

## **Cabbage stem weevil, *Ceutorhynchus pallidactylus* (Marsham, 1802)**

**Insect species:** Cabbage stem weevil, *Ceutorhynchus pallidactylus* (Marsham) (Curculionidae: Ceutorhynchini). Identified by Riaan Stals.

**Hosts:** cabbage (*Brassica oleracea* var. *capitata*), Pe-tsai (*Brassica rapa* subsp. *pekinensis*), radish (*Raphanus sativus*), oilseed rape (*Brassica napus* var. *oleifera*).

**Geographic distribution:** Sub-cosmopolitan; originally from Europe (Austria, Belarus, Czechoslovakia, Germany, Hungary, Italy, Poland, Sweden, Switzerland, United Kingdom, former USSR), but also Asia (Jordan, Turkey).

**Arrival in South Africa:** The South African National Collection of Insects has two identified specimens, one from Stellenbosch collected in 1982 on grapevine and another from Nelspruit. Thus it has been in the country for at least 24 years and appears to be widespread.

**Natural enemies:** Over 50% attacked by *Tersilochus* spp (Ichneumonidae) in France, Switzerland, and Germany, and 30% by *Tersilochus exilis* on spring rape in Sweden. *Tersilochus* spp also account for 95% of larvae of the closely related rape stem weevil, *Ceutorhynchus napi*, and thus could be used against both species should the latter arrive in South Africa. The major endoparasite is *Tersilochus obscurator* Aubert (Hymenoptera: Ichneumonidae) which emerges from mid April to mid May in the UK.

**Biology:** *Ceutorhynchus pallidactylus* may share the same habitat and food resource as the rape stem weevil, *Ceutorhynchus napi* Gyll.

Female *C. pallidactylus* tend to lay their eggs in plants already infested by eggs and larvae of *C. napi* than in un-infested plants. Ovipositing females of both *C. napi* and *C. pallidactylus* generally show a significant preference for plants with a larger stem diameter. The within-plant distribution of the egg batches of *C. pallidactylus* do not differ significantly between un-infested plants and those pre-infested by *C. napi*.

Female *C. pallidactylus* lay significantly more eggs in leaves of plants that had been previously infested by *C. napi* than in leaves of previously un-infested plants. Larvae of *C. pallidactylus* showed a significant shift of their feeding niche towards the stem base when feeding in individual plants attacked by both species, but within-plant distribution of *C. napi* remained unaffected.

The size of the head capsule of full-grown larvae of *C. napi* and *C. pallidactylus* was not significantly correlated with the diameter of the stem of their host plant or with the number of conspecific larvae within individual plants.