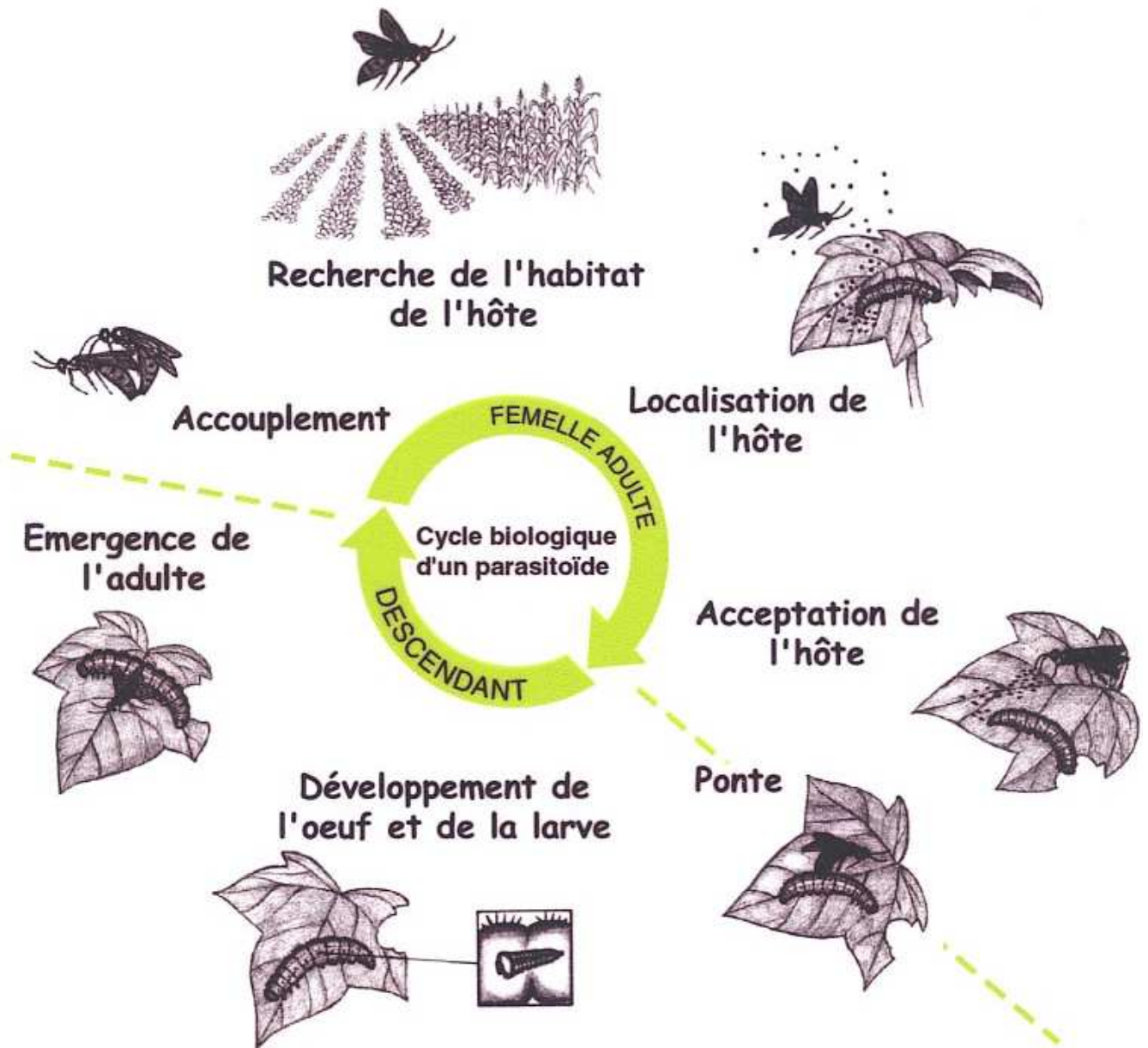


TP Comportement et reconnaissance des parasitoïdes

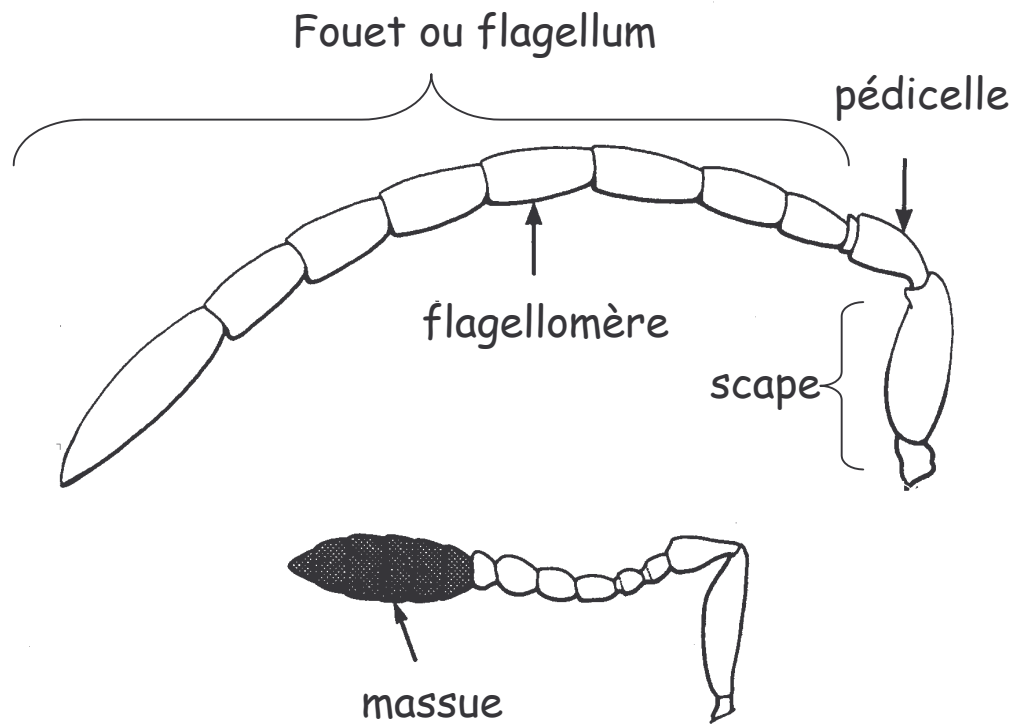


Document proposé par A.M. Cortesero, L. Krespi et D. Poinso

Cycle biologique d'un endoparasitoïde

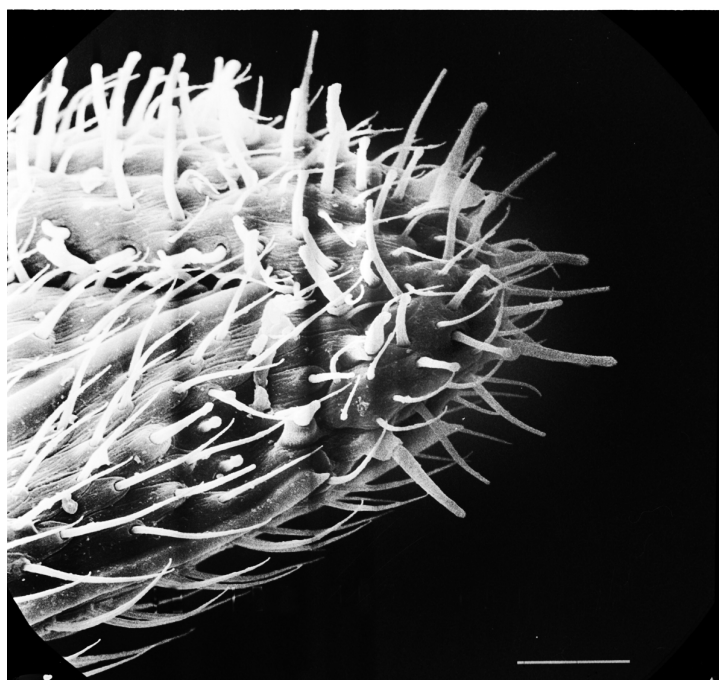


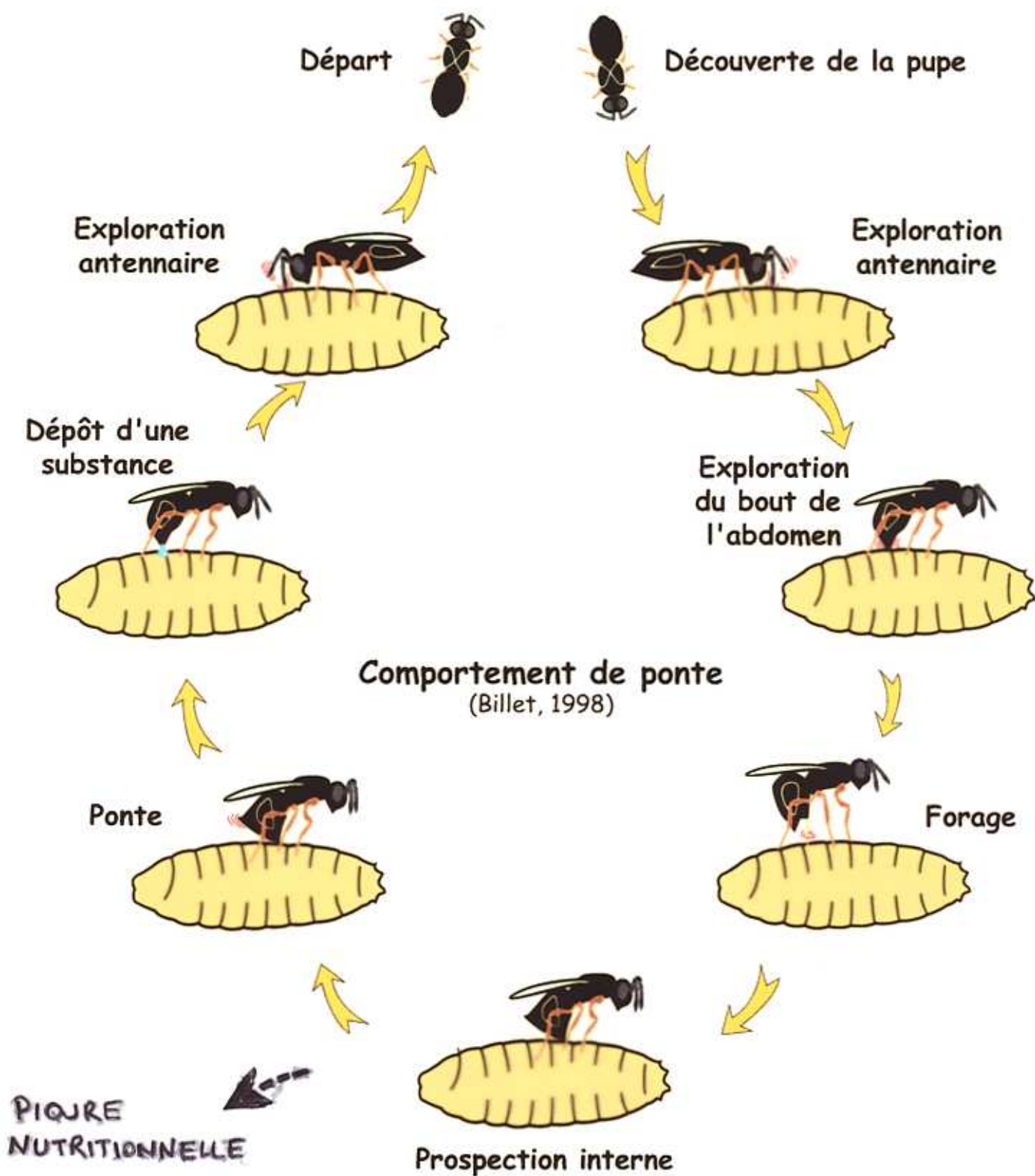
STRUCTURE DES ANTENNES DES HYMENOPTERES



