

June 14, 2006  
Issue 10-04



## SKAPA Newsletter

### Articles:

KOI Talk  
By Don Harrawood

Healthy Pond- Healthy  
Fish  
By Ken Austin

Turtle Cove  
By Elaine Hengen



### Five Quick Tips For Healthy Summertime Water

1. Ensure that you have good mechanical and biological filtration and that your pump will turn the pond water over totally at least twice per day.
2. Operate the pump 24 hours a day.
3. Provide adequate shade by having 60 to 70% of the pond's surface area covered with floating plants or other types of shade.
4. Add water clarifiers and bottled bacteria if your water remains cloudy even when good filtration is present.
5. Test oxygen levels daily and add air stones if levels fall below 7 PPM.

**Most of all,  
keep the water  
flowing!!!**

*Celebrating our 10<sup>th</sup> year*

SKAPA  
Appreciating Koi Through  
Friendship and Knowledge  
Since 1996

From our  
President



A warm welcome to our new members  
**Pete and Jenny Bright**

Welcome to our circle of pond lovers! We look forward to getting to know you and your families and hope you will enjoy our association. We are always so pleased to have new members as we can all mutually benefit from more knowledge and experiences shared.

Thank you, Don and Nell Harrawood, for graciously hosting our May meeting in your home. We appreciate your warm hospitality as we all enjoyed your new pond.

Thanks to Patti and Darrell Dodd, Ken Austin, Don Harrawood and Debbie Hartmann, for putting up with the **HEAT** and representing **SKAPA** at this years FeatherFest art and crafts festival at the Keystone Heritage Park at the El Paso Desert Botanical Gardens.

Join PetSmart's 1st ever Pet Health Expo! Saturday June 24th, 1pm to 6pm at 655 Sunland Park Dr. They will feature law enforcement, rescue organizations, and pet food reps. All info. is being given to help with the proper care of your pets and to educate you about the new animal laws of El Paso County/City. Join Don Harrawood and Darrell Dodd as they will be representing **SKAPA**.

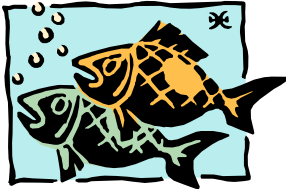
Ok, now that summer is here, we all need to remember that our fish breathe in oxygen and exhale carbon dioxide. They depend on us for their life-sustaining oxygen and the stress caused by near asphyxiation will make them more susceptible to disease. To ensure the health of your fish you must maintain oxygen levels above 6 ppm by continuous adequate aeration and circulation and the only way to know the oxygen level is to measure it with a test kit.

We urgently need volunteers to help with **SKAPA** 2006 Pond Tour. If you can provide an hour or two of your time on Saturday and/or Sunday, September 16 and 17, please contact Jeanette Lockard at 584-6425. also we invite all to consider hosting a meeting, we need some **eastside** locations, we would hate to have to change our name to Westside Only Koi & Pond Association 🐟. If you would like to host a meeting, please contact Patti Dodd at 585-2035.

WHAT WAGE DO KOI VETS WORK FOR?.....**SCALE**

ONLINE SITE OF THE MONTH:  
[http://www.vcnet.com/koi\\_net/](http://www.vcnet.com/koi_net/)  
a good beginners guide to KOI!

