

# CLASSE INSECTA

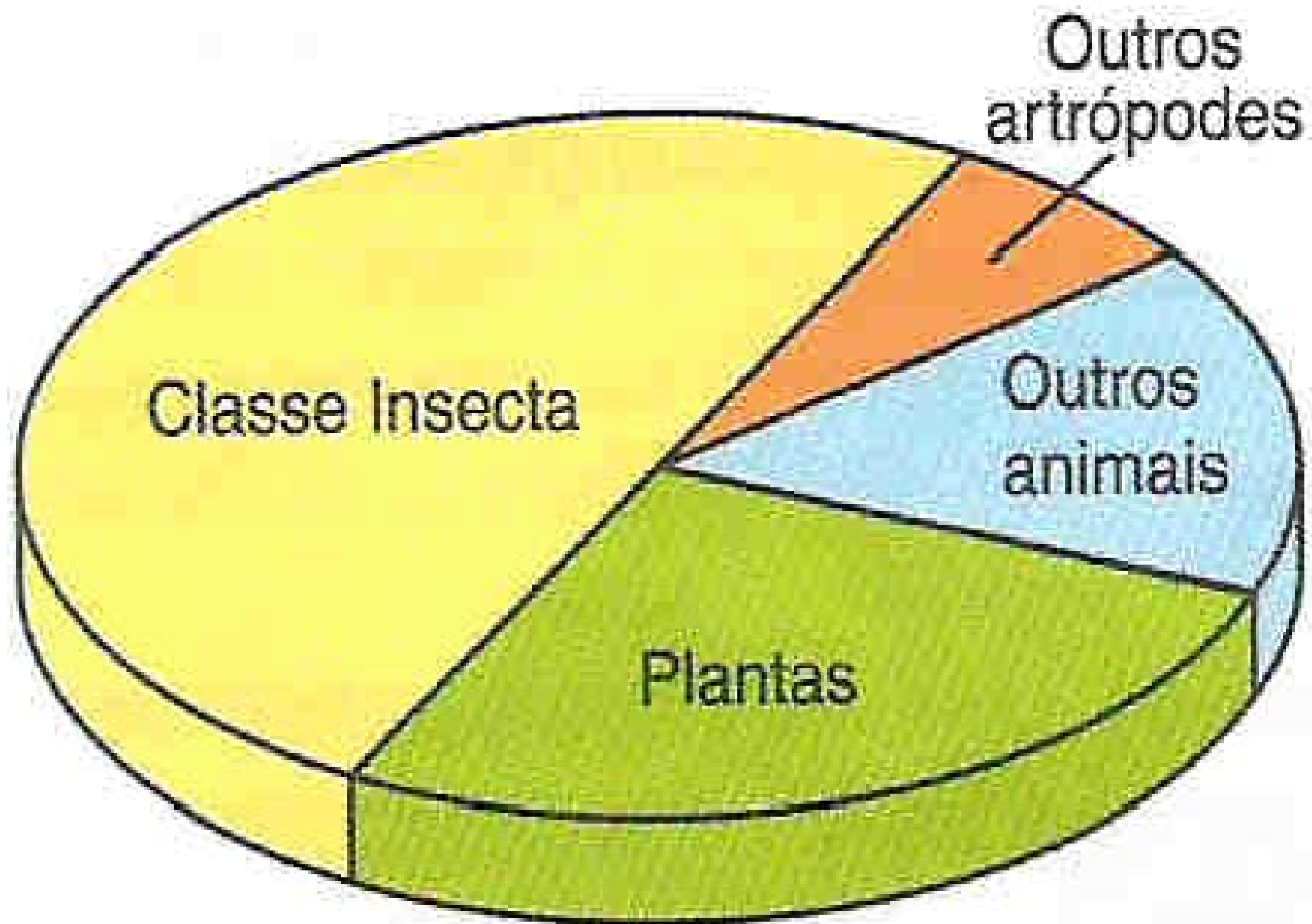


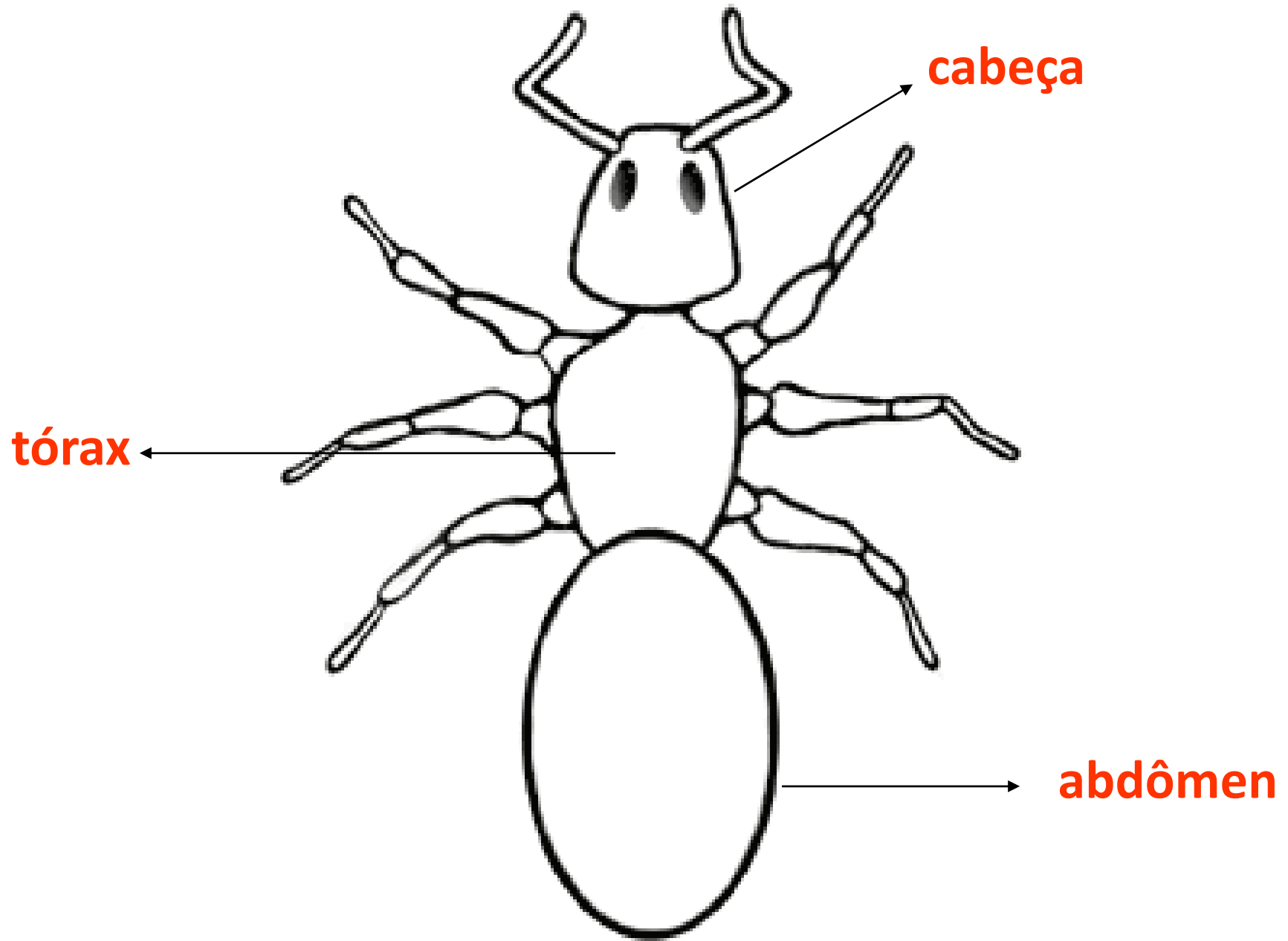
# IMPORTÂNCIA

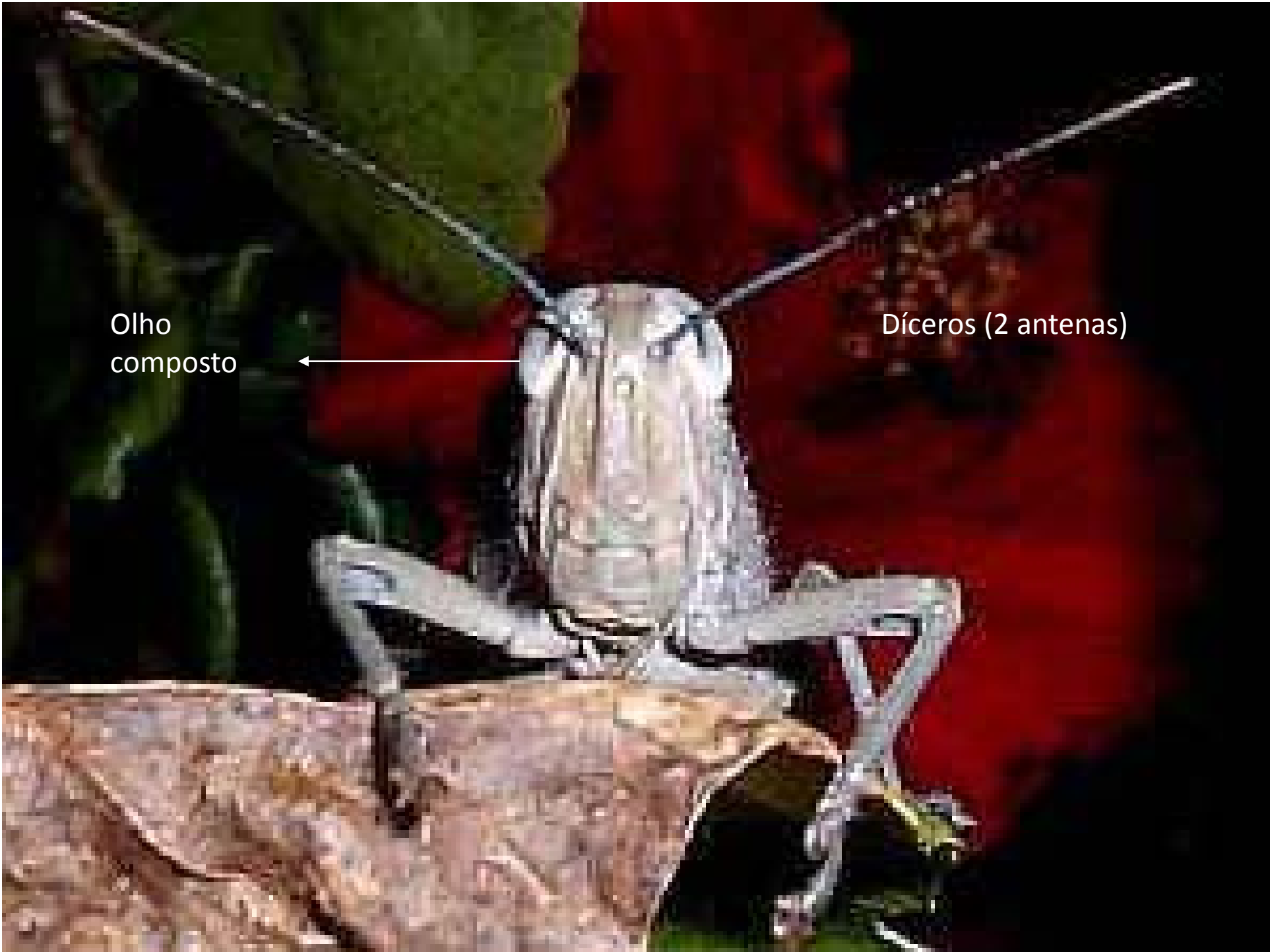
- ECONÔMICA
- ECOLÓGICA

# CARACTERÍSTICAS GERAIS

- GRANDE VARIEDADE DE ESPÉCIES.
- SIST. DIGESTÓRIO COMPLETO (EXTRACELULAR)
- SIST. RESPIRATÓRIO TRAQUEAL
- SIST. CIRCULATORIO ABERTO (S/ PIGUIMENTO)
- SIST. EXCRETOR TUBULOS DE MALPIGHI – (ÁCIDO ÚRICO)
- SIST. NERVOSO GANGLIONAR – VENTRAL (C/ SIST. SENSORIAL DESENVOLVIDO)





