

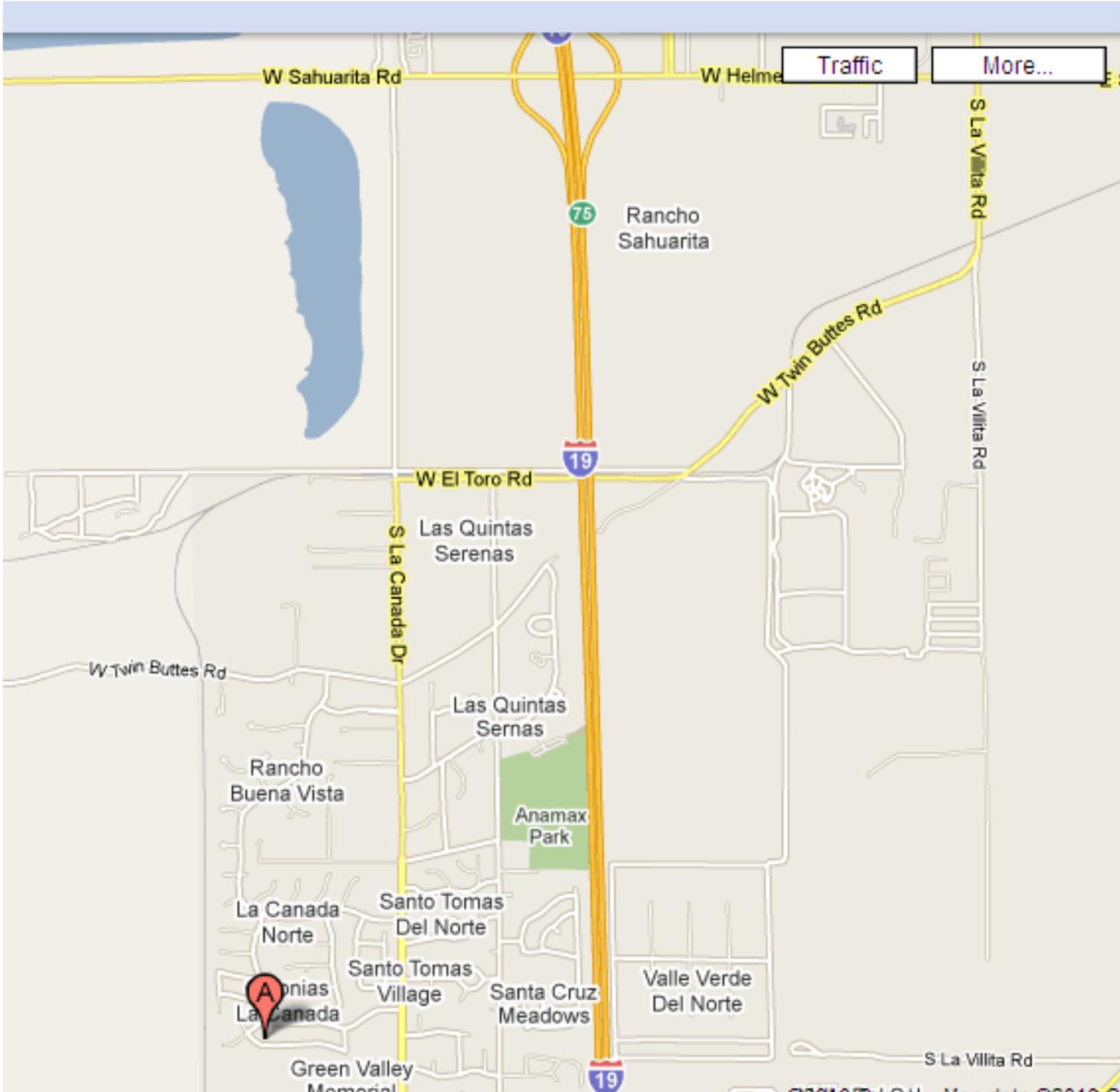
Rich and Jodie Timerhoff's

October 24, 2010. Education begins 3:00.



4905 N Via Entrada
Tucson, AZ 85718
Address Service Requested

Rich and Jodie Timerhoff
1648 W Camino Acierto, Sahuarita
Phone: (520) 371-7399



Rich and Jodie Timerhoff's

October 24, 2010. Education begins 3:00.

