

BULL SHOALS FIELD STATION NEWSLETTER

Summer 2019

BSFS Notes

Updates

Several quick updates on the field station:

- Thanks to a generous donation by Bass Pro/Tracker Boats there is now a new outboard motor on the Bear Boat and she's ready for research and group use.
- The solar system at Drury House has been upgraded! A larger solar array, new charge control module, and new closed-cell batteries combine to provide more power, more consistently, with less hands-on maintenance.
- Ground has been broken at the new Ozark Education Center in Cedar creek, MO. Construction should be complete and the facility ready for use by spring 2020.



As usual, we are always happy to show the field station to you if you're in the area. Just send us an email (bsfs@live.missouristate.edu) or give us a call.

Goodbye



At the end of July, Erica Cox will be leaving MSU and returning to the Bolivar High School classroom. After 11 years of implementing environmental education programs throughout the state, she is happy to be working closer to home. She will be missed and will be difficult to replace. We wish her the best.

Transitions

Janice Greene has officially retired as a faculty member of Missouri State University. She will carry on for one more year as Director of the Bull Shoals Field Station before passing the torch and fully enjoying retirement.



Celebrations

In October, field station staff will host an open house to celebrate the 20th Anniversary of BSFS. Look for an email soon detailing the exact date and activities. Also in spring 2020, once the Ozark Education Center (OEC) is finished, staff will host another open house to show off the new facilities. More details on that celebration will be in future newsletters.

In This Issue

BSFS Notes	
Updates	1
Goodbye	1
Transitions	1
Celebrations	1
BSFS Then, Now, and in the Future	
Drury-Mincy History	2
Field Station History	3
Planning for the Future	4

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BSFS Then, Now, and in the Future

As the 20th Anniversary of the Bull Shoals Field Station approaches, it serves as a time of reflection on the history of the area, the history of the field station, and what could lie ahead.

Drury-Mincy History

St. Louis Park and Agriculture Company, Inc.

A group of wealthy St. Louis businessmen, led by Colonel Moses C. Witmore, established a private game park in 1891 on land along the White River that would eventually become the Drury-Mincy Conservation Area. The game park contained about 5,000 acres—3,000 of which were enclosed with a deer proof fence to protect deer, elk and turkeys that were imported there.

Ozark Livestock Farm and Game Company

In 1917, the St. Louis Park and Agriculture Company sold the game park to the Ozark Livestock Farm and Game Company. The newest owner primarily used the land to raise cattle. In 1929, the land was sold again to a California businessman named M.B. Skaggs. His purchase included the 300-400 deer and 200-300 elk that lived there.

Drury Ranch

Frank Drury, president of the Branson Bank in the 1920's, owned the 1,400-acre Drury Ranch to the north of the game park established in 1891. He built a two-story stone house in 1926 that had a generator to provide electricity and indoor plumbing—both of which were rare amenities in the 1920's. Drury, apparently a large man, custom-built the house so that it was spacious enough for him to move around comfortably. In 1933, Drury sold his land to M.B. Skaggs. After which, the Lipp family moved into the stone house. Eventually the generator quit working and the family used kerosene lanterns for light. The kitchen had running water, but the bathroom did not. Until Skaggs drilled a well south of the house, the Lipp children hauled drinking water up the hill from a spring to bathe.

M.B. Skaggs and Family

The 1933 purchase of land from Frank Drury extended the game park to 7,200 acres. After Skaggs took over, he worked to restore the natural environment and rejuvenate the wildlife population. In 1939, Skaggs, along with the newly formed Missouri Conservation Commission, through a land lease, established the Drury Cooperative Refuge. The refuge was to provide protection for both deer and turkeys and was a place to trap and transport deer to other parts of Missouri. The Conservation Department began a turkey restoration program in 1954. Several hundred turkeys from the game park were provided for relocation statewide.

Drury-Mincy Conservation Area

In 1987, the Skaggs family sold part and donated part of the Drury-Mincy Conservation Area to the Conservation Department. Today the Conservation Area, in combination with Bull Shoals Lake land managed by the U.S. Army Corps of Engineers (USACE), covers over 5,500 acres.

Bull Shoals Lake

The USACE was authorized in 1938 to create a hydropower and flood control facility along the White River. Bull Shoals dam construction started in 1947 and was completed by 1951. The lake was opened for public use in 1953. In creating the lake, the USACE obtained rights to land underwater and along the lake shore. A portion of these lands are leased to the Missouri Department of Conservation as part of the Drury-Mincy Conservation Area. Five acres of land was also leased to Missouri State University in 1999 to create the Bull Shoals Field Station.