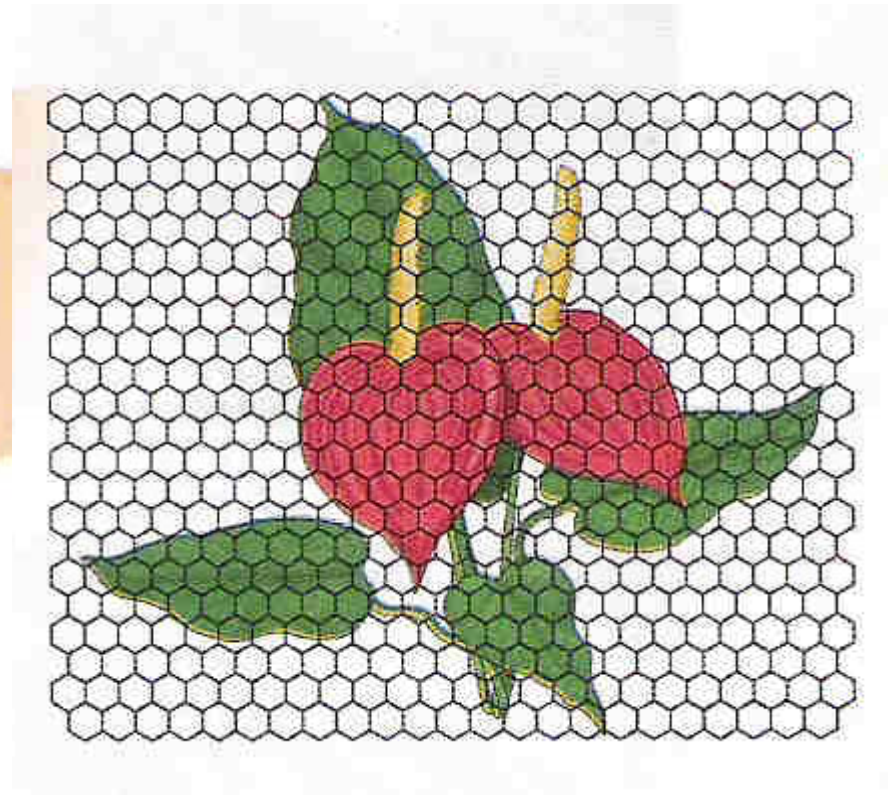
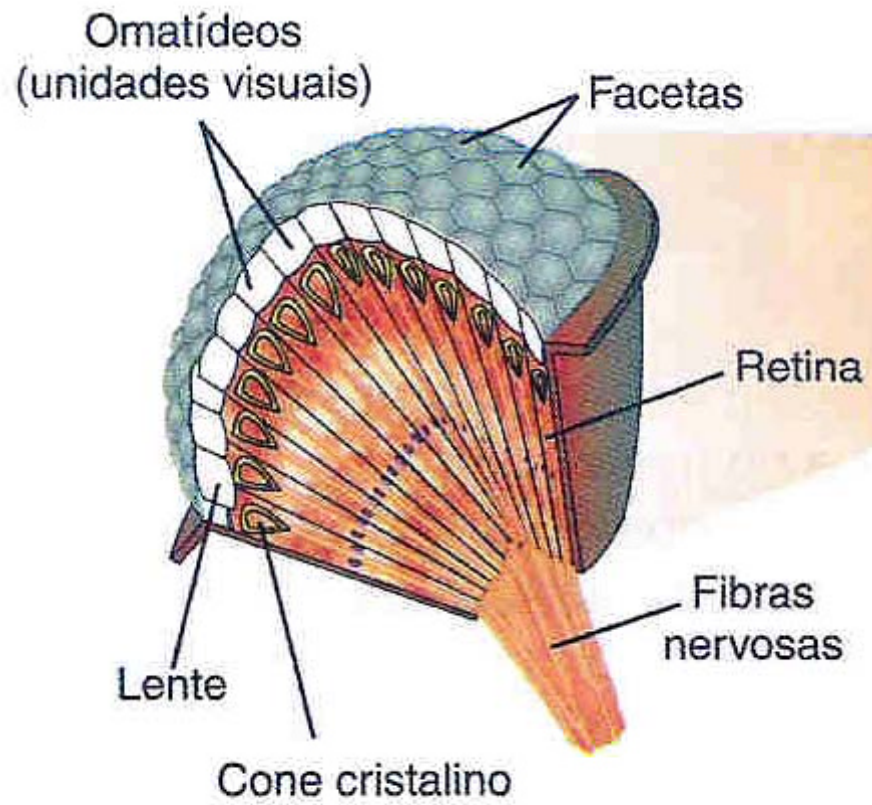


Olho  
composto

Díceros (2 antenas)



Olho composto



# PEÇAS BUCAIS

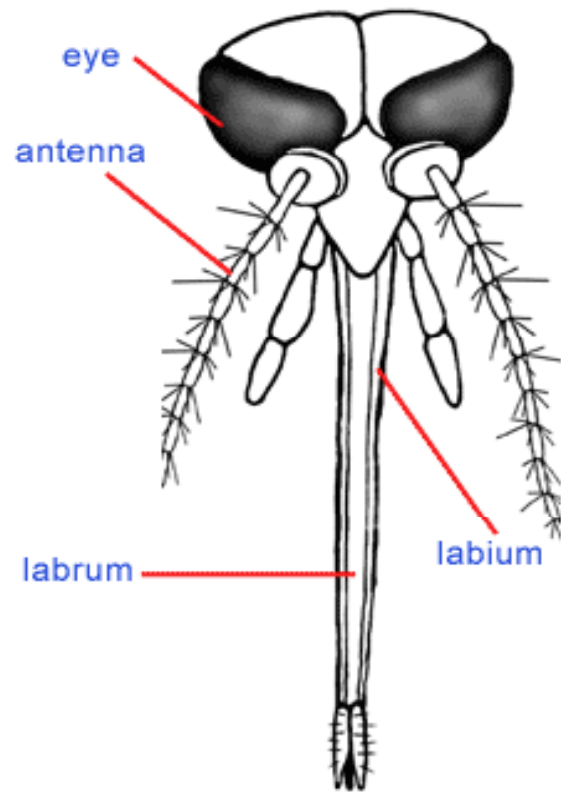
## mastigadora

Grasshopper (order Orthoptera, Acrididae):  
mouthparts directed downward and specialized for processing plant materials

