



Growing Hawaii's bees in 2013!

Thanks to our supporters:



Hilo Apiary Staff: Lehua Wall, Danielle Downey, Stacey Chun, Lauren Rusert, Kay Howe



Freezing equipment for 24-48 hours can stop a Small Hive Beetle outbreak.

On the bright side of all these new pest challenges, bees and beekeepers just keep getting better! Markets are full of honey, and there is a growing number of bees available throughout the state.

Big Island

Paradise Nectar: queens, bees, packages, 315-6553

Karrus Queens: queens, packages, 854-5308

Honeybees Forever: queens, bees, 965-0000

Hawaiian Queens: Queens, nucs (March), 328-2656

Kauai

Danbury Apiaries, queens (April), 828-1714

Maui

Maui Queen Co, queens, nucs, 269-7619

Take a class! Beekeeping courses are happening in March! On Big Island, Danielle Downey will be teaching Beekeeping from the Beginning at the Hilo Community College (934-2700), Jen Rasmussen and Sam Comfort will offer workshops in Hilo (315-6553) and Jenny Bach will be teaching Intro to Beekeeping at NHERC in Honokaa (775-8890).

2013 Legislation of interest: SB558 to label Hawaiian products. SB482 to modify Home-based Honey Production. HB673 to establish pesticide use reporting. <http://capitol.hawaii.gov>

Small hive beetle was recently detected on Lanai, it has spread throughout Hawaii. Projects funded by Act 129 2012 are under way on Kauai, Maui, Oahu and Big Island. To participate on Kauai call 652-3737, on Maui email fukada@hawaii.edu

Varroa has only been detected on Big Island and Oahu, please do not move bees or equipment between islands!

Its time for the **USDA National Honey Bee Health Survey**. If you have at least 8 colonies, and would like to participate, call us soon!

Best Management Practices for Small Hive Beetle

Now spread throughout Hawaii, Small Hive Beetle can be a serious threat. These management tips can help:

Keep strong colonies in the appropriate amount of space. Extra space not used by bees *will* be used by SHB. Do not let colonies dwindle, and combine when necessary.

Use beetle traps to monitor SHB pressure.

Keep colonies clean. Burr comb, crushed brood, pollen or honey comb that bees cannot clean up quickly will be used by SHB.

Remove dead colonies as soon as possible. Freeze or drown all beetle larvae, to protect nearby colonies.

Place colonies in full sun. SHB prefers shady apiaries.

Feed bees only what they can consume quickly, protein patties will support SHB.

Extract harvested honey within 2-3 days. After that, any SHB eggs will hatch and ruin the honeycombs.

Freeze any equipment with comb, brood, pollen or honey before storing to kill SHB eggs, then store sealed in a beetle-proof area.



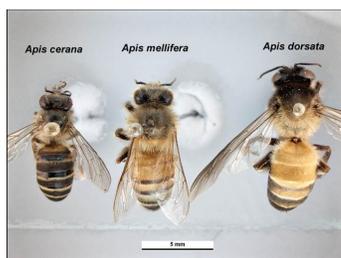
The Large Hive Beetle invades colonies to eat bee brood. (photo A. Fombong and B. Torto.



Left: Varroa mite . Right: Tropilaelaps (Zachary Huang photo, <http://cyberbee.net/gallery>



It only takes a few giant hornets to kill a honey bee hive. <http://sapeurs-pompiers-de->



<http://www.padil.gov.au>

Not found in Hawaii, but bee on the lookout!

Large Hive Beetle

In Africa, the large hive beetle is considered a greater threat to beekeeping than the small hive beetle. There are at least two species of this large scarab which infests hives, known only in Africa. They will eat and destroy large patches of bee brood, causing the bees to abandon the nest. Eggs and larvae are found in dung and soil, the most likely way this beetle would be moved to Hawaii.

Tropilaelaps mites

Tropilaelaps mites are similar in color to Varroa mites, but they are smaller and have a different shape. They do not cling to bees, but run around the comb very quickly like a cockroach. They are found throughout Asia, and are considered a greater threat to beekeeping than the Varroa mite, destroying brood as they feed. These mites cannot feed on adult bees, so they only live a few days

without honey bee brood. Their most likely way into Hawaii is with infested bees.

Giant Hornets

There are two species of giant hornets that prey on bee hives. The adults are large, and attack at the entrance of a honey bee colony. The bees come out to defend their nest and are literally chomped in half. The hornets carry the carcasses and brood from the nest home to feed their young. In just 3 hours, 30 hornets can kill a bee hive. Watch a video of this devastating attack [here](#). Giant hornets are found in Russia, Asia, and Japan. One species was accidentally introduced to France in boxes of pottery, and it is now an established honey bee pest with expanding territory.

Unwanted bee species

Africanized bee and the Cape bee are both species of our honey bee that we do not

want in Hawaii. The Africanized bee is aggressive and swarms repeatedly. The Cape bee has workers who can lay eggs and become pseudo-queens, they confuse the chemical signals in the hive and produce clones of themselves. Both of these bees would destroy the healthy genetic diversity of our bee populations.

There are also species of bees from around the world, including *Apis cerana* (original host of the Varroa mite and of *Nosema ceranae*). In addition to carrying pests and disease, these bees migrate with nectar flows, and store less honey than our bees. These bees could stow away or be smuggled into Hawaii. **Please protect our industry and our aina, contact us if you see any suspicious pests or bees!** The penalty for importing any bees into Hawaii is up to \$200,000. Imports have been illegal for over 100 years, for good reasons!

Participate! Be Included, Be Involved, Bee Informed

Hawai`i Apiary Program

Where we're at:

16 E. Lanikaula Street
Hilo, HI 96720
808-352-3010

1428 S. King Street
Honolulu, HI 96814
www.hawaiibee.com

Its all the buzz! Since Colony Collapse Disorder in 2007 the whole world has been concerned about honey bees. How many are dying? Why are they dying? The only way to know is by asking beekeepers! The Bee Informed Partnership (BIP), is collecting and analyzing information to help reduce bee

losses. They need our information from Hawaii too! Using online surveys, you can enter your information and later see the results. The aim is to help beekeepers make educated management decisions based on the survey results. BIP is also working with queen breeders and large producers around the

country to develop Tech Transfer Teams to serve the industry. Because Hawaii is so unique, we need input from Hawaii beekeepers to see output relevant to Hawaii! Participate during the survey period in **April**. Learn more and see the results at: **BeeInformed.org**