At the third trophic level are secondary consumers, which are omnivores and carnivores. Omnivores, which have both sharp incisors for tearing food as well as flat molars for grinding vegetation, eat both plants and animals. In contrast, carnivores eat mostly meat and have very sharp and pointed teeth.

The tertiary (fourth) trophic level is characterized by organisms that consume primary and secondary plant material. At the base of any food web are producers. These autotrophs are capable of manufacturing their own food through either photosynthesis or chemosynthesis. In photosynthesis, plants, algae and phytoplankton use a combination of solar energy, carbon dioxide and water to produce glucose. In contrast, chemosynthesis occurs in the absence of light and relies on chemical reactions to convert inorganic (non-carbon containing) materials into food sources. Bacteria found near the hydrothermal vents of the ocean floor use chemosynthesis to produce energy and serve as the foundation of marine food webs.

The second trophic (feeding) level is composed of primary consumers. These herbivores dine solely on vegetation including plants, fruits, vegetables, nuts and seeds. Herbivores are easily recognized by the presence of powerful, flat molars with rough surfaces that are essential in grinding up tough plant material.

Levels of Life

Food chains are the mechanisms by which all living organisms acquire energy and nutrients needed to carry out crucial biological processes. They represent the energy flow from the producers at the bottom of the food supply chains through intermediate consumers, apex predators, detritivores and decomposers. Although these chains are often described as simple and linear relationships, plants and animals actually overlap in their roles as producers and consumers to create interconnected and complicated food webs.
Levels of Life (Continued)

consumers, while apex predators are at the very top of the food chain.
However, the cycle does not end there. Regeneration of plant material
to once again begin plant life is dependent upon detritivores and
decomposers. While detritivores internally consume dead plant and
animal materials, decomposers break them down externally. Both methods are
extremely important for the recycling of nutrients.
One of the most vital aspects to understand about food chains is that they
cannot be infinite in length. Most are restricted to four to five trophic levels
because the efficiency of energy transfer is only about 10% between
levels. This means that less and less energy becomes available as you move
up the food chain.

Ready for a challenge?
Test your skills against our game in the Explorer Corner on page three and see
if you can build a food chain you would find here at Babler State Park!

-Kathy McCoy,
Seasonal Interpreter

Parasitic Lifestyles

Babler is home to a variety of parasites, such as ticks, chiggers, mosquitoes and leaches, just to
tick-borne illness. Oddly enough, name a few, all of which consume adult chiggers, wolf spiders, ants
blood from another animal (their and various beetles have been found to dine on ticks as well. Ticks
host). Even though these creepy also have their own parasites to crawlies are nuisances to us, they
worry about called microorganisms, provide food for many different such as fungi and nematodes. Even
animals. Take ticks for instance. though we tend to despise ticks, they provide food for a variety of
They provide food for a variety of game birds such as quail and
birds. They are also eaten by turkeys. They are also eaten by
opossums, which eat over 90% of opossums, that try to make a meal out
the ticks that try to make a meal out them. That
means that we have a lesser
chance of contracting a

This is a lone star tick, one of the most common ticks found at Babler.

the water, they have to contend with a variety of predators, including dragonfly nymphs, fish,
tadpoles and other aquatic invertebrates.

So the next time you visit Babler, be sure to wear insect repellent when hiking. And remember that
they may be biting you now but some other species, making them
something else is going to make a
snack out of them later.

-Dustin Hillis,
Interpretive Resource Specialist III
Did you know?

A food chain is a chain that shows the relationship between species based upon their feeding habits. A food chain begins with a plant because it is able to make its own food. This type of link on the food chain is referred to as a producer. The first animal to eat the producer is referred to as the primary consumer.

Food Chains

Explorer Corner

Create your own food chain by using the pictures located below.

2020 Celestial Events

- **July 5 - Penumbral Lunar Eclipse.** A penumbral lunar eclipse occurs when the Moon passes through the Earth’s partial shadow, or penumbra. During this type of eclipse, the Moon will darken slightly but not completely. The eclipse will be visible throughout most of North America, South America, the eastern Pacific Ocean, the western Atlantic Ocean, and extreme western Africa.
- **July 28, 29 - Delta Aquarids Meteor Shower.** The Delta Aquarids is an average shower that can produce up to 20 meteors per hour at its peak. It is produced by debris left behind by comets Marsden and Kracht. The shower runs annually from July 12 to August 23. It peaks this year on the night of July 28 and morning of July 29. The second quarter moon will block many of the fainter meteors this year. But if you are patient, you should still be able to catch a few of the brighter ones. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Aquarius, but can appear anywhere in the sky.
- **August 12, 13 - Perseids Meteor Shower.** The Perseids is one of the best meteor showers to observe, producing up to 60 meteors per hour at its peak. It is produced by comet Swift-Tuttle, which was discovered in 1862. The Perseids are famous for producing a large number of bright meteors. The shower runs annually from July 17 to August 24. It peaks this year on the night of August 12 and the morning of August 13. The second quarter moon will block out some of the fainter meteors this year, but the Perseids are so bright and numerous that it should still be a good show. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Perseus, but can appear anywhere in the sky.

