

# UnderWater



The Official Newsletter of the Iowa Aquaria Association  
September 2005 | V2:N9



**COVER: Xenotilapia Ochrogeny Ndole | by Randy Stricklin (tangmaster)**

**INSIDE: Dwarf Puffers | Ancient Water of Lake Tanganyika | Swapping Success**



# UnderWater

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# UnderWater Welcome

## IAA Meeting Minutes Aug. 13, 2005

Many thanks to Larry Arnold for his slide presentation of outdoor ponds. Lots of great ideas and fabulous photos. Then Jo Meade showed a film about her experience with spawning the bull shark. Also a handout for information, as to the particulars. Very interesting, thank you.

There was discussion about

paying members going online to sign up and paying through Paypal account set up for the club.

Discussion regarding the purchase of fish through agents for rare and unusual fish. As a group we could get a good rate and obtain species not readily available otherwise.

Donations from Ken's Fish and also from S&M Angels. We will look into this.

We need a link to TFH subscription and maybe links to Amazon.com for purchases of books? Tim and Camille will look into this and other opportunities for ads on the site.

Sandy and Jo doing membership cards for next meeting.

Meeting adjourned.

-Submitted by Jo Meade

[www.cafepress.com/iowaaquaria](http://www.cafepress.com/iowaaquaria)

**SHOW YOUR SUPPORT**

Button | Magnet | Organic Cotton Tee | Value T-Shirt | Jr. Ringer T-Shirt | Women's T-Shirt | Dog T-Shirt | Jr. Raglan | Jr. Hoodie | T-Shirt | Men's T-Shirt | Dog T-Shirt | Jr. Raglan | Jr. Hoodie | White T-Shirt | Ash Grey T-Shirt | All T-Shirt | Women's T-Shirt | Sweatshirt | Boxer Shorts | Infant, Toddler T-Shirt | Infant Creeper | Bib

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# UnderWater Photography Contest

Andrew Fooks (super-cichlid)

**1st**  
PLACE



Ron Meier (dragongt83)  
Honorable Mention



Brett Dailey (physicsboy)  
Honorable Mention



Sharon & Steve Schutjer (skay)  
Honorable Mention

**Bill Brown (manus) was this month's guest judge. September 20th is next month's photo submission deadline.**

# THE ANCIENT WATERS OF TANGANYIKA

Millions of years ago, South-Eastern Africa was split in two by tectonic plate shifts and heavy volcanism. The trenches that formed are now known as the Rift Valley. When these massive tears in the Earth's crust filled with water, the Rift Lakes were born. The first lake to become established in the Rift Valley was Lake Tanganyika.

Lake Tanganyika rests between Zaire and Tanzania, with Zaire on the West and Tanzania to the lake's East. Forming the lake's Northern border is the country of Burundi, with Zambia making up the Southern border. Formed approximately 20 million years ago, Lake Tanganyika is among the oldest lakes in the world, and arguably, the oldest. Lake Tanganyika is also one of the largest bodies of freshwater

on the planet. Measuring just over 420 miles long, and varying between 30 to 50 miles wide in parts, Tanganyika covers an area of about 12,700 square miles (LoveToKnow), an area a little greater than that of the country of Belgium (Morfitt). Tanganyika is amazingly deep as well. Plunging to a depth of 4,700 feet, Lake Tanganyika is the second deepest lake in the world, only outdone by Russia's Lake Baikal.

The temperature of the surface is only about 5 degrees Fahrenheit warmer than the waters at the



bottom of the lake. Volcanic activity at the lake's floor accounts for this tiny difference in temperature and causes a high level of dissolved minerals. The lack of temperature difference means there is a lack of vertical currents. Without the mixing of the deep water and the water at the surface, oxygen cannot reach a depth greater than 300 feet, leaving the waters of the deep either too high in Hydrogen Sulfide, or too low in oxygen to sustain life forms (zambiatourism).

Lake Tanganyika first became known to Europeans in February, 1858, during the

famous Burton and Speke expedition. Richard Burton and John Speke arrived on the shores of Tanganyika at Ujiji, in North Western Tanzania. Burton and Speke were searching for the source of the Nile River. After exploring the Northern portion of the lake, they soon discovered that the river they thought was the Nile was actually the Ruizizi River. To their astonishment, the Ruizizi flowed into, not out of the lake. A few years later, Stanley, another explorer of the region would encounter the missing Dr. Livingstone and utter the famous sentence "Dr. Livingstone, I presume" (Eco-resorts) on the Ujiji shore of the lake.

