

## Bark Damage on Swamp White and Bur Oaks in Northeastern Illinois

A Report on a New Plant Health Issue

March 22, 2024

– UPDATE with wasp and bird identification

Since February 2024, there have been several reports of unusual bark damage (Figure 1 and 2) on swamp white (*Quercus bicolor*), bur oaks (*Q. macrocarpa*), white oaks (*Q. alba*) in Northeastern Illinois. To date, it has been reported in Arlington Heights, Berwyn, Chicago, Riverside, Skokie, Westmont, and Wheaton on branches and stems between 2-8 inches in diameter.

**Symptoms:** The outer bark of the trees has been pulled up in strips or pulled off of the tree. In the areas where the bark was peeled and removed, the interior of galls (formerly described as pits) are visible. The galls extend from the inner bark through to the outer xylem (Figure 3). Inside the galls are clean, they are not discolored, and no fungi are associated with them.



Figure 2. Bark damage on swamp white oak.  
Photo credit: Jeff Brink

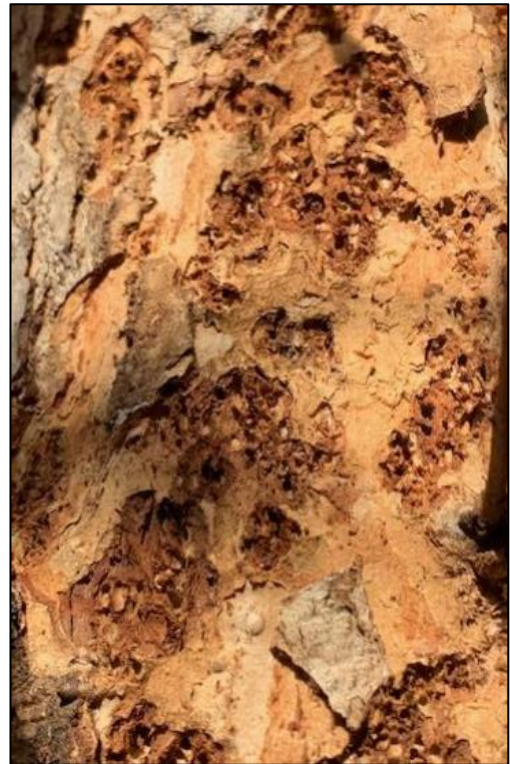


Figure 1. Bark damage on swamp white oak. Photo credit: Jeff Brink

The bark damage has been observed from the soil line through the canopy until branches are smaller than ½ inch in diameter. Most of the affected branches and stems are smaller than 10 inches in diameter (DBH). In larger trees the damage is found higher in the canopy on smaller branches.



Figure 3. Gall interiors found under bark damage at 6.6x magnification. Photo credit: Stephanie Adams

**Signs:** The galls are caused by the egg laying and development of the gall wasp, *Bassettia favipes* adults (Figure 4) and larvae (Figure 5).

*B. favipes* has a unique life cycle because it has an asexual and sexual life stages, also known as alternation of generations. Each generation causes a different kind of gall, meaning this wasp causes two different types of galls.

The generation currently seen in the branches and stems is the asexual (agamic) generation. Its galls are produced inside of the branches. The sexual generation (sexgen) produces a leaf gall (Figure 6).



Figure 4. Adult gall wasp, *Bassettia favipes*, at 6.6x magnification. Photo credit: Stephanie Adams



Figure 5. Two gall wasp, *Bassettia favipes*, larva at 6.6 magnification. Photo credit: Stephanie Adams



Figure 6. *Bassettia favipes* (sexgen) leaf gall. Photo credit: Adam Kranz, <https://www.gallformers.org/gall/981>

The bark damage is caused by birds, including woodpeckers, going after the wasps. Downy woodpeckers were recently observed feeding on a symptomatic tree in Westmont, Illinois (Figure 7).



Figure 7. Downy woodpecker (*Picoides pubescens*) found feeding on a symptomatic tree. Photo credit: Stephanie Adams

Currently, the affected trees have not shown symptoms of decline and dieback. But references have suggested that dieback might be seen when wasp populations are high. In the samples recently investigated, five adult wasps have been found per cm<sup>2</sup> (Figure 8).



Figure 8. Five adult gall wasps, *Bassettia favipes*, adults in 1 sq cm. Photo credit: Stephanie Adams 15x magnification.

### Monitoring suggestions:

Monitoring the trees with bark damage is recommended throughout the growing season to better understand how the trees respond to the wasp and bird activity.

Reports will continue to be updated as new information is obtained. Please contact The Morton Arboretum Plant Clinic ([PlantClinic@mortonarb.org](mailto:PlantClinic@mortonarb.org)), Dr. Fredric Miller ([fmento84@gmail.com](mailto:fmento84@gmail.com)), or Dr. Stephanie Adams ([sadams@mortonarb.org](mailto:sadams@mortonarb.org)) for any questions, concerns, or new information.

### Citations:

GallFormers. *Bassettia flavipes* (agamic). <https://www.gallformers.org/gall/4236>. Accessed 3/22/24.

GallFormers. *Bassettia flavipes* (sexgen). <https://www.gallformers.org/gall/981>. Accessed 3/22/24.

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