From I-10, South on I-19 to Sahuarita Road, West to La Canada, South to Via de Chapala, West to Avenue Armoniosa, which becomes Camino Acierto. Address is on the right.

Important Notices: Please contact Brent VanKoevinger at 780-3980 or Bob Panter if you are interested in hosting a meeting. We are looking for hosts for 2011.

[Click Here](#) for a registration packet for the 2010 Koi Show.

Going forward the newsletter will be distributed via e-mail only, unless requested otherwise. If you do not presently get the newsletter electronically, or if you wish to continue receiving it via snail mail, you must contact Brent VanKoeving at 780-3980 or bvankoeving@longrealty.com.

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Librarian	Jeanmarie Schiller crankyjean@msn.com (520) 299-1876

Editor's Note: Articles published herein are intended for the enjoyment of all and come from a variety of sources. The articles are not intended to replace veterinary advice. Pond owners, and not the club, are responsible for the health of their koi, water changes, what to do, and how to treat their pond. Reasonable effort is made to review these articles for accuracy before including them in the newsletter.

[Click Here](#) for a registration packet for the 2010 Koi Show.

Presidents Corner

10-12-10

What a wonderful time of the year it is here in Tucson, Arizona. The heat is leaving us for a short while, and the nights are just grand. I am sure your koi are just loving it.

Speaking of koi, how are yours doing? You know our Koi Show is just around the corner. Do you have our next Grand Champion? Take a long look in your pond tomorrow. You just might be surprised to see a koi with all the right markings, and all the brilliant colors that catch your eye and the eye of the judges. Go ahead take a long look and surprise yourself. You never know unless you try. Hope to see you at the show.

Just because your pond is looking very good at this time doesn't mean you can neglect checking your water quality. Just how good is your water? How do your koi look? Take a little time to really look at your fish. See how they are acting alone and with each other. By taking the time you can see if there are differences in each koi. Taking this time might make the difference between a healthy koi and one that might be getting sick. Try to catch whatever it is before it is too serious.

Our Association. Many wonderful people, both young and old, make our club what it today. The Southern Arizona Koi Association, Inc, is something to be proud of. You are a member of a non-profit Corporation whose goal is to promote koi and its culture through education. Education is in everything we do. Looking and various ponds, talking to pond owners, asking about each other's koi, and sharing the knowledge we have with everyone. This is our SAKA, and I hope it continues to grow, as it seems to have over the years.

For the love of Koi,

Bob Panter, President SAKA, Inc.

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Club Meetings

Hosting Meetings: For those wishing to host an upcoming business/education meeting, the club will reimburse the host up to \$50 (with receipts) toward food/beverage for the meeting. **We would like to see your pond!** Please contact Bob Panter if you are interested in hosting a meeting.

Club Announcements

September Business Meeting Minutes

Date & Location: September 25, 2010, at Darleen and Bob Panter's, Tucson, AZ.

Call to Order: Meeting called to order by Bob Panter at 5:12 PM.

Minutes: Motion made to accept and second the August 2010 Minutes as read.

Number of members in attendance: 20 members.

Treasurer's Report: Current checking account balance: \$6936.19.

AKCA: Debby Young reported that the KHA Classes are taking registrations. If you are interested, contact Debby. Debby also warned that there is a new koi virus and to be careful about quarantining new fish before putting them in your pond. The AKCA seminar will be in June 2011 in Indianapolis, IN.

Correspondence: None

2010 Show and Auction Committee: "Meet the Judges" dinner will be at the Panter's, catered by P.F. Chang's. The awards are in the process of being made. Debbie Shaw has donated a massage treatment for the Judges Gift. The Judges are staying at the Holiday Inn and rooms are available at \$79 per night. Jean-Marie has set up the sumo wrestlers' exhibition, samurai sword exhibition, tai chi, and Japanese dancers for the entertainment during the weekend. The Banquet will be held at El Parador. There was some discussion about vendor cost, etc., and that information along with the vendor and fish registration applications can be seen online at the SAKA website. **Raffle tickets will be mailed to members to buy or sell** – Grand Prize will be \$300 gift card from Best Buy.

Old Business: Bob Panter reported that the trailer has been repaired and ready to pick up. Debbie Shaw will check on the status of new name tags for the new members.