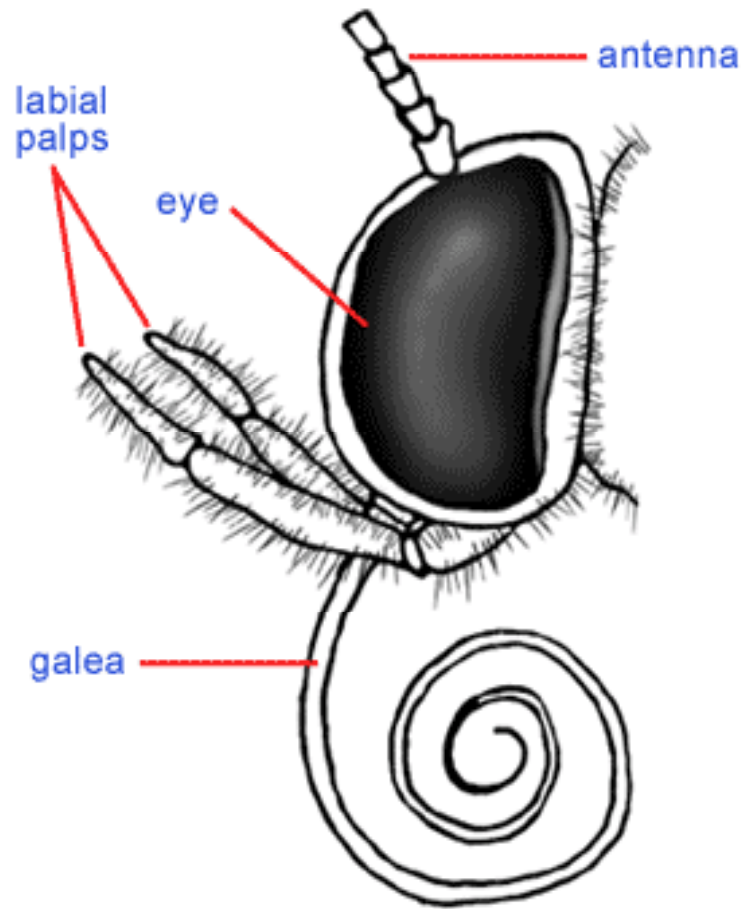


K.B. Sandved & M.G. Emsley ©1978 Viking Penguin

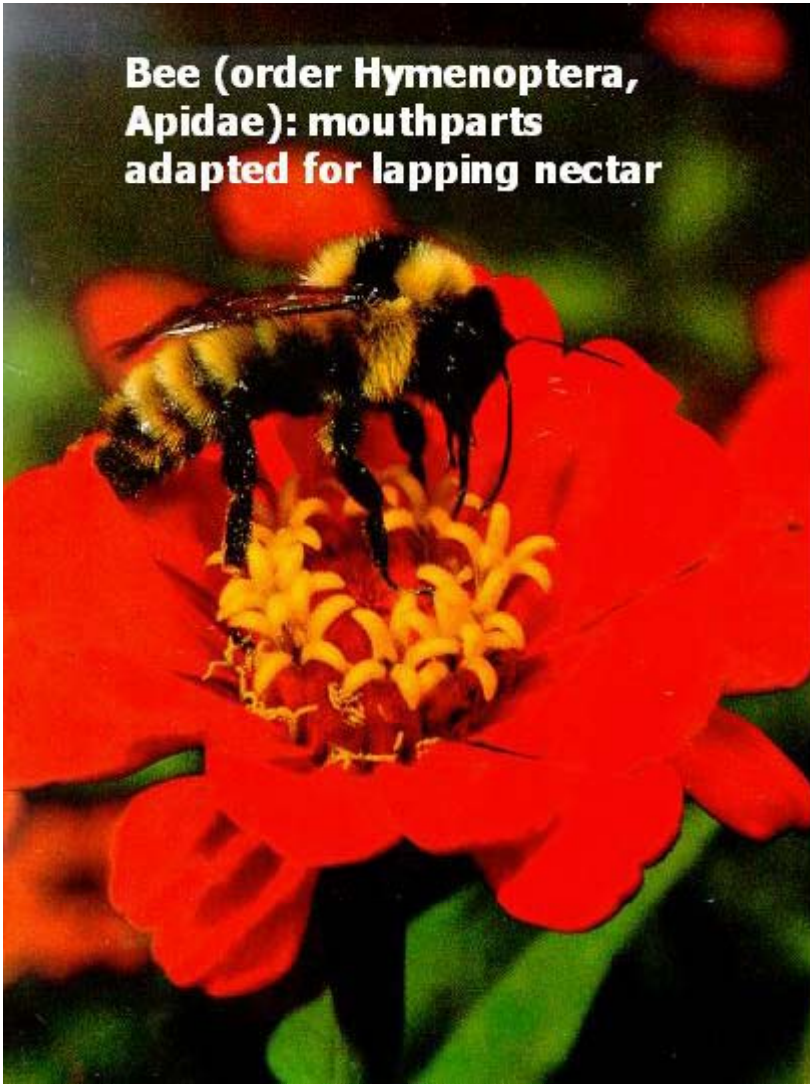
# PICADORA - SUGADORA



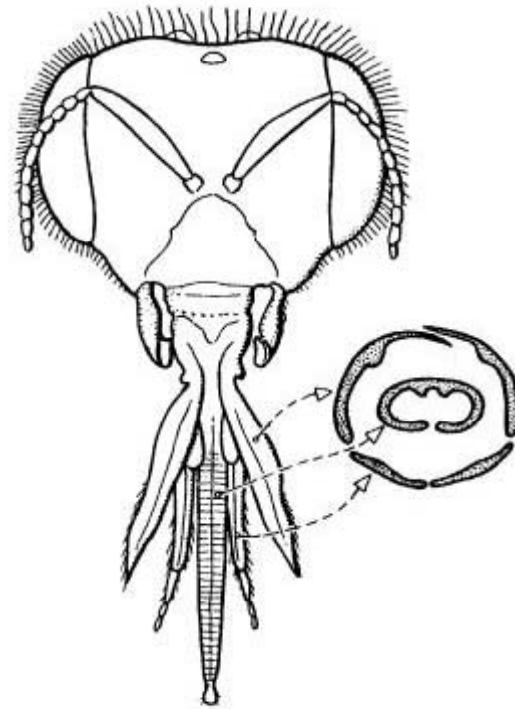
# SUGADORA

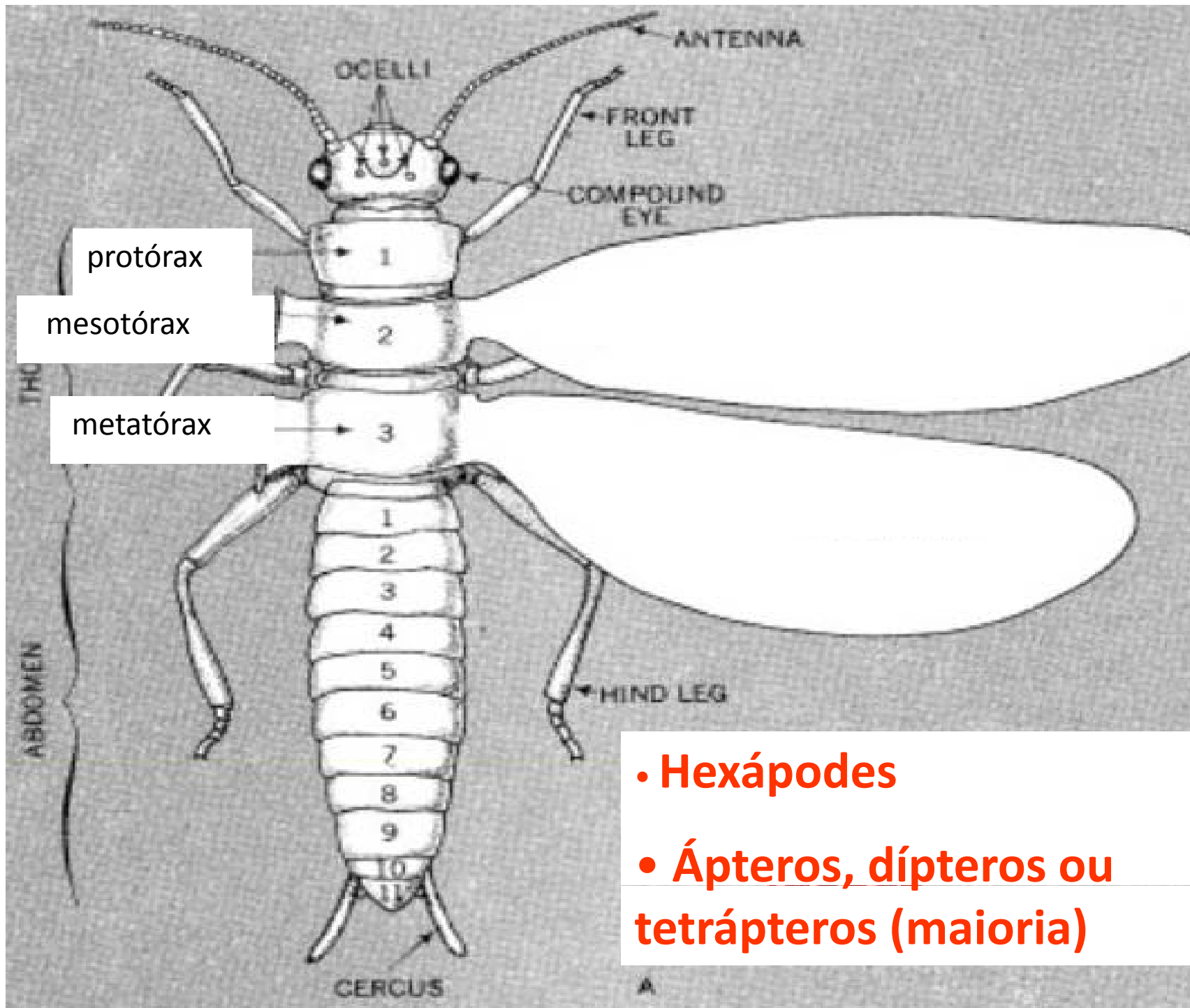


