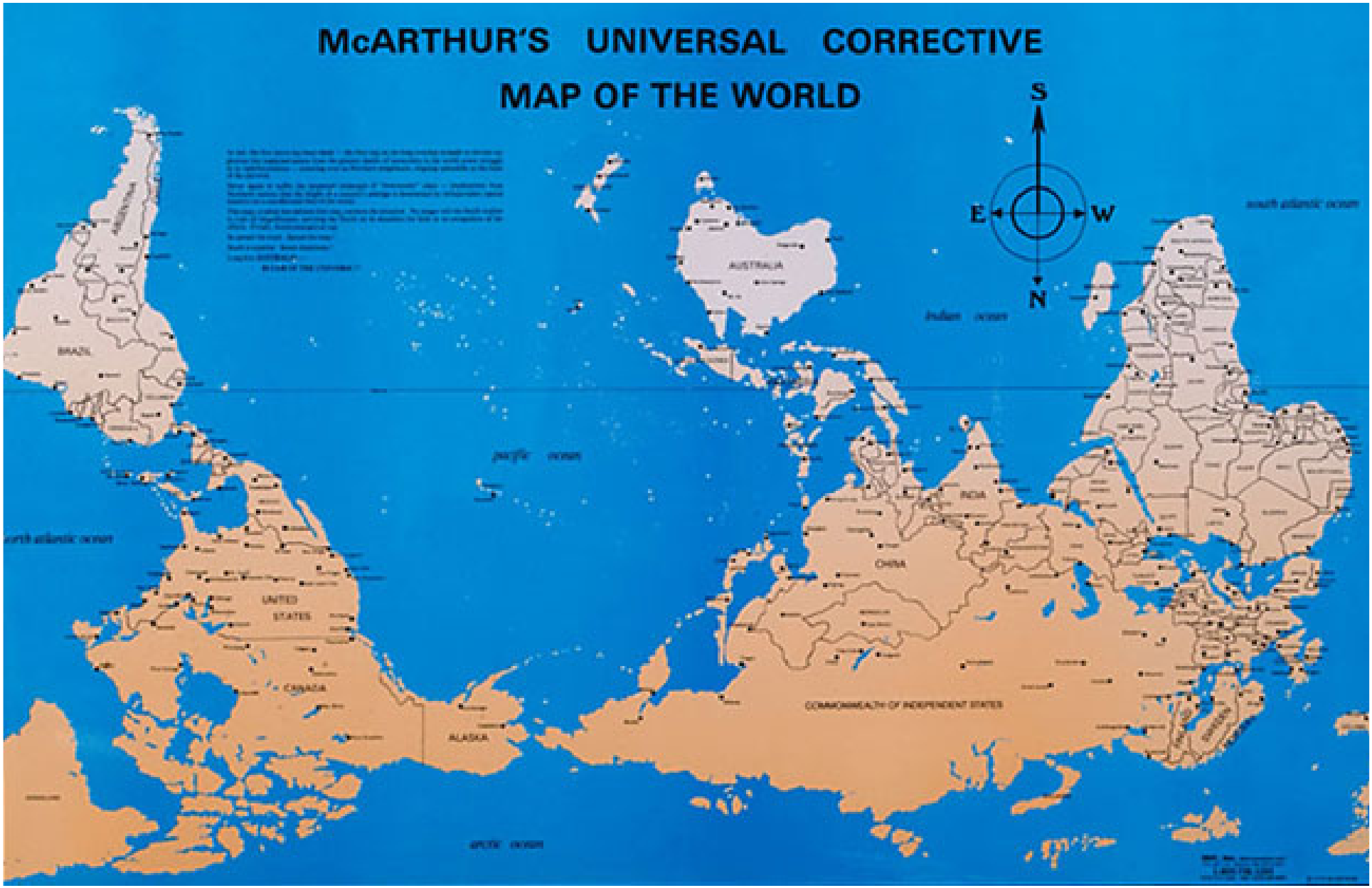
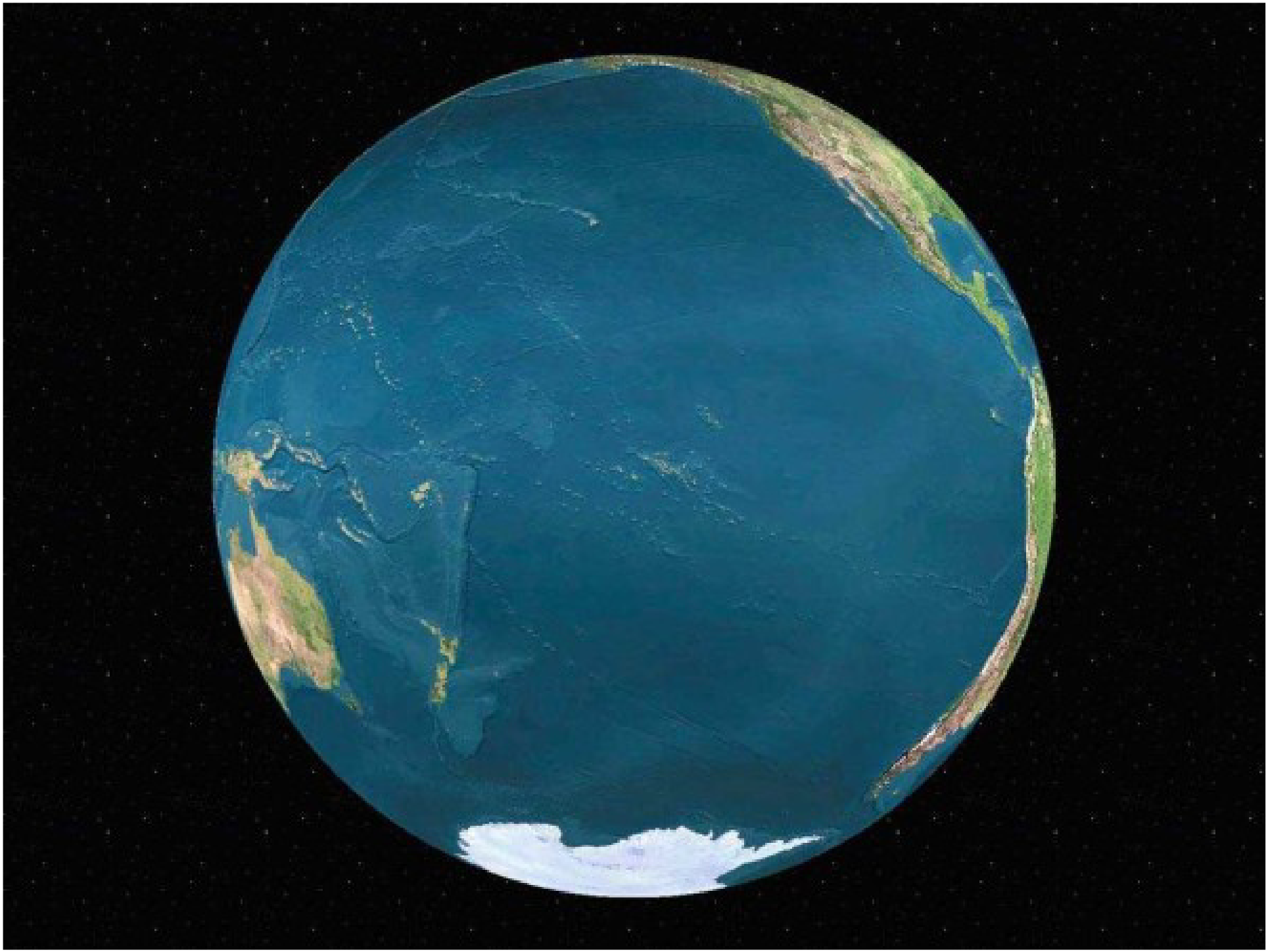
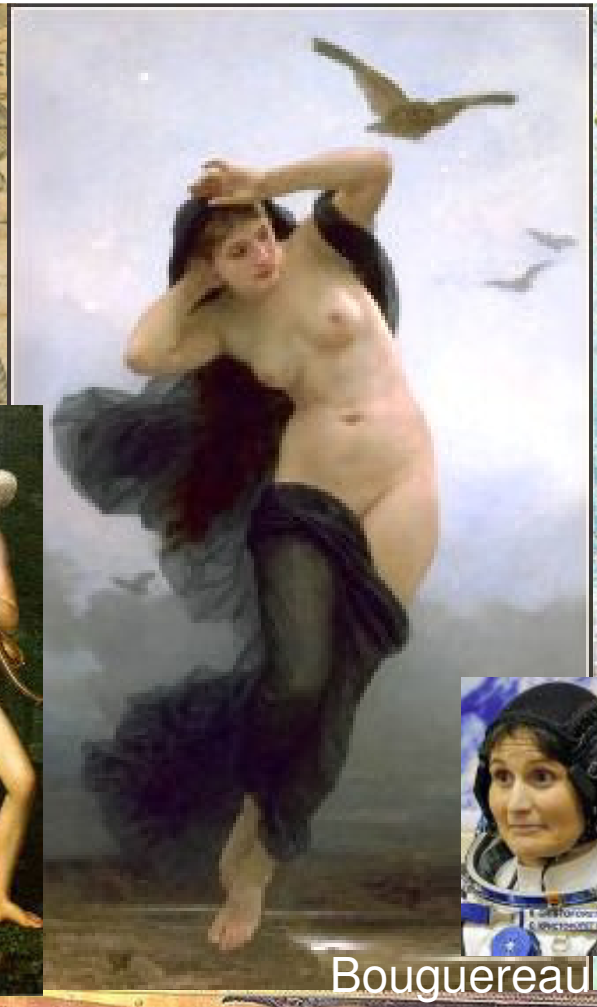
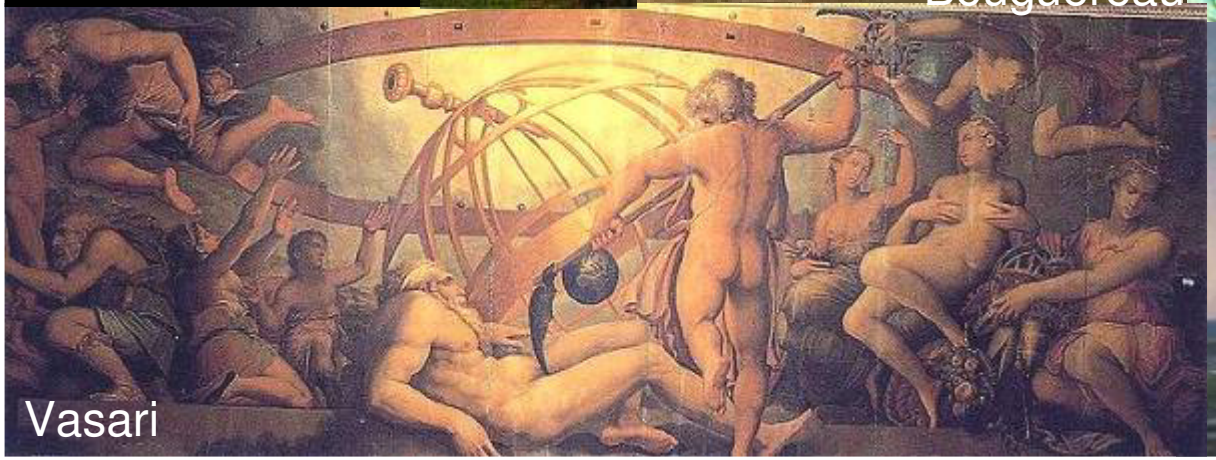

McARTHUR'S UNIVERSAL CORRECTIVE
MAP OF THE WORLD
S
E
W
N
AUSTRALIA
BRAZIL
UNITED STATES
CANADA
ALASKA
INDIA
CHINA
COMMONWEALTH OF INDEPENDENT STATES
south atlantic ocean
indian ocean
pacific ocean