2020 Natural Events

- **June 4 – Gooseberries ripen through mid-July.**
- **June 6 – Wild turkey hatch is at its peak.**
- **June 9 – Watch for butterfly milkweed blooming on roadsides.**
- **June 26 – Watch for nonvenomous watersnakes basking near water.**
- **July 5 – Black-eyed Susans bloom.**
- **July 15 – Look for chanterelle mushrooms now through August.**
- **July 30 – Watch for young hummingbirds at feeders.**
- **August 7 – Watch for bluebirds and robins eating the white berries of gray dogwoods.**
- **August 9 – Baby bats begin flying.**
- **August 13 – Hummingbirds begin migrating. Their numbers increase at feeders.**
- **August 20 – Male white-tailed deer rub velvet off antlers. Look for their rubs on small trees.**

Did you know?

Food chains can be linked together with other food chains to create a food web.

Create your own food chain by using the pictures located below.
Special Event Schedule

All programs are FREE and open to the public.

Please contact the visitor center at 636-458-3813 for more program details or check our Facebook page!

Due to coronavirus restrictions we will be posting all of our programs to our Facebook page or on bulletin boards in the park. We are planning our programs a month ahead so that we can stay within the guidelines for the safety of our visitors and park staff.

We apologize for any inconveniences this may cause.

Follow us on Facebook to check for program updates and the 4th of July weekend holiday programs.

MO State Parks Explorer Program

Giving visitors a new appreciation and respect for the natural world and the historic setting around them, along with an interest in preserving them is the main goal of the Missouri State Parks and Historic Sites Explorer Program. The patches and stars earned are visible symbols of a person’s commitment to preserving the living environment.

The program has three parts to complete to earn the patches:

1. Interpretive Study—complete two programs learning about an animal, building or history related to the park or historic site.
2. Interpretive Programs—complete four programs: guided tours, evening programs, hikes, etc.
3. Identification—identify 10 significant things to a park interpreter (objects, people or other living things), giving the proper name and its importance to the park or historic site.

Art for the Bees

If you are looking for a fun project to do at home during these uncertain times, try creating a bee house. This project not only provides a nesting habitat for our native solitary bees, but it also gives you the opportunity to bring out your creative side and add a little art to your yard.

Native bees help pollinate our flowers and gardens. Solitary bees such as carpenter bees; do not form colonies like that of honeybees. Instead, they will burrow or drill holes in wood and create chambered nests for their young. Once the young are ready to hatch out, the inner most hatchling will send out a pheromone letting its siblings know it is time to hatch.

What to do:

- Take a non-treated 2’x8’ board and drill holes ranging from 1/4” to 1/2” in the sides of the board. This provides a variety of holes for different species of bees to lay their eggs.

Once you have the holes drilled, now you can decorate! Get creative!

- Reuse old scrap metal, pots, pans, or any other junk lying around. This will provide you with a beautiful art piece for your yard and a home for our native bees to start the next generation of pollinators.
Park Happenings

**Babler State Park is on Facebook!**

It is a great way to stay up-to-date on current program offerings, stay in contact with park staff, and post comments about the park. Please check us out on the social networking site at Dr. Edmund A. Babler Memorial State Park and “Like” us.

**Service Projects Available for Scouts**

Park staff have recently compiled a new list of potential scout projects for the park. These projects include a variety of skill and time requirements, from a few hours to a full day, ongoing, group and individual projects. We have Eagle Scout projects available. Contact the Visitor Center for more information!

**Military Discounts Now Available!**

In 2019, Missouri State Parks started offering a military discount on camping stays. For stays beginning on April 1, customers who are retired, veteran or active-duty military personnel (including active-duty family members) are eligible for a $2 per night camping discount. Like the Senior/ADA discount, there are acceptable forms of identification for the Military Discount, including CAC card or the DD Form 1173. The proper military identification must be shown at time of check-in. This discount applies to camping only. The discount does not apply to lodging (i.e., cabins, yurts, etc.). The qualifying party must show proper identification upon check-in.

**Volunteers Wanted:**

Dr. Edmund A. Babler Memorial State Park is looking for people to help in the Visitor Center. Volunteers will help with nature hikes, educational camps, school groups and so much more.

