

Wildlife management series for Midwestern farmers

Common and Latin name: Black bear (Ursus americanus)

Commonly impacted crops: Black bears are known to damage field and sweet corn, other field crops like oats and sunflowers, tree fruit, small fruit and beehives.

Relevant regulatory agency: State Department of Natural Resources.

Species overview

Physical description of animal: Black bears are the only wild bears found in the Midwest. Most black bears have black or dark brown fur. Adults typically weigh 100 to 400 pounds.

Habitat and range description: Black bears frequent forested areas, tending to use large swamps and more continuously forested areas. Typical habitat includes mixed hardwood forests interspersed with streams and swamps. Black bears depend on forests for seasonal and yearly requirements of food, water, cover and space. Although black bears tend to avoid large agricultural expanses, areas where forests and croplands intersect provide cover and food and can attract black bears to farms.

Behavior including food habits: Black bears are omnivorous, meaning they forage on a wide variety of plants and animals. Their diet is typically determined by seasonal availability of foods. Typical foods include grasses, berries, nuts, seeds, tubers, wood fiber, insects, small mammals, eggs, carrion and food waste associated with garbage.

Bears are not true hibernators, only dropping their body temperature by a few degrees in a behavior referred to as denning. Bears are easily disturbed and capable of fleeing if they feel threatened during denning.



Black bear

Black bears are generally active from dusk to dawn. They are solitary animals except during the breeding season and when females are caring for cubs. They are shy, elusive animals that usually flee when encountered, and are generally not a threat to humans. However, black bears are large and powerful animals that have been known to injure and, in some extreme instances, kill humans. Young male bears will leave their maternal family group and range widely in search of suitable, unoccupied habitat. It is usually these dispersing young males that end up in agricultural dominated or urban areas.

Identification of damage: Field crops such as corn, sweet corn, oats and sunflowers are occasionally damaged by black bears. Large, localized areas of broken, smashed stalks indicate bears have fed in corn fields. Bears eat the entire cob, whereas raccoons strip the ears from the stalks and chew the kernels from the ears. Deer damage to corn is generally restricted to a few rows, where the stalks may be knocked over and ears stripped from the stem. Black bears prefer corn in the milk stage, or prior to fall drying and senescence.

Black bears damage orchards by breaking down trees and branches in their attempts to reach fruit. They will often return to an orchard nightly once feeding starts. Due to the perennial nature of orchard damage, even localized losses can be economically significant.

Black bears are one of the few animals, besides skunks, that damage beehives. Indications of bear damage include broken and scattered hives showing claw and tooth marks. Hair, tracks and scat may be found in the immediate area. A bear will often return to the same apiary every night until all of the brood, comb and honey are eaten.

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Center



Damage to an apiary by black bear.

Management strategies

No single management method to prevent bear damage works consistently. Generally, multiple management methods should be combined so that one method enhances the effects of another.

Legal status: Bears are a state protected game species. Contact your state Department of Natural Resources to find out more about regulations in your state.

Exclusion: Electric fencing is the most effective way to prevent damage to smaller areas like beehives and other high-value properties. A bear's fur can insulate the animal from electric shock, so designing the fence so that the electrical charge makes contact with the snout or inner legs is important. For example, hanging strips of bacon or strips of aluminum foil smeared with peanut butter on the fence has proven effective. The bear then licks the bait and receives a shock.

For a temporary, easy to install and move system, use three polytape strands charged with



Black bear feeding indicates variety preference in this corn variety research trial.

approximately 5,000 volts spaced at 9, 15 and 22 inches from the ground (Figure 1).

For a more permanent solution that also excludes other wildlife like deer, the Penn State University five-wire deer fence can be used to exclude bears (Figure 2).



Fammy Otto, Michigan State University

Figure 2. The Penn State five-wire deer fence can be used to exclude bears.



Figure 1. This illustration depicts one fence design used to evaluate the efficacy of portable, electrical fences for excluding black bears. In this example, the bear has been excluded from a bee yard. Fundamental fence materials are labeled: step-in post (A), fiberglass rod (B), polytape (C), fence energizer (D), double-insulated wire (E) and grounding rod with clamp (F).

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This fencing system uses electrified wires that can be run off of solar power. As with all fences, it requires maintenance to remain effective, costs less than traditional deer fencing and is estimated to last five years.

Discourage with distance: Where possible, locate beehives at least 50 yards from trees and other cover.