Metaponto

Bouguereau



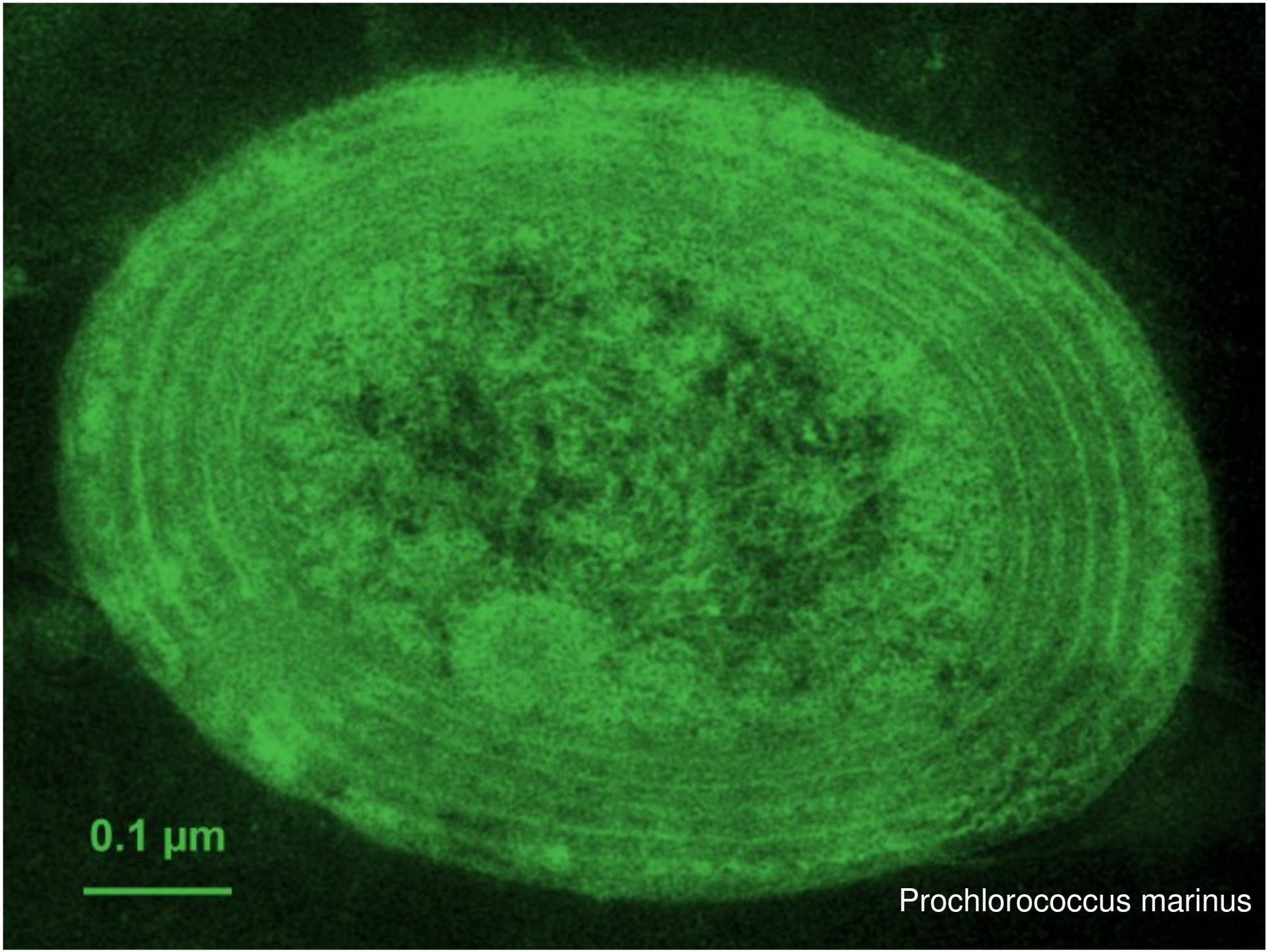
Vasari

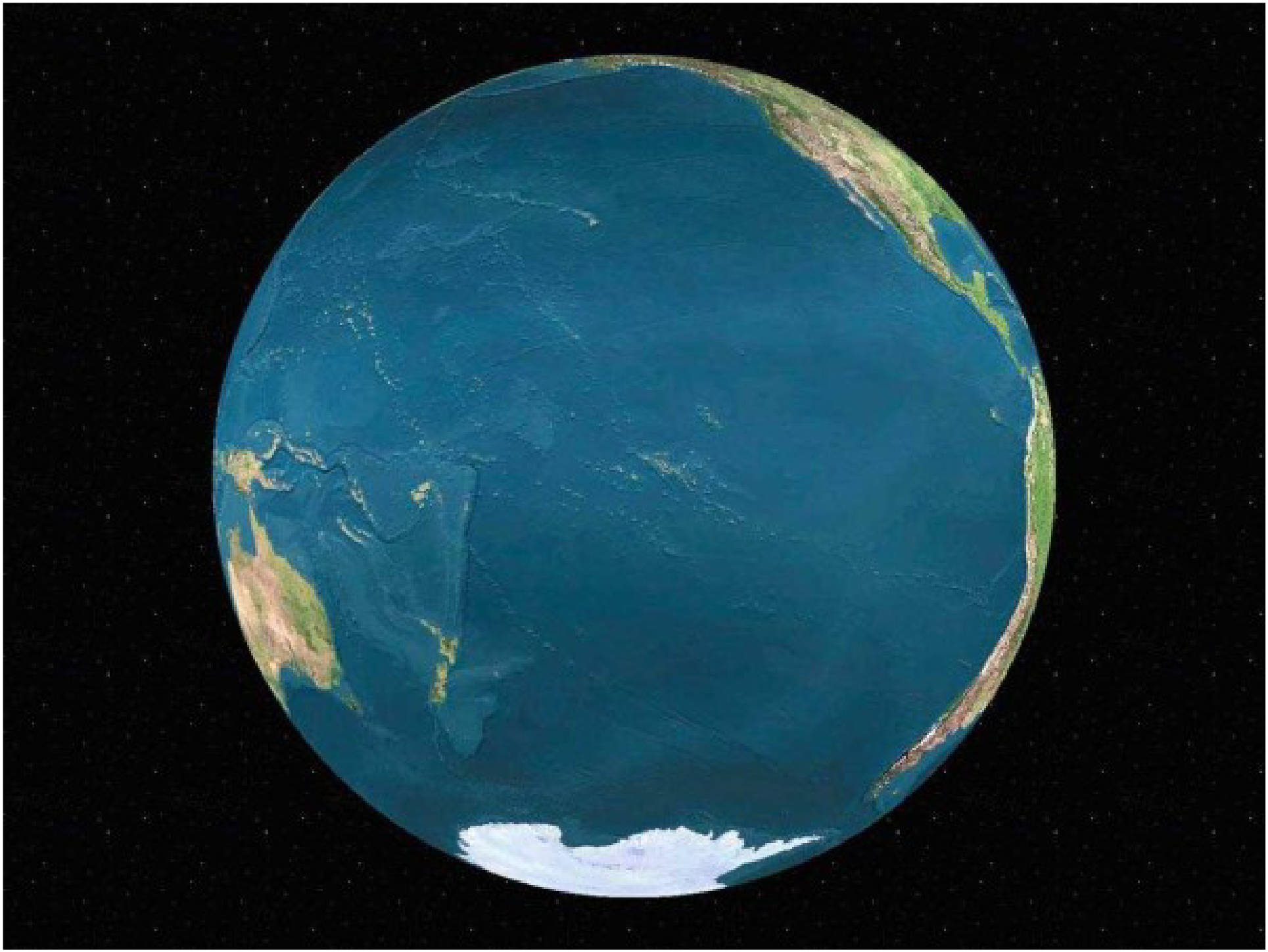
Cabanel

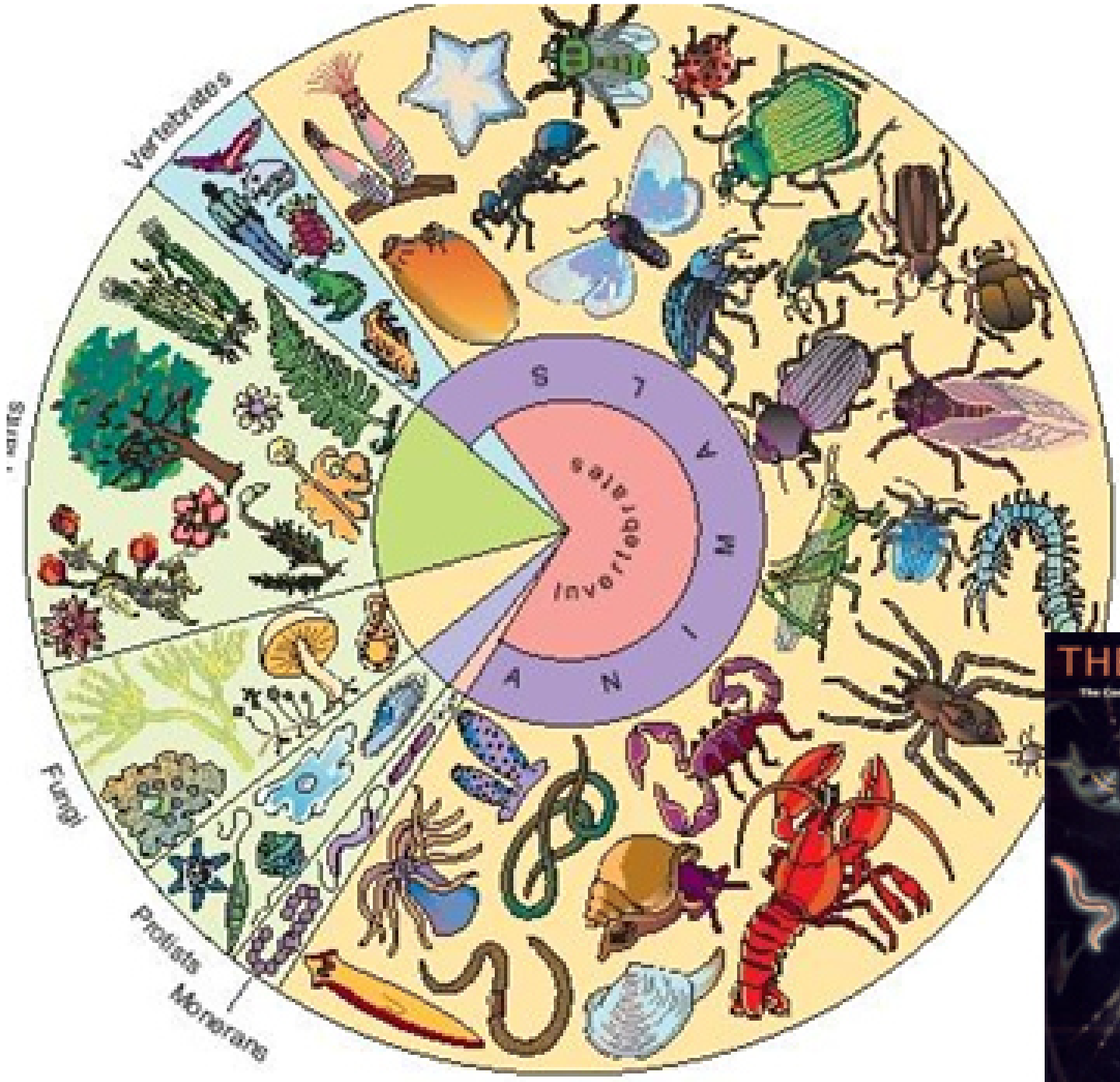
Arch Microbiol (1992) 157:297-300
Springer-Verlag 1992
Short communications