New Business: Jean-Marie is getting ready to have the new calendars printed to sell. They will be approximately \$15. Contact Jean-Marie to order.

Adjournment: The meeting adjourned at 5:46 PM.

Educational Talk: Discussion and talk about building the Panter's pond and others..

Lynn Riley
Secretary

[Click Here](#) for a registration packet for the 2010 Koi Show.



SOUTHERN ARIZONA KOI ASSOCIATION

Presents the 31st Annual

KOI SHOW EVENT



**Saturday Nov. 13
and Sunday Nov. 14**

*** FREE ADMISSION ***

Kino Veterans Memorial Park

2805 E. Ajo Way, Tucson

**With Vendors, Food, Entertainment,
Koi Auction & Prize Raffle**

Koi Judging by AKCA



**Free Fish Fossil Dig by the T-Rex Museum
Koi Coloring Contest for Kids**

**For more info, visit www.sakoia.org
or call 520.747.7278**

SAKA 31st KOI SHOW SCHEDULE OF EVENTS

Saturday, November 13, 2010	Sunday, November 14, 2010
9:00 am- 4:00pm Koi Judging & Viewing <i>(Just for Kids):</i> Koi Coloring Contest & Free Fish Fossil Dig by the T.Rex Museum	9:00 am- 3:00pm Koi Viewing <i>(Just for Kids):</i> Koi Coloring Contest
10:00am Tai Chi Demo <i>by Windriver Tai Chi</i>	10:00am Tai Chi Demo <i>by Windriver Tai Chi</i>
11:00am Exciting Martial Arts Demo <i>by Black Belt 4 Life School</i>	12:00am Koi Auction begins
1:00pm Samurai Sword Demo <i>by Yamakawa Dojo</i>	1:00pm Super Raffle drawings begin
2:00pm Traditional Japanese music on koto and shakuhachi <i>by Muso</i>	3:00pm Koi Coloring Contest winners announced
3:00pm Japanese Dance and Taiko <i>by Suzuyuki-kai</i>	SAKA 31st Koi Show Ends <i>See you next year!</i>



[Click Here for a registration packet for the 2010 Koi Show.](#)

Featured Articles

KOI TRANSPORTATION

(HOW TO MOVE KOI FROM HERE TO THERE)

By Gene Ewy MD

[from akca.org](http://akca.org)

KOI ISOLATION AND HANDLING

When a koi hobbyist wishes to closely inspect or move koi from a koi pond, the specific koi must be isolated and guided into a suitable container. A good quality koi net with knotless fine mesh and the circular frame totally covered is recommended to minimize the risk of damage to the koi. The bay depth should be shallow. The koi net should be as large as possible (depending on the size of the koi) though larger nets are more difficult to move through the pond water, particularly if the net has a telescopic handle and it is extended.

Take it easy. Don't get the koi or yourself agitated. Don't agitate or stress the remaining koi. It's risky to approach the koi from its tail since the caudal fin may be damaged as the koi responds vigorously to the net touching its tail. Minimize net contact with the koi. Ideally approach the koi from the front getting the net under its head and gently guiding it into a floating tank or tub.

One advantage of the koi net is that a single person can guide the koi into a floating tank. The rim of a large koi net (guiding a koi to the floating tank) is used to submerge an end of the floating tank. The koi is then guided into the floating tank. This maneuver is easier if a second person appropriately submerges the tub or floating tank. A single individual can also bring the koi in the net adjacent to a floating tank or tub. The net is controlled with one hand which has been advanced on the pole to a position near the net. The floating tank or tub is submerged with the other hand and the koi is gently guided into the container. Don't lift koi from the water with the koi net, particularly.

Koi can be collected from a smaller pond readily in the manner described with a koi net. A telescopic pole will allow the net to isolate koi in a larger pond. If this is not practical consider PTTN - patience, time and two nets. The second koi net handler gently guides the selected koi into the koi net of the primary handler who guides the koi into the tub or floating tank.

If your pond doesn't lend itself to any of the above methods, a seine may be used to partition the pond into areas from which the koi may be collected. The mesh of the seine should be knotless. The seine should be longer than the width of your pond. The width of the seine should be greater than the depth of the pond. The seine should have floats at or top and weights on the bottom. Koi are not lifted with the seine.