**Bee (order Hymenoptera,  
Apidae): mouthparts  
adapted for lapping nectar**



**lambdodora**

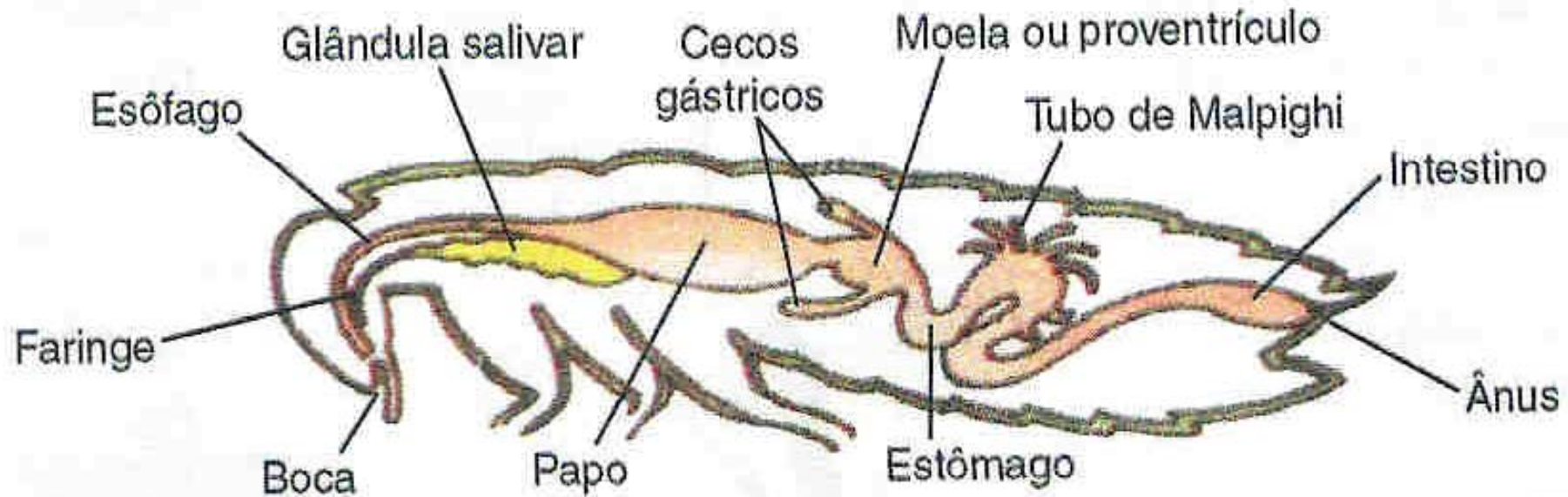




- Hexápodes
- Ápteros, dípteros ou tetrápteros (maioria)

