

Almond IPM Carpophilus beetle trap catch ID

Background

Carpophilus truncatus is one of the most damaging insect pests in Australian almonds, causing significant losses in crop value due to kernel damage. Agriculture Victoria has developed a monitoring trap for this pest, with beetle catches averaging over 95% *C. truncatus* during large-scale trapping trials and in some monitoring traps.

At the edge of orchards however, the proportion of *C. truncatus* can sometimes be considerably lower (e.g. 50% of the catch). In all cases so far, the remainder of the catch has been almost entirely *Carpophilus hemipterus* - a common pest of many fruit crops but not seen to damage almonds. Separating *C. hemipterus* from the rest of the catch will therefore provide a reasonable idea of the proportion of the catch that is *C. truncatus*.

Identification

Although both species are similar in size (~2.5–3.5mm), the differences in body colour shown below allow *C. hemipterus* to be easily separated from the catch. If the catch is large, take a subsample of about 1ml (approx. 200 beetles). Count the *C. hemipterus* as you remove them from your sample, then count the beetles left in your sample (leftover).

The estimated <u>proportion</u> of *C. truncatus* in your total catch = leftover beetles (i.e., non-*C. hemipterus*) / total beetles.

The estimated <u>number</u> of *C. truncatus* in your total catch = total beetle volume (ml) x 200 x estimated proportion of *C. truncatus*.

Carpophilus truncatus

Uniform very dark brown/black body

Carpophilus hemipterus



M-shaped gold markings (of variable brightness) on brown body

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