KOI HANDLING - SHORT DISTANCE MOVES

The koi that have been isolated and guided into a container are ready to be moved. This can be accomplished in a number of ways. If the koi is in a tub in the pond with enough water in the tub to cover the koi the tub containing the koi can be lifted from the pond. The tub or any other container in which a koi is being carried should be covered. A mesh cover, a solid cover or plastic bags on the surface of the water can be used. The container with koi can be carried by hand, placed on a cart and wheeled or the container itself may be on wheels. The koi should be transferred promptly to the destination water (isolation tank, show tank, etc.).

Koi sock nets are open ended fine mesh nets attached to a circular covered frame with a relatively short handle. The net is much longer than the diameter of the opening (42 inch sock net with a 10 inch diameter opening as an example). The koi is brought through the opening of the net head first by carefully advancing the net over the head of the koi or by manipulating the head of the koi into the net with your free hand. The koi is positioned in the body of the net, the end of the net is closed by one hand of the holder, the other end of the net is folded over to retain the koi the hands are held tautly apart as the koi is lifted from the water and transferred hopefully for only a short distance. A head first exit of the koi from the sock net is preferred to avoid unlikely but perhaps possible fin or scale damage. Some mucus may be lost from the skin. This is a safe method to move koi short distances.

I prefer to use plastic bags for most short distance moves. Double plastic bags (one bag inside another) should be considered particularly for larger koi for safety. Three mil and four mil bags are quite strong. Bag size depends upon the size of the koi. Fish should be carried horizontally. Small fish may be carried in the small end of the plastic bag with the bag held upright, large koi may need to be carried with the bag horizontal and held tautly between both hands. The largest koi may need to be carried by two handlers.

The top edge of the plastic bags should be rolled over. This results in a large relatively fixed orifice which frees one hand that can be used to direct the koi head first into the bag. Some pond water should be in the bag when the koi is gently introduced. There should be enough water in the bag to cover the gills of the koi as the bag is carried to its destination. A head first exit from the bag is ideal but I think the smooth plastic surface allows a tail first exit with negligible risk if done carefully. If the opening into the bag is large enough the koi can be lifted out by hand. For a short move without adding transfer water to the destination tank consider transferring in a plastic bag with a corner cut out to drain the water.

I have noted from a UK publication (Koi Health Quarterly) an instance of a torn plastic bag from the dorsal fin of a koi. From both a UK publication (Koi Kichi) and a Japanese publication (Rinko) recommendations are made to remove a palpable 'hook' on anal fins of large koi which might tear a plastic bag. If this could happen it would be an added reason to double or triple bag large koi.

Moving koi by hand is best reserved to transfer koi from one container to an immediately adjacent container. Koi have a slick slime coat, they may be quite active and they can be dropped. Dropping koi is not recommended. The handlers hands should be thoroughly wet. No hand jewelry should be worn. The koi may resist movement in a direction it is not going and become agitated.

If it is difficult to place your hands under a larger koi in the proper position for support of the koi during transfer, consider taking advantage of temporary disorientation produced in the koi when rotated in a clockwise or counterclockwise direction for a few turns. If going clockwise the handler should place his right hand across the left head and shoulder area and support the under surface of the koi just back of the head with his right hand when the koi is facing at eleven or twelve o'clock. Continue the clockwise rotation with the right hand, place the left hand under the posterior aspect of the koi when the head is at four to six o'clock. Lift the koi from the water. Bring the head close to your body for control, move your hands with the koi if it moves as you deliberately and promptly transfer the koi to the immediately adjacent container.

PREPARING KOI FOR TRANSPORTATION

Stress during koi transportation should be minimized as much as possible. Stress may lessen the effectiveness of the koi's immune system. The possibility of infection or other health problems which could be transmitted to other koi in your pond is enhanced .

Koi should not be fed for at least three days and possibly seven days before transport. The production of ammonia during transport is reduced and the transport water is not polluted to the extent that it would be had the koi been fed during this fasting period. Koi may be eating algae from the pond wall during the period when they are not fed.