SENSILLES PORTEES PAR LES ANTENNES

- Sensilles trichoïdes
- Sensilles chaetica
- Sensilles basiconiques





Comportement de ponte
(Billet, 1998)

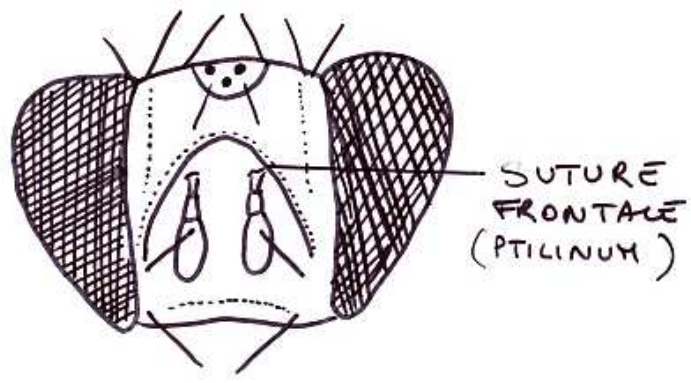
DIPTERES (N 100 000 SP)

- NEMATOCERES
- BRACHYCERES
- CYCLORRAPHES

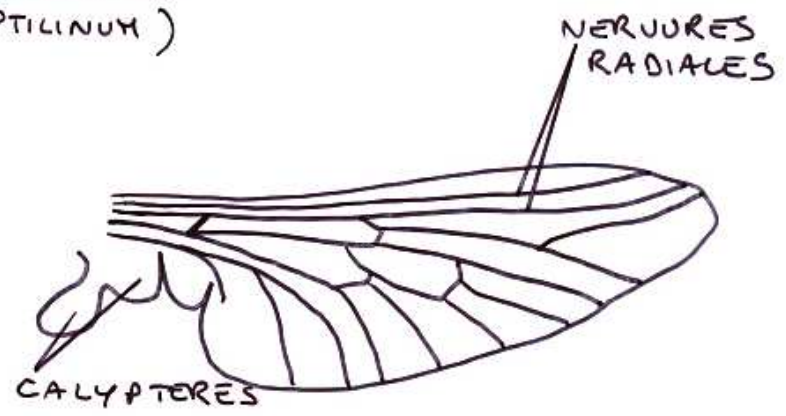
* ANTENNES



* TETE



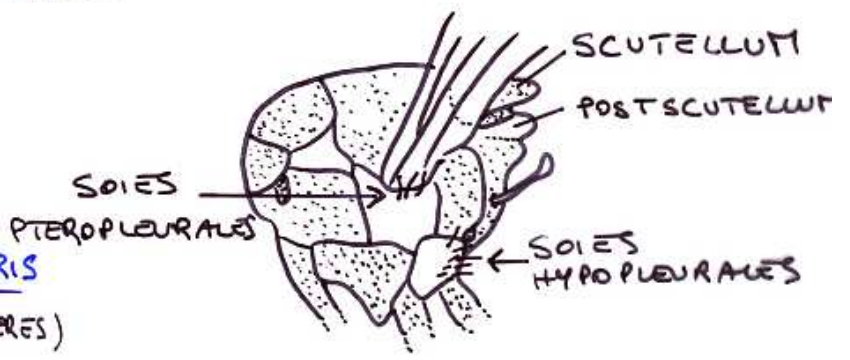
* AILES



→ TACHINIDES (> 8000 SP)

