

O WINTER IN ILLINOIS

Where Do They Go In Winter?



small-mouthed salamander (*Ambystoma texanum*). © Dr. Todd Pierson

Salamanders

Salamanders generally find shelter and brumate in underground burrows, under logs and leaf litter on the forest floor, and in rocky crevices. Thick leaf litter does offer some insulation against colder temperatures, as the decaying process in leaf litter does produce some heat.



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



Birds

Many bird species, like the yellow warbler (*Setophaga petechia*), leave for the winter. They migrate south due to food availability and their inability to withstand cold temperatures.

Several bird species, like the least sandpiper, pass (*Calidris minutilla*) through Illinois during their spring and fall migration. They nest in areas north of Illinois and spend the winters in areas south of the state.



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



eastern fence lizard (*Sceloporus undulatus*). © Brad M. Glorioso



North American racer (*Coluber constrictor*). © Brad M. Glorioso

Snakes and Lizards

Snakes and lizards generally burrow, find a hole in the ground, maybe a fallen tree trunk, etc. and brumate. These brumating sites must be below the frost line for the snakes and lizards to survive.



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



painted turtle (*Chrysemys picta*).

Turtles

Aquatic turtles generally brumate underwater in the mud of lakes, ponds or slow-moving streams. They “breathe” through their mouth, skin and cloaca.

Terrestrial turtles generally burrow, find a hole in the ground, maybe a fallen tree trunk, etc. and brumate.



eastern box turtle (*Terrapene carolina*).



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



American toad (*Anaxyrus americanus*).

Toads

Toads will burrow anywhere from six inches to over three feet deep. American toads cannot freeze and survive, so they need to stay below the frost line all winter. They tend to stay within a couple of inches of the frost line and will move up and down throughout the winter as the frost line changes. Because toads are amphibians, they have a higher tolerance to colder temps than reptiles.



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



Frogs

Most frogs survive northern winters by brumating deep under water, in ponds, lakes and streams. They bury themselves in mud and the mud acts as an insulator against freezing temps. They are cold and dormant, but their body temperature never falls below freezing.

Wood frogs (*Lithobates sylvaticus*) brumate by nestling down into the leafy litter on the forest floor. Wood frogs may freeze and can survive short periods of freezing temps because of a substance in their bodies (glucose) that prevent ice from freezing inside their cells.



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



golden northern bumble bee (*Bombus fervidus*).

Native Bees

With Illinois bumble bee species, only the fertilized adult queen overwinters from a colony. They will typically nest underground.

Other native bee species will generally overwinter in the pupal or adult stage. This will also typically occur underground. Native bees will begin to appear in late spring and early summer.



sweat bee (*Agapostemon virescens*).



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



black-and-yellow garden spider (*Argiope aurantia*).

Spiders

Salamanders generally find shelter and brumate in underground burrows, under rocks, or in leaf litter. Spiders can overwinter in the egg, spiderling, or adult phase, depending on the species. Some adult spiders or spiderlings may enter diapause and spend the winter safely tucked in tree bark, in the ground, etc. Adult spiders and spiderlings that reside in your house may be active all winter! Species like the black-and-yellow garden spider (*Argiope aurantia*) adults die off in the fall. The female produces egg sacs from late August through September, placing them on plants near the web. Overwintering occurs in the egg sac, with young spiders emerging in April or May.



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



woodchuck (*Marmota monax*)

Woodchuck

The woodchuck (*Marmota monax*) is a true hibernator, entering a deep state of sleep where their body temperature drops and heart rate slows down. It will start hibernating around November and can be gone until March!



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



little brown bat (*Myotis lucifugus*)

Bats

Illinois is home to 13 bat species. Eight of these bat species hibernate in Illinois and five of the species migrate to other states to overwinter.

Permanent Residents

eastern red bat (*Lasiurus borealis*)

Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) [state endangered]

big brown bat (*Eptesicus fuscus*)

tri-colored bat (*Perimyotis subflavus*)

southeastern bat (*Myotis austroriparius*) [state endangered]

northern long-eared bat (*Myotis septentrionalis*) [state and federally threatened]

eastern small-footed bat (*Myotis leibii*) [state threatened]

little brown bat (*Myotis lucifugus*)

Migrating Bat Species

hoary bat (*Aeorestes cinereus*)

silver-haired bat (*Lasionycteris noctivagans*)

evening bat (*Nycticeius humeralis*)

gray bat (*Myotis grisescens*) [state and federally endangered]

Indiana bat (*Myotis sodalis*) [state and federally endangered]