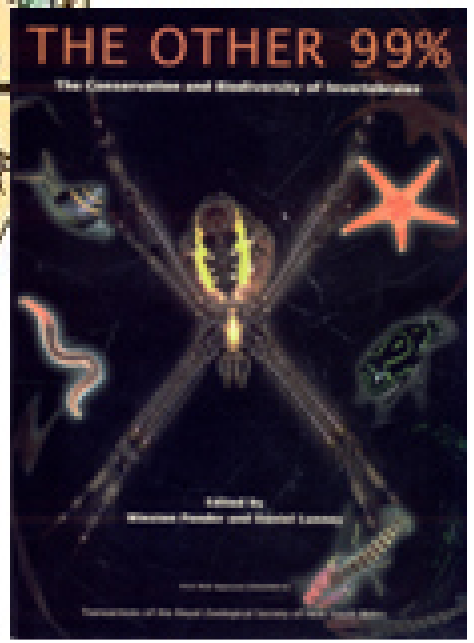
Prochlorococcus marinus nov. gen.nov.sp.: an oxyphototrophic marine prokaryote containing divinyl chlorophyll a and b

Sallie W. Chisholm, Sheila L. Frankel, Ralf Goericke, Robert J. Olson,
Brian Palenik, John B.Waterbury, Lisa West-Johnsrud, and Erik R. Zettler /

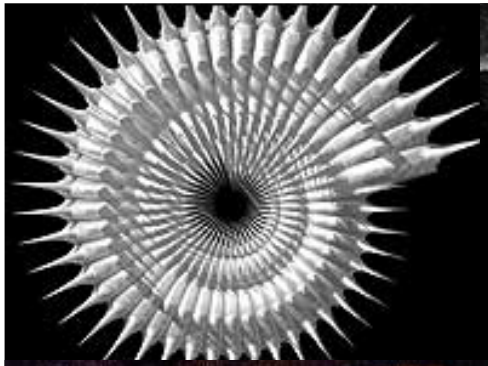
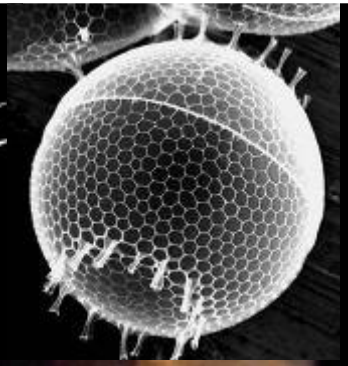

0.1 µm
Prochlorococcus marinus

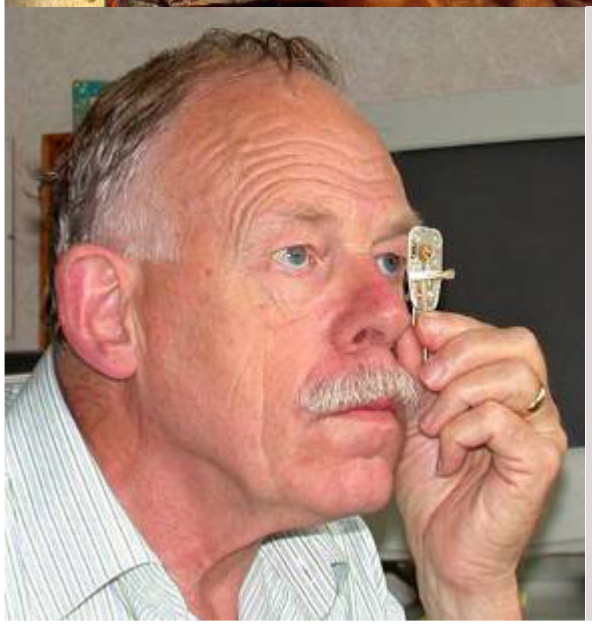
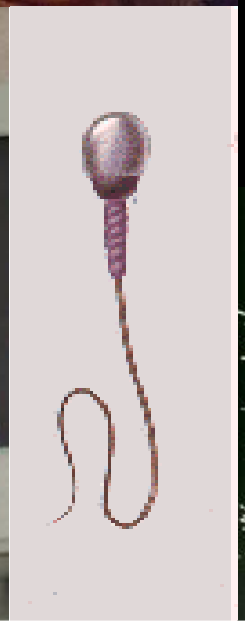
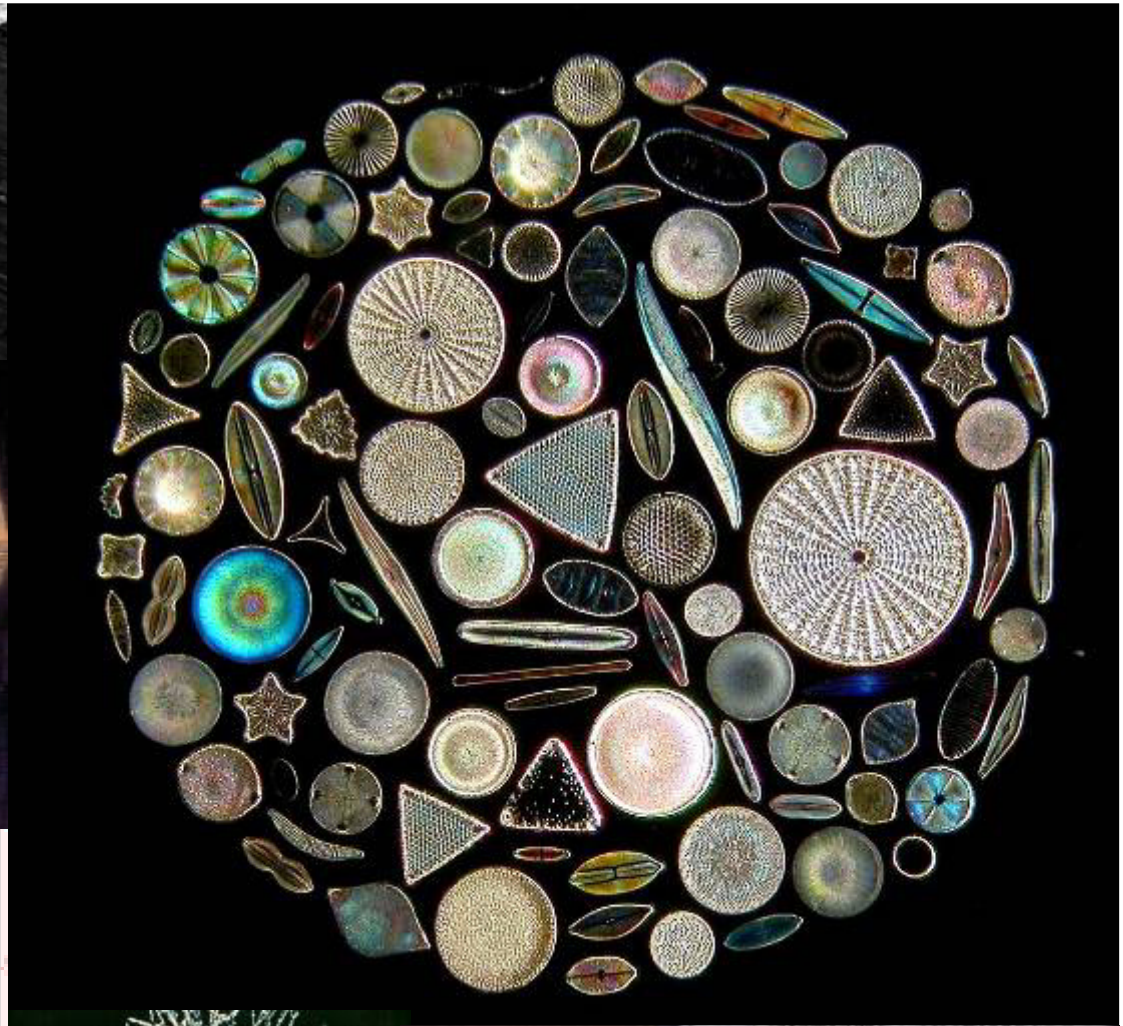


