



Kampus  
Merdeka  
INDONESIA JAYA

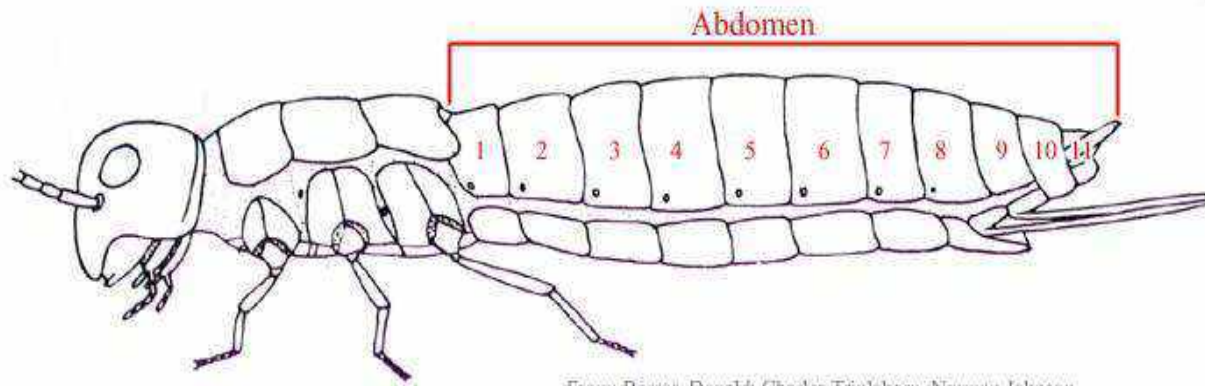
A close-up photograph of two mosquitoes perched on a thin, brown plant stem. The mosquitoes have dark bodies with yellow and black spots on their abdomens and wings. The background is a soft, out-of-focus green, suggesting a natural outdoor setting. On the left side of the image, there are white, brush-like graphic elements.

