

## Pest Profile



Gall and female wasp of 2<sup>nd</sup> or asexual generation  
*N. saltatorius*

Photo credit: R. Duncan, National Resources Canada



2<sup>nd</sup> or asexual generation galls

Photo credit: K. Prior, Binghamton University

**Common Name:** Jumping Oak Gall Wasp (also called the Jumping Oak Gall)

**Scientific Name:** *Neuroterus saltatorius*

**Order and Family:** Hymenoptera and Cynipadae

**Size and Appearance:**

	Length (mm)	Appearance
<b>Egg</b>	<b>0.2</b>	Small, white oval
<b>Larva</b>	<b>Approx. 1.5</b>	Cream-colored, with dark mandibles and curled in a C shape within the gall
<b>Pupa</b>	<b>Approx. 1.5</b>	Cream-colored with an appearance similar to the adult
<b>Adult</b>	<b>Approx. 0.75</b>	The head is brown black in color, with 13-segment antennae, brown thorax, black abdomen, and reddish-brown legs. Wings have a translucent appearance

**Type of feeder:** Larvae live within the gall that is induced on the underside of the oak tree leaves. In response to chemical signals released by the larvae, the tree produces proteins and other nutrients secreted within the gall in which the larvae feed. Adults do not feed.

**Lifecycle:** Typical of most oak gall-forming wasps, *N. saltatorius* has two morphologically distinct generations. They alternate between a sexual generation and asexual parthenogenic generation, referred to as gamic and agamic, respectively. Each female of the sexual generation will lay as many as 70 eggs within the developing leaf tissue of close buds, with galls forming 3 to 4 weeks later after the leaves have fully opened. The galls of the sexual generation form foliar clusters on the underside of leaves and development of the larvae and subsequent stages are all contained within the galls on the leaves. For the asexual generation, the galls transform into mustard-colored 1-1.5 mm round balls on the underside of the oak leaves that eventually detach and fall to the ground starting in mid-summer

and continue through early fall. The notable characteristic of the asexual (agamic) generation is that the larvae can move within these round galls and produce a jumping motion, which allows the developing larvae to move to protected areas in the soil and leaf litter before pupating in the fall and subsequently overwintering as adults.

**Host plants:** The native range of *N. saltatorius* is the length of the West coast of the USA and found on various species of oak trees, including the valley oak, California scrub oak, Arizona white oak, live oak and blue oak.

**Description of Damage:** Gall formation on trees can be extensive, causing midsummer browning of leaves (called foliar scorching), defoliation, and occasionally branch die-back.

**Management:** Most trees especially in the native range of *N. saltatorius* can withstand gall formation without harm, thus pesticide controls are not generally recommended. Larva of *N. saltatorius* are often controlled by a variety of species of parasitoid wasps in the family Chalcidoidea.

#### **References:**

Prior, KM & Hulcr, J. (2016, July). Featured Creatures – common name: jumping gall wasp, California jumping gall wasp, jumping oak gall, flea seeds. University of Florida. Retrieved July 3, 2019, from [http://entnemdept.ufl.edu/creatures/trees/Neuroterus\\_saltatorius.htm](http://entnemdept.ufl.edu/creatures/trees/Neuroterus_saltatorius.htm)