HAPPY PONDERING,  
*Smitty*



KOI Talk  
By Don Harrawood  
Koi Health Advisor

**Ponds and Koi  
General Comments**

- Koi will thrive in water with pH values from 6.5 to 9.0. When pond water pH is stabilized within these values, do not attempt to raise or lower the pH value. A rapid change in pH can cause undue stress or death to koi. The pH of El Paso's city water is around 8.5.
- The ideal water temperature for koi is from 65° F to 75° F. Koi can withstand water temperatures from 35° F to 95° F if these temperatures are reached at a slow rate.
- Chlorine in El Paso's water supply runs about 1.2 parts per million. Chlorine even in low concentrations is a quick killer of koi. Chlorine poisoning deteriorates their gills and causes koi to die from lack of oxygen and lack of ability to expel impurities from their bodies.
- Chlorine is a gas that is added to our water supply to kill bacteria. In an open container or pond, water will release about 1/4 of the chlorine concentration per day to the atmosphere.
- A koi's internal salinity is on the order of 10 parts per thousand, about the same as humans. Salt in pond water is beneficial to koi in order for them to maintain their internal salinity. Acceptable levels of salinity in a koi pond are from 0.1 to 0.5 percent.
- A fish's body is composed of over 80% water.
- Koi are affected more by a sudden lowering of water temperature than by a sudden increase of water temperature.
- The first indication of a problem with fish can be detected by watching their behavior. Look for sores on their body, flashing, piping for air at the water's surface, staying under the waterfall, not associating with the others, swimming in an odd fashion, and lying at the bottom with fins clamped against their body.
- Koi found gulping air at the water's surface is an indication there is a lack of oxygen in the water, or the gills of the koi are damaged and the koi cannot get enough oxygen. Adequate aeration is very important.
- Oxygen is a key ingredient in pond water. Both temperature and altitude affect the amount of oxygen that water will hold. Cold water holds more oxygen than warm water. At higher altitudes, there will be less oxygen in pond water. Well water and tap water contain little or no oxygen. Aeration is advisable when making large additions of water from these sources. Add dechlorinator when adding city water to the pond.
- Ammonia is more toxic to fish than nitrites. Ammonia at higher pH values is more toxic than the same amount of ammonia at lower pH values. With El Paso's high water pH, any amount of ammonia detected is dangerous to fish.
- A shade over the pond helps provide water temperature stability and helps deter water bird predators.
- Plants in ponds and bogs do not remove poisonous ammonia and nitrites from pond water. They do however; absorb nitrates from the water.
- Plants add oxygen to pond water during daylight hours and absorb oxygen from the water during the night.

**Pet's Barn at both Lee Trevino and Sunland Park have  
Tadpoles for sale!!!!!!**



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## Plant that Pond!!!

### Choosing Plants

Carefully planting a garden pond will greatly improve its appearance, particularly flowering species such as water lilies and iris. In addition to adding beauty, floating plants provide shade and shelter for fish. During daylight hours they produce oxygen, which can be vital to pond life especially during hot days.

### Plants and Algae

Plants shade the water - thereby preventing the algae from receiving sunlight needed to grow. They also absorb nutrients such as nitrates (remember the nitrogen cycle?), which would otherwise be consumed by algae.

### Plant Pointers

- Use plants to shade the pond surface. The leaves of water lilies are ideal, but floating plants will grow more rapidly, and are therefore especially useful in new ponds.
- In sunny sites, some pond side plants on the sunny side of the pond will give beneficial shade.
- Pond plants are best grown in plastic containers, or in fabric planters. This allows them to be moved or removed during cleaning, and reduces nutrient leakage in the water where it would feed algae.

## Calendar of Events

**There will be no monthly meeting in June.**

**See you next month, July 15<sup>th</sup> at 4:30 p.m., at the Austin's. Ken and Susie have just made a new addition to their pond and we are all looking forward to seeing it. It's pot luck, bring a dish to share and a chair.**

**Water** the magazine for pondkeepers  
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## Healthy Ponds – Healthy Fish

By Ken Austin

### KOI Health Advisor

A Pond Owner's Dilemma

The contradiction between what I have and what I want.

Pond Owner says: **"I have a 2000 gallon Koi pond, with 15 fish, that I want make easy to maintain."**

15 koi in 2000 gallons is by most definitions an overstocked pond. Overstocked ponds are not easy to maintain. Removing half of the fish will align what you have with what you want.

Pond Owner says: **"50 gallon barrels in sequence are my filters. The barrels are an eyesore that takes up too much space, so I want to replace them with a filter system with a smaller footprint."**

Filter size is a function of pond volume and circulation rate. Making the filter smaller does not necessarily make things better. You will find that if your goal is easy to maintain, than bigger filters are better. Factors to consider when selecting a filter are: are you willing to do the required maintenance? Do you have space available? And can you afford it? The right filter will meet those requirements and still provide excellent water quality for the fish load in your pond.