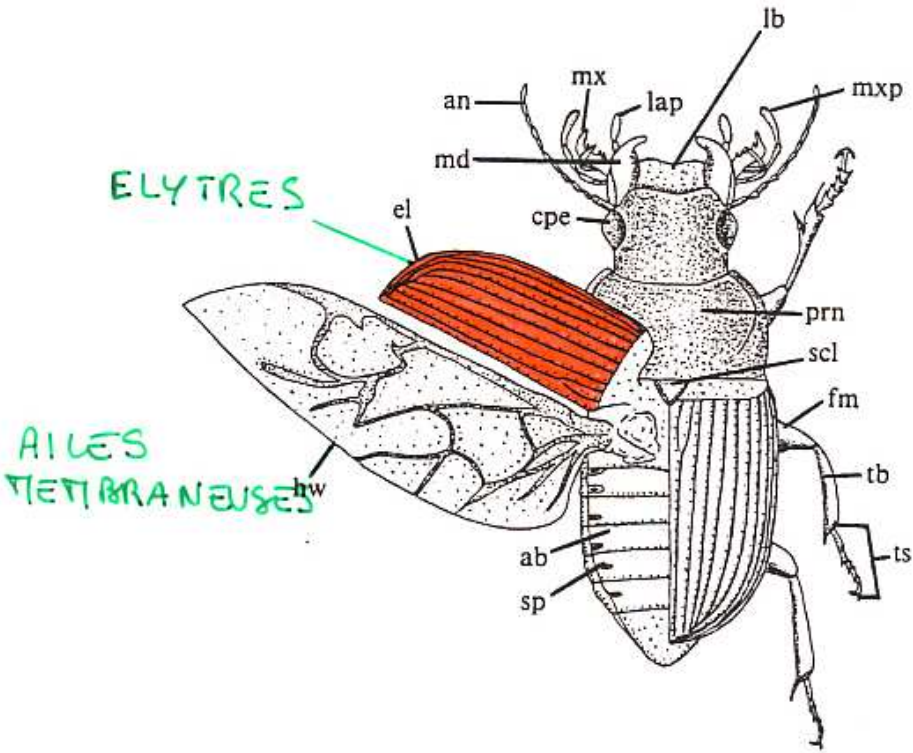
- * ABDOMEN :
- SOIES NOMBREUSES + FORTES
 - TERGITE > STERNITE

* THORAX

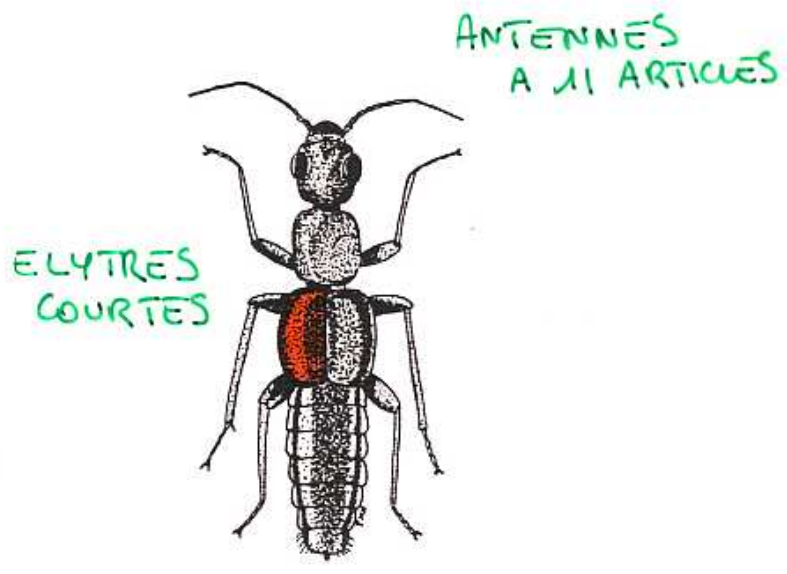
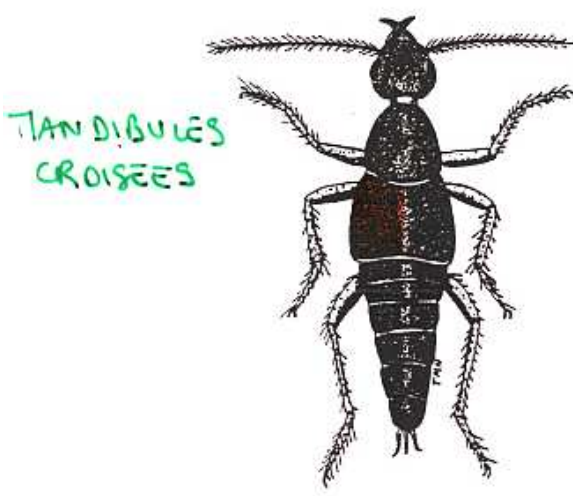


EN TP : EURYSTHEA SCUTELLARIS
(PARASITOIDE DE LEPIDOPTERES)

COLEOPTERES (> 300 000 SP)