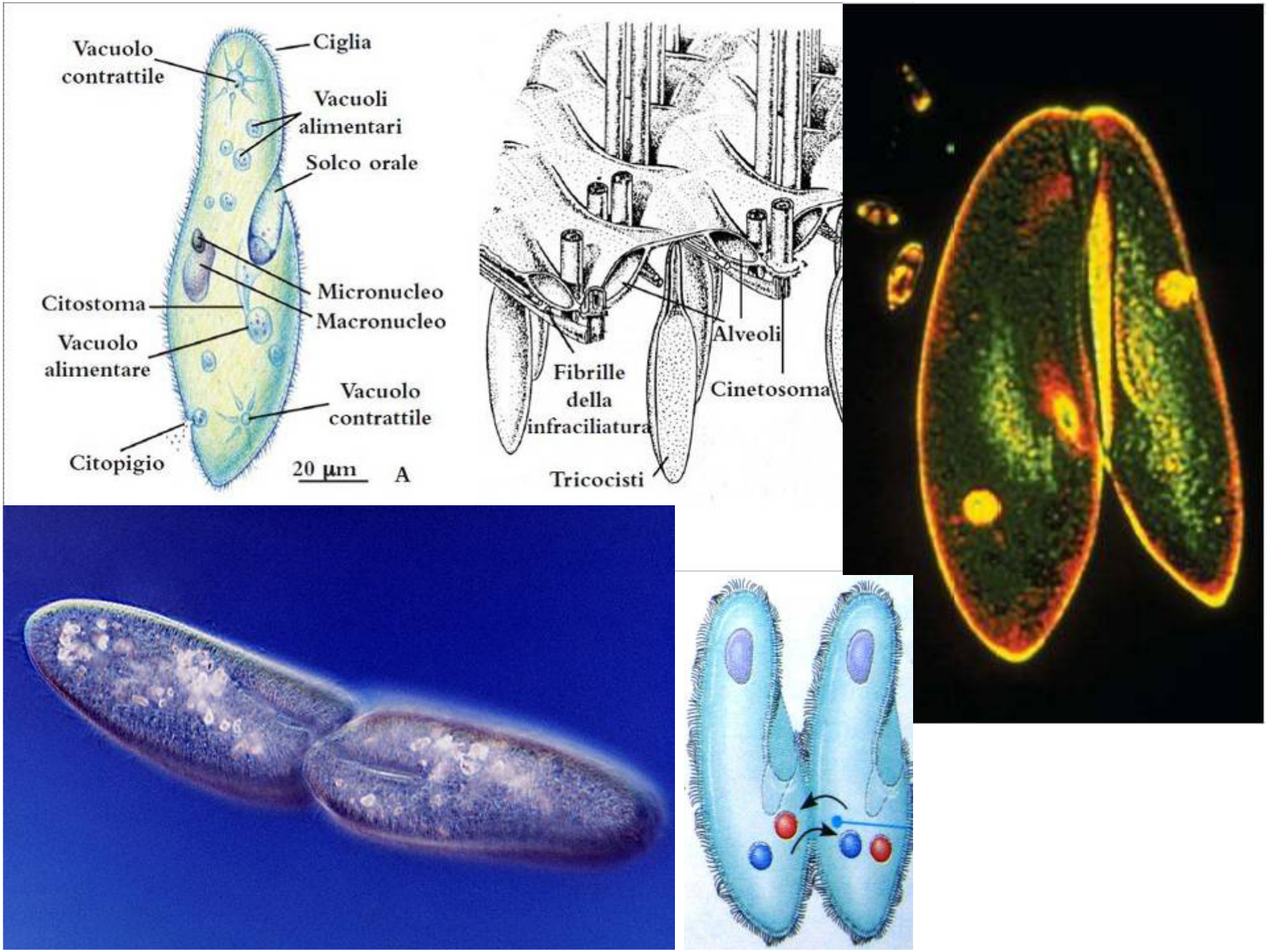

Vertebrates
Plants
Fungi
Protists
Monerans
ANIMALS
Invertebrates

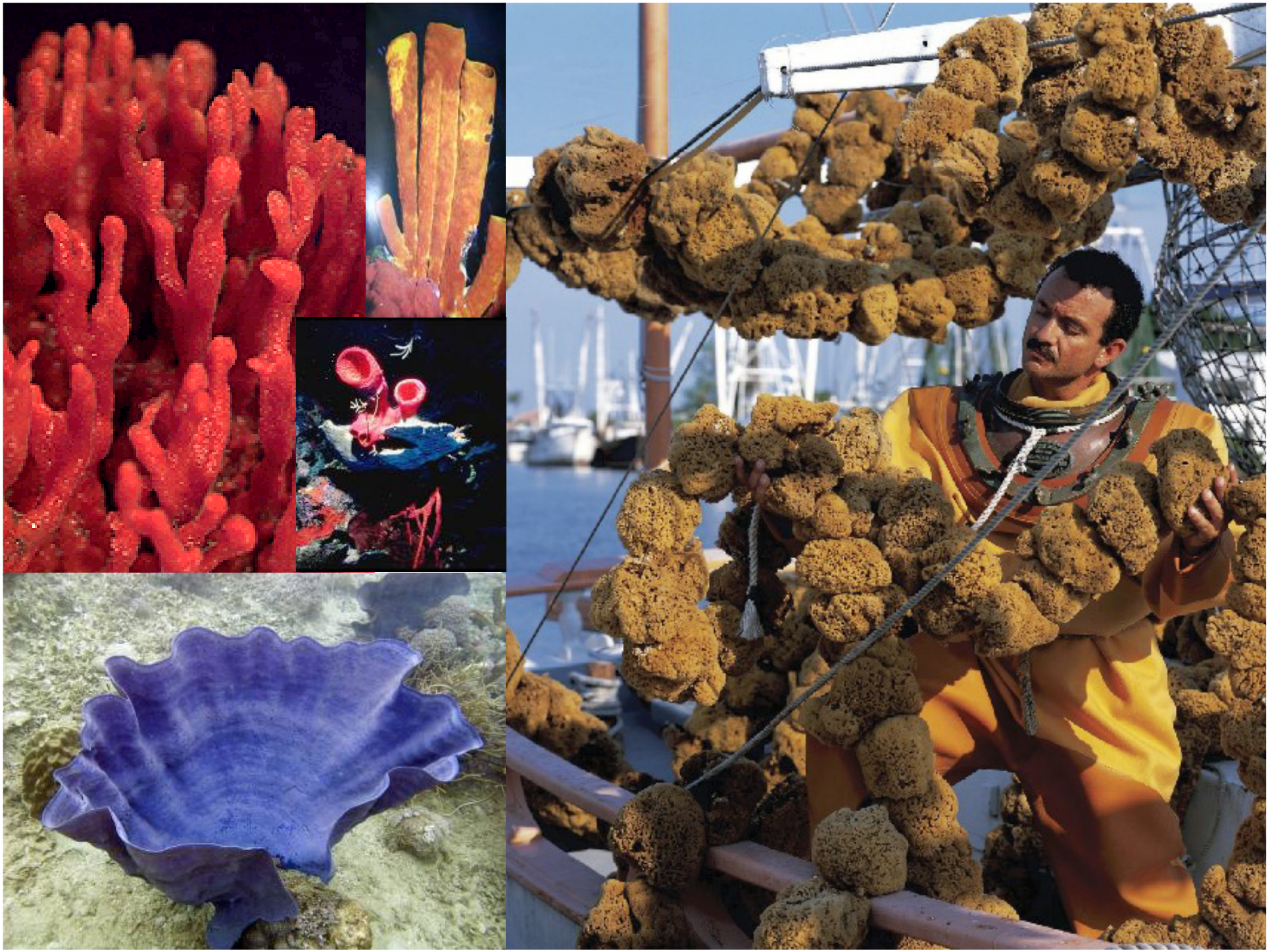

THE OTHER 99%
The Conservation and Biodiversity of Invertebrates

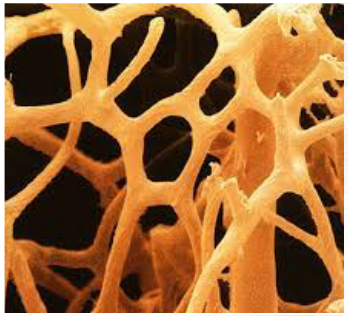
Modelli di organizzazione animale

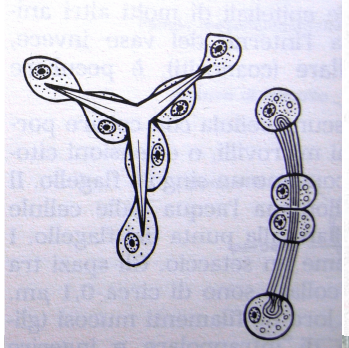



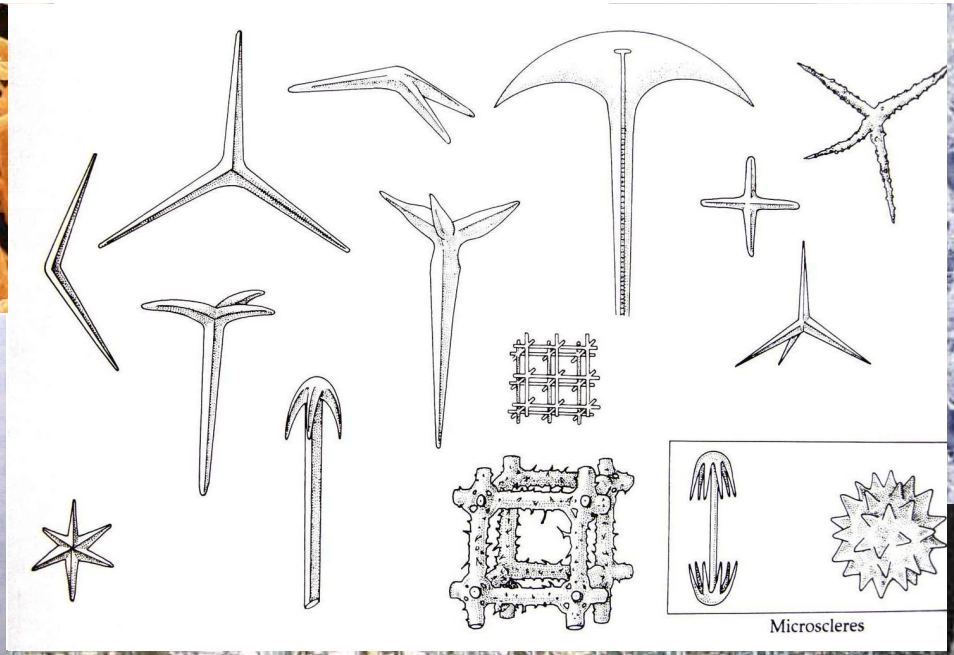




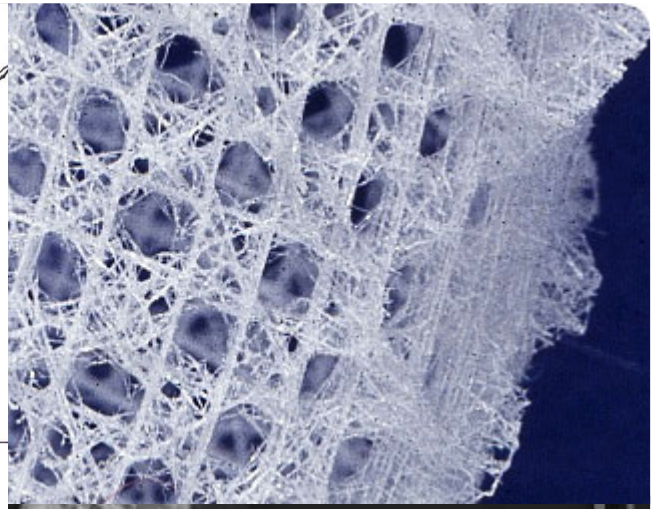

Vacuolo contrattile
Ciglia
Vacuoli alimentari
Solco orale
Micronucleo
Macronucleo
Citostoma
Vacuolo alimentare
Vacuolo contrattile
Citopigio
20 µm
A
Alveoli
Fibrille della infraciliatura
Cinetosoma
Tricocisti