If an isolation tank with adequate water volume and an active biological filter is available the koi could be in this tank at least during the last part of the fasting period. Additives to the isolation tank water could be salt, mineral salt or various medications. Be accurate. Do not over medicate. There will be less stress when the koi is in a dark environment during transport. Transport water can be cooled to reduce metabolism. Mild sedation could be considered.

LONG DISTANCE TRANSPORT

In general koi may be transported for long distances and many hours safely in plastic bags or in rigid containers, The development of the plastic bag had an immense impact allowing safe worldwide koi transportation.

TRANSPORTING KOI IN PLASTIC BAGS

It's time to get physical again. We're going to put our koi in plastic bags for transport. There is a wide choice in bag size and thickness. The bag should be longer than the rectangular corrugated cardboard koi box or any other container into which the bag will be placed. This allows secure closure of the bag using most of the length of the box.

Double plastic bags should be used putting one bag inside the other. Large koi transported long distances by airplane within the USA or from overseas may be within the inner bag of 3 to 5 bags. It is helpful to roll the mouth of the bag down before placing koi in the plastic bag. This produces a relatively fixed opening and keeps water from going between the bags. Put some water from the pond or water prepared specifically for the transport into the bag.

The koi is put into the bag by hand transfer or by using your free hand to direct the koi into the bag. Usually only one koi 18 to 20 inches in length is placed in a bag, perhaps two 15 to 18 inch koi are placed in the saw size bag, etc. The gills should be covered with water, I prefer to add enough water so that the koi can float, not rest on the bottom of the box.

Some hobbyists and dealers put additives in the transport water. This includes such things as salt, mineral salt, antiparasitic medication, antibacterial medication, etc. If you choose to do so, do not overdose. Prepare the transport water accurately and add it to the bag. Transfer the fish into the bag by hand, sock net, or bag with a corner cut out to drain the pond water from the bag so that minimal pond water will be added to the transport water. The transport water will not be significantly diluted. The bagged koi is placed in a corrugated rectangular koi box, styrofoam box, polystyrene box, ice chest, etc. The length of the box is usually about two times the

width or height. The width and height are normally similar. Newspapers are often placed in the bottom the koi box primarily for insulation. I won't say that Japanese newspapers are best but the koi I have received directly from Japan have been calm and happy.

Look closely at the bagged koi in the transportation box. If water needs to be added or removed, do so. Remove all air from the bag by carefully compressing the bag down to the water level. Pleat the plastic bag near the mouth of the bag so no air reenters the bag. Insert the hose from the regulator (attached to an oxygen cylinder) through the mouth of the bag. Slowly fill the bag with pure oxygen to about three fourths full and withdraw the hose. Twist the neck of the bag so no oxygen escapes. Fold the neck of the inner bag over and secure it with rubber bands tightly placed over the folded neck. Use two rubber bands for safety. Seal the outer bags in sequence in the same manner. Insulating material (usually newspapers) is placed over the bag in the box and the box is sealed.

If one wishes to gradually lower the water temperature in the bag during transit, place frozen reusable freeze packs on top of the bag before adding newspaper insulation. Support the bottom of the cardboard box when it is being carried.

Place the transport box or other container holding the bagged koi in the transport vehicle sideways to the travel direction. Braking during transit would then move larger koi sideways and would not bang their nose against the end of the box. The risk of injury is reduced. The transport box must be secured so it does not move during transit.

MOVING KOI IN TRANSPORT TANKS

The other method of moving koi long distances is in transport tanks. Many varieties of tanks are used: 1) flexible liners such as vinyl coated industrial fabric liners in a rigid frame made from PVC, tubular steel or other material, 2) polyurethane tanks, 3) fiberglass tanks. etc. The tank must have a secure cover to retain water and koi. The zippered covers with vinyl tanks allow easy closure and easy access. The size of the tank is determined by the type of vehicle and the amount of weight that can be carried safely in the vehicle. Water weighs over eight pounds per gallon. There are seven and a half gallons in a cubic square foot of water. My transport tank for a station wagon measures 3 foot by 4 foot and is just over 19 inches high. Usually we carry 10 inches of water which is 75 gallons weighing 625 pounds. Obviously transport tanks in trucks can be much larger, carrying more water and fish. All tanks must be stabilized so they will not shift during transport. The transport tank water should be oxygenated before koi are added and the dissolved oxygen in the water should be maintained at about 9 parts per million or over. Pure oxygen can be diffused into the water easily using an oxygen tank with a regulator through an air stone or a fine-pore diffuser for pure oxygen. The advantage of a fine-pore oxygen diffuser would be a smaller bubble size (approximately 0.5 to 2 mm diameter) which would increase the total surface area per unit of oxygen. Oxygen saturation is maintained with a slow flow rate. This system is used world wide with great success.

