

Yellow-jacket boom: Experts puzzled by insect's cycles

By Adam Jensen

Predicting snowfall is a guessing game each winter. A spring equivalent is guessing how many yellow jackets will invade the Sierra.

Cold and dry conditions in the winter of 2015-16 likely contributed to a boom in 2016. While the winter of 2016-17 knocked down populations at higher elevations in 2017, it led to monster populations in the Central Valley, said Lynn Kimsey, a professor of entomology at UC Davis.

Exactly what conditions make for a population explosion like 2016 remain a mystery. The size of the 2018 yellow jacket population at Lake Tahoe is unclear.

"We don't really know why they have this boom-bust population thing," said Kimsey, who spoke at the UC Davis Tahoe Environmental Research Center evening lecture series this fall.

There are several species of wasps in the Sierra Nevada, but yellow jackets are a nuisance to humans because they scavenge for sugar, protein, and fat, while the other species survive on live insects.

"We make life good for them," Kimsey said of the yellow jackets, noting they like much of the same food people do.

Kimsey encouraged people to feed their pets indoors, dispose of any fruit that falls from trees, and be mindful of potential food sources like bird feeders. Hanging up yellow jacket traps early is also important. "If you wait until mid-summer, it's too late," Kimsey said.

Yellow jackets build large nests in many locations, including logs and building crevices. Kimsey recommends anyone who disturbs a nest to run away and don't stop.

"Holding still will not prevent them from stinging you," Kimsey said.

If you're stung once, antihistamines and a cold compress are likely suitable treatments, but multiple stings will probably require a visit to a medical professional, she added. And take heart, it could be worse. Wasps rank a two out of four on the Schmidt Insect Sting Pain Index, a relative pain scale developed by entomologist Justin O. Schmidt, Kimsey said. The scale ranks the bullet ant, native to Central America and South America, as having the most painful sting. In an article in *Business Insider*, Schmidt described the sting as "pure, intense, brilliant pain. ... Like walking over flaming charcoal with a 3-inch nail embedded in your heel."

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