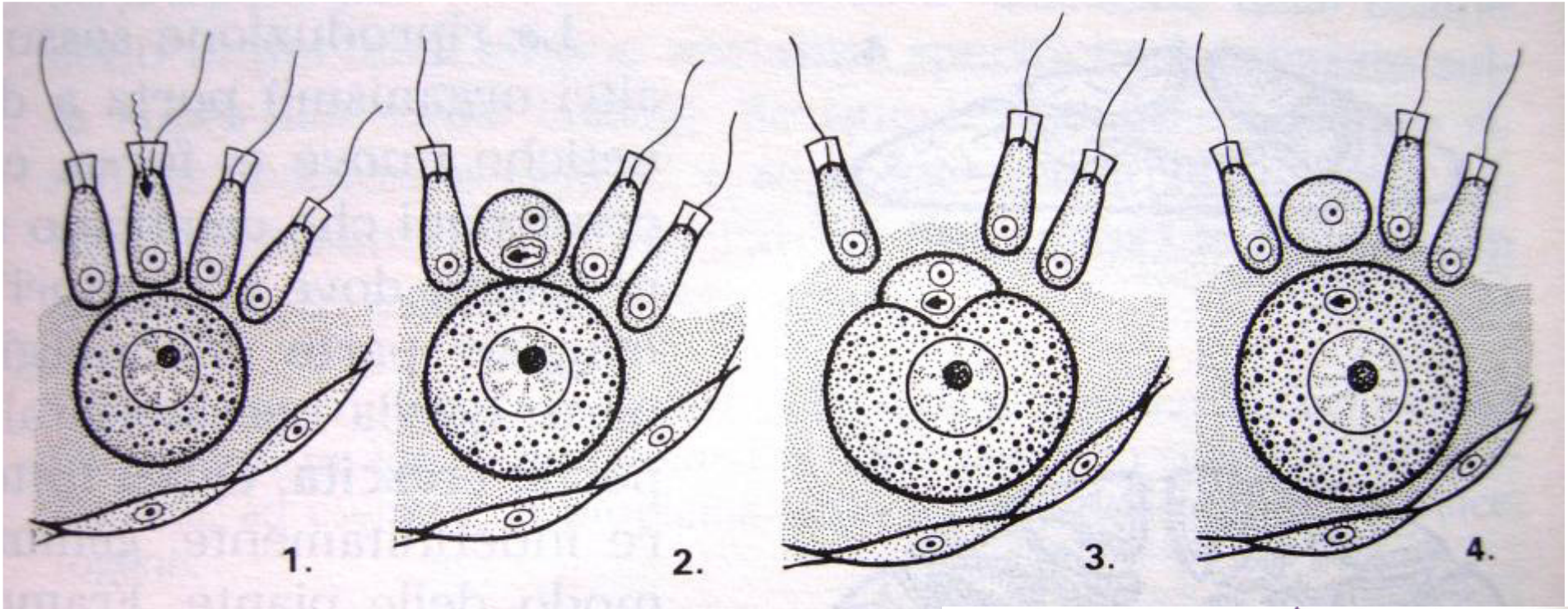


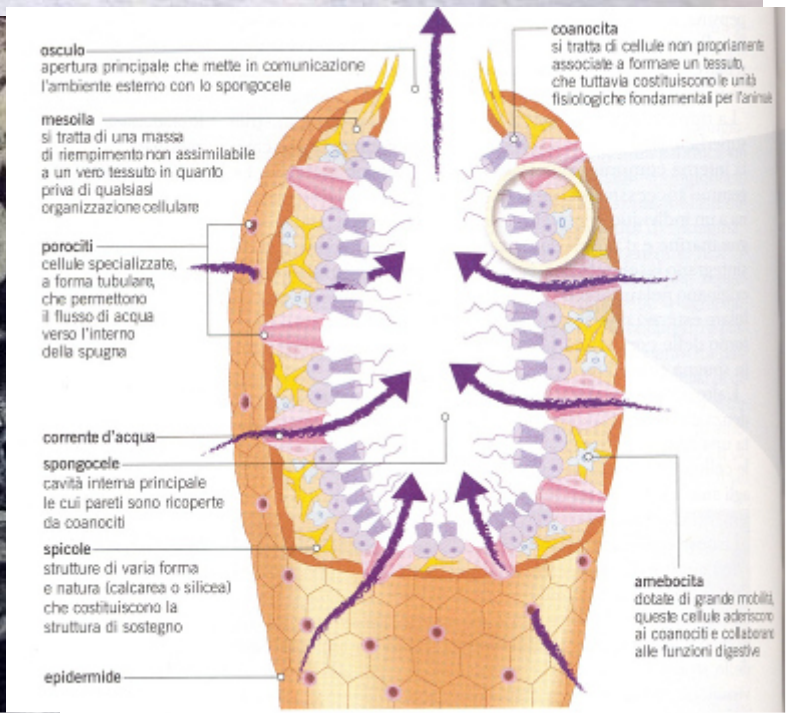


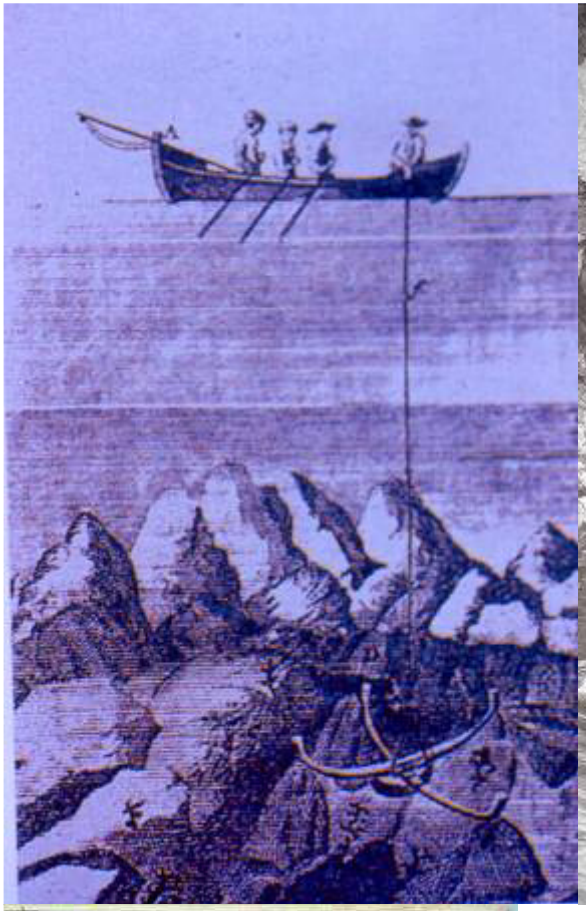



Microscleres




1.
2.
3.
4.

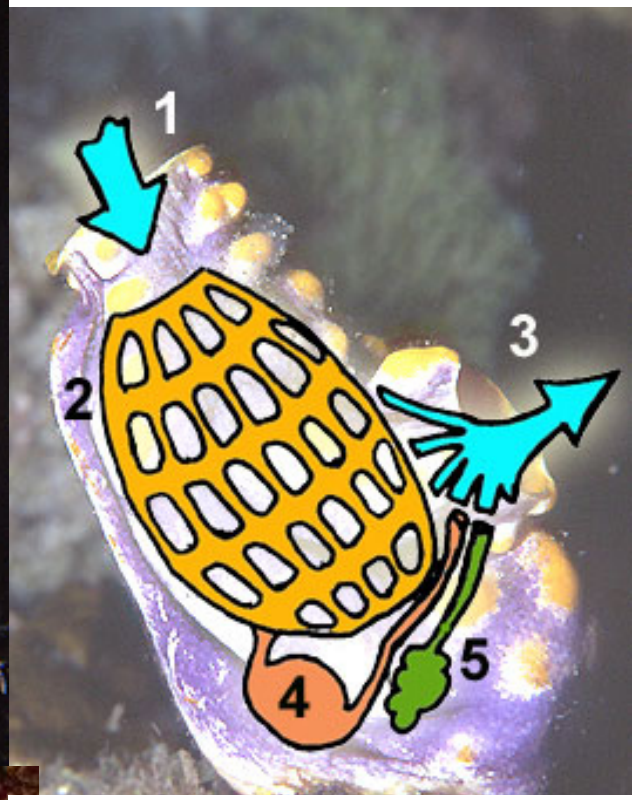

osculo
apertura principale che mette in comunicazione l'ambiente esterno con lo spongocele
mesoilla
si tratta di una massa di riempimento non assimilabile a un vero tessuto in quanto priva di qualsiasi organizzazione cellulare
porociti
cellule specializzate, a forma tubulare, che permettono il flusso di acqua verso l'interno della spugna
corrente d'acqua
spongocele
cavità interna principale le cui pareti sono ricoperte da coanociti
spicole
strutture di varia forma e natura (calcarea o silicea) che costituiscono la struttura di sostegno
epidermide
coanocita
si tratta di cellule non propriamente associate a formare un tessuto, che tuttavia costituiscono le unità fisiologiche fondamentali per l'animale
amebocita
dotate di grande mobilità, queste cellule aderiscono ai coanociti e collaborano alle funzioni digestive

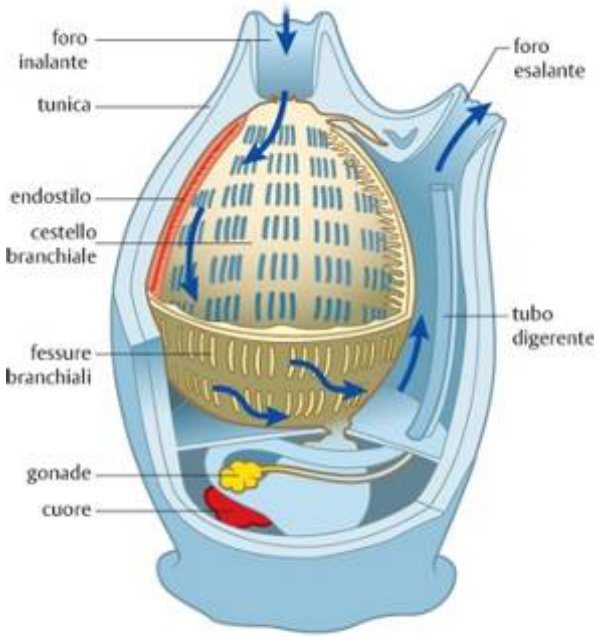


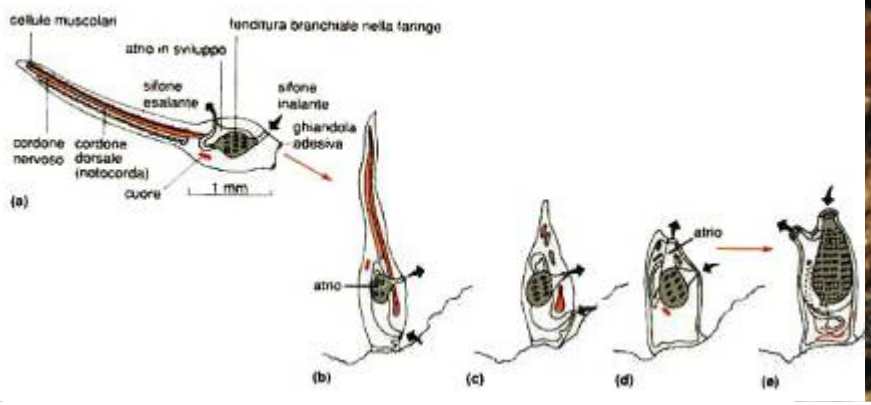


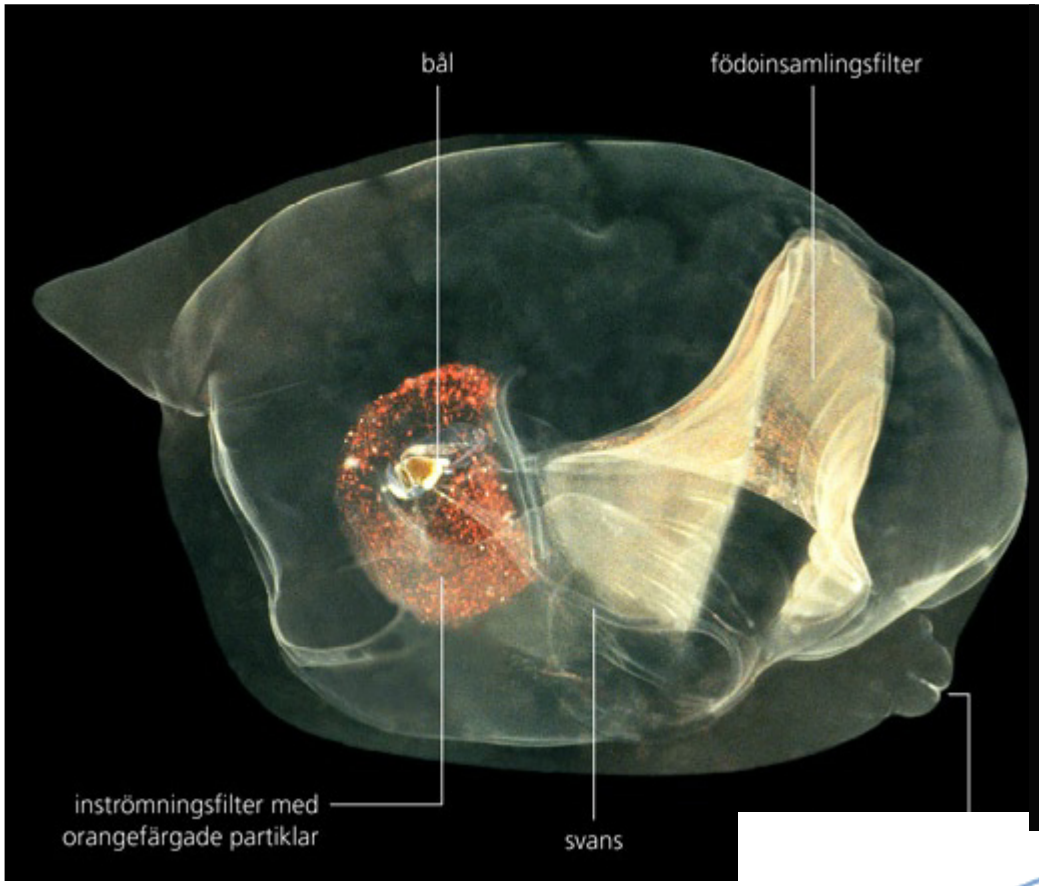


ASCIDIACEI

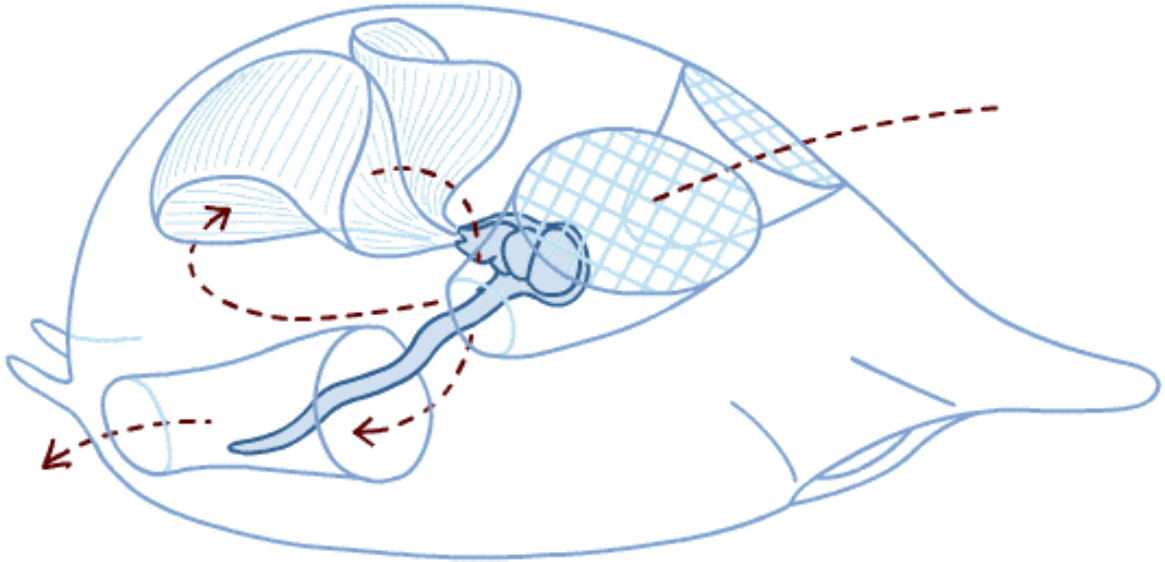

1
2
3
4
5


foro inalante
tunica
endostilo
cestello branchiale
fessure branchiali
gonade
cuore
foro esalante
tubo digerente