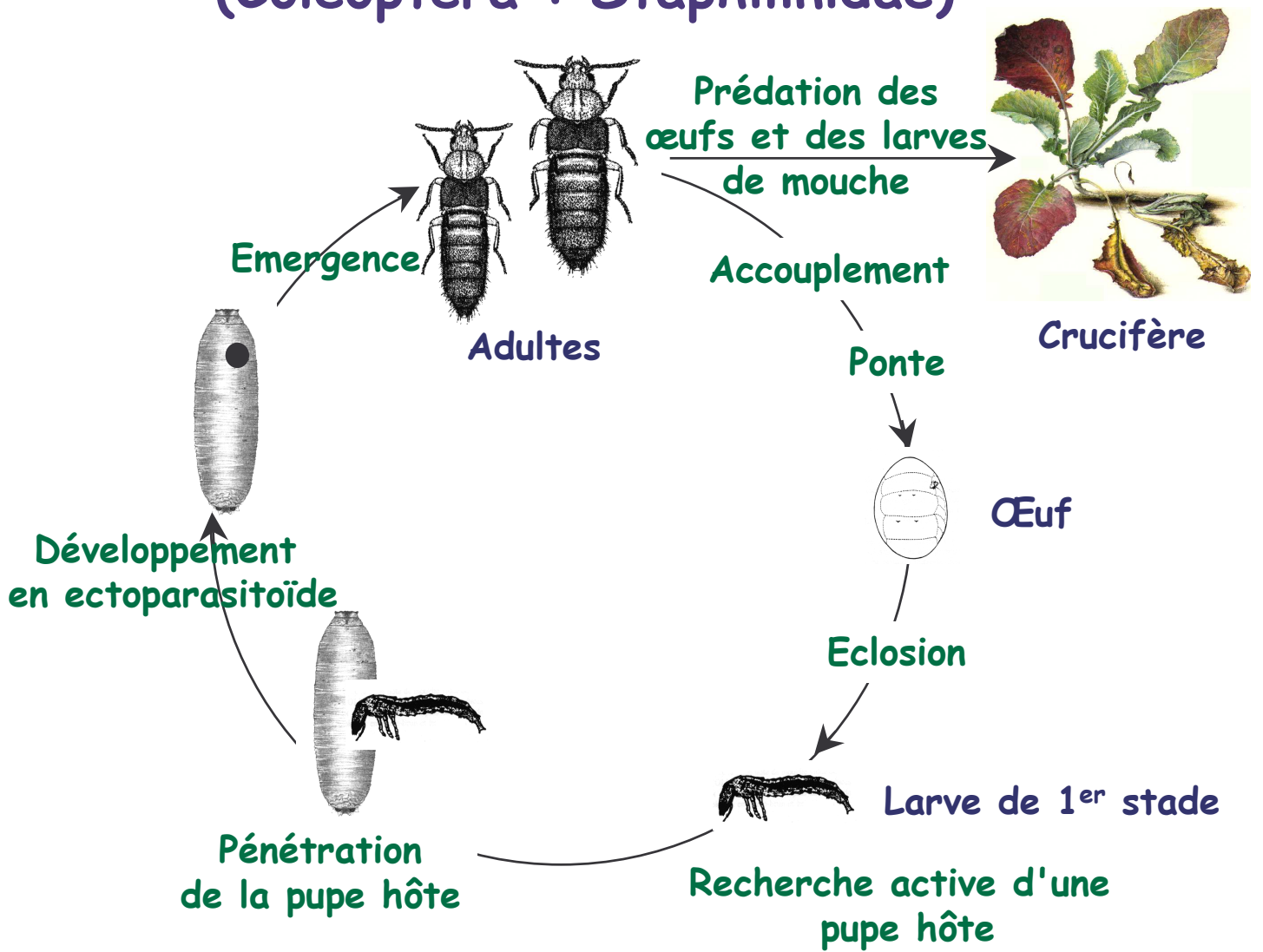


→ STAPHYLINIDES (~ 26 000 SP)

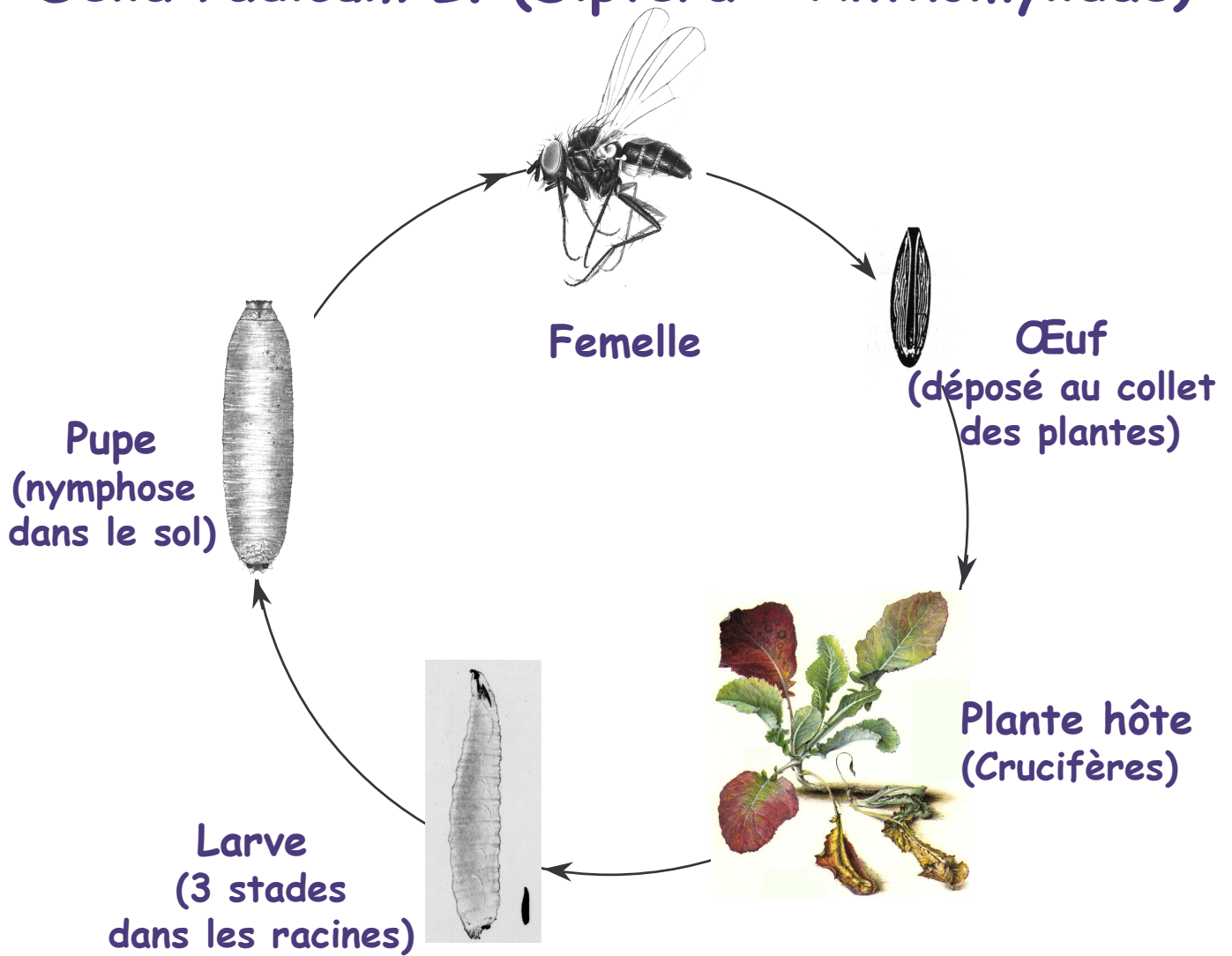


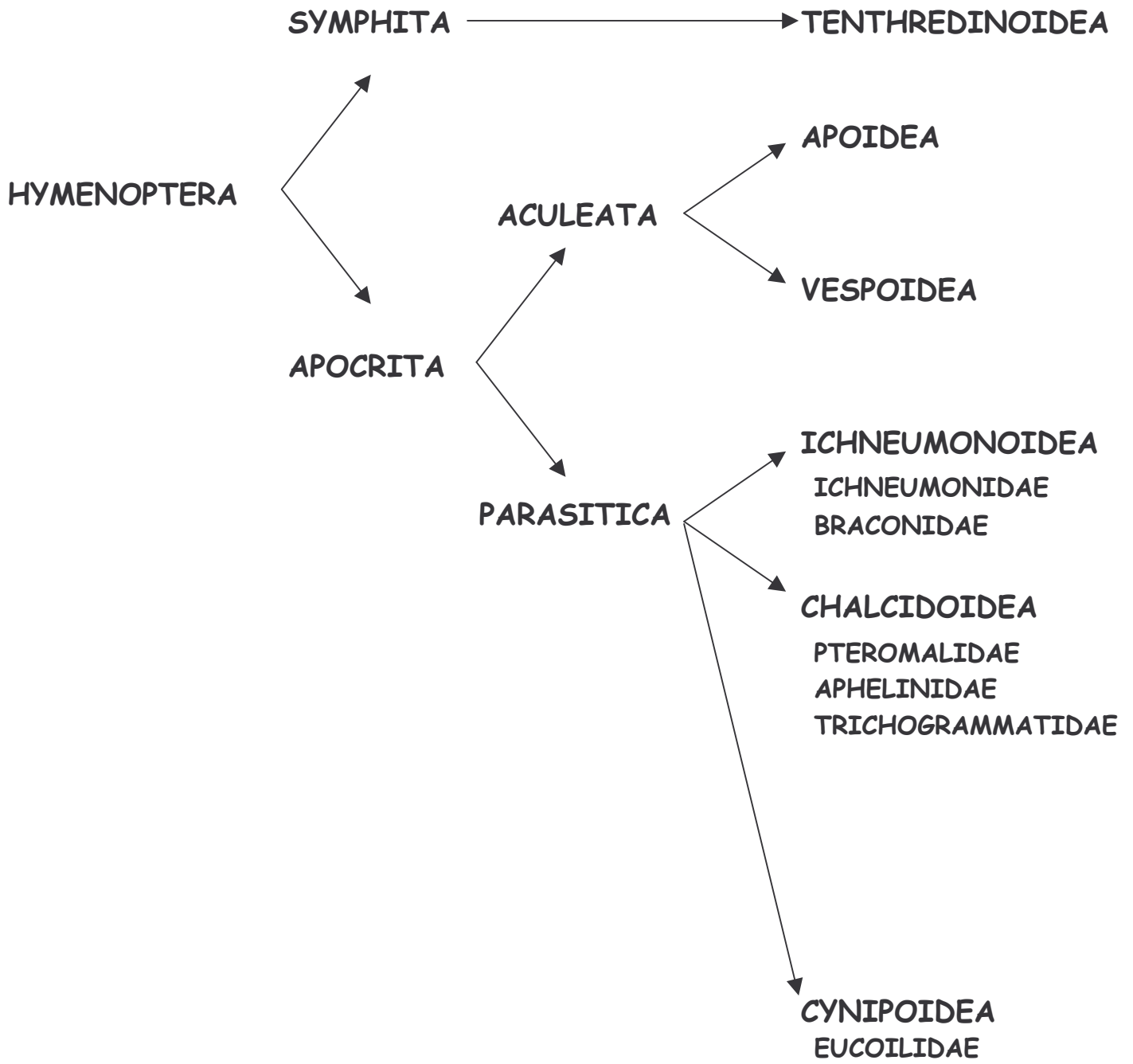
ENTP : ALEOCHARA BIPUSTULATA
(PARASITOIDE DE DIPTERES)