# TOPIK 4: BAGIAN-BAGIAN TUBUH SERANGGA III

# Abdomen

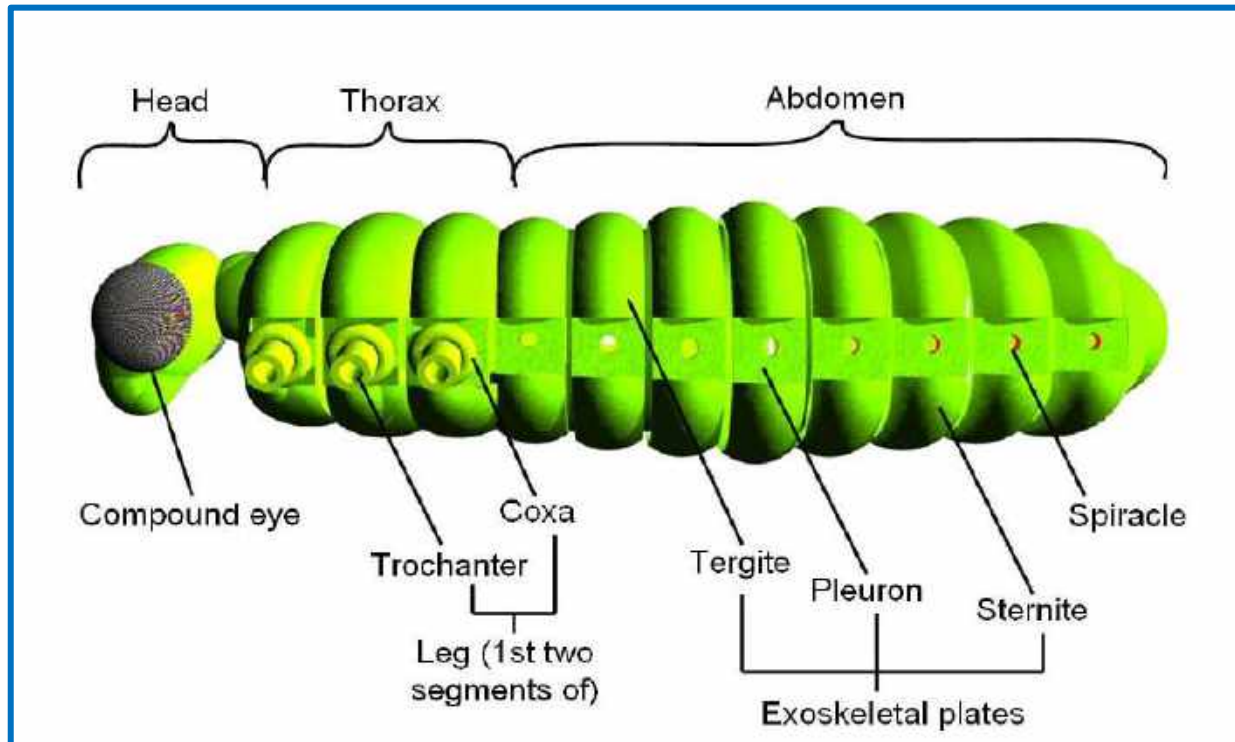


- Pada dasarnya jumlah segmen abdomen adalah 11
- Ke arah horizontal segmen abdomen dibagi oleh pleural membran menjadi 2 bagian
  - bagian atas (dorsal): **tergum**
  - bagian bawah (ventral): **sternum**

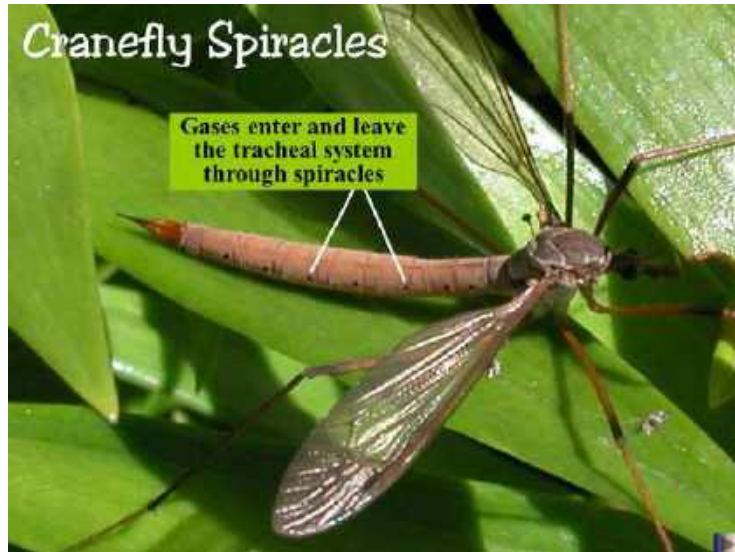


From: Borror, Donald; Charles Triplehorn, Norman Johnson.  
*An Introduction to the Study of Insects*. Harcourt College Publishers, 1992.

