

Slaters or flood bug (*Australiodillo bifrons*)

The native slater (*Australiodillo bifrons*) is an occasional pest of emerging winter crops. Outbreaks (or mass movements) of slaters have been recorded in May and June in southern Queensland and northern NSW. They have also been recorded in October in Central Queensland. The impact of slaters on emerging and establishing crops is highly dependant on the environmental conditions (how wet or dry) and the number of slaters.

Slaters are not generally regarded as a pest of broad acre agriculture, and are certainly not confined to agricultural areas. Slaters generally feed on decaying vegetation and dead animal matter. Overall they perform an important recycling role in the environment.

This native slater is commonly found in low lying swampy regions and tends to be more active after rain periods, which is typically when the swarming occurs. They need damp conditions and will die if exposed to open and dry situations.



Slaters swarming.

Identification

Slaters are crustaceans, not insects. They have a hard skeleton on the outside and many pairs of jointed legs. *Australiodillo bifrons* has a light brown oval shaped and flattened body with a dark brown stripe in the middle of the back. Both males and females have a characteristic split on the frontal plate. Males tend to be larger than females and can grow as large as 9 mm long and 6.5 mm wide.



Flood bug (*Australiodillo bifrons*). (Photo: Angelos Tsitsilas, cesar)

Damage

Slaters are known to do damage to seedlings of wheat and oats and there is also evidence of slater activity in canola in western and southern Australia.

Slater damage looks similar to snail and slug damage with rasping and shredded appearance to leaves. Feeding damage can also appear as irregular patches removed from the leaves, resulting in distinctive 'windows' of transparent leaf membrane. Thousands of seedlings can be eaten in a short time by swarms of slaters.



Slater damage to seedling wheat (Photo: Vic French).

Monitoring and threshold

Slaters can be observed whilst conducting crop inspections for other pests of establishing cereals, or weeds. Look for damage to seedlings consistent with rasping and windowing. If significant damage is found, a ground search along the affected row and neighbouring rows is warranted.

The damage caused by slaters is similar to that caused by slugs, so a ground search in combination with deployment of shelter traps may be useful in determining the cause. It is unlikely that small numbers of slaters will be present, but if crop inspections are irregular, then the 'swarm' may have passed through the crop between check leaving just damaged crop.

There is no threshold for slaters in winter cereals. The extent and rate of seedling loss will be a guide to whether significant crop loss is likely.

Management and control

Slaters are an agricultural pest in South Africa where they are generally controlled by cultivation. Changing farming practices such as minimum or non tillage seem to have increased the incidence of the slaters, especially if there is also a large amount of stubble present in fields.

There are no registered pesticides for the control of slaters in winter cereals.

Experience with slaters suggests that folia application of synthetic pyrethroids and organophosphates for other species has little impact on slaters. This low impact may be because slaters are largely protected from contact by soil and stubble. Insecticide baits are used in horticulture for slaters.

Non chemical approaches such as providing alternative habitats may decrease slater numbers in crops. Shelterbelts containing a complex understorey of vegetation and soil litter may be more attractive to slaters. Such environments also harbour many natural enemies of broad acre insect pests which can also keep slater populations in check.