Cycle de *Aleochara bipustulata* L. (Coleoptera : Staphilinidae)

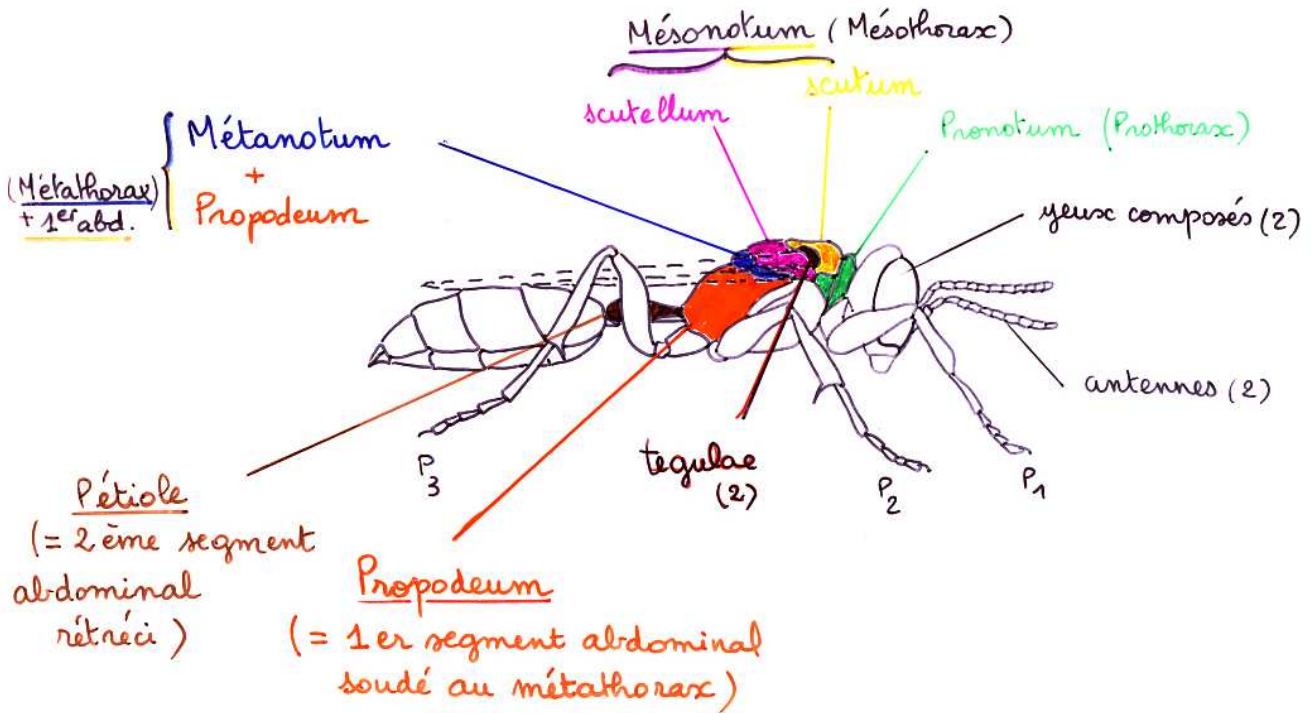


Cycle de la mouche du chou : *Delia radicum* L. (Diptera : Anthomyiidae)