More recently, Lake Tanganyika has become famous for its amazing bio-diver-



# THE ANCIENT WATERS OF TANGANYIKA



sity. The incredibly stable environment, age, and isolation of Lake Tanganyika has allowed the fauna of the lake to evolve into very unique, specialized creatures. The bio-mass of Tanganyika has evolved so very similarly to that of the oceans that it is believed that Lake Tanganyika was connected to the Indian Ocean during the Jurassic period. This theory has had a shadow of doubt cast upon in recent times, though, most notably the fact that there is an "almost entire absence of marine fossiliferous beds in the whole of equatorial Africa at a distance from the sea, of any remains of Jurassic faunas which might link the Tanganyika forms with those of undoubted Jurassic age in

neighboring regions. The formation of the existing rift-valley seems in any case to date from Tertiary times only." (LoveToKnow)

After seeing the organisms that inhabit Lake Tanganyika, it is understandable how the theory of Tanganyika being connected to the Indian Ocean was made. The immense size of Tanganyika, and its nearly uniform temperature, has made the lake extremely stable, much like the oceans. The lake hosts a variety of species normally thought of as ocean dwelling. Among some of the life forms encountered in Lake Tanganyika are fresh water puffers, several varieties of snails that are remarkably similar to their ocean-faring counterparts,

as well as crabs and mollusks. Even some of the cichlids have evolved similarly to oceanic fish. *Cyprichromis Lepstoma* is occasionally called the "sardine cichlid", while the *Eretmodus* family has evolved very closely to that of the Gobies of the ocean.

Lake Tanganyika has been receiving an increasing amount of attention due to the rapid speciation of its cichlids and the variety of endemic life it supports. Due to its size and relative inaccessibility, much of Lake Tanganyika has yet to be explored. Further study of the lake could give us some answers as to how evolutionary forces play out. It is only a matter of time before more species are discov-

ered and more information is gathered on the life the lake has birthed. The variety of unique species, and the specialized niches they have evolved to fill, can only cause us to wonder at what else has yet to be discovered.

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**-By Jason Jenkins**



The August  
2005 IAA  
Swap Meet

# SWAPPING SUCCESS



Many IAA members visited the Bill Lass memorial during swap day.



The crowd stirred with excitement after learning that Scott had finally found a way to make himself OB.



Brett Dailey (physicsboy) never leaves home without his trusty hose.

# SWAPPING SUCCESS



Larry Arnold from Aqualand was one of the day's featured presenters.



Sandy (s&m angels) had to fight buyers off with a stick.



Scott (fishwhisperer) immediately regrets his decision to follow through on the "Eat 14 of rubydoo's snails" dare.



The fish show winner walked away with a brand new truck!

# SWAPPING SUCCESS

The IAA's first ever Fish Show

1st  
PLACE



IAA Fish Show Photos by Glass-Gardens



# 10

## things to know about dwarf puffers



The Dwarf Puffer is, as hinted by its name, the smallest of the puffer family. It is an entirely freshwater fish, breeding, maturing and living out its days in a fresh tropical environment. They are among the funniest of fish that I know and can be trained to do tricks for food, and have marvelous personalities. However, the dwarf puffer is, as with any puffer fish, not an easily kept fish. Read on to learn more!

### **The First Thing**

Dwarf puffers live entirely in fresh water. This is perhaps the most important thing to know, as many aquarists are under the impression that all puffers are either marine or brackish. While it is true that a dwarf puffer will survive in brackish water, its life span will be significantly reduced, and the fish will lead an unhealthy life.

### **The Second Thing**

Dwarf puffers are perhaps among the most aggressive of puffer species. Their tiny bodies are more than made up for in courage, or perhaps plain stupidity. They will attack fish many times their own size, and due to their tenacity, will often win. Dwarf puffers really should only be kept in a species only tank, and if you insist on keeping more than one, then each puffer will require at least five gallons (20 liters) each. Don't expect them to play happy families though...

### **The Third Thing**

Dwarf puffers are violently territorial. They will claim areas of the tank as their own, and if there is one particularly dominant male, then he may very well claim an entire tank as his, and attack tank mates tirelessly. A setup for dwarf puffers will need a lot of dense plants and plenty of caves or pots so that each puffer can define their territories around the hiding places, and will not live in constant view of other puffers.

