponds to help increase carbonates. Because GH and KH are related, when GH increases, KH should also increase, and Japanese Koi keepers rarely use baking soda, as their GH is amended with inexpensive oyster shells instead.

2024 Board of Directors

Officers

- President pro tem –

Scott Zehm ~ c 951.237.2508

scottzehm@eee.org

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- Secretary –

Monica Dirac ~ 909.887.7497

monicadirac@aol.com

- Treasurer –

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Nick Milfeld-@inlandkoisociety.org

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Braelynn Zoetemelk ~ c 951.529.3328

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- **Larry Leverett** ~ 951.781.3887

@inlandkoisociety.org

- **Theo Zoetemelk** ~ 951.735.9896

@inlandkoisociety.org

Upcoming Events

- 01** 28~ IKS General Potluck meeting 2-5PM

Larry and Debby Leverett

5349 Jasper lane Riverside 92506

- 02** 04~ IKS Board Meeting
5:30 PM

Rob and Deanna Fales

Interested members are welcome to attend, but please call hosts to let them know beforehand, **951.279.0181**

- 24~ IKS General Potluck meeting 2-5PM**

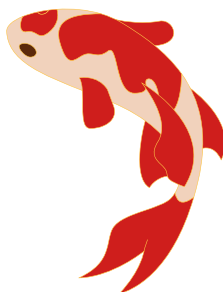
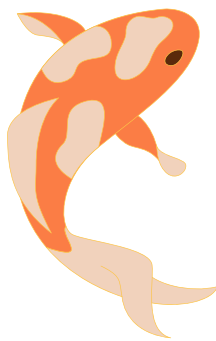
Nick and Peggy Milfeld

- 03** 03~ IKS Board Meeting
5:30 PM

- 24~ IKS General Potluck meeting 2-5PM**

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IKS news

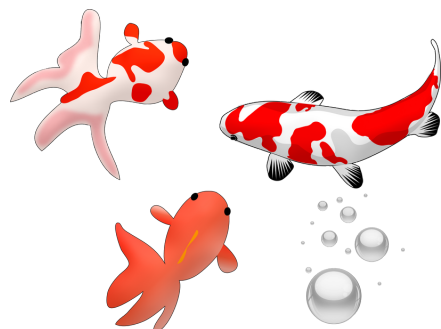
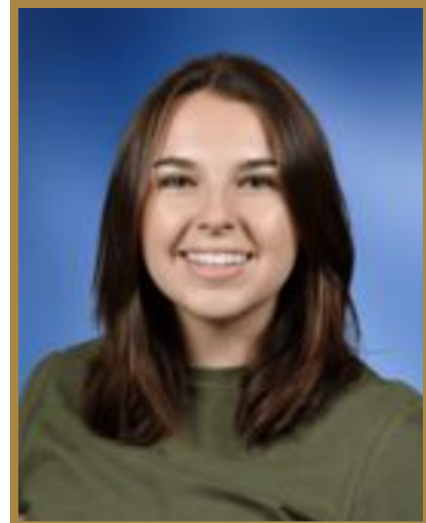