Field Station History

The Creation of Bull Shoals Field Station

John Havel

MSU Professor Emeritus - Biology

Bull Shoals Field Station (BSFS) started as an idea after a biology faculty meeting in 1996. Lynn Robbins and his students had been doing research in the Drury-Mincy Conservation area and Larry Houf with Missouri Department of Conservation (MDC) commented that we might fix up the old Drury house and use it. I recall that several of us thought this was a good idea and suggested that we could establish a field station there. With the encouragement of department head Wilkinson, I drafted a letter to Jim Baker, who was the assistant to (S)MSU president Keiser. Jim was supportive and made many helpful suggestions. Our *ad hoc* committee was hugely helpful as we discussed ideas and articulated why a field station would be beneficial to not only our department, but also to the university as whole and to the general public. With President Keiser's blessing, the board of governors approved a budget in 1997. But we faced a big bureaucratic hurdle: the land for our future station is owned by the US Army Corps of Engineers (COE) and the surrounding land owned by MDC. After 2½ years of letters and seemingly-endless meetings, MDC and COE administrators signed off on a cooperative agreement.

Here is the mission statement and some of the benefits we articulated to the COE: *"The proposed field station will provide a variety of benefits to the general public and to the COE. The overall **mission of the station** is to conduct research and educational programs that promote public awareness of Southwest Missouri ecosystems. The location of the station on Bull Shoals Lake is ideal for this mission, as this large lake is used for a variety of purposes and is an important resource for the area. The station will support collaborative research between faculty and students from SMSU and researchers from other institutions. We also expect to work on partnership projects which support the mission of the COE..... These educational goals support the wise use of resources such as Bull Shoals Lake, by helping to develop an educated citizenry."*



Figure 1. Participants in one of the first annual spring cleanup days at BSFS, ca. 1999. Front row: Mike Dickerson (research specialist, our first employee), Shanda King (BIO grad), Brian Greene (BIO faculty), Charles Rovey (GGP faculty), Elias Johnson (GGP faculty), Todd Wilson (BIO grad). Back row: John Heywood (BIO faculty), Jennifer Moody-Weis (BIO grad), Lynn Kelsey (BIO undergrad, under sign), Janice Greene (BIO faculty and current director), Brian Frederick (GGP grad), Virgil Clint (BSFS neighbor and part-time caretaker). Photo taken by John Havel (BIO faculty and founding director).

In 1999, I was appointed the first director of the Bull Shoals Field Station. The next three years were a flurry of activity. With the help of research specialist Mike Dickerson, handyman Virgil Klint, research assistants, and countless faculty and student volunteers during spring workdays, we cleaned up the property and renovated the house (**Figure 1**).

We survived a near miss from a tornado that took out some trees. Emmett Redd (Physics) and his brother restored an old generator to give us our first generation of electricity. Alexander Wait (Biology) put together the weather station. We started some grant-funded research on the lake, mapped terrestrial field sites and put them into a GIS, developed some databases, and established our web site. Open house events

introduced BSFS to the MSU community and to our neighbors in the Branson area. We started to get some class usage and graduate student thesis projects (**figures 2 and 3**).



Figure 2. Graduate student Doug Aubrey measuring Leaf Area Index in burned and unburned woodlands. (This is a burned site.) Doug is now Assistant Professor at the University of Georgia.



Figure 3. Graduate student Tina Tamme Hopper using experimental ponds to investigate the effects of zooplankton composition on susceptibility to invasion by *Daphnia lumholtzi*. Tina is now Laboratory Supervisor for the Department of Biology at MSU.

Janice Greene (Biology) took over as the second director in 2002, when I was ready for a sabbatical and happy to see someone with fresh ideas take the next steps forward. Over the subsequent 17 years, Janice did a marvelous job. She obtained facility improvement grants and managed acquisition of new property. Janice attracted more course usage and began environmental education programs that are very popular (<https://bullshoals.missouristate.edu/education.htm>).

Planning for the Future

The field station is now 20 years old. Additionally, with staff transitions that are occurring and the construction of the new Ozark Education Center, it's a good time to discuss the future. Over the next year, the BSFS Advisory Committee will meet to develop a plan to guide the facility as it moves forward beyond the 20-year mark. Committee discussions will involve everything from:

- reviewing the mission statement;
- to updating long-term research intent (especially with the new 1,200 acre parcel);
- to establishing plans for possible future buildings (housing, a lab, etc).

As the document is being pulled together, the Committee intends on reaching out to past and current users and other relevant and interested parties to provide input. This will take the form of surveys, interviews, and meetings. If you'd like to be involved in any part of the process or have some advice you'd like to put forward, please email Janice Greene (JaniceGreene@missouristate.edu) or Patricia Reed (PCReed@missouristate.edu) with your thoughts or interest.

Volunteering Now

We've made good progress on our Mincy House project list (see last newsletter), but we haven't gotten to every item. If you are interested in helping out with any of these tasks, as an individual or class or group project, please get in touch with either Dr. Janice Greene (JaniceGreene@missouristate.edu) or Patricia Reed (PCReed@missouristate.edu). Projects still needing to be accomplished include:

1. Mapping habitats throughout the five-acre property and inventorying trees to establish a baseline.
2. Planning and starting the installation of a small trail network throughout the five-acre property.