# *Prostephanus truncatus* (Horn)

# (Larger grain borer)

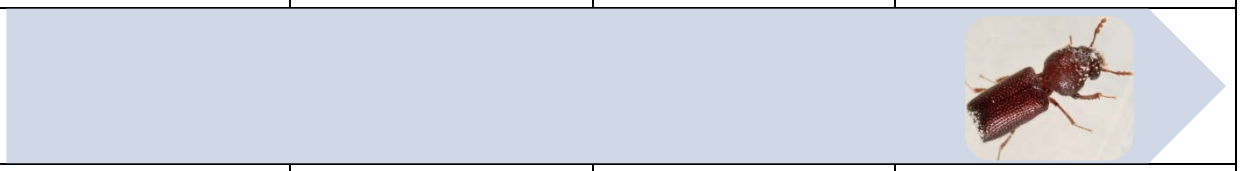
Fam. Bostrichidae

General information: Primary pest (in Central America, accidentally introduced to Central Africa) on maize and dried manioc, on some grain mixtures (millet), dried/hacked and legumes; strong mouthparts – pierces wood and plastics; tolerant to heat and drought; in the field and also on corncobs; several generations a year, may penetrate wood and develop in starchy wood, both sexes are attracted to infestation site by aggregation pheromones.

Infested products: Corn and manioc, cassava, sorghum, bamboo

Related species: *Rhizopertha dominica* (lesser grain borer)

Total development: 25 days at 34 °C and 75 % relative humidity (optimum temperature)

| Egg | Larva | Pupa | Adult (beetle) |
|---|---|---|---|
|  | | | |
| 5 to 6 days | 13 to 20 days | 5 to 6 days | 5 to 6 days |
| - 0.6 mm oval<br>- pale whitish<br>- eggs are individually placed in chambers into the corn kernel (closed with meal)<br>- chambers are created at right angle to the main course<br>- 300 to 500 eggs per female | - White-yellowish, curved shaped<br>- less hairy<br>- 0.4 - 5 mm long<br>- larvae drill into the grain or feed on adult meal<br>- 3 - 4 larval stages | - pupation inside or outside the corn in a shell of oral secretions, excrements and meal<br>- white, darker with ageing | - 3.0 - 4.5 mm long<br>- black-brown, cylindrical<br>- hunchbacked hull (with tooth-like depressions) covers the head<br>- heavily dotted cover wing, appears chopped off at the end of abdomen<br>- club-shaped antenna (3 terminal segments out of 10 form the club) |

Damage: Tunneling in corn kernels and starchy woods (one main and several secondary passages); round-shaped holes on grains; contamination by a lot of eating flour and feces; damage packagings and wood, leaves behind frass dust without nutritive value

Prevention: Thorough cleaning and removal of infested remains before storage; quick harvest of corn as soon as ripen; cultivation of resistant varieties; dry or cool storage

Early detection: Flight traps with male aggregation pheromone; sieving (only for adults)

Control: Inert dusts and contact insecticides; long exposure time for the control (pupa stages only slightly sensitive); use of authorized plant protection products (see database www.bvl.bund.de); heat treatment, freezing, use of biological antagonists (*Teretrius nigrescens*)

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