# SISTEMA DIGESTÓRIO

- **Completo**
- **Digestão extracelular**



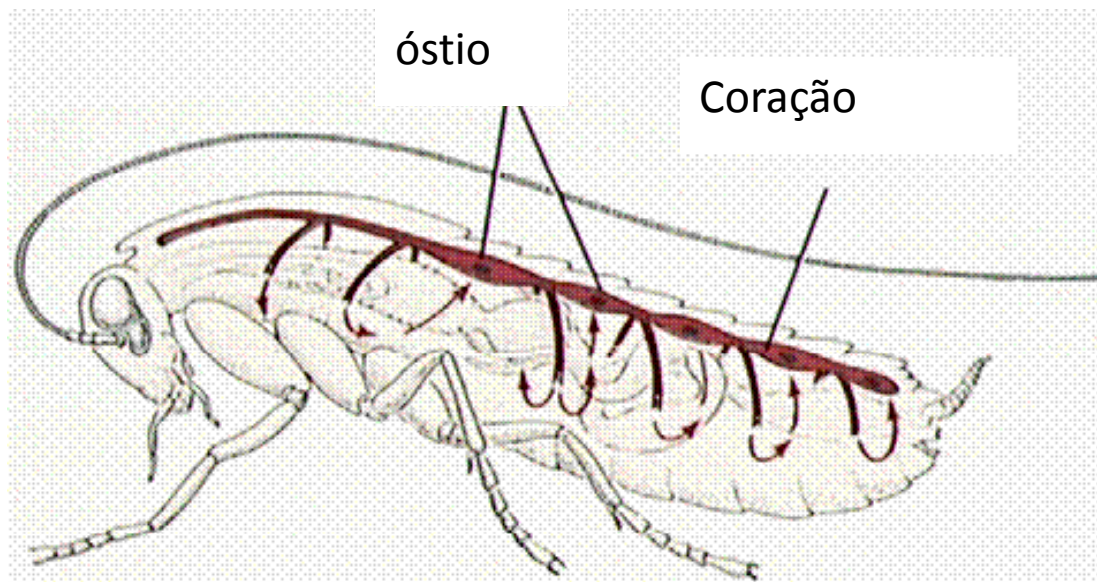
# SISTEMA RESPIRATÓRIO

## TRAQUEAL

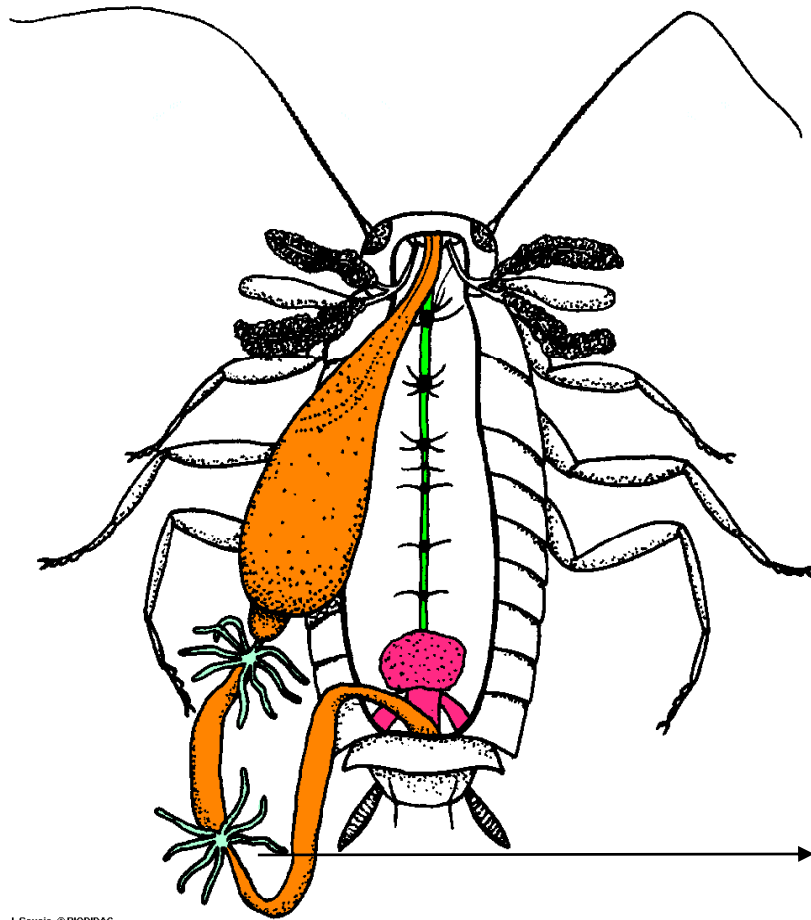


# SISTEMA CIRCULATÓRIO

- Aberto
- Coração dorsal
- Sangue sem pigmentos respiratórios