Air, which is 21% oxygen, can be introduced into the water through an air stone (approximately 1 to 3 mm diameter bubble size). The flow rate would have to be significantly higher than the flow rate of pure oxygen to maintain the same oxygen level in the water. The source of the air could be from a 12 volt portable piston or diaphragm compressor operating from the car or truck battery during transit. An adapter from the cigarette lighter socket is used. If the tank is to be aerated for some time when the power source is not from the vehicle's 12 volt battery, a 12 volt marine or deep cycle battery (larger capacity) could be used as the power source.

Members of the Louisville koi club have developed and used a nice transport tank system utilizing a 12 volt submersible bilge pump which pumps about 500 gallons of tank water per hour through a spray bar for aeration. They have kindly shared this system with a number of koi hobbyists.

OXYGENATION TRANSPORT TANK VERSUS CLOSED BAG

Multiple methods of aeration or oxygenation provide excellent levels of dissolved oxygen in the transport tank

water. Overall, pure oxygen from an oxygen tank with a regulator for fine control of the flow rate is favored. One advantage of this system of oxygenation is that the flow is quite gentle and minimal carbon dioxide (from the koi's respiration) is blown off so the pH does not rise. pH is a measure of the hydrogen ion concentration in the water. The higher the hydrogen ion concentration the lower the pH the more acidic the water. A change in pH from 8 to 7 reflects a 10 fold increase in the hydrogen ion concentration. A change in pH from 8 to 6 reflects a 100 fold increase in the hydrogen ion concentration.

The pH can increase with vigorous aeration as carbon dioxide is blown off. With the more alkaline water more of the ammonia would exist as unionized ammonia which is toxic.

In a closed bag system with pure oxygen in the bag, dissolved oxygen levels in the transport water remain high. I have measured dissolved oxygen levels in this closed bag system after fifteen hours in transit. The oxygen saturation was 16 to 18 ppm, much above the 8 ppm needed for good aeration.

ASPECTS OF AMMONIA

Let's consider some aspects of ammonia as it impacts koi. It is a normal product of protein metabolism in koi. It is excreted primarily through the gill - about 75%. It is potentially toxic and may cause death. Unionized ammonia (NH₃) at 0.1 parts per million can be lethal.

Now, here's the good news. Unionized ammonia reacts with water to produce ionized ammonia (ammonium) and hydroxyl ions.

$\text{NH}_3 + \text{H}_2\text{O} = \text{NH}_4 + \text{OH}$ ionized ammonia (NH₄) is nontoxic.

Ammonia toxicity is strongly dependent upon pH. Decreasing the pH (solution more acidic) has by far the greatest effect on decreasing the proportion of unionized ammonia in solution. The above reaction is driven to the right by decreasing the pH. A greater proportion of the total ammonia exists as ionized ammonia (NH₄) which is nontoxic. At 50 degrees Fahrenheit and a pH of 7 only 0.2% (1 part out of 500) of the total ammonia exists as toxic unionized ammonia. Ammonia toxicity is also decreased by lowering the temperature, by increasing the salinity and by increasing dissolved oxygen. The major factor however is the pH of the water.

CLOSED BAG: IMPACT OF AMMONIA

Fortunately, in a closed bag system the carbon dioxide (released from the koi's gill as a product of respiration) dissolves in the water to form carbonic acid which forms bicarbonate and hydrogen ions, increasing the acidity.

$\text{CO}_2 + \text{H}_2\text{O} = \text{H}_2\text{CO}_3 - \text{HCO}_3 + \text{H}$

More carbon dioxide yields more hydrogen ions. The bag water progressively becomes more acidic.