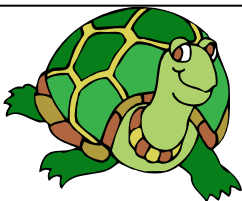
Pond Owner says: **"I have no bottom drain, no UV light, and no skimmer."**

The absence of the bottom drain means everything that settles in the bottom of the pond must be removed the hard way – just the opposite of easy to maintain. The same can be said for the absence of a skimmer. Having a UV light adds to the maintenance requirements, but can produce benefits that are worth the additional work.

Pond Owner says: **"I want to put in an external pump with a vacuum drain. I'm afraid that string algae and other debris will clog the vacuum drain, and that I will have to clean it during fall/winter."**

The external pump with a vacuum drain (retro-drain) will help move some of what settles in the bottom of the pond to a new location. That will be either the leaf basket at the pump, the filter chamber or the water fall – all will require cleaning frequently – not just once a year in the fall. You still may have an accumulation in the pond that needs to be cleaned out. In any event, NOT what you would call easy to maintain. Some pond designs make easy to maintain an impossible goal. Then you have choices: commit to doing the maintenance or pay to have it done; re-build the pond to "easy maintenance" specifications; or downgrade the fish pond to a water garden or water feature.

# Happy Father's Day!



## Turtle Cove

by Elaine Hengen  
SKAPA Secretary

Do you have box turtles in estivation? Estivation is often referred to as a "summer hibernation of sorts." "When summer heats up too much or when the humidity drops, some turtles and tortoises dig into the ground and become dormant until conditions change." Liz Palika, *Turtles and Tortoises for Dummies*, page 252. What is interesting is that a few of our boxes dig in and sleep for days on end, while others are constantly active. Still, I can't stand for these napping turtles to not eat and drink for too long of periods of time and I will confess to getting them up at least once a week for a meal, bath and good drink of water. Additionally, on the hot days that reach 100°, I use the garden hose to mist our turtle town area to provide them with some relief. Several of the turtles will come charging out, not quite able to figure out why it is lightly raining on them when there isn't a cloud in the sky. Now that we have two three-toed box turtles, a species that likes humidity, this daily shower, along with a constant supply of clean, fresh water, is especially important to the health and welfare of our turtles.

What about the chlorine that is in the tap water? Is it necessary to de-chlorinate that water before giving it to the turtles? Although Liz Palika on page 188 of her book advises that "some aquatic turtles are very sensitive to chlorine and other water additives," I have never encountered a problem that I thought was attributable to chlorine with any of our turtles--aquatic or land.

I have been asked to explain how I make the cooked chicken and fish mixture that constitutes about a third of the food that I feed our aquatic turtles. It is quite easy, although it can be time consuming. The very large red eared sliders (over 9" long carapace) will eat about 20 grams of the meat mixture, with the quantities going down based on size of the various turtles.

I buy the cheapest whole chicken I can find, put it in a pot of water and boil it for two hours. No salt or spices necessary. After cooking, I remove all of the skin and bones and put the meat into a colander, where I rinse it thoroughly to remove most of the remaining fat, so it won't contaminate the water. For each whole chicken, I bake about a pound and a half of cheap frozen fish, usually cod or tilapia, to just barely done. The literature I have read says not to feed frozen ocean fish, but rather to feed freshwater fish. However, I don't know where to buy inexpensive freshwater fish, and given the mercury and contaminate levels in some New Mexico lakes, I don't see those fish as a good alternative. If the store has shrimp on sale, sometimes I buy a half pound of shrimp and add them to the mixture for a special treat.

I then cut everything up into bite sized pieces. How big the bite size is depends on which turtles are going to eat it. I then cut up pieces of aluminum foil, weigh and wrap the food into the sizes of packages I need, and freeze them. Because I have so many turtles to feed (twelve aquatics), I can get about two weeks of food from each batch and often make double batches.