# SISTEMA EXCRETOR

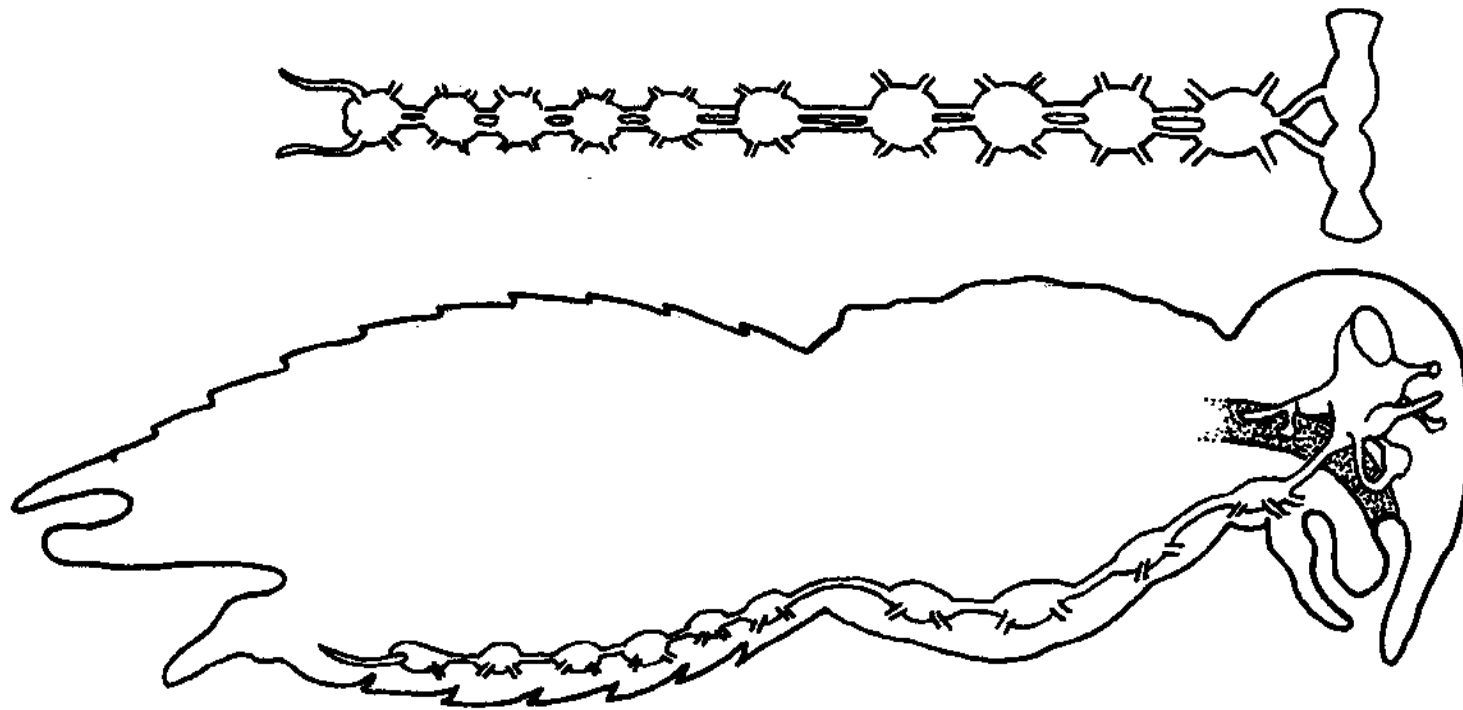


Tipo de excreção:  
Ácido úrico

→ Túbulos de Malpighi

# SISTEMA NERVOSO

## Ganglionar e ventral



9/9/99  
Livingstone © BIODIDAC

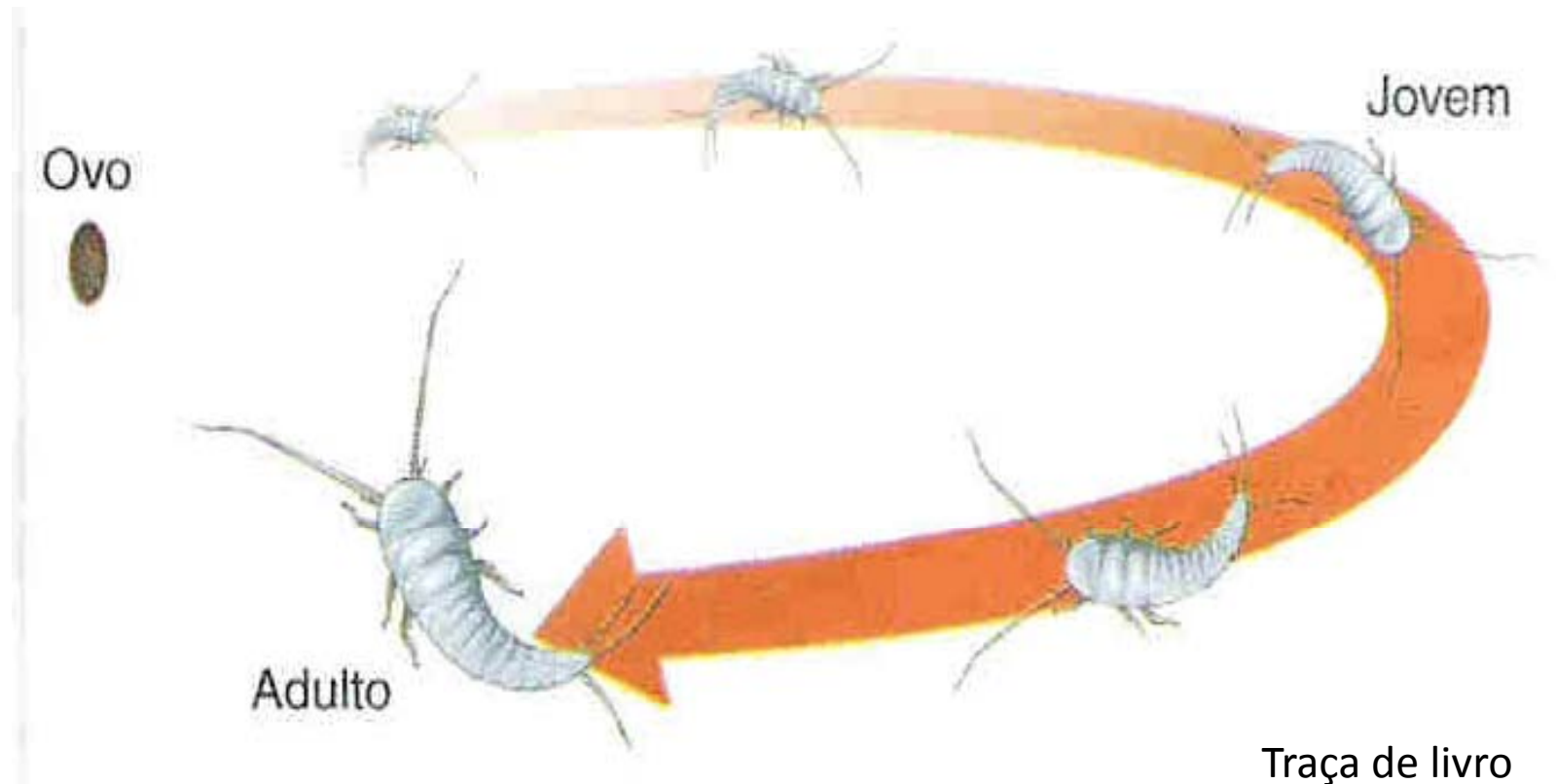
# REPRODUÇÃO

- **Dióicos (gonocoristas).**
- **Fecundação interna**
- **Partenogênese (alguns)**