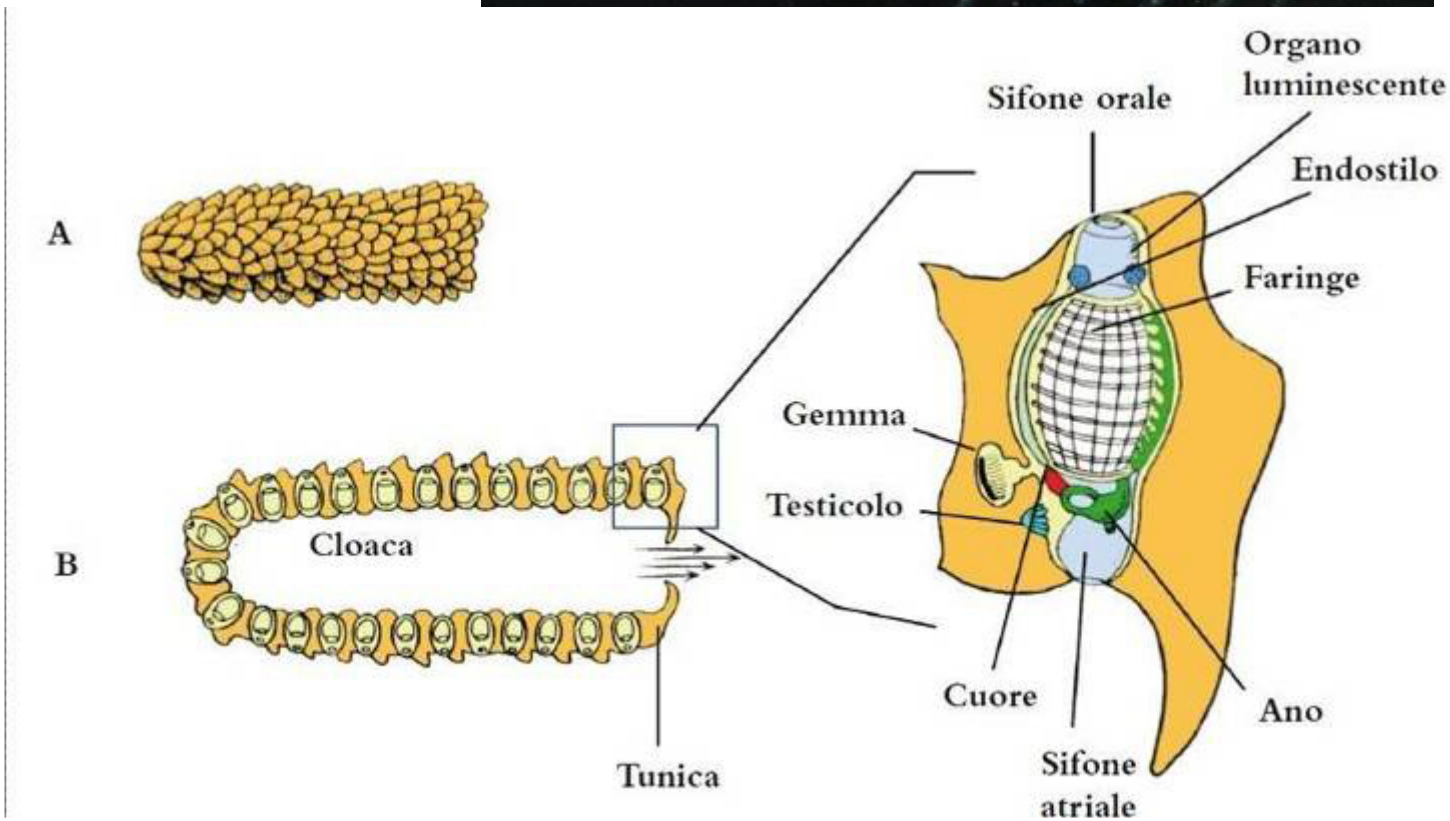

cellule muscolari
fenditura branchiale nella faringe
atrio in sviluppo
sifone esalante
sifone inalante
ghiandola adesiva
cordone nervoso
cordone dorsale (notocorda)
cuore
1 mm
(a)
atrio
(b)
(c)
atrio
(d)
(e)