In a previous article concerning water chemistries during koi transport (Koi USA, March/April 1977) water parameters were determined when the koi were removed from their bags after being in the closed bags 13 hours. A single 20 inch koi was in each of two bags. Each bag contained 3.5 to 4 gallons of water. The pH of the bag water when the koi were placed in the bags was 7.4. The bags were filled with 100% oxygen and sealed. At the end of the 13 hour journey in our koimobile the pH of the bag water was 6.4 and 6.5. The carbon dioxide level was greater than 45 mg./liter in each bag and the total ammonia was 4-5 ppm and 4 ppm

Water pH and total ammonia levels were measured more recently when I received koi from Japan. The koi were in the closed bags just over 24 hours. The koi were slightly larger and each bag contained 4.5 to 5 gallons of water. The pH was 6.5 and 6.4, total ammonia was 6 to 7 ppm in each bag. In a closed bag inflated with oxygen the carbon dioxide released by the koi will progressively increase the acidity of the water to a level at which the ammonia will exist in its nontoxic form ionized ammonia. It is not harmful to the koi.

The maximum level of total ammonia acceptable with a pH of 6.5 and a temperature of 70 degrees Fahrenheit is approximately 14 ppm (extrapolated from Diagnostic Ammonia Chart in Summer 94 Koi Health Quarterly by John Redgrove). At 50 degrees F with a pH of 6.5, a maximum of 34 ppm total ammonia could be tolerated by the koi. The total ammonia in the transport water in the previous illustrations is well below the levels tolerated because of the acidification of the bag water by the retained carbon dioxide. **TRANSPORT TANK: IMPACT OF AMMONIA**

The pH of the water in a transport tank should remain stable. If anything, over aeration may reduce the carbon dioxide level in the water. This would slightly increase the pH of the water which would slightly increase the proportion of total ammonia existing as toxic non-ionized ammonia. At a temperature of 69 degrees F and a pH of 7.5 only 2 ppm total ammonia would be tolerated by the koi. Ammonia production by the koi will continue during transit. Dependent upon transit time, ammonia production and water volume, a potential toxic ammonia problem must be addressed.

One option could be water changes. This could be difficult out in the wilderness with no idea about the make-up of the local water (chlorine, chloramine, heavy metals, etc.).

I prefer to use pond water to prepare the transport water prior to transport so it corresponds to the pond water the koi are accustomed to. Our tap water has low alkalinity and hardness plus chlorine and chloramines. Sodium bicarbonate is added to bring the alkalinity level up and increase the buffering capacity. Calcium chloride may be added to increase hardness. NovAqua is added to dechlorinate the water. AmQuel is added to neutralize chloramine plus the anticipated ammonia production during transit. This is estimated from fish load and anticipated transit time.

TRANSPORT TANK WITH BIOLOGIC FILTER

A small active biologic filter associated with a transport tank is an interesting possibility. Certainly the potential ammonia problem could be eliminated. Since the transport systems discussed previously work well, I'll wait to see how this evolves.

BEST CHOICE

The transport tank systems and the closed plastic bag system work well for long distance transport of koi.

How far? How many? How often? The koi hobbyist should use the system that is easiest for him or her. Understand that system.

KOI Classifications

Koi are fish. They were originally bred from the common grass carp. Early in the 1800's, the Japanese noticed a red color appearing on some fish. By concentrating on these fish, the first Kohaku (red & white koi) was developed. Today, there are 13 official classifications of Koi. Each classification is based on color, pattern and/or scale type.

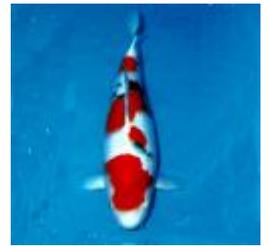
..Kohaku

A Kohaku has a white body with red patterns. There are many terms used to describe each pattern. "Nidan Kohaku" refers to a pattern with two red spots. Ni meaning two in Japanese. Thus 'Sandan' is three spots, 'Yodan' is four spots and 'Godan' is five spots.



..Taisho Sanke

A 'Sanke' is a three colored koi - white body, red and black accents. The word "Taisho" refers to the era of the Emperor Taisho. Showa Sanshoku



..Showa Sanshoku

The 'Showa' is also a three coloured koi. But this time the body is black and the accent colours are red and white.



..Utsuri Mono

An 'Utsuri' is a black koi with white (shiro), yellow (ki) or red (hi) accents. 'Utsuri' means reflection in Japanese.