### **The Fourth Thing**

Dwarf puffers are fundamentally difficult to breed. It is amazing that they manage to do it in the wild at all, considering the fact that a male dwarf puffer will see any fish, including female dwarf puffers as a threat. If you buy a pair of dwarf puffers with the expectation becoming a dwarf puffer breeder, then very good luck to you. You'll need it.

### **The Fifth Thing**

Dwarf puffers live in communities when juvenile, but this changes rapidly as the fish mature. This behavior is often mistaken for compatibility with other fish of their own species. While it is true that you will have more success if you keep several puffers together that have grown to maturity in each others company, attempting to introduce an adult dwarf puffer into a community or species tank will be disastrous.

### **The Sixth Thing**

Dwarf puffers have no scales, and as such their skin is sensitive, and easily wounded. Many puffers bury themselves in sand, but because dwarf puffers are so small, even the grains of sand are likely to cause injury. A dwarf puffer setup will require a sand substrate, preferably a dark sand substrate; otherwise your puffers will cut themselves to shreds.

### **The Seventh Thing**

Dwarf puffers are difficult to sex at an early age, but when mature, they are much easier to distinguish. Dominant males will typically have a dark stripe running all the way from under their mouths, across the belly, to the tail. It looks a little like a goatee beard when viewed from the front. All males, dominant or not, will have wrinkles behind their eyes, although these can be difficult to see. Female puffers lack both of these marks and all dwarf

# 10 things to know about dwarf puffers

puffers have a mottled green skin with light brown patches. Their colours will fade when under threat from other puffers or when stressed, and their colours will darken drastically when they are very ill, highly stressed or in the middle of a fight.

## The Eighth Thing

Dwarf puffers are notoriously difficult to persuade to eat frozen foods. They will only usually eat live foods, such as artemia or bloodworms. However, they can be fooled into thinking good quality frozen bloodworms are still alive if there is a large current in the tank. Use this to your advantage when tricking them into thinking that their bloodworms are still alive.

## The Ninth Thing

Dwarf puffers puff. It seems obvious, but there is a rule for all puffers: never let them puff air. If a dwarf puffer inflates itself with air, then its outlook is bleak. Because of the pressure of the water around it, the valves in the puffers' inflation system are usually sealed shut, so once it is full of air, it is usually doomed. When moving dwarf puffers, use a net to catch them and hold them under water, and then use a drinking glass or mug to catch it. Make sure it is under water at all times. Make sure to have a heavy book handy. Even though inhaling air is deadly to them, they silly things love to jump out of tight spaces.

## The Tenth Thing

Dwarf puffers are, without doubt, among the most feature rich in personality traits of all fish. As such, they are often found zooming around the front of the tank whenever their owner is near. They will come to recognize you as their owner, and will learn when they are about to be fed. Do not be surprised to find your dwarf puffer puffing itself up in protest to not being fed! If this ever happens, the best thing to do is to feed them a little and quickly, so they will deflate themselves and do themselves no harm or stress.



Figure eight puffer

There is a lot more to know about these feisty little fishies. Their tolerance to change in pH and KH is incredibly low, and while they will survive happily in a range of water temperatures, even the slightest trace of nitrates or ammonia in the water may be enough to kill them. Their highly sensitive skin is to blame for this, as the pollutants in the water will move by osmosis far quicker into the dwarf puffers' system because of their lack of scales. However, the difficulties in frequent water changes and over-filtration put aside, these fish are well worth the effort. They are probably the best species to start with if you are considering becoming a puffer keeper, and you will learn a lot from their larger cousins by the behavior of these enigmatic critters.

**-Article and photos by Peter McKane of England**

From his website [www.helpthefish.org](http://www.helpthefish.org) and [Aquarticles.com](http://Aquarticles.com)

# THE ADVENTURE

## A visit to, umm, you know, That Pet Place

Welcome back everybody. This month's Dailey Adventure takes us to the East coast in Lancaster, Pennsylvania. I had the pleasure of visiting the retail store for That Fish Place/ That Pet Place. "That Fish Place/That Pet Place has been in business for over 30 years. They have over 50 trained Pet Professionals and six on-staff Marine Biologists available to answer all your fish and pet questions. Their retail store is 110,000 square feet."