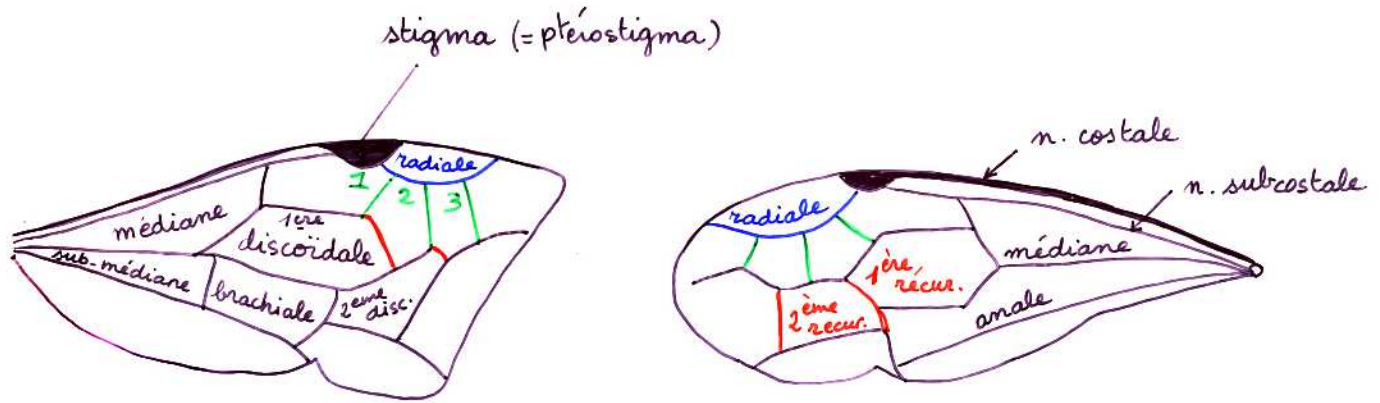




ORGANISATION GÉNÉRALE D'UN HYMÉNOPTÈRE APOCRITE



- LA NERVATION ALAIRE CHEZ LES HYMÉNOPTÈRES -



cellules alaires

1, 2, 3 : φ cubitales

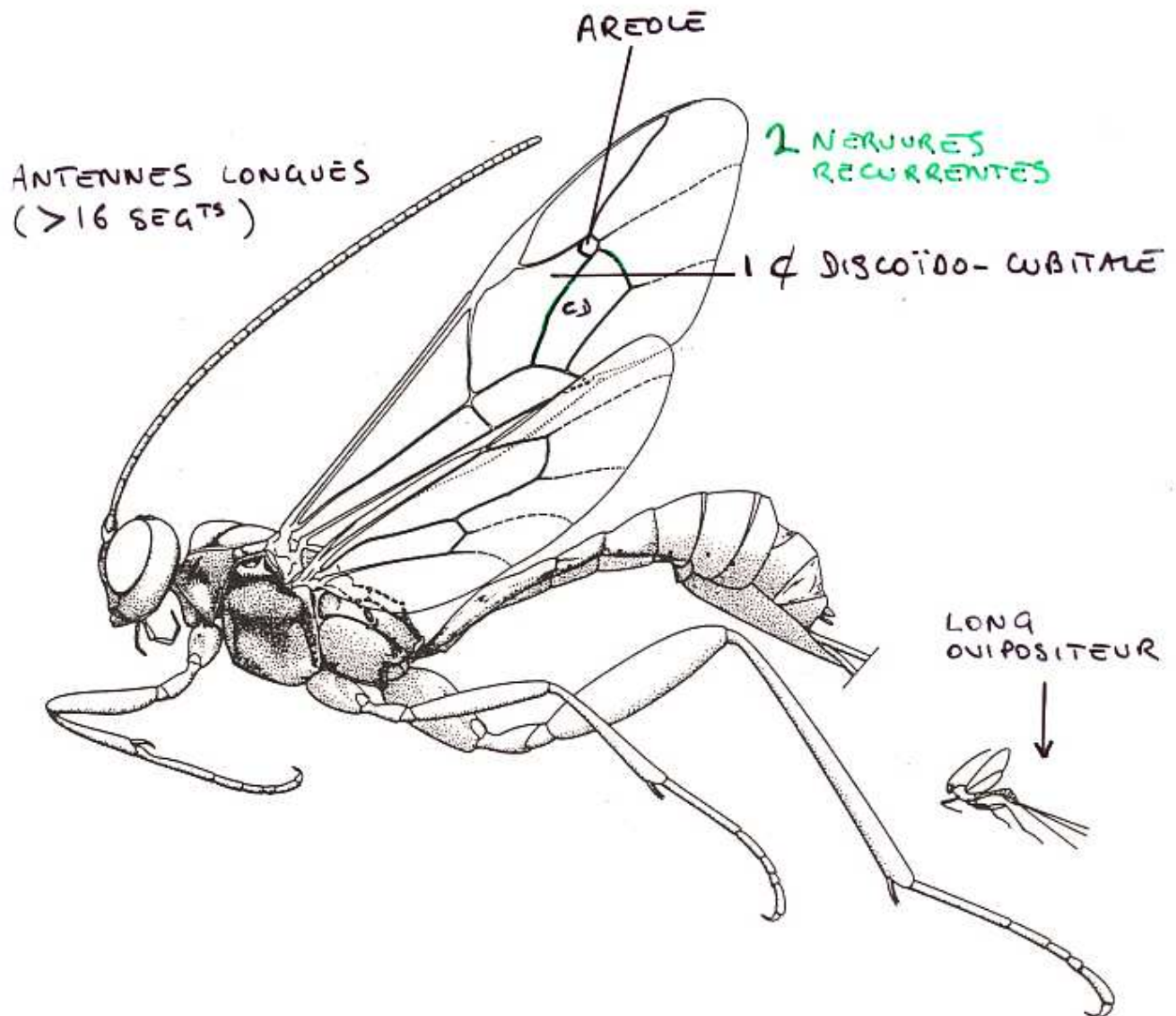
nerveuses

— nerveuses récurrentes } nerveuses
 — nerveuses cubitales } transverses

ICHNEUTIONOIDEA

• ICHNEUMONIDAE (≈ 60 000 sp)

- TAILLE : MOYENNE A GRANDE
- NERVATION ALAIRE NORTIALE

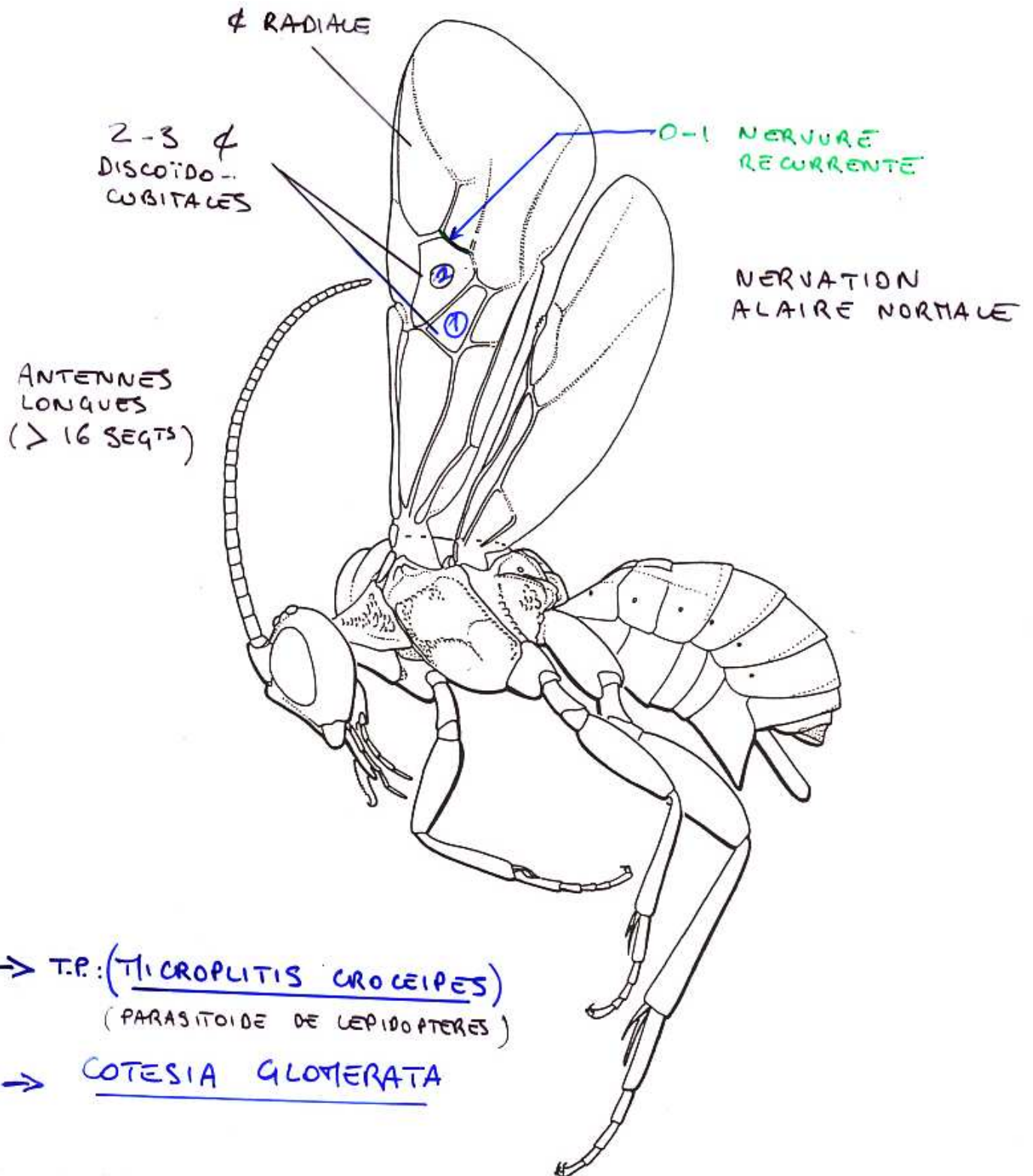


→ T.P. : DIADEGMIA ARMILLATA (PARASITOÏDE DE LEPIDOPTERES)

MEGARRHYSA ATRATA (PARASITOÏDE DE SYMPHITES)

ICHNEUMONOIDEA

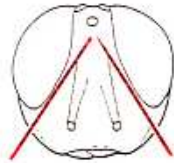
• BRACONIDAE (40 000 SP)