..Hikari Mono

'Hikari' means metallic and 'muji' means solid color. This fish has one body colour of white (platinum), yellow (yamibuki), orange (orenji), gray (nezu) and a metallic sheen.



..Kawarimono

This group refers to any non metallic fish not found under any other classification. The picture shown is a 'Goshiki'. Other varieties include 'Karasu' a solid black koi. 'Kumonryu' a black and white doitsu scaled koi. 'Matsuba' a koi of any colour with the center of every scale shaded black, like a pine cone. 'Ki Goi' a solid yellow koi, not metallic.



..Asagi/Shusui

An Asagi has blue scales outlined by white and a red belly. A Shusui is a doitsu scaled koi with a light blue body and a red belly. Shown here is a Shusui.



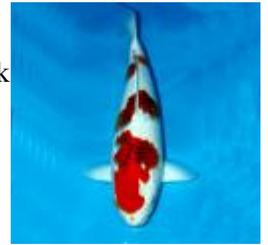
..Bekko

'Bekko' means tortoise shell. Bekkos have a body color of either white (shiro), red (aka), or yellow (ki) with black spots on the body with the exception of the head. The head must only have the body color present.



..Goromo

'Goromo' means robed. This fish is white with the individual scales in the red pattern outlined in dark blue.



..Hikari Moyo Mono

'Hikari' means metallic, 'Moyo' means pattern and 'Mono' means group or thing



..Hikari Utsuri

This class includes all metallic fish not included in the two other metallic classifications.



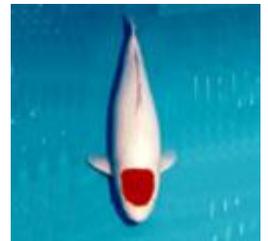
..Gin Rin

'Rin' means diamonds. Koi in this class appear to have rows of diamonds on their dorsals.



..Tancho

'Tancho' is the national bird of Japan. It is a white bird with a red crested head. Needless to say, this fish has a single red spot on its head.



[Click Here](#) for a registration packet for the 2010 Koi Show.

Kawarigoi Korner



[Click Here for a registration packet for the 2010 Koi Show.](#)

Vendors for the koi show.

Paid

- Kodama - dry booth
- Barstow Koi - fish
- AAA Pond (Rick Shook) - fish

Confirmed by phone - "check in the mail" , not received yet

- A's Aquarium - Tommy - fish
- Saber Landscaping
- Koi Outlet - fish

WHAT IS BU? *By Jeanmarie Schiller-McGinnis*

You may have read that the Grand Champion priz of this year's All Japan Koi Show went to a Kohaku listed as "90 Bu." So, what exactly is "Bu?"

"Bu" (*pronounced "boo"*) is basically a Japanese size reference based on centimeters. For example, this Champion Kohaku was in the 90 Bu divison or 90 centimeters. That's almost a whopping 36 inches long! 80 Bu is 80 centimeters which is equivalent to 31.5 inches long. 70 Bu is 70 centimeters which is about 28 inches long, and so on. So, what size Bu are your own Grand Champions? We'll look forward to seeing them at the SAKA 31st Annual Koi Show on November 13-14, 2010. In the meantime, don't let "Bu" scare you. Have a safe and Happy Halloween!



If you have suggestions for the newsletter or items to be included in Karawagoi Corner or the Calendar, Please contact Brent VanKoevinger at 520.780.3980 or bvankoevinger@longrealty.com.

Upcoming SAKA Education and Business Meetings

Date	Location
September 26, 2010	Host: Bob and Darleen Panter
October 24, 2010	Host: Rich Timerhoff
November	No Meeting See you at the Show
December	Host: Jeanmarie Schiller

Shows, Pond Tours and Seminars

Event	Dates/Location/Links
 <p>31st Annual SAKA, Inc. Koi Show and Auction</p>	<p>November 12-14, 2010</p>



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 Annual Membership

Dues are \$30.00 per family from March 1 to February 28 or 29 of the next year.

Membership Type

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 ___ New Member

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City: _____

State: _____

Zip: _____

Phone #: _____

E-mail _____

Today's Date: _____

of Koi _____

Years Keeping Koi: _____

Pond size: _____

Would you like to host a meeting?

Would you like to serve on a committee?

___ If yes which one?

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