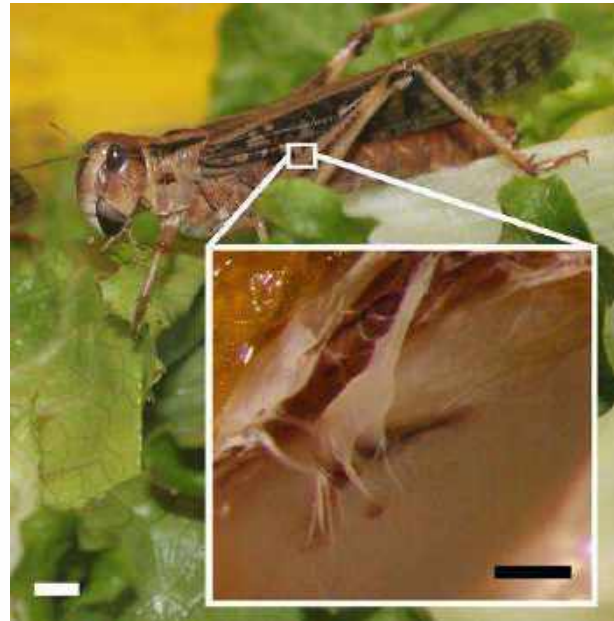




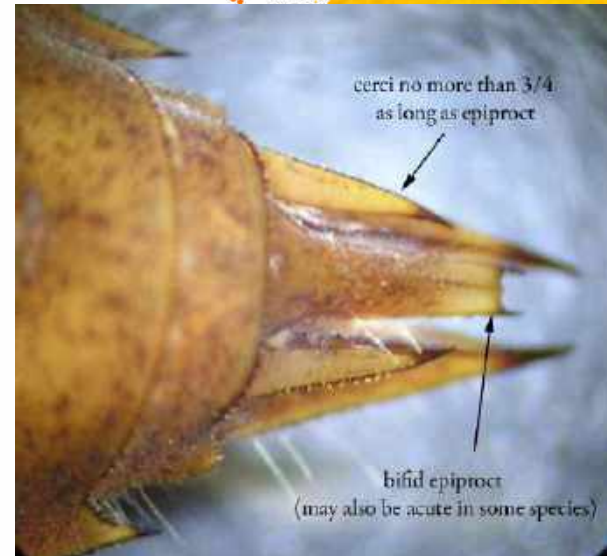
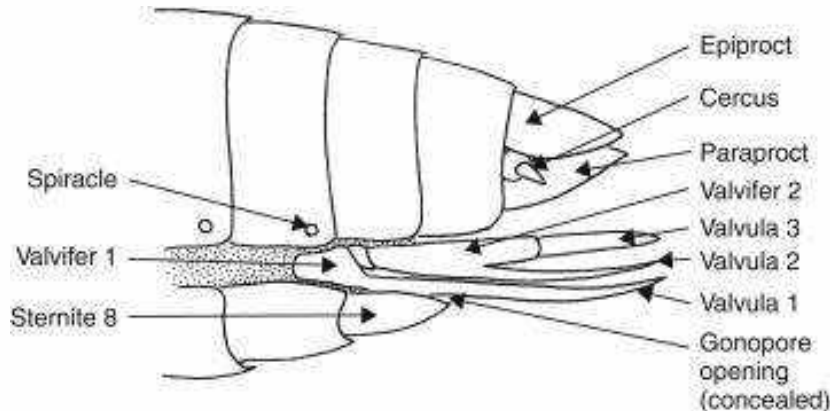
- Tiap segmen mempunyai sepasang lubang nafas yaitu **spiracle/stigma**



- Pada tergum yang pertama terdapat alat pendengar: **tympanum**



- Segmen terakhir di ujung abdomen:
  - Bidang lateral: **paraproct**
  - Bidang dorsal: **epiproct/telson**
- Ujung abdomen terdapat alat kelamin:
  - **Aedeagus/phallus** : jantan
  - **ovipositor** : betina