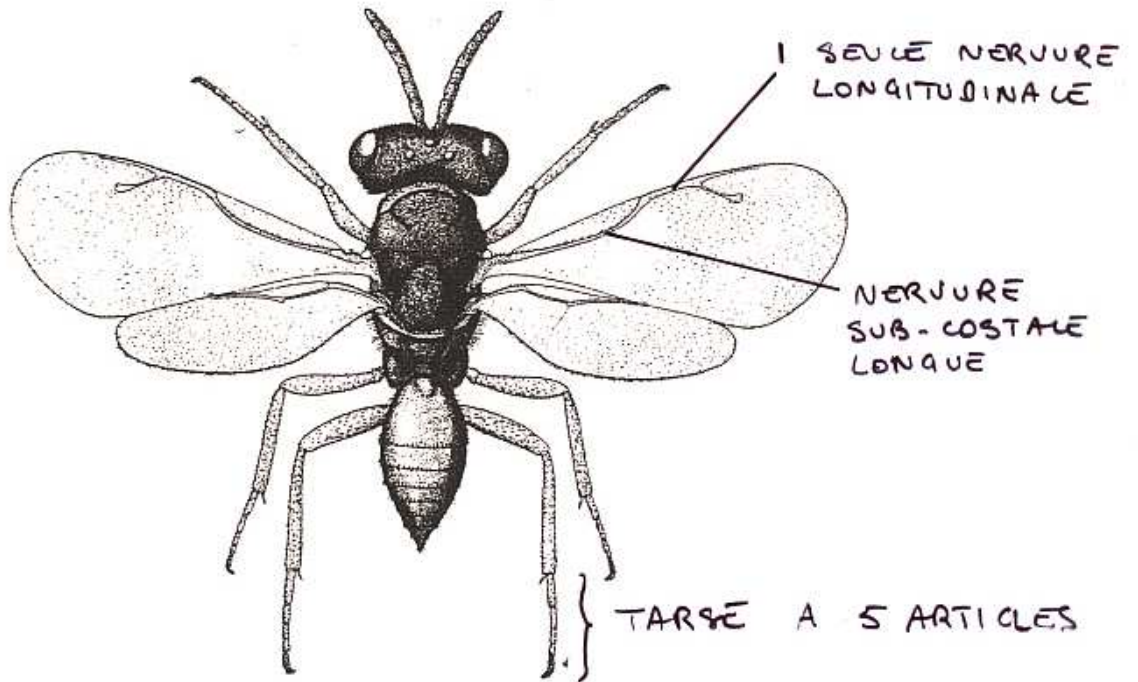
CHALCIDOIDEA (≈ 22 500 SP)

• PTEROMALIDAE (≈ 3000 SP)

- TAILLE < 7 mm
- COULEUR METALLIQUE
- NERVATION ALAIRE REDUITE



ANTENNES COUDEES



→ T.P. : PACHYCREPOIDEUS VINDETIAE (DUBIUS)

(PARASITOIRE DE DIPTERES)

+ DINARTHUS BASALIS

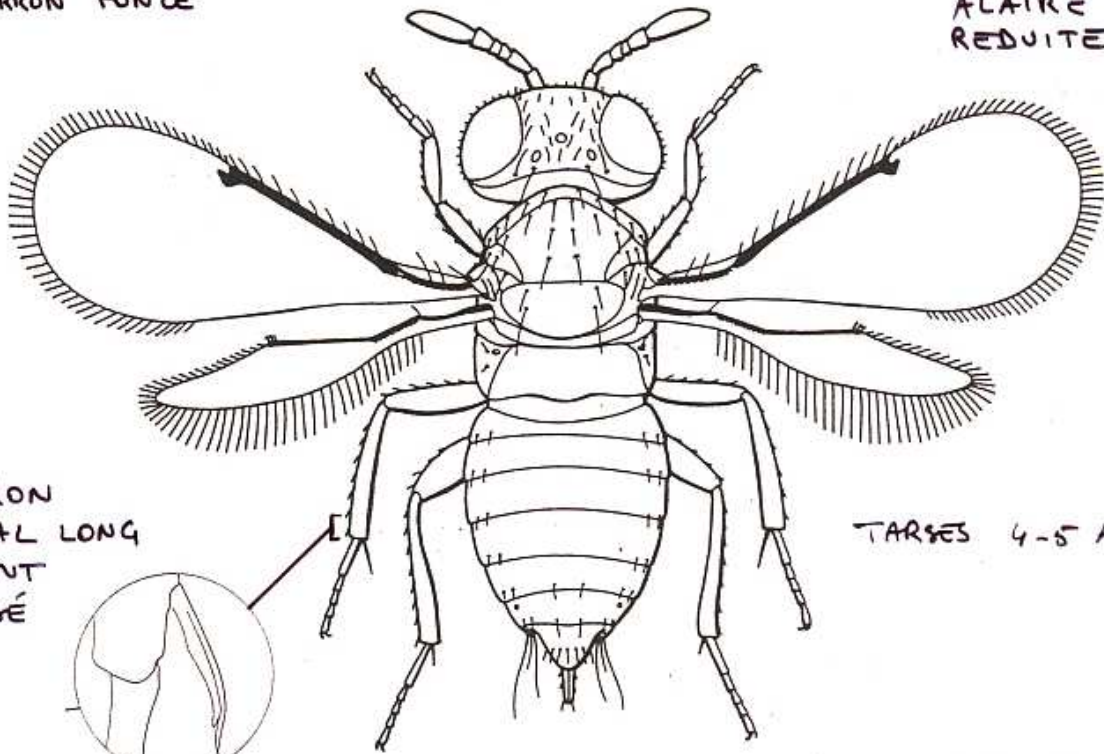
(PARASITOIRE DE COLEOPTERES)

CHALCIDOIDEA

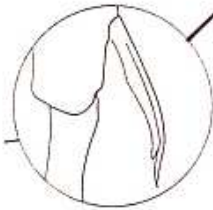
• APHELINIDAE (~ 900 SP)

- PETITE TAILLE (< 2 mm)
- TRAPPU - ROBUSTE
- JAUNE PÂLE MARRON FONCÉ

NERVATION ALAIRE REDUITE



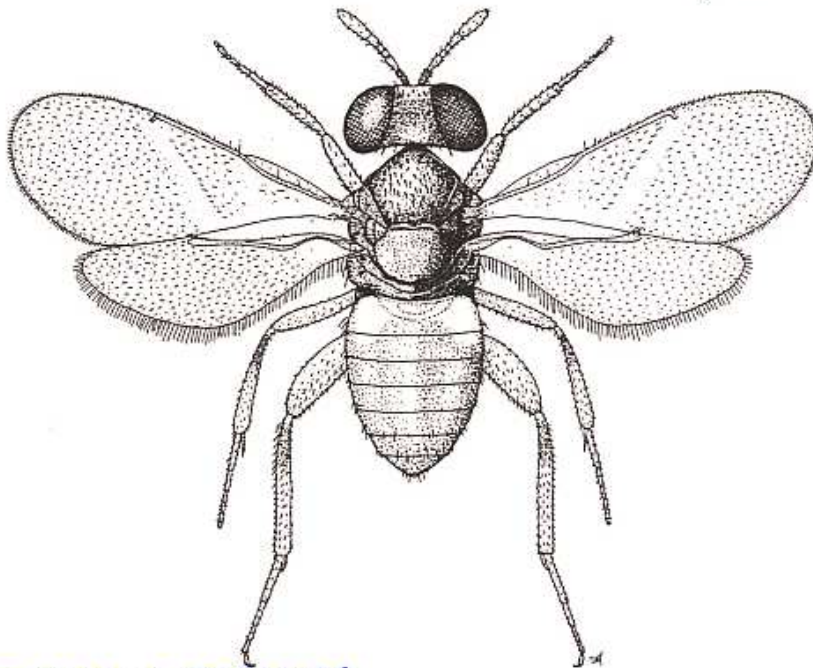
EPERON TIBIAL LONG SOUVENT COURBÉ



TARSES 4-5 ARTICLES

ANTENNES : 5-8 SEG^{TS}

♀ → MASSUES



→ T.P. : ENCARSIA FORMOSA
(PARASITOIDE DIHOMOPTERES)

