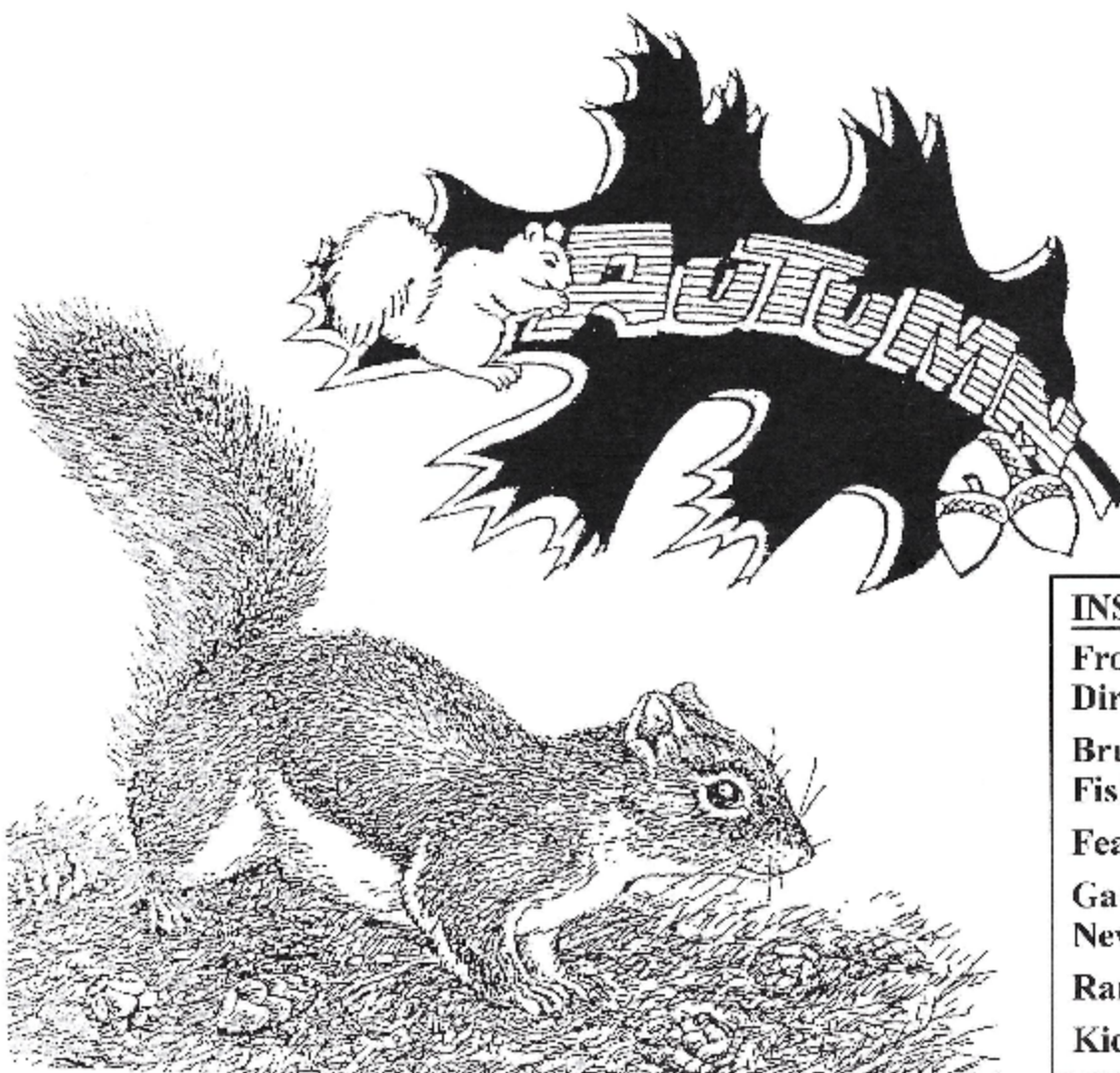




# Keokuk County Conservation Board News

## FALL 2016

*Serving through education, recreation, and conservation of our natural resources*



INSIDE...	Page
From the Director's Desk	... 2
Bruce Goldfish Fisheries	... 3
Feature Animal	... 4
Game Warden News	... 5
Ranger News	... 6
Kids Page	... 7

***From the Director's desk....***

It's October 11<sup>th</sup> and the crew is out mowing Belva Deer Park for what we hope is the last time this year. This has been one of those years that the mowers rarely shut off. I'm sure everyone experienced the same difficulty of keeping up with the mowing this year.