Frightening: Black bears can be frightened from an area, such as fields or orchards, by extended use of night lights, strobe lights, loud music, pyrotechnics, propane canons or scarecrows. Frightening techniques should be rotated over time to avoid bears getting accustomed to any particular device.

Trapping: In some cases, state wildlife personnel may capture and relocate an offending bear, where appropriate and feasible. It is illegal for homeowners or private individuals to capture a live bear without special authorization.

Shooting: Bears are a game species, so it is possible to harvest bears during the hunting season and reduce local bear populations, or even target a nuisance bear. Outside of hunting seasons, bear damage shooting permits may be available in some states to landowners with damage to emerging, standing or harvested crops, or to feed properly stored in accordance with normal agricultural practices. State wildlife agencies may also authorize euthanasia of a problem bear by trained personnel in some cases.

Considerations: Black bears are the most common bears in North America. They are very adaptable and live quite well in areas occupied by humans. Because of their adaptability, it is likely black bears will increase their range, and interactions between humans and bears will intensify. Humans in areas populated with bears need to take action to avoid attracting bears. Handle and secure garbage appropriately, dispose of carcasses appropriately, remove bird feeders at night and store livestock and pet food securely. Intentional feeding of bears can and has caused serious problems. Bears quickly associate the food with humans and lose their natural fear of people and pets.

Bears are a very important game species to state wildlife agencies. It is fair to expect that agencies will offer assistance in some measure when bears are causing damage. It is also common for wildlife agencies to ask that producers exhaust non-lethal techniques before more aggressive measures are tried to address bear damage.



Black bear claw marks on a pole-sized oak.

Acknowledgments

Falker, Shannon T. and Brittingham, Margaret C. Black Bears. Penn State University. 1998. <u>https://</u> <u>extension.psu.edu/black-bears</u>

Michigan Department of Natural Resources. *About Black Bears in Michigan*. <u>https://www.michigan.gov/</u> <u>dnr/0,4570,7-350-79119_79147_81579-246934--,00.</u> <u>html</u>

Otto, Tammy E. Developing and Implementing Effective Black Bear Exclusion Fences to Protect Mobile Apiaries. Michigan State University master's thesis. 2013.

Additional resources

Visit our Wildlife Management website for additional fact sheets on managing other wildlife and for more resources: <u>bit.ly/wildlife-mge</u>

U.S. Fish and Wildlife Service <u>https://www.fws.gov/offices/</u>

Your state's Department of Natural Resources or similar agency

Directory of Midwest Wildlife Management Agencies

Information from February 2019.

Illinois

Department of Natural Resources: (618) 435-8138 <u>www.dnr.illinois.gov</u> USDA APHIS Wildlife Services: (217) 241-6700

Indiana

Department of Natural Resources: (317) 232-4102 www.in.gov/dnr USDA APHIS Wildlife Services: (765) 494-6229

lowa

Department of Natural Resources: (515) 725-8200 www.iowadnr.gov USDA APHIS Wildlife Services: (573) 449-3033

Kansas

Department of Wildlife, Parks and Tourism: (620) 672-5911 <u>www.ksoutdoors.com</u> USDA APHIS Wildlife Services: (785) 537-6855

Michigan

Department of Natural Resources: (517) 284-6057 www.michigan.gove/dnr USDA APHIS Wildlife Services: (517) 336-1928

Minnesota

Department of Natural Resources: (651) 296-6157 <u>www.dnr.state.mn.us</u> USDA APHIS Wildlife Services: (651) 224-6027

Missouri

Department of Natural Resources: (800) 361-4827 www.dnr.mo.gov USDA APHIS Wildlife Services: (573) 449-3033

Nebraska

Department of Natural Resources: (402) 471-2363 www.dnr.nebraska.gov USDA APHIS Wildlife Services: (402) 434-2340

North Dakota

Game and Fish Department: (701) 328-6300 www.gf.nd.gov USDA APHIS Wildlife Services: (701) 355-3300

Ohio

Department of Natural Resources: (800) 945-3543 www.ohiodnr.gov USDA APHIS Wildlife Services: (614) 993-3444

South Dakota

Game Fish and Parks: (605) 223-7660 <u>www.gfp.</u> <u>sd.gov</u> USDA APHIS Wildlife Services: (701) 355-3300

Wisconsin

Department of Natural Resources: (888) 936-7463 www.dnr.wi.gov USDA APHIS Wildlife Services: (608) 837-2727



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