# AMETÁBOLOS

(sem metamorfose)

OVO → ADULTO



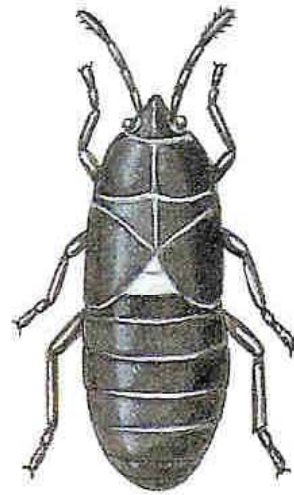
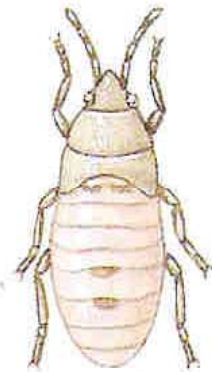
# HEMIMETÁBOLOS

(metamorfose incompleta)

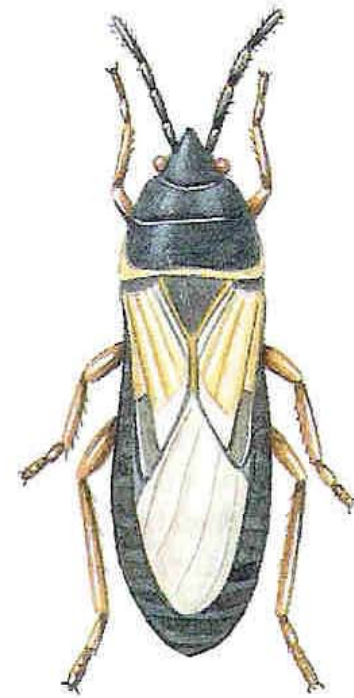
OVO → NINFA → ADULTO (IMAGO)



Ovo



Ninfas

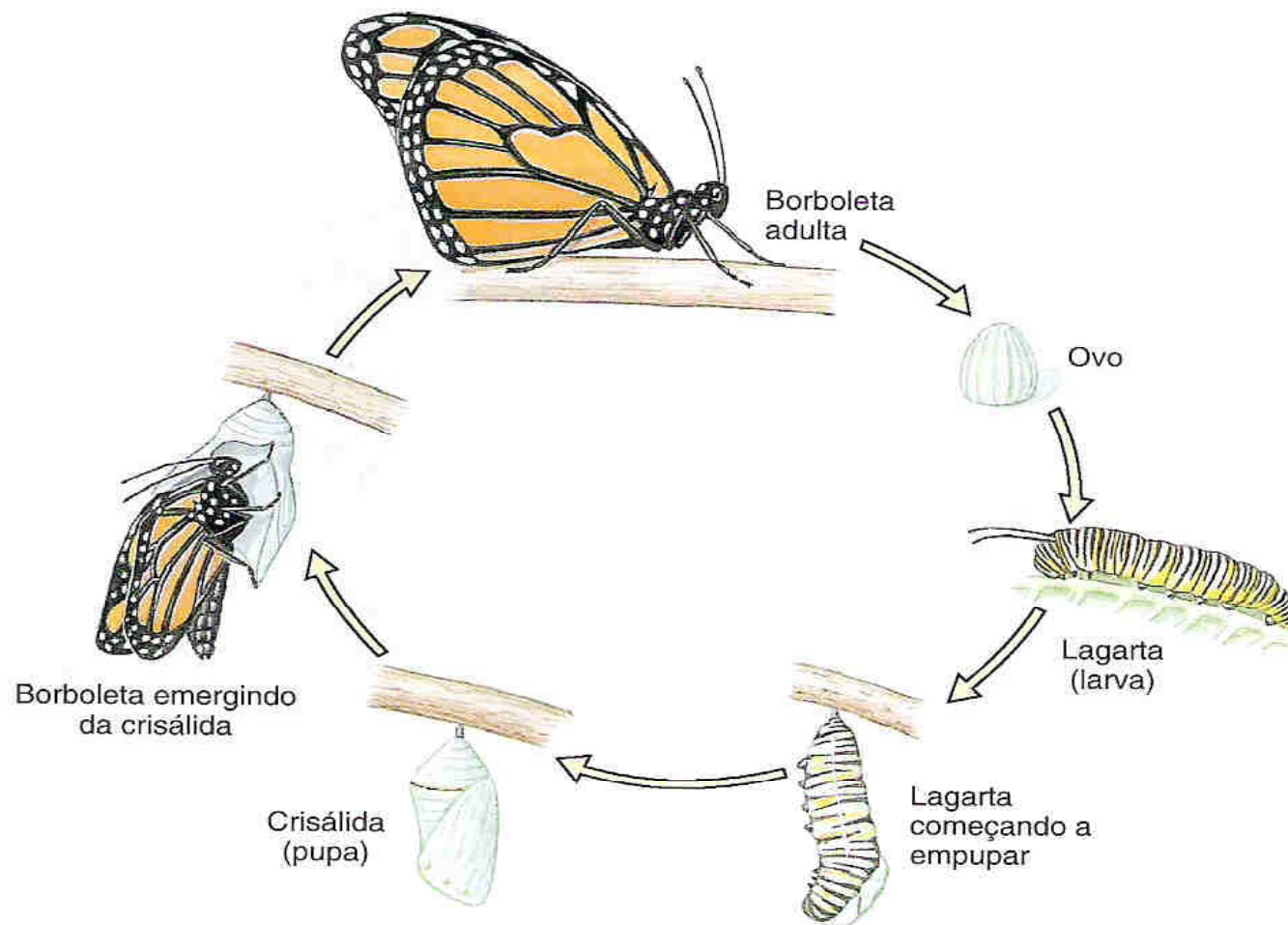


Percevejo adulto

# HOLOMETÁBOLOS

(metamorfose completa)

OVO → LARVA → PUPA → IMAGO



1  
2  
3  
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