CHALCIDOIDEA

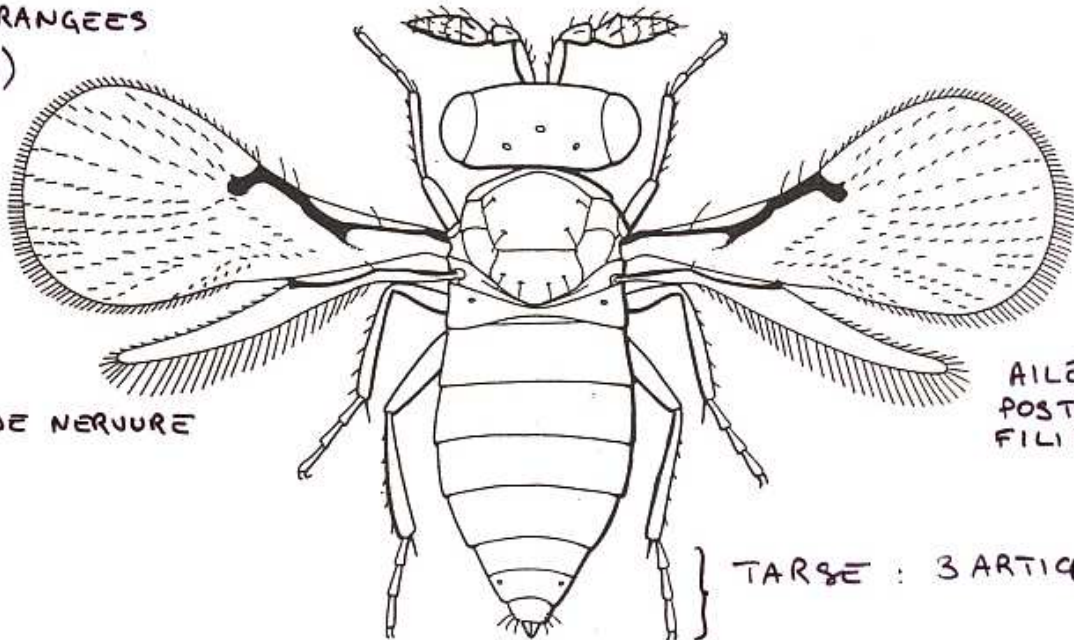
• TRICHOGRAMMATIDAE (~ 530 SP)

- TRES PETITE TAILLE (< 1 mm)
- JAUNE - ORANGE - MARRON FONCE
- YEUX ROUGES
- ANTENNES COURTES

ANTENNES : 5-9 SEGMENTS

- ♀ : MASSUES
- ♂ : PLURIEUSES

AILES FRANGEES
(SOIES)



PAS DE NERVURE

AILE
POSTERIEURE
FILIFORME

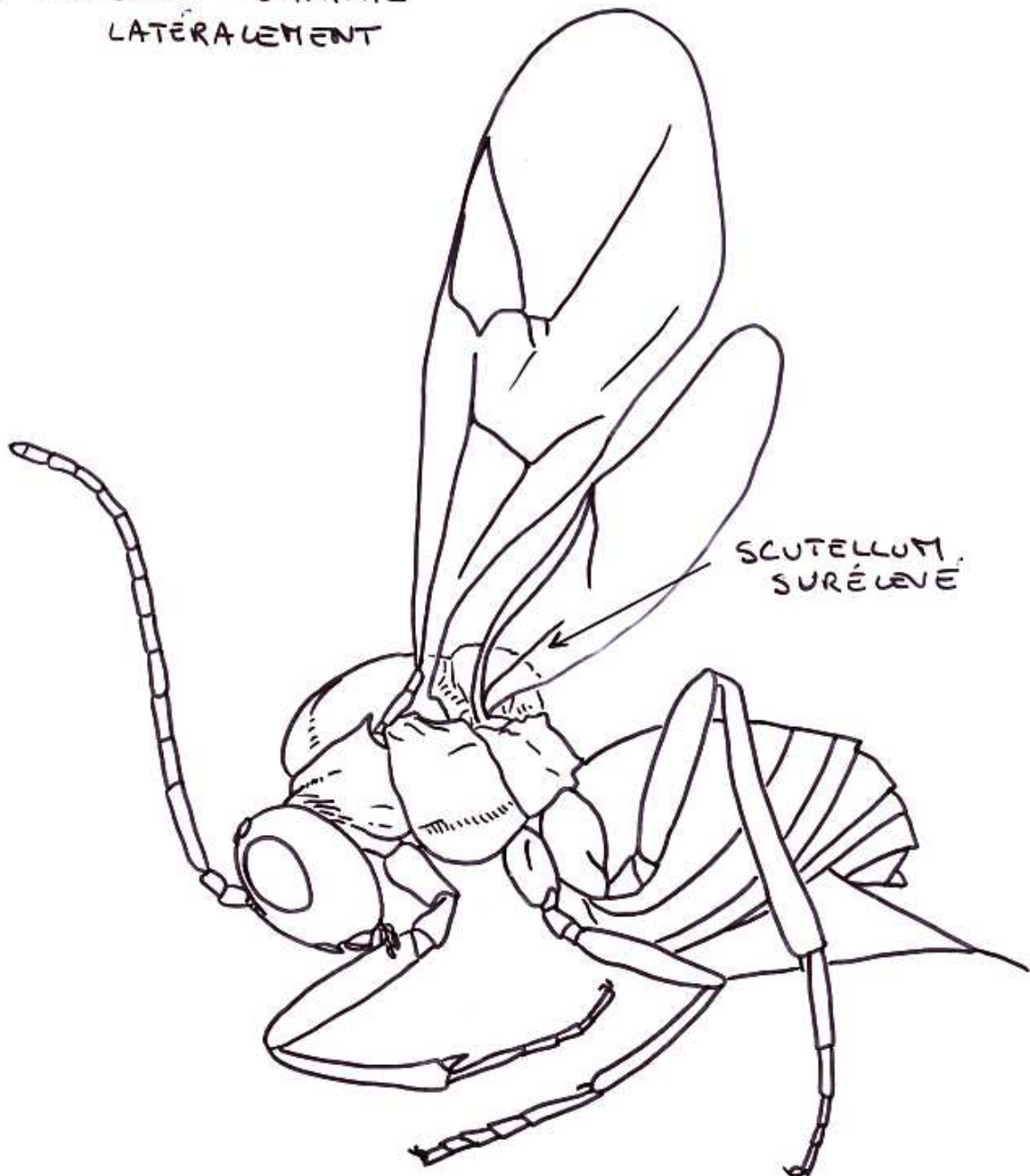
TARSE : 3 ARTICLES

→ T.P. : TRICHOGRAMMA MAIDIS
(PARASITOIDE DE LEPIDOPTERES)

CYNIPOIDEA

• EUCOILIDAE (≈ 1000 SP)

- ANTENNES NON COUDEES
- NERVATION ALAIRE REDUITE
- ABDOMEN COMPRIME LATERALEMENT



→ T.P.: TRYBLIOGRAPHA RAPAE
(PARASITOIDE DE DIPTERES)