Contact the park for more information at 636-458-3813.

**River Hills Visitor Center Gift Shop**

Swing on by the gift shop to start your spring adventures. We have apparel, food items, hiking sticks and so much more! Don’t forget about the kids, we have toys, apparel, etc.

**2019 Camping Rate Increase**

In 2019, the rates for campsites with electricity increased by $2 during the on-season. The funds generated from this increase will be earmarked to fund various electrification projects. This past season we had several campsites that were not available to our customers due to electrical issues. With these potential improvements and repairs, Missouri State Parks will better meet the needs of its guests.

Thank you for your support by continuously voting to renew the 1/10 of 1% Parks, Soils & Water Sales Tax.

It is through this constitutional tax, in which half of the funding generated is earmarked for the Division of Missouri State Parks. This provides about three-fourths of the division's budget for the operation and development of state parks. All additional funding comes from revenues generated in the state park system and some federal funds.
I was assigned to CCC Company 2729 from 1937-1938. The camp was well laid out with barracks spread out and apart from the headquarters, rec. hall, mess hall, bath house, baseball diamond, etc. The activities around the barracks were generally card games, listening to the radio and some short sheeting (doubling back a sheet so the “sheetee” couldn’t slide all the way down in the bed). This took place in the absence of the party being short sheeted. I was on the receiving end several times, since I spent most evenings in the rec. hall.

The mess hall was adequate for its purpose. The food was adequate also with the quality of food at 2729…generally below that at 3763. The rec. hall provided space for a pool table, ping pong table, and a camp store for candy and cigarettes, etc. I spent many hours there and left a better pool player.

Joe Twombly managed the store well but probably not as well as it should have been. Mr. Groh and assistant were there for assistance if called upon. The barracks provided adequate sleeping quarters for 20+ members.

I was assigned the job of squaring off stones for construction of the stable building and moved almost immediately to work on the survey crew, under the supervision of Herman Hall. Other members were Moffett, McKee, and a party whose name escapes me. The main body of the crew was attached to 3763. I was picked up at 2729 and the party then embarked on topographic mapping various areas of the park for construction sites.

The most challenging part of my assignment was mostly walking the hilly terrain. As an instrument man my day was spent standing over a transit taking readings for recordation, later to be translated into a topographic map in the engineering office by the very able Frank Jasorka. Who was at the head of the entire operation. Frank was an exceptional human being and a privilege to know and work with.

After hours activities ranged from baseball and bad mitten weather permitting and the rec. hall activities outside the barracks and the usual in the barracks. There was also trips to Kirkwood to the movie houses and trips to St. Louis on our own.

—Hand written account from Cliff Barritt, CCC Co. 2729

November 9, 2000
I am not sure many of us would have anticipated the change from normal that happened fairly soon after I started here at Babler back in mid-January. I was looking forward to 2020 in my new home, taking on a new challenge and the changing of the season. That all changed in March. Being cautious with public safety in mind, many services and buildings were shuttered or scaled back, and I got to experience a far from typical spring here at the park.

Life does move on, however, especially in the natural world. Spring arrived, and I did get to experience the many redbuds and dogwoods in bloom throughout the site – as I hope some of you did, as the park remained open to visitors. The woods are now full-on green, migratory birds are back (or have passed us moving to points north) and baby animals are running around in the grass fields and woods. It is always refreshing for me to see life open back up after a long winter and this spring even more so with current events.

As we begin our phased-in approach to reopening facilities and services, please be patient. This is new territory for us as well. A good source of information on current news is www.mostateparks.com. You should also feel free to call us here at the office. Our campground is back open with reservations only, our trails remain open, as do our picnic and day-use areas.

We hope you all come out to the park and enjoy this time of year as we move into summer. Sit on a park bench or blanket, close your eyes, and listen to the wind and sounds of nature. I think we all need a little break to decompress some.

If you do find yourself here at Babler or any of our other Missouri state parks, take a minute to give a wave to that person (staff or volunteer) mowing the grass, picking up trash, cleaning a restroom, giving a program (even if it is virtual) or staffing our campground booth. We all enjoy what we do and miss being able to interact with our visitors and share this awesome resource we have here in the Show-Me State.

Hope to see you all out there even if it’s temporarily from a distance. Looking forward to the next changing of the season.

-Cris Ferree,
Park Superintendent
Generations of Missourians have passed through Dr. Edmund A. Babler Memorial State Park's massive stone gateway for cookouts and family get-togethers or to spend time with friends. The park's camping facilities, Civilian Conservation Corps architecture, and hiking, bicycling and equestrian trails help all visitors find their place to get away from it all, just minutes from St. Louis.