Mowing was not the only thing that kept us busy this past summer. Camping, shelters, and cabin revenue reached all-time highs. I think the combination of nice weekends and good fishing helped keep the campground full most weekends.

We have received several calls inquiring how long the campground will remain open. I tell people the campground is open all year. The only thing we

shut down is the shower building and that is when the temperature gets below freezing. The real head scratcher is when they ask, "When will it get below freezing?"

I would like to acknowledge a very generous donation provided by one of our regular park users. Frank Hanshew has been fishing for catfish in the lake for many years. Many know him as the guy who drives the brown El Camino. Earlier this summer, Frank stopped by the office and talked to me about his concerns of people fishing in the swim area and his fear of children getting a fish hook

caught in them. We shared the same concern and for that reason we have had "no fishing" signs posted along the beach ever since the lake was built. However, those of us in the business know that signs are often ignored. Frank offered to pay for the installation of a chain-link fence along one side of the beach jetty which would keep people from fishing in the swim area but would allow anglers to fish the other direction into the lake. The board agreed with the concept and approved the project. Within two weeks the project was completed and the problem solved. Thanks

again Frank for your very generous donation!



***Correction:***

Garry Oswalt's name was mistakenly not mentioned in the last newsletter as a past board member. Garry served on the board from 1976-1986. I apologize for this mistake.



## The Bruce Goldfish Fisheries of Keokuk County

By Vance Polton

Iowa DNR Fisheries Management Technician

Did you know that from 1879 through the 1930's that Keokuk County was the home to the largest producer of goldfish in the United States with annual sales of up to \$20,000? The Bruce Goldfish Fisheries dominated the industry and at their peak in the 1920's they had twenty-four ponds in production on their 80 acre farm east of Thornburg. The goldfish they raised sold for between ten cents to twenty-five dollars each.

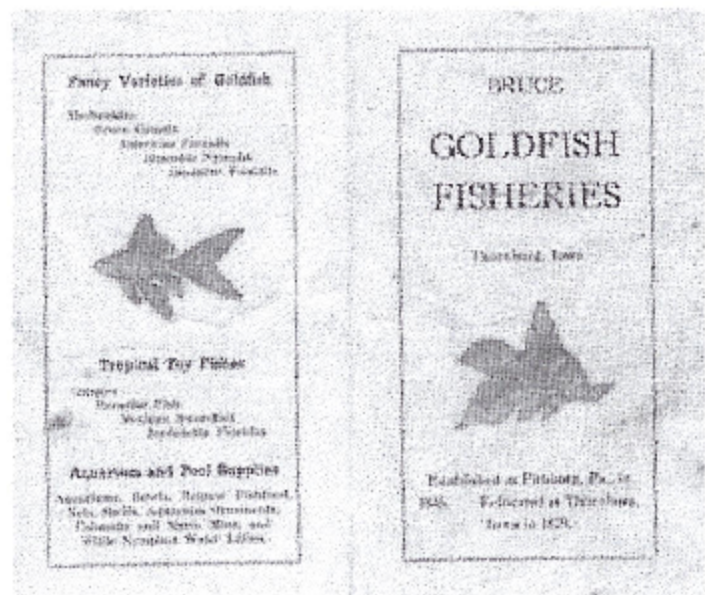
It all started back in Philadelphia, Pennsylvania in 1845, when Elgin Bruce was walking down the street and saw a sailor surrounded by a group of people. Curious, Mr. Bruce investigated and found that the sailor had a bucket full of colorful fish, he had just brought back from China. He was selling the fish to the crowd. Elgin bought the bucket full of goldfish for a dollar and brought them back to his home in Pittsburg and stocked them into an ice harvesting pond he owned. The goldfish flourished and started to multiply in the pond, and Mr. Bruce became a goldfish farmer along with his ice business in Pittsburg.