OW WINTER IN ILLINOIS

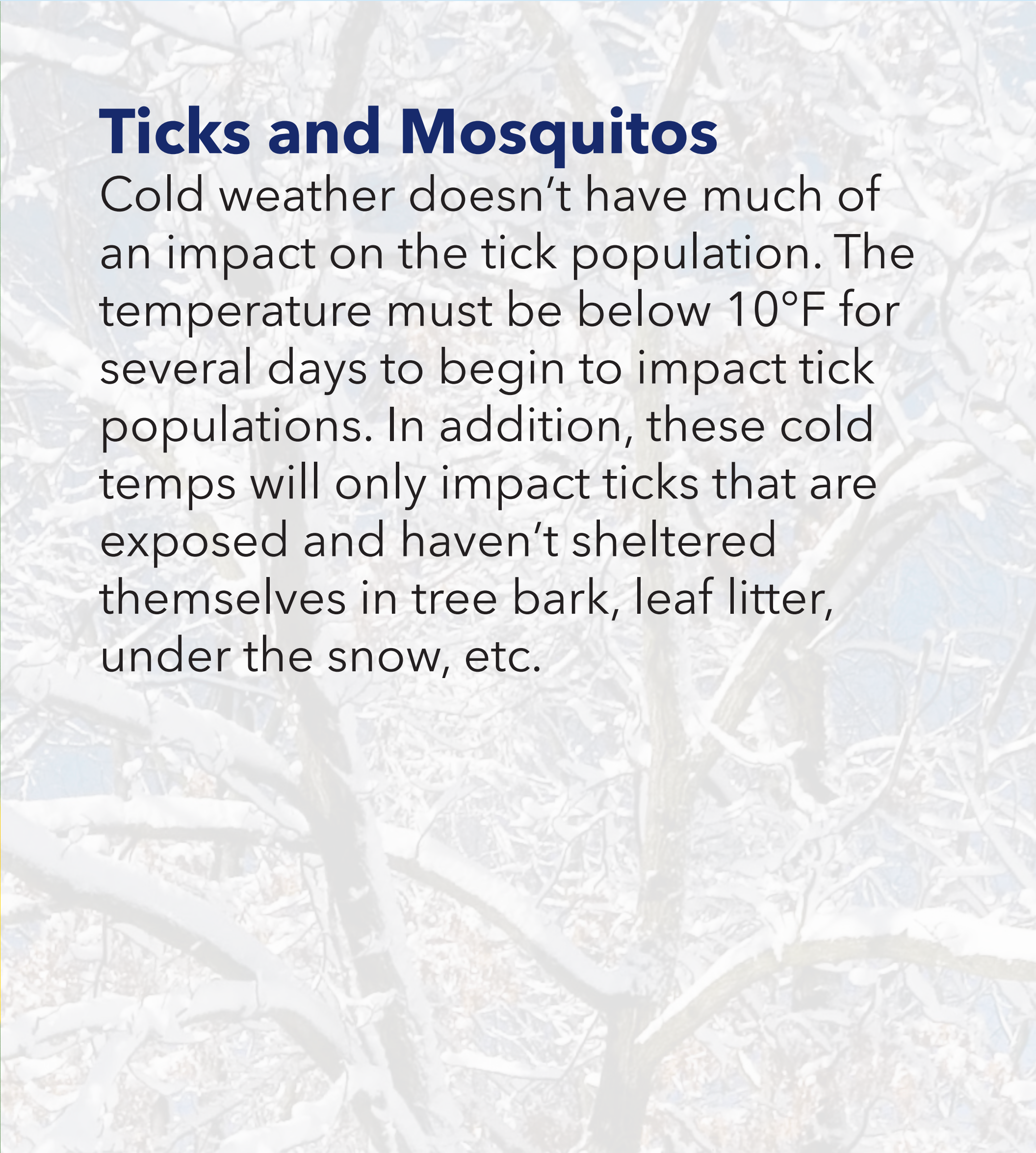
Where Do They Go In Winter?



tick. Adobe Stock

Ticks and Mosquitos

Cold weather doesn't have much of an impact on the tick population. The temperature must be below 10°F for several days to begin to impact tick populations. In addition, these cold temps will only impact ticks that are exposed and haven't sheltered themselves in tree bark, leaf litter, under the snow, etc.



Most mosquitos overwinter in the egg phase and these eggs are hardy! Dry weather seems to have more of an impact on mosquito populations than cold weather.



mosquito. Adobe Stock



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



Insects

Insects will overwinter in various stages of their life cycle depending on the species. They will typically enter diapause and spend the winter safely tucked in tree bark, in the ground, leaf litter, etc.

Some species of dragonfly migrate and some are permanent residents. The common green darner (*Anax junius*) is both. Most adults migrate south. Some individuals overwinter in the nymph stage, emerging in the spring as adults.



OW WINTER IN ILLINOIS

Where Do They Go In Winter?



mourning cloak, Adobe Stock



black swallowtail (*Papilio polyxenes*) chrysalis.

Butterflies

The mourning cloak (*Nymphalis antiopa*) adult overwinters and may be seen on any day warm enough for flying. Most other butterfly species overwinter in the egg, larval, or pupal stages.



painted lady (*Vanessa cardui*).



buckeye (*Junonia coenia*).



monarch (*Danaus plexippus*).

A few Illinois butterfly species migrate out of the state each fall. The returning butterflies are not the same individuals that left. New generations recolonize Illinois each spring.

