

“THE BEETLES ARE COMING!”

Todd Balsiger

This past August, I discovered the Small Hive Beetle (SHB) and its larvae in my grandmother’s honey house, which is located between Eagle Creek and Sandy, Oregon. I relate below what I saw that day, discuss the growing body of evidence that the SHB is making inroads in Oregon, and close with some follow-up information.

I had delayed extracting and was beginning to see wax moth larvae damage in my honey supers. I knew I needed to finish; otherwise, it was only going to get worse. I was making great progress in this endeavor when I came across something even more ominous—a lone beetle. Not just *any* beetle—it looked exactly like the SHB. I placed it inside an open glass jar for later identification thinking it could not get out. It was gone in no time.

Eventually I came across a ghastly sight of SHB larvae devouring worker brood on a single frame. I do make a concerted effort to remove brood from supers, but this one frame slipped by. Brood covered about a third of the frame on each side, the balance being mostly honey and a small amount of pollen. The frame was wood with plastic foundation. On one side, the brood had already been consumed—it looked like wet, decomposing cardboard. All of the beetle larvae had migrated to the other side and were devouring the brood there. It was a feeding frenzy of writhing larvae, much like maggots in a decomposing animal. When I picked the super up and pulled the frame, larvae dropped off and hastily tried to escape. I scraped this ghoulish mass of larvae into scalding hot water. Most were now cooked. I stopped extracting, and for the next hour searched out and killed every larva I could find and did a thorough clean up. The larvae bored underneath the slightest of openings to hide.

Compared to wax moth larvae, SHB larvae are relatively indestructible: they have tough, leather-like skin; they are vigorous and crawl at a fast pace; and they can hold their “breath” for a long time. I took some SHB larvae and submerged them in lemon bleach. They did not die for at least 20 minutes—or longer. It takes seconds to kill wax moth larvae in this same liquid. I saw one larva flow out of my extractor with honey. I watched inquisitively. It was now pinned on a sieve by the downward force of falling honey. It had the instinct and strength to turn with the flow and crawl through one of the small openings (wide mesh) and drop into the bucket below. It then floated to the surface—which takes a long time in honey—and latched onto the side of the bucket and started to crawl out! I can only guess that, because SHB thrive in slimy, gelatinous goo, they have adapted to low-oxygen environments.

The damage caused by the SHB in my honey house was negligible. It was limited to one frame only. More troubling is what this incident may portend for the

future here in Oregon. Where did I get the SHB? In short, I believe they came from a commercial beekeeper who placed hives on an adjacent caneberry/blueberry farm. I asked him about the beetles, and he said they came from an infested semi-truck load of supers he purchased from Texas. A contributing factor may have been the inadvertent depopulation of some of his hives from insecticide sprayed for Spotted Wing Drosophila control. I saw carpets of dead bees in front of hives, which may have resulted in a SHB infestation. The beekeeper told me he has around 2,000 hives in northwest Oregon, and I have seen his apiaries in both Washington and Clackamas counties.

Furthermore, we have potential trouble brewing from the south. John Jacob (southern Oregon regional representative) reports that an outfit from Florida with around 350 SHB-infested hives has moved in there.

At the fall conference, I learned more disconcerting information. I overheard Dr. Lawrence Connor say, "I have SHB in my hives right now in Michigan," so evidently cold is not a barrier. Dr. Dewey Caron told me that the East Coast is struggling with the SHB. Lastly, I learned that SHB is endemic in some areas (wet and humid) in California.

At this point, I am assuming the role of Paul Revere: "The beetles are coming! The beetles are coming!" I spoke to Oregon commercial beekeeper George Hansen about the SHB. It is his opinion that our problems may be limited to honey houses and mating nucs. I can still remember Dr. Mark Winston's presentation about the SHB in Seaside long ago (SHB came to North America in 1996). It was a "Doom and Gloom" presentation meant to shock us, which it did. I remember him say, "You think the Varroa mite is bad, well wait until you get a load of this." How prophetic he was. He then proceeded to show slides of just how awful the SHB can be. That was about 15 years ago.

Unlike the Varroa mite, the SHB has disseminated slowly across our nation, and for many areas it has not been as problematic as first suggested. I suggest you increase your knowledge about this pest and start incorporating management practices that lessen the likelihood of experiencing damage. Drs. Dewey Caron and Ramesh Sagili are preparing an OSU Extension Leaflet on Small Hive Beetle for release in the near future.