In 1871, while visiting relatives in Iowa, Elgin's brother-in-law convinced him to look in Iowa for a place to buy ground and move his goldfish business to Iowa. Mr. Bruce first looked at purchasing a property near Cedar Rapids but the asking price for that property was too high so he settled on a property just east of Thornburg. He moved his family to the property and built his goldfish hatchery there in 1877. The first pond was stocked in 1877 but before the first crop of 3,000 fish was to be harvested they were eaten by wild birds. Undaunted Elgin and his sons forged ahead and harvested a large crop of goldfish in 1878 and the hatchery was in full production by 1879, when they added a second pond.

In 1900 Elgin K. Bruce Jr. took over the family business from his father. By 1908 the fisheries had seventeen ponds and produced 110,000 fish. By 1921 four more ponds had been added and by 1930 the fisheries had twenty-four ponds in production. While Elgin Bruce Jr. handled all technical aspects of the business and his wife handled the finances, they also employed several local people during the harvest times as well as a fulltime Japanese fish culturist named Frank Nakashima to help with the breeding program as well the day to day care of the fish. Besides goldfish the Bruce Fisheries also raised guppies, paradise fish, and Mexican swordtails. Bruce fish were shipped mostly to Chicago and St. Louis and from there to the rest of the world, and could be found in many of the large Aquariums such as the New York Aquarium, The Shedd Aquarium in Chicago, the Lincoln Park Aquarium in Chicago, and the Bureau of Fisheries Aquarium in Washington D.C.

By the early 1930's the dominance of the Bruce Goldfish Fisheries had fallen off: the removal of tariffs on the import of cheaper Japanese fish along with Great Depression and droughts in 1934 and 1936 caused a steep decline in the family business. After E.K. Bruce Jr. died in 1936 the family tried to continue the business but with little success and the hatchery operations ceased by the early 1940's.

The Bruce Goldfish Fisheries was added to the National Register of Historic Places in 1982.





## EASTERN CICADA KILLER

*Sphecius Speciosus*

Intimidating in size and appearance, the Eastern Cicada Killer are large solitary wasps of the family Crabronidae which prey upon cicadas. Most often referred to simply as cicada killers or cicada hawks, they are generally found in areas of exposed, open, sandy soil. This is where they dig their burrows in which their eggs are deposited. Because of this behavior they are sometimes referred to as sand hornets but are of a different family than true hornets. They are widespread, occurring in all states east of the continental divide and south into Mexico.

Cicada killers are conspicuous insects due to their size, appearance and behaviors. Females can reach up to two inches in length with the males being about half that size. They are robust wasps with hairy, reddish and black areas on their thorax, a black abdomen with light yellow stripes and dusky colored wings. This coloration gives them a resemblance to some yellow jacket and hornet species. They have six legs ranging from yellow to red in color. The hind legs of the females are equipped with a set of large spurs which aid in the digging of nests. Females have a stinger on the end of their abdomen while males have a spike which they jab with but possess no venom. These solitary wasps are very different in behavior from social-wasps such as paper wasps, yellow jackets and hornets. The sting of the female cicada killer is used to paralyze their prey rather than to defend their nests. Unlike most bees and social wasps they do not attempt to sting unless they are handled roughly. Adult cicada killers feed on flower nectar and fermented sap from wounds on trees.

Adults emerge from the ground in early summer and begin looking for a mate. Males set up territories where females are likely to emerge, perching on some object within the territory and vigorously defending it against other males and chasing anything that flies on the chance it may be a virgin female. Soon after virgin females emerge they mate but only once, usually with the male inhabiting the territory where they emerge. Once mated, the male dies and the female seeks out a suitable location to dig a burrow for nesting. Disturbed, sandy soil is preferred with open sky above so as not to hinder flight coming in. Also necessary are nearby trees containing a population of cicadas to provide provisions for the nesting chamber. Using her jaws and front legs, soil is dislodged and then pushed out using the spurs on the hind legs. Burrows may reach up to four meters in length with several branches that end in nesting chambers. Once completed the female goes in search of cicadas. When one is found, the female administers a sting which paralyzes and preserves the cicada. The cicada is then brought back to the burrow, sometimes carried in flight and sometimes dragged overland. An embryo is implanted in the cicada and it is then deposited in one of the nesting chambers. The female is able to control the sex of the embryo and provides provisions accordingly. Females receive two cicadas and males receive one. Within two to three days, the embryo hatches and begins to consume the provided cicadas. Once the provisions are consumed, the larva will spin a cocoon and hibernate for the winter. Come spring, the larva will leave its cocoon, pupate and evolve into an adult, emerging from the burrow in early summer to begin the cycle anew.