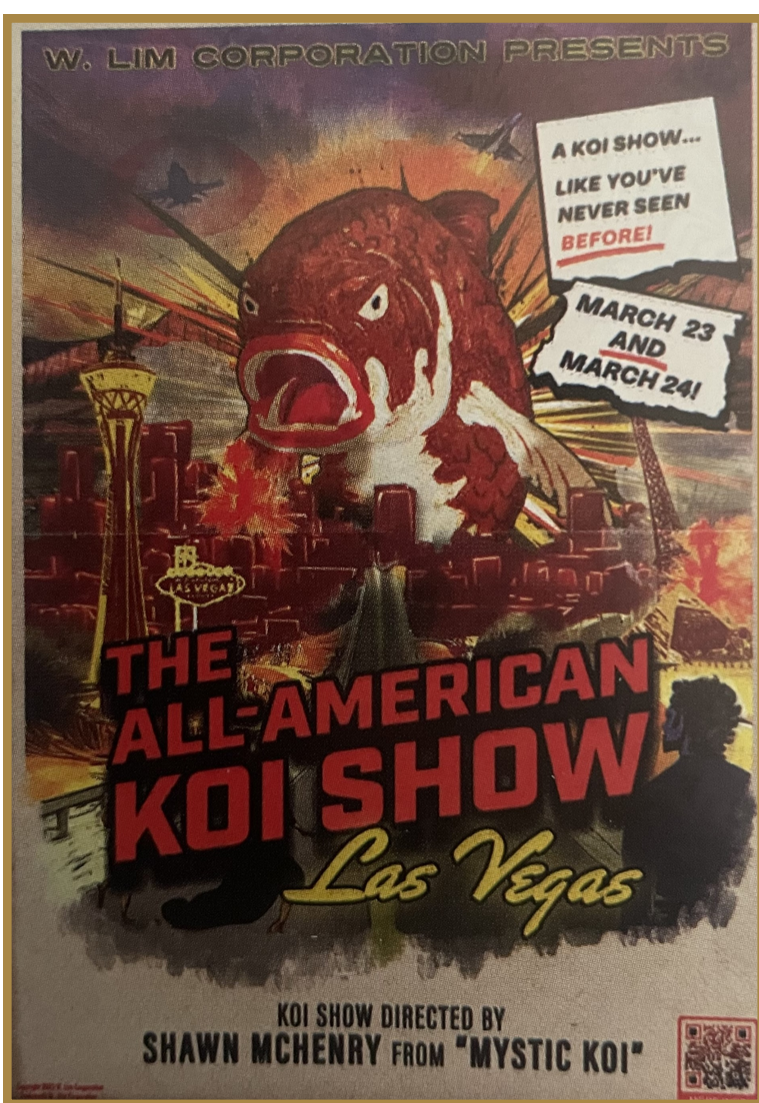
In the month of December **Ginger Cover** received an Honorary membership certificate for her and her late husband **Spike Cover** passed away several months ago and this was our clubs way of honoring **the Covers'** for all that they have done for the koi keeping community. **Thank you Ginger and Spike!!**

IKS has a new newsletter editor!

The Inland Koi Society has a new newsletter editor! Allow me to share some history of how it all came to be: The original newsletter was a two-sided black & white, Xeroxed copy, sent by Anita to members. But, **Debby Leverett** (with her printing experience) felt more was needed and thought she'd take over and create a design. She took the existing newsletter, practiced with a newly bought computer & and the Microsoft Publisher Program in year 1999, Added colors, new pages, redesigned the title & and name, and started making the newsletter a bit more interesting and personal for the 35 members in the club at that time. The Inland Koi Connection (newsletter) and IKS Club grew to over 150 families. When Debby retired in 2012, **Pete Miles** offered to take over for the next two years and it was flawless. Pete and his wife moved to Hawaii and then **Peggy Milfeld** created the newsletter until Covid hit. Now, our young member **Braelynn Zoetemelk**, who is **Theo and Jeanne Zoetemelk's** granddaughter has volunteered to be the Inland Koi Society's Newsletter Editor.

Braelynn Zoetemelk is 15 years old and is a sophomore at Norco High School. She is active in Norco High's agriculture department and enjoys learning and caring for animals. Braelynn has been involved in the club since she was very little and she is very excited to take on this new experience.





On the weekend of March 23-24, 2024 **W. Lim Corporation** is organizing **"The All-American Koi show"** ! It is being hosted at the Silverton Hotel and Casino in Las Vegas, Nevada. **AAKS** (*All American Koi Show*) will feature an amazing display of world-class koi from Japan. Attendees of the koi show will also be able to enter their koi into a competition, directed by **Shawn McHenry of Mystic Koi.**



Visit Our Website: www.inlandkoisociety.org



We are in need of someone with enough space to house rescue fish!!! Please see Scott Zehm for more information.

We are looking for a new raffle director!! There will be no raffles until someone volunteers to take over.

