

Marking Queens

by Mike McNally

How to catch, mark and release queens is a skill that can be learned. There is little doubt that marked queens are a great asset to beekeepers. A marked queen can let you know if your hive has swarmed, superseded, or lost her queen. It is also extremely helpful when making splits and nucs and lastly keeping her safe when you do alcohol rolls for mite population counts.

Before any marking can be done you need to find the little darling. As many of you know this at times can be a challenge. Try to anticipate color by knowing the race of your bees. Russians are dark, brown to black in coloration. I feel like they are clad in camo wear. They are the most difficult to find but made easier if you expect a dark color. Big, fat, golden and regal; these are the Italians queens. They are the easiest to find and when you see them you feel like perhaps you should bow or curtsy before them. Mutts can be any color.

Now we are on the hunt to find her. Where might she be? Anywhere and everywhere! There is a story told by one beekeeper that a queen was found crawling up her leg under her pants. She had the foresight to unzip and reach down inside her pants and grasp the little critter before any harm could be done. This is not my method however. I usually crush bees in clothing first and identify later but usually a split second after I feel the sting and have been shown the error of my ways.

Those of us that go hive diving for the queen should have a method to follow. If no method is followed it is very easy to miss her in unexpected spots. The first thing I do is quickly look at the top of the hive to be searched as well as the outside and landing

board. I have twice found the queen on top and at least once she may have been returning from her nuptial flight. Next I remove the outer cover and check the inside as well as the top of the inner cover. This is followed by checking the underside of the inner cover and the top of the frames. Now you are ready to explore where you are likely to find her, on brood frames. I stand behind my hives and remove my honey supers and start my search in the brood boxes. I number my frames one through ten starting on the left and proceeding to the right with frame #10 on the far right. I look in the top brood box first starting with frame nine and then proceed backwards through the numbers. Sometimes I will go back and check #10. The same procedure is used for the bottom brood box. In the summer it is about 50/50 as to which box you might find her but springtime definitely favors the upper box.

How to find her and what to look for? Her movements are what catches my eye first. They appear to have purpose, then the sense of dragging a caboose behind her (pointed abdomen) whereas the worker bees tend to have a more erratic movement. Try not to pick out individual bees; this will drive you nuts. If you look at the frame as a whole it will be much easier to spot the queen's movements. The ID clincher is the very shiny, black, hairless, dorsal thorax and comparatively short wings and of course larger size. Voila!!! You have found her. Here is the gem tip of the century! Buy a pair of cheap reading glasses, usually a 3.0 diopter or higher. The queen will be much easier to find and be larger than life.

Now that we have found her we need to capture her in order to mark her. I would not recommend anyone try to pick her up with thick heavy gloves. It is too easy to cause injury. At this point it is nice to have another pair of hands. This second person can hold the frame at the right height and angle. If alone gently lay the frame flat across the tops of the frames still in the box taking care not to crush workers that may be



underneath. Queen side up. I like to use a marking cage in my right hand without the foam plunger and use the index finger of my

left hand to gently flick her into the cage. Once in the cage replace the plunger and with gentle pressure pin her to the top of the plastic grid and mark her with the color of the year. She should be marked on her dorsal thorax (top) only. The marking color is changed every year on a five year rotating basis using five colors in this repeating order. White 1&6, yellow 2&7, red 3&8, green 4&9 and blue 5&0. WARNING!!! Test dab your marker on your hive or stand first before marking your queen. The marking pens at times can release enough paint to do harm or drown your queen. Your test dabs will minimize this possibility. I keep the marking cage, plunger, and marking pen in the right pocket of my bee jacket. Quick at hand!

Finally, the release. I turn the marking cage, plunger end down and carefully pull out the foam plunger. This open end is placed over a space between two frames. Be patient; she will eventually find her way out and down through the space and into the hive.

Most of the time it is as easy as described but on occasion all does not go as it should. Remember those little wings that I previously described? They actually work. On a few occasions the queen has taken flight. OMG OMG OMG what to do? Nothing!!! Close the hive back up. She usually makes it back home by nightfall. With time and experience you may want to handle and mark your queens with your hands and marking pens only. Do not hold her by the abdomen. Wings, legs and thorax are okay. Practice on your drones first. Remember the most important thing is to have fun.