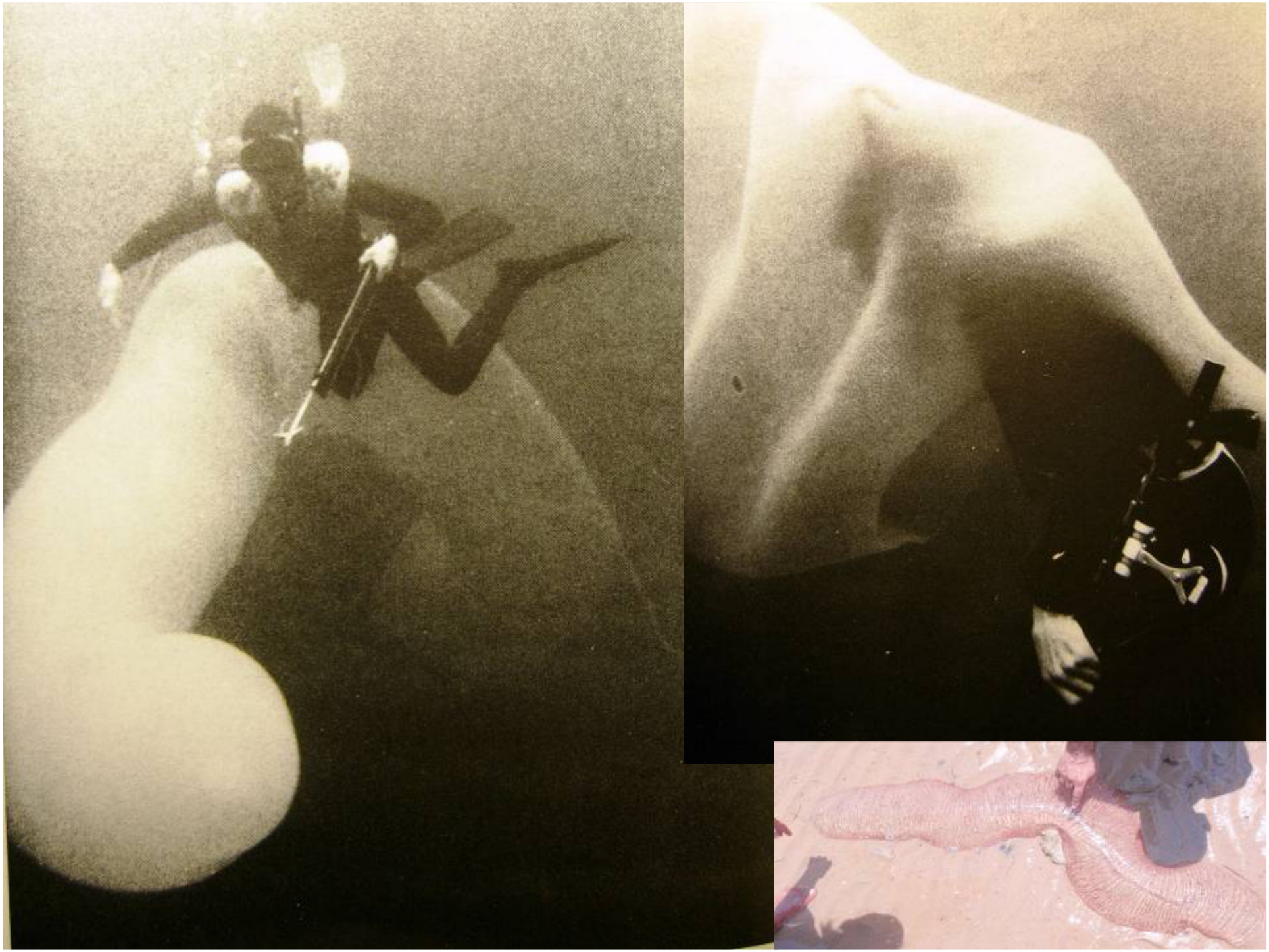

bål
födoinsamlingsfilter
inströmningsfilter med
orangefärgade partiklar
svans


0,1 mm
Vattenkikaren



TALIACEI
Pirosomidi





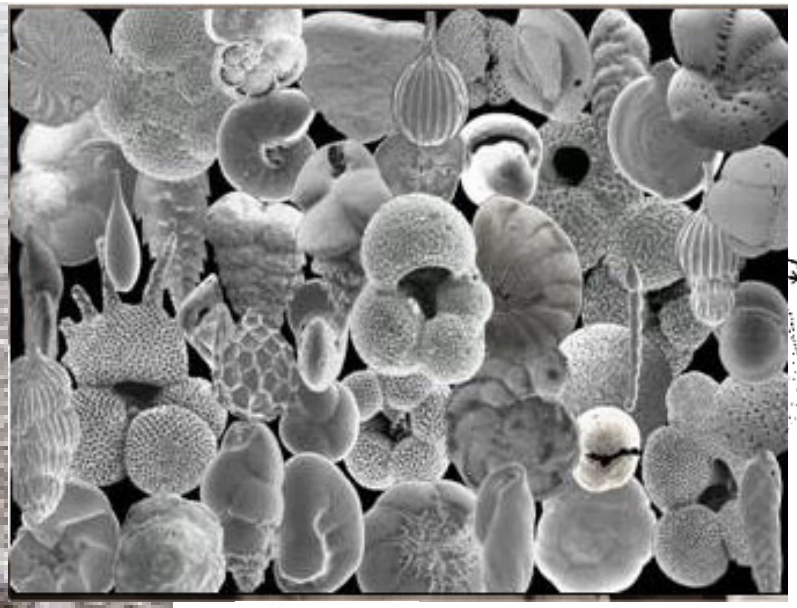


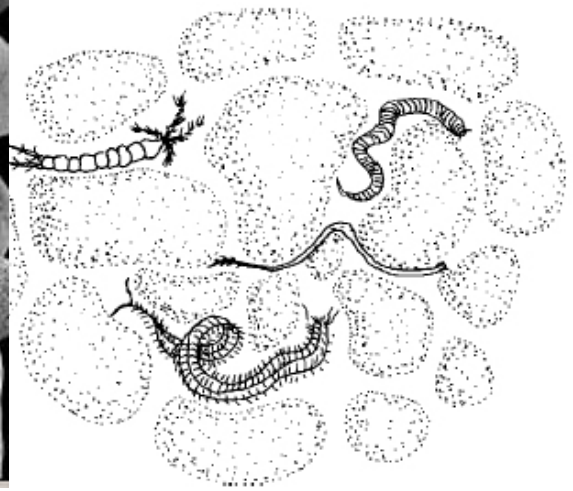


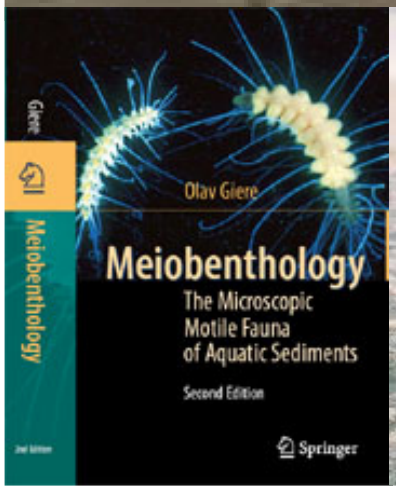


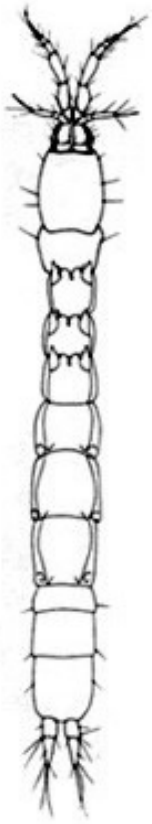


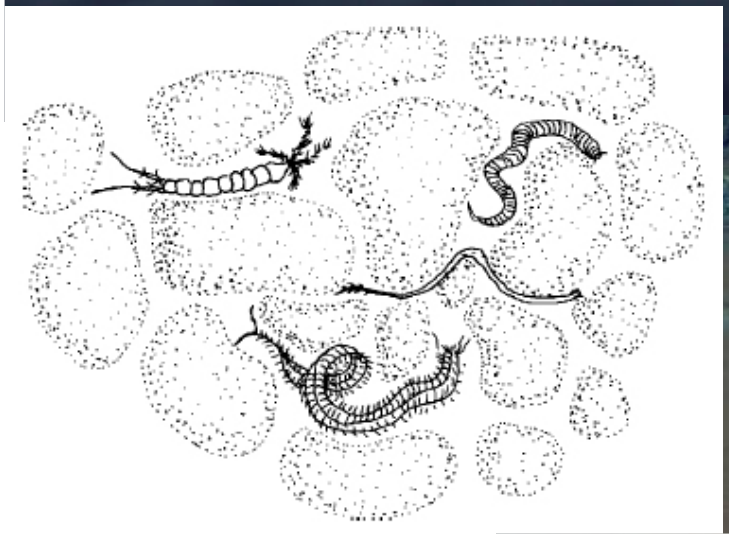

Meiobenthology

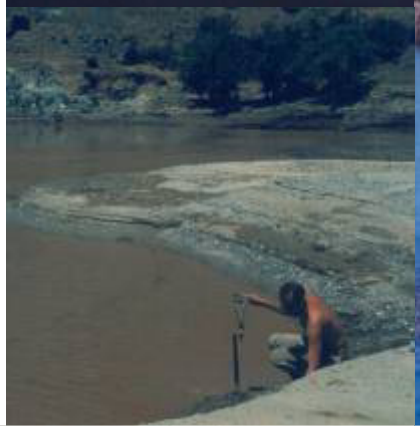


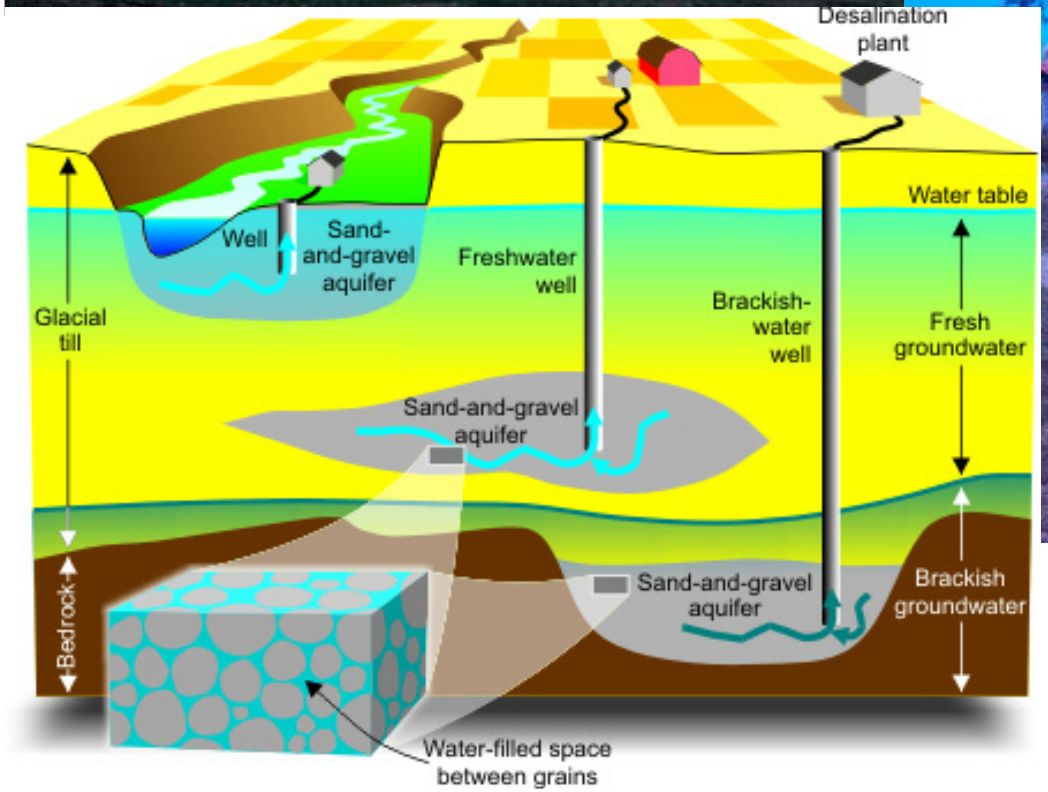


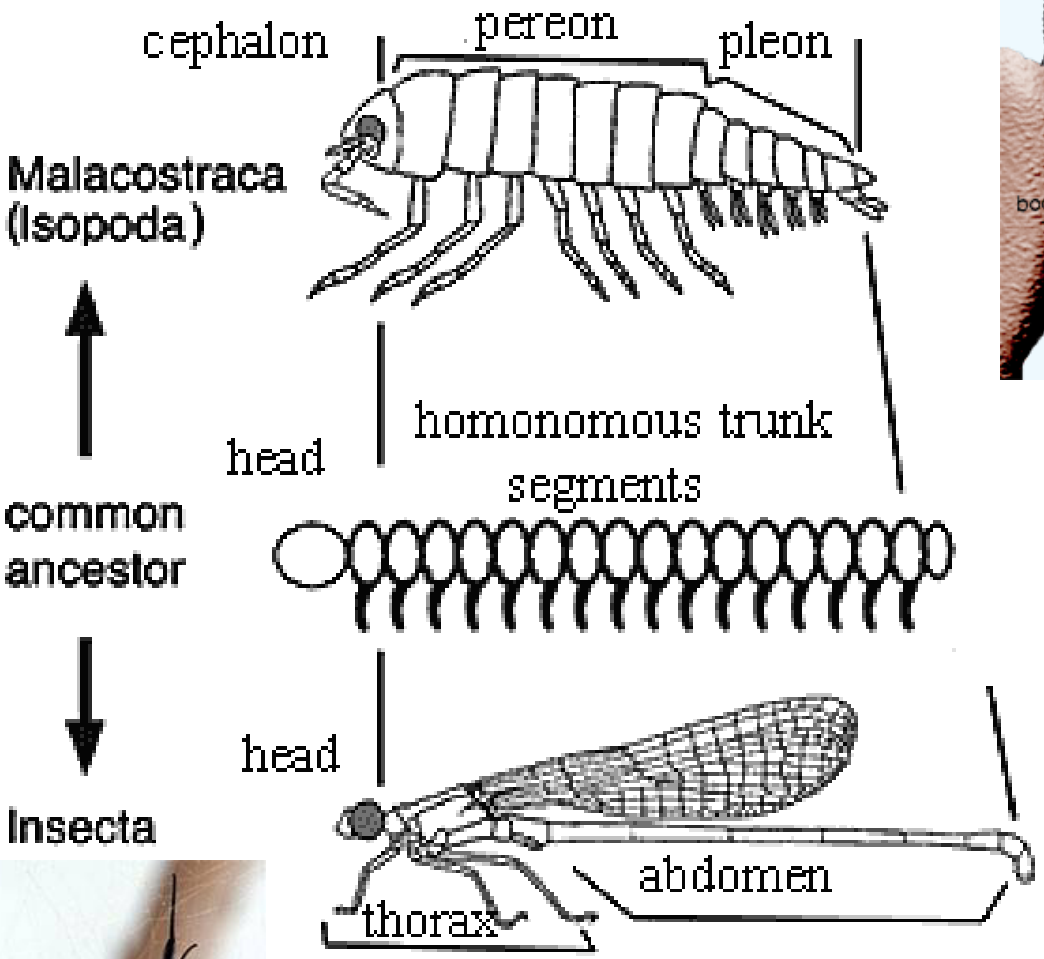

Olav Giere
Meiobenthology
The Microscopic
Motile Fauna
of Aquatic Sediments
Second Edition
Springer
Giere
Meiobenthology