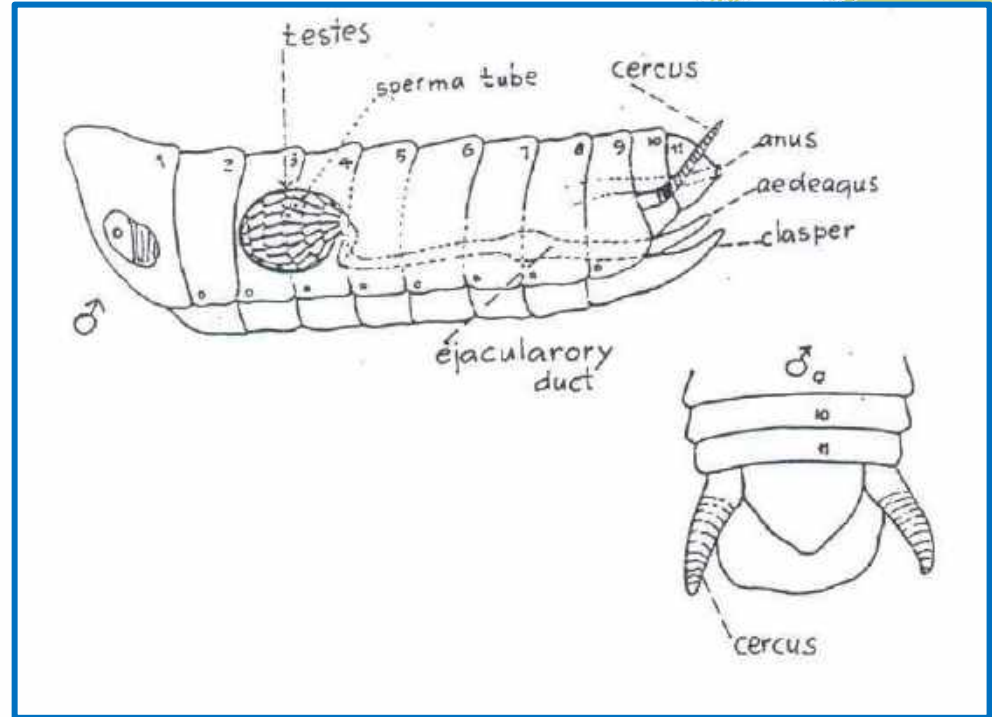


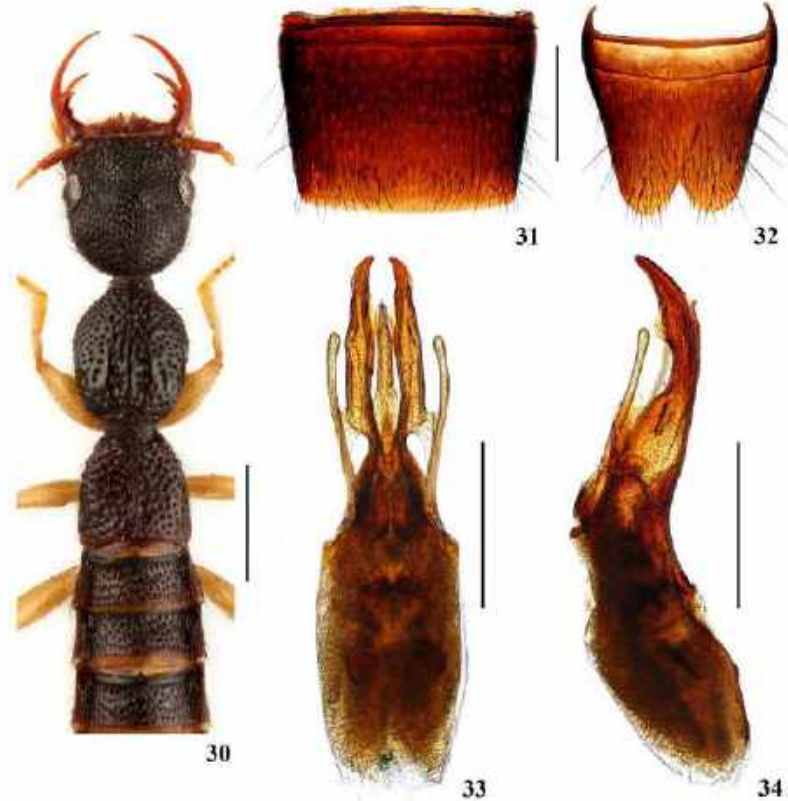
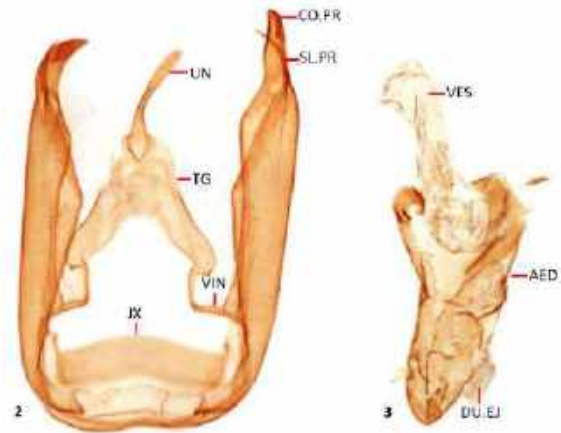


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# Alat Reproduksi

- Pada serangga jantan terdiri atas:
  1. Sepasang testis
  2. Tabung sperma
  3. Kanal sperma (ejaculatory duct)
  4. Penyalur sperma (aedeagus atau phallus)
  5. Alat pemegang betina (clasper)





Images 1–3. 1 - *Neoduma valvata* sp. nov. (adult male);  
2 - male genitalia; 3 - aedeagus

1. Pada serangga betina terdiri atas:
2. Sepasang tempat sel telur (ovary)
3. Tabung sel telur (ovarian tube atau ovariole)
4. Sepasang saluran telur (oviduct)
5. Ruang genital (vagina) dengan genital opening
6. Tempat penyimpanan sperma (spermatoca)
7. Alat peletak telur (ovipositor)