If you are like me, you've ordered dry goods from That Fish Place/That Pet Place. As some of you may also know, they sell and ship live fish; as well as frozen fish foods, in addition to the dry goods. I had the opportunity to talk to their staff vis-à-vis, and everybody I spoke to seemed to be knowledgeable and had answers for the questions I asked. I later found out that "their staffs are taught by their full time product trainer and manufacturer representatives, learning about the marine reef aquarium supplies and other specialized products they sell." The general feel I got was the atmosphere of a normal pet store, but on a more grand scale.



Funny, but if I had not had the privilege of hearing Ray "Kingfish" Lucas, a fan of the hobby for 45 years!!, give a presentation at the GCCA Cichlid Classic Auction this past May, I would not have made the trip. Maybe he was an excellent salesperson, but through Mr. Lucas' words, I got the feeling that That Fish Place/That Pet Place was striving to introduce people to the great hobby of fish-keeping. I felt there was no ulterior motive in his speech, and gained an appreciation for the company; as I had stereotyped all mail-order companies as being out for the money, and not the hobby. For more information about Ray Lucas, please visit <http://www.kingfishservices.net/>.

I will start out my adventure by describing the sense of

awe that came over me as I entered the building. It looked huge from the outside, but the inside had a much grander effect. Upon entering the store I was immediately greeted with a warm welcome from the employees. After speaking with a couple of staff members, I headed towards the fish room. Along my way, I visited some of the larger display aquariums in the store. I believe they custom design aquariums, as the title of the area was "Custom Design Center." The display aquariums were very aesthetically pleasing, and nicely habited.

After making my way past the display aquariums, I was at the doors to the fish room. Excitement was running through my veins, as I had traveled long and far, and hoped for greatness. I was not let down...

Their fish room was awesome!!! From their website, they list having more than "500 species of fresh and salt-water fish and invertebrates." They also "have more than 120 varieties of live plants."

Maybe that doesn't seem like a lot, but they have over "800 tanks and 62,000 gallons of water." I wouldn't be surprised if they had more than the 500 species they list on their website.

Upon entering the fish room, you'll immediately recognize, on your right side, a room filled with tanks of plants. After venturing into the room, rows upon rows of Betta's located in cup-holders caught my attention. I would estimate about 300 individuals total! By far, the most I have ever seen in one place. After looking at the Bettas, I perused the aquarium plants. There were many kinds of beautiful aquarium plants. I've not seriously kept/learned about aquarium plants, but for those that love their plants, I believe TFP/TPP has a nice selection to choose from and they all appeared to be very healthy.

Back to the fish room: upon first entering along the left

# THE ADVENTURE

side, there are rows upon rows of freshwater fish. That Fish Place/That Pet Place had a large assortment of fishes to buy, and the prices were reasonable. As far as I was concerned, it seemed to be like the typical pet store. Some species were nicely priced, while others might have been average. The same could be said about selection. Granted, they had more species to select from, but the distribution of things was about the same. They didn't appear to specialize in any one type of fish, so there was a nice selection of everything; therefore, you seldom found rare species within a certain type of fishes.

After making my way through the freshwater, I entered the saltwater area. As nice as the freshwater selection was, I believe strongly, that the saltwater selection was that much better. Specimens looked very healthy, and were well taken care of. Not having any saltwater tanks, I could have lived there. The fish were absolutely beautiful, and they had many species I had not seen ever/that often. There were also several large tanks containing Live rock.

After getting through the saltwater, I proceeded to the back of the fish room, where a large open room greeted me. The room was filled with ponds and pond-fishes. I really liked looking at the various set-ups they had designed.