Although fearsome in appearance, cicada killers pose little if any threat to humans. While aggressive in their defense of territory, the males are not equipped to sting and many times what is perceived as an attack is actually them pursuing movement in hopes of locating a receptive females. The females who are able to administer a sting rarely do unless molested. Those who have been stung report it to be very weak, feeling like no more than a pinprick. The benefits they provide by preying upon the cicadas which consume our trees make them a welcome addition.

## Game Warden Notes

As I write this I was thinking about how much of Pie's article will be about his lovable losers making it to the World Series. I thought I would never see the day, but I guess the day is here. Too bad they aren't taking on the Yankees. Congrats to all you Cubs fans.

Summer went fast, lots of fish caught, good water in the rivers, at least until August, and then it got a little tricky in places. The lake had lots of traffic, all summer long. Great fishing in May and first part of June, then around the fourth of July the Bluegill picked up again. And then another great bite of Crappie in September. Every time I'm out there it amazes me the repeat people who continually come back there to camp and fish, month after month and year after year. In September the local NRCS office hosted the sixth grade campout, they had a great turnout of 60 kids. This is a neat event that the NRCS puts on and Keokuk County Conservation Board hosts.

Also in September we held a hunter- education class at the Keokuk County Sportsman Club. We had a low turn-out this year of 16 kids. Then the 2<sup>nd</sup> of October we hosted another class in Kalona, which also had a low turn-out of 17 kids. Then October 15<sup>th</sup> we held another class in Keswick, which had a much larger turn-out of 32 kids. I always begin each class asking the kids and parents to thank the instructors who **VOLUNTEER** many hours to put on a class. They are paid nothing and must take continuing education hours each year to be an instructor. Without them these classes would not be possible. I would also like to thank Keokuk County Chapter of Whitetails Unlimited and to Ducks Unlimited for providing lunch for these classes.

No major hunting law changes to speak of this year. As always please be safe while out hunting this fall, and take a youngster along.

Wes Gould  
State Game Warden  
Keokuk/Washington Counties

## Notes from the Ranger.....

I hope everyone has had an enjoyable 2016 summer because mine was absolutely wonderful. I know we had some hot and humid days, which I love that kind of weather, but to me the gnats and other pestilence of flying insects were not as bad as in other years. Although in some areas of low lying ground that stayed wet all summer, I hear the mosquitos' were atrocious, but us highlander's didn't really have a problem with them. All in all it was a pretty good summer. We had very few problems at the park and we had a good group of campers using the campground.

This fall when the staff was on the lake removing the swim area buoys' and ropes I realized that it has been fifteen years since the Lake Belva Deer dam project was completed. In that short time frame the lake has basically stayed the same for the most part. A couple of the most notable visual changes have been the decrease of standing timber in the lake basin and some shore erosion along the south timbered edge where armoring was not done due to location. The lake dam was completed in September Of 2001, filled and running through overflow structure 14 February 2005, so about 3 ½ years to fill. Due to pre-lake planning and many soil conservation practices it is estimated that after 100 years only 10% of the lake will be silted in. Its watershed is at a 12 to 1 ratio which means 12 acres of land drain into it for every surface acre of water, ideal or perfect ratio is 10 to 1. When talking about lakes and ponds, like all bodies of water are living things, so they go through an aging process. In bodies of water this aging process is called "eutrophication" and typically there are three stages of life, Oligotrophic, Mesotrophic, and Eutrophic. Oligotrophic are considered young lakes, low concentration of nutrients, steep sloping shorelines and clear. Mesotrophic are considered middle aged lakes, more nutrients with plant and algae growth, side's slope less with more bottom fill in. Eutrophic are considered old or dying lakes, extremely well nourished with nutrients (nitrogen & phosphorus), side slopes continue to flatten out, bottom fill in continues, clarity and overall depth decreases. The biggest problem with aging and poor water quality of lakes is undoubtedly the overabundance of nutrients. Oligotrophic lakes, although considered young, can be a few years old to hundreds of years old. Conversely, eutrophic lakes although considered old, can be as little as a few years old. This is because of nutrients. Humans can greatly speed up the eutrophication of a pond or lake with point source pollution and non-point pollution. Point source pollution is something added directly to the water with non-point pollution being nutrients added to the water off-site, ag ground run off, leaky sewers, cattle pastures, etc. Other common environmental problems in lakes include; algae blooms, sedimentation/turbidity, oxygen depletion, growth of aquatic plants, water level changes, and species shifts, all of which when added to pollution aid to the eutrophication of lakes and ponds. We are very lucky to have Belva Deer lake and the fine water quality it has which is mostly due to the fact of such a protected watershed. Controlled farming practices, hundreds of acres of native forbs and grasses, siltation ponds and marshes all of which contribute to Lake Belva Deer being one of the cleanest and best fishing lakes in Iowa. I hope we have a calm winter and wish all of you a safe and wonderful hunting season.

