



**Bagworm**



**Fall Webworm**



**Eastern Tent Caterpillar**



**Gypsy Moth**



**Japanese Beetle**



# Top 10 Illinois Tree Pests

**ILLINOIS**  
Extension  
COLLEGE OF AGRICULTURAL, CONSUMER  
& ENVIRONMENTAL SCIENCES



**Horned Oak Gall**



**Emerald Ash Borer**



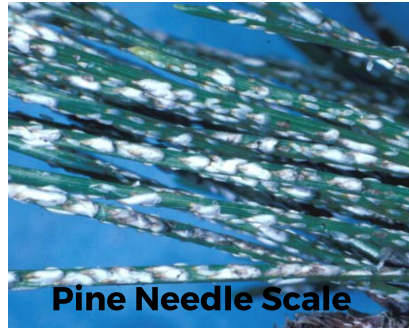
**Emerald Ash Borer**



**Bronze Birch Borer**



**Oystershell Scale**



**Pine Needle Scale**



### *Thyridopteryx ephemeraeformis* (Bagworm)

**Identification:** From the middle to the end of June, 300–1,000 eggs hatch from female bags & the young caterpillars balloon using silk to catch the wind to reach nearby plants. They start at the tops of trees eating foliage and using pieces of leaves and branches to make protective bags causing defoliation. They pupate in their bags and in the middle of August, male adults will emerge while the female remains sedentary in the bag. **Species attacked:** 120 species, especially arborvitae, spruce, Eastern red cedar and junipers. **Management:** spray young larvae when larvae finish ballooning as Queen Anne's lace is beginning bloom with pesticides your local extension office can suggest; hand remove bags in late winter and early spring. *Photo by Phil Nixon.*

### *Hyphantria cunea* (Fall Webworm)

**Identification:** Pale green to yellow caterpillars with black spots and long white hairs hatch at the end of July (In June in the southern half of Illinois). They feed inside 2–3' tents at the ends of branches for 6 weeks causing an aesthetically displeasing look. They overwinter as a pupa in ground debris or under bark. Adults emerge in May and August and lay egg masses that look brown and varnished and are covered in hairs on the underside of leaves. **Species attacked:** 100 species especially hickory, ash, birch, walnut, crabapple, apple, elm, maple, oak, and pecan.

**Management:** prune out webs and egg masses. Pesticides can be used when larvae emerge; get pesticides suggestions from your local extension office. Larvae will emerge in southern half of Illinois when Vanhoutte spirea blooms and statewide when goldenrod begins to bloom. *Photo by Phil Nixon.*

### *Malacosma americanum* (Eastern Tent Caterpillar)

**Identification:** 2" larvae with white stripes, blue dots and yellow lines emerge in early spring; form thick, neat tents in the angles of branches and come out during the day to feed; decreasing the vigor of the plant. **Species attacked:** cherry, plum, crabapple, and serviceberry.

**Management:** prune out tents on cloudy days. *Photo by Phil Nixon.*

### *Lymantria dispar dispar* (Gypsy Moth)

**Identification:** Caterpillars are hairy with blue and brick red dots that emerge from buff colored egg masses in spring and begin feeding on the tops of trees or balloon to other host plants. These voracious eaters can defoliate a tree to a rate of decline or death. They pupate in the end of June; adults emerge in mid to late July, mate, lay eggs, and die. **Species attacked:** 450 species especially oak, crabapple, birch, linden, willow and hawthorn. **Management:** scrape egg masses off of bark; remove light colored females as they climb up trees to lay eggs; spray for larvae when red buds are blooming with pesticides. Contact local extension office for specific pesticide suggestions. *Photo by Phil Nixon.*

### *Popillia japonica* (Japanese Beetles)

**Identification:** Beetles with metallic green heads and copper bodies that begin to emerge the middle of June to early July and feed for 6 weeks; skeletonize leaves and defoliate preferred host plants; lay eggs in moist turf and grubs hatch and feed on grass roots; overwinter 4–11" below the soil surface and pupate in spring right before emergence. **Species attacked:** 300 species especially rose, crabapple, cherry, grape and linden.

**Management:** limit lawn irrigation; hand pick in late afternoon and drop in a bowl of soapy water; cover desirable plants with row covers. Insecticides effective; contact local extension office for specific suggestions. *Photo by Phil Nixon.*

### *Callirhytis comigera* (Horned Oak Gall)

**Identification:** Larvae of tiny adult wasps cause blister like galls. Adults emerge and lay eggs in oak twigs. Small galls the size of marbles grow to more than 2 inches with horn-like projections in the second year and these cause the branches to die past/beyond the gall. Common in southern third of Illinois. **Species attacked:** pin, scrub, black, black jack, and water oak. **Management:** prune out galls and improve health of tree. *Photo by Phil Nixon.*

### *Agrilus planipennis* (Emerald Ash Borer)

**Identification:** Larvae feed on cambium resulting in girdling of the tree causing thinning of the canopy, yellowing, branch die back, water sprouts at the base and on lower branches, and tree death. Adults emerge from D-shaped holes when black locust blooms and feed on leaves before laying eggs. **Species attacked:** Ash and white fringe tree. **Management:** tree may be affected for 4–6 years before symptoms are seen, if more than 50% of the canopy remains, use preventative treatment of soil or trunk injections of imidacloprid annually or a professional trunk injection every two years of emamectin benzoate; tree removal may be best option. *Photo by Phil Nixon.*

### *Agrilus anxius* (Bronze Birch Borer)

**Identification:** Larvae feed on cambium of stressed trees for up to 2 years creating sparse foliage, yellowing, swollen or dying branches. Larvae eats the cambium and fills holes with frass. Adults emerge in late spring from D-shaped holes and feed on leaves for 6 weeks. **Species attacked:** birch and alder. **Management:** use systemic imidacloprid drench or injection in early spring; spray for adults when the Vanhoutte spirea is in bloom; improve health of tree; plant river birch because of greater resistance. *Photo by Phil Nixon.*

### *Lepidosaphes ulmi* (Oystershell scale)

**Identification:** Mature females are the most commonly observed life stage, being found on branches. They produce a waxy covering that are 1/8" long, brown to gray in color and resembles an oyster's shell. In early May, pale yellow crawlers emerge to feed causing yellowing, stunted foliage, and branch die back; eggs overwinter under female's waxy covering. **Species attacked:** 130 species especially lilac, ash, privet, beech and viburnum. **Management:** spray insecticidal soap when Vanhoutte spirea is in bloom for crawler stage; prune out heavily infested branches and be on the lookout for predators and parasites. *Photo by Phil Nixon.*

### *Chionaspis pinifoliae* (Pine needle scale)

**Identification:** In late April to mid-June eggs hatch and small purplish crawlers start to settle on the tree and remain in the same spot using their mouth parts to feed on leaf cells. As they mature they turn pure white and elongated with waxy covering. Feeding causes discoloring of foliage and declining tree health. A second generation emerges early to mid-July; eggs overwinter under female's waxy covering. **Species attacked:** pines, spruce, white fir, Douglas fir and cedar. **Management:** spray insecticidal soap when Vanhoutte spirea is in bloom and again in middle of July; improve host vigor and look for predators and parasites. *Photo by Phil Nixon.*