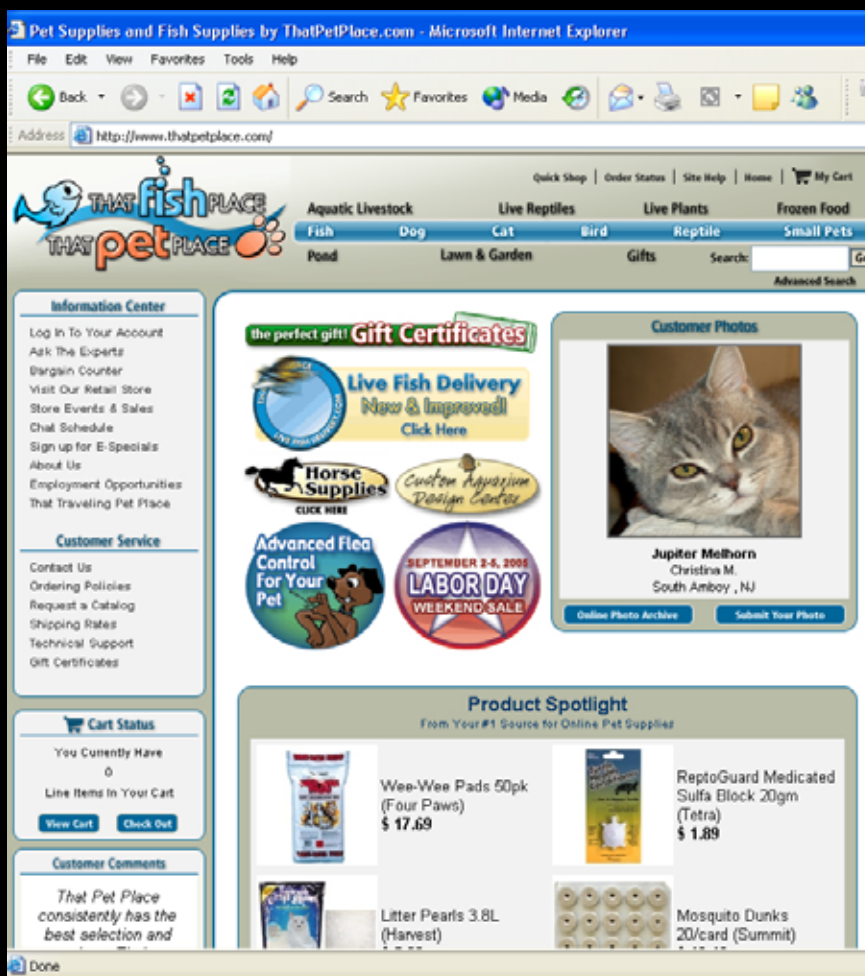
After leaving the fish room, I spent the rest of my time surveying the store. One thing to point out is that the prices on the dry goods are excellent. I believe all the prices in the store mirror their mail-order catalog. For example, a gallon of Stresscoat was labeled for sale at

\$23.99. An Aqua-Clear 110 Power Filter was labeled for sale at \$42.99. I noticed that aquariums were priced more along the norms of a typical fish store. Another thing worth pointing out was, as I was leaving the store, they have a large open aquarium where they housed stingrays and other fishes. This area was loaded with a large group of youngsters, and there were people giving instruction much like you'd find at a zoo. I think it's great that the store spends the time educating the younger generations.

There were many other things that one must see. I think it was just the vastness of everything. It was all, and more, than I had expected.

If one gets the time to visit the store, I don't think they'll be let down in any way. Should you have any further questions, feel free to visit their website at <http://www.thatpetplace.com/>

Hope you enjoyed the adventure, I certainly did.



# Chalinochromis sp., Ndobnoi

In the hobby, the genus *Chalinochromis* takes a back seat to *Julidochromis* in popularity. It's hard to see why after keeping and spawning these small, relatively peaceful fish. Fish of the genus *Chalinochromis* are very similar to *Julidochromis* in body type, with long, thin bodies.

They tend to have a white background color over which dark markings may be present depending on the particular species. One of the distinguishing traits of the genus is the presence of small wart-like structures on their lips. These structures may be an adaptation for eating, helping them root out tiny sponges and invertebrates in the small rock crevices in which they live and feed. However, no one is certain exactly what purpose these structures serve. Sp. 'Ndobnoi' is characterized by dotted lines on the body rather than stripes found on many of the other *Chalinochromis* species, and its white background color has a faint pinkish glow. Its known range is the east coast of Lake Tanganyika between Kasjoe and Bulu point around Karlandi

island. Basically, that's the central part of Tanzania's Tanganyikan coast.