Ranger Pie Reighard



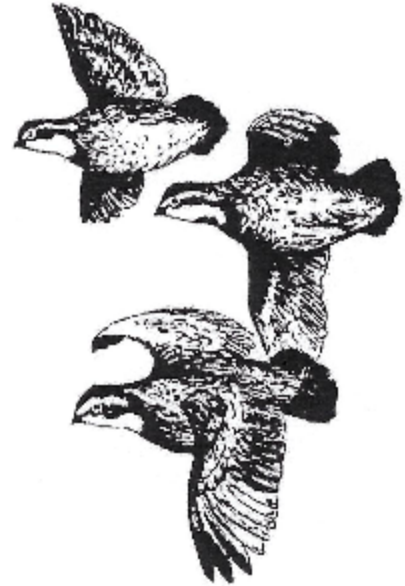
# KIDS PAGE!

CRAFTY IDEAS

ARTIST  
BATIK  
BRAID  
CERAMICS  
CHAT  
CLUB  
COLOR  
CRAFT  
DECORATE  
DEMO  
DRINKS  
EATS  
ENJOY  
FRIENDS  
GATHER

GLUE  
GROUP  
GUESTS  
HOSTESS  
INVITE  
KITS  
KNIT  
KNOT  
LEARN  
MACRAME  
MAKE  
MATERIAL  
MEET  
MUSIC  
NEEDLE

NIGHT  
PAINT  
PARTY  
PLAN  
PROJECT  
QUILT  
SERVE  
SHARE  
SNACK  
STITCH  
SUCCESS  
TALK  
TEACH  
THREAD  
TREATS



E	U	L	G	S	S	E	C	C	U	S	C	I	M	A	R	E	C
T	L	I	U	Q	S	D	G	J	D	V	T	R	A	P	M	P	O
A	F	S	V	K	Y	S	C	N	A	L	P	A	F	I	L	O	L
R	R	A	U	X	N	B	E	S	Y	O	J	N	E	E	H	K	O
C	N	O	R	T	W	I	Z	T	D	G	J	P	M	R	P	K	R
C	B	U	L	C	R	S	T	A	S	V	R	Y	U	C	T	N	F
E	I	L	O	F	R	U	X	E	B	O	E	H	K	O	N	O	O
D	H	T	W	Z	H	D	R	G	J	J	H	E	M	K	R	T	S
R	C	P	E	C	S	V	Y	E	C	F	L	I	C	L	N	G	H
I	A	O	T	T	K	R	C	U	H	D	X	A	T	I	B	E	A
N	E	I	T	S	I	T	R	A	E	T	N	H	A	K	S	N	R
K	T	Q	T	W	T	V	Z	E	D	S	A	P	L	G	J	U	E
S	I	M	P	S	S	V	N	Y	D	D	C	G	K	O	F	I	M
T	L	T	O	T	E	E	M	I	S	R	A	U	M	X	B	A	A
S	E	H	A	K	N	O	A	T	E	W	Z	E	D	G	K	J	R
E	M	H	P	B	S	R	V	Y	R	C	D	F	R	E	I	L	C
U	C	O	H	U	B	X	B	E	V	H	K	N	O	H	T	W	A
G	Z	T	H	G	I	N	R	A	E	L	A	I	R	E	T	A	M

Help the worm get to the apple core.