Aquarium care is, as far as I can tell, exactly the same as dwarf or mid-sized Julies: a tank with a lot of rockwork and hiding spaces, and maybe some



dither fish to coax them out of their caves. I kept my group of eight in a 30 gal aquarium with gravel, and lava rock, and a few clay pots. The water was pH 8.5, hardness 350ppm. I changed 50% of the water every other week. I got this batch as juveniles. Actually, these fish presented fewer problems than Julies in that they were not nearly as aggressive. One nasty part of Julies for me is that they seem to live together great until they start pair-

ing off. Then suddenly they begin to assassinate each other. This can happen overnight. For many pair bond fish, you can spot a weak one at the top or see it being chased before a severe beat-down occurs, but Julies seem to pick a fish out a kill it in a few

hours. Rarely have I gotten a batch to Julies to pair off without taking some casualties. *Chalinochromis* "Ndobnoi" surprised me in that the dominant fish were perfectly happy to spawn in the presence of the weaker fish. Of course, the weaker fish had to keep to the upper regions of the tank, and spent most of their day "getting out of the way", but they never lost scales or fins.

Interestingly, the strong

male seemed to keep two females, each in a different rock pile, and constantly visited each pile through the day. This type of behavior is probably a result of the artificial environment of the aquarium rather than a natural breeding mode. It was

hard to tell when spawning occurred. The females would keep to their rock piles more and excavate more gravel beneath them. Fry appeared slowly, in batches of two or three and never built up numbers quickly. The tops I got in the tank just leaving them with the parents were only a dozen or so. This could account

for their lack of wider popularity. My group was richly fed on mosquito larvae, blood worms and flake rotated during twice-daily feedings. The babies were fed artemia once they appeared.

**-by Mike Satkowski**  
First published in Fincin-nati, the official newsletter of the Greater Cincinnati Aquarium Society Aquarticles

# BAP '05

*-UPDATE-*

2005 BAP STANDINGS	
Name	'05 BAP Points
1. Jo Meade	90
2. Bob Randall	75
3. Bill Brown	50
3. Matt Anderson	50
3. Scott Carlson	50
6. Tim Dolan	30
6. Murray Nelson	30
8. Brett Dailey	20
9. James Kutscher	10

## SPECIES BAP'D AT THE AUGUST MEETING/SWAP

Tim Dolan	malawione	Astatotilapia nubilus	B/10
Tim Dolan	malawione	Labidochromis perlmutt	B/10
Tim Dolan	malawione	Labidochromis hongii	B/10
Brett Dailey	Physicsboy	Pseudotropheus acei, Tanzania	B/10
Brett Dailey	Physicsboy	Metriaclicma zebra, Manda	B/10
Jo Meade	jbfish	Otopharynx tetrastigma	B/10
Jo Meade	jbfish	Haplochromis uganda red	B/10
Matt Anderson	rifflaker	Pseudotropheus saulosi	B/10
Matt Anderson	rifflaker	Neolamprologus brichardi albino	B/10
Scott Carlson	fishwhisperer	Pseudotropheus elongatus, Chailosi	B/10
Scott Carlson	fishwhisperer	Pseudotropheus fainzilberi, Makonde	B/10
Scott Carlson	fishwhisperer	Labidochromis zebra, Lundo	B/10
Bob Randall	WhipIt	Archocentrus spilurus	B/10
Murray Nelson	oyster45	Pseudotropheus elongatus, Usisya	B/10
Murray Nelson	oyster45	Julidochromis transcriptus, Pemba	B/10
Murray Nelson	oyster45	Otopharynx lithobates, Zimbawe	B/10

## / CALENDAR OF EVENTS /

DATE	TIME	EVENT	LOCATION
Sept. 1	7:30 PM	MAS Meeting	St. Christopher's Episcopal Church, Roseville, MN
Sept. 11	7:00 PM	GCCA Meeting	Holiday Inn, Rolling Meadows, IL
<b>Sept. 13</b>	<b>7:00 PM</b>	<b>EIAA Meeting</b>	<b>Kenwood Park Presbyterian Church, NE Cedar Rapids, IA</b>
Sept. 18	11:00 AM	GCCA All-species Auction	Sheraton Hotel, Arlington Heights, IL
Oct. 6	7:30 PM	MAS Meeting	St. Christopher's Episcopal Church, Roseville, MN
Oct. 9	7:00 PM	GCCA Meeting	Holiday Inn, Rolling Meadows, IL
<b>Oct. 11</b>	<b>7:00 PM</b>	<b>EIAA Meeting</b>	<b>Kenwood Park Presbyterian Church, NE Cedar Rapids, IA</b>
<b>Oct. 16</b>	<b>10:00 AM</b>	<b>EIAA Fall Auction</b>	<b>Country Inn &amp; Suites, Coralville, IA</b>