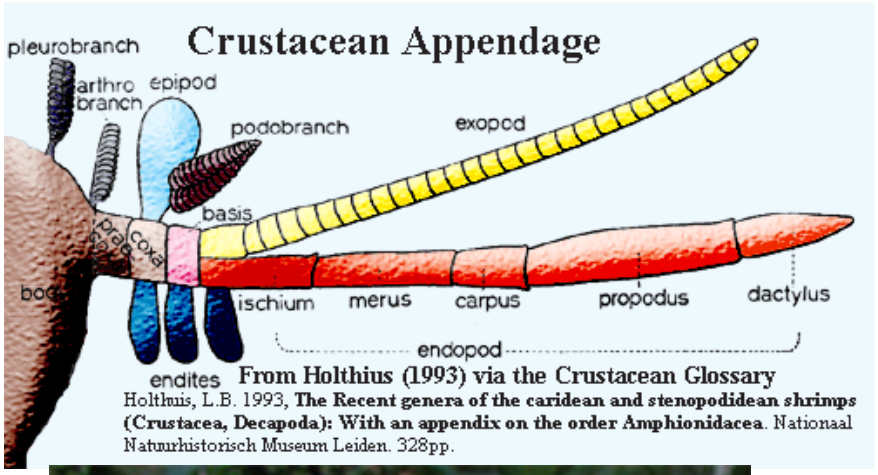


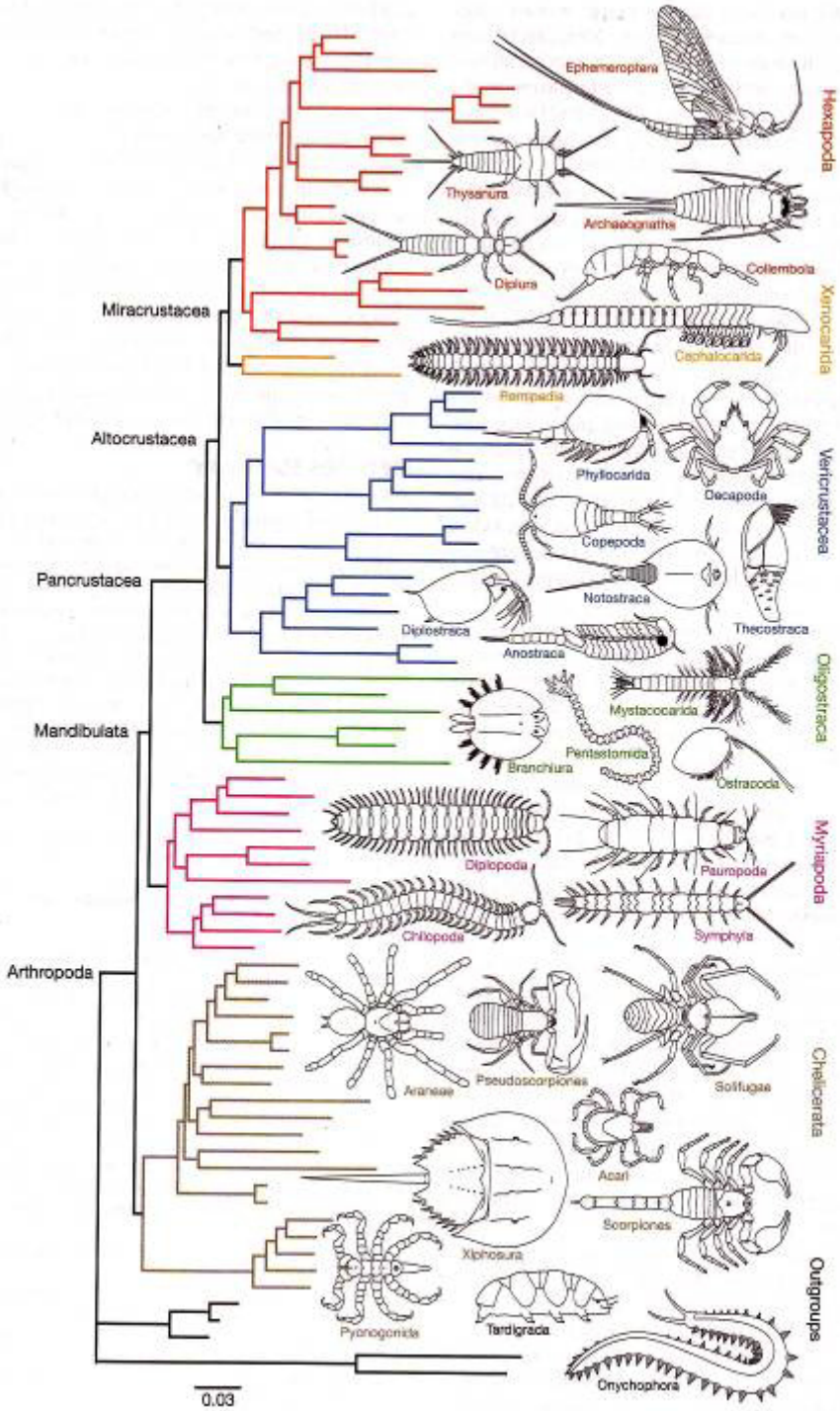


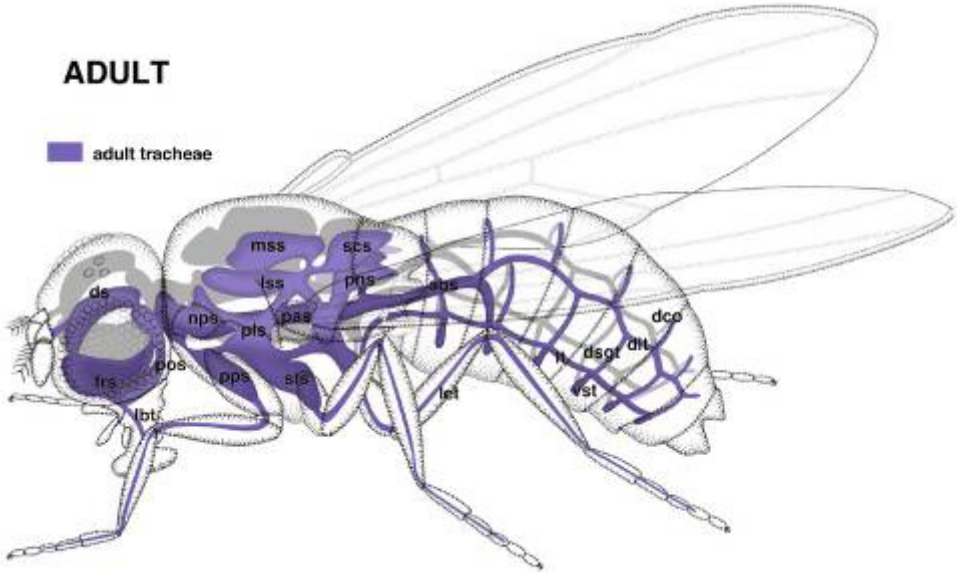


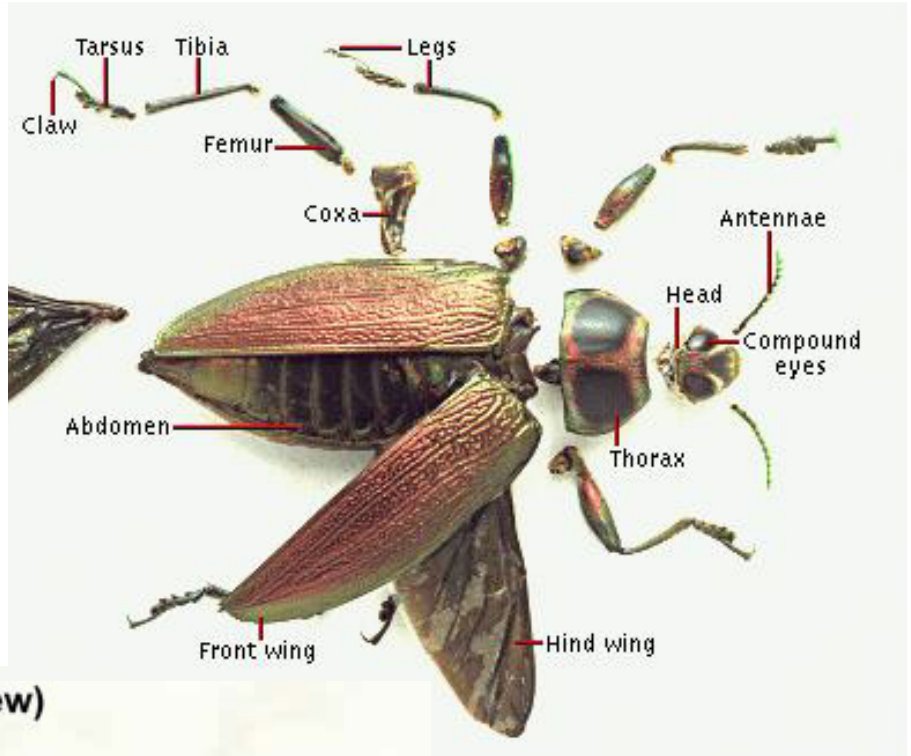

Desalination plant
Water table
Well
Sand-and-gravel aquifer
Freshwater well
Brackish-water well
Fresh groundwater
Glacial till
Sand-and-gravel aquifer
Sand-and-gravel aquifer
Brackish groundwater
Bedrock
Water-filled space between grains

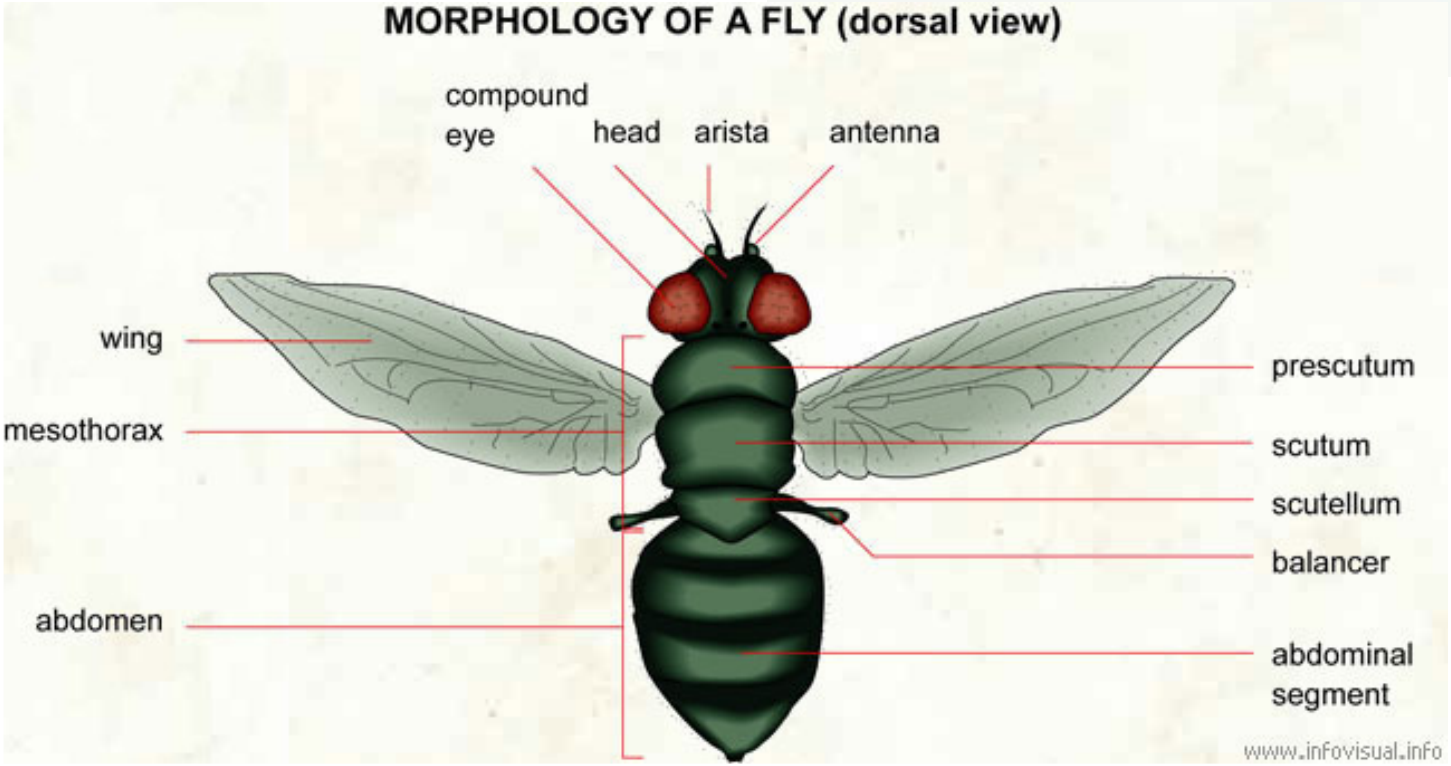

cephalon
pereon
pleon
Malacostraca
(Isopoda)
common
ancestor
head
homonomous trunk
segments
head
Insecta
abdomen
thorax


Crustacean Appendage
pleurobranch
arthro
branch
epipod
podobranch
exopod
basis
coxa
ischium
merus
carpus
propodus
dactylus
endopod
endites
From Holthius (1993) via the Crustacean Glossary
Holthuis, L.B. 1993, The Recent genera of the caridean and stenopodidean shrimps (Crustacea, Decapoda): With an appendix on the order Amphionidacea. Nationaal Naturhistorisch Museum Leiden. 328pp.

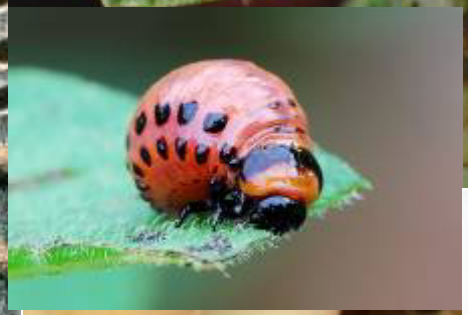

Ephemeroptera
Hexapoda
Thysanura
Archaeognatha
Collembola
Diplura
Miracrustacea
Xenocarida
Cephalocarida
Remipedia
Altocrustacea
Phyllocarida
Decapoda
Vericrustacea
Copepoda
Pancrustacea
Notostraca
Diplostraca
Thecostraca
Anostraca
Oligostraca
Mystacocarida
Mandibulata
Branchiura
Pentastomida
Ostracoda
Diplopoda
Myriapoda
Pauropoda
Chilopoda
Symphyla
Arthropoda
Aranese
Pseudoscorpiones
Solifugae
Chelicerata
Acari
Scorpiones
Xiphosura
Pycnogonida
Tardigrada
Outgroups
Onychophora
0.03

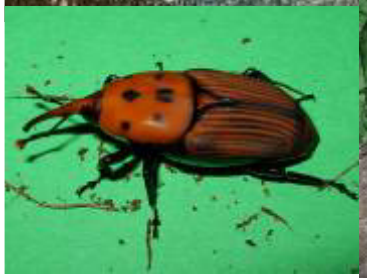

ADULT
adult tracheae
mss
scs
lss
pps
abs
ds
nps
pls
pas
dco
dlt
dsgt
tt
vst
pos
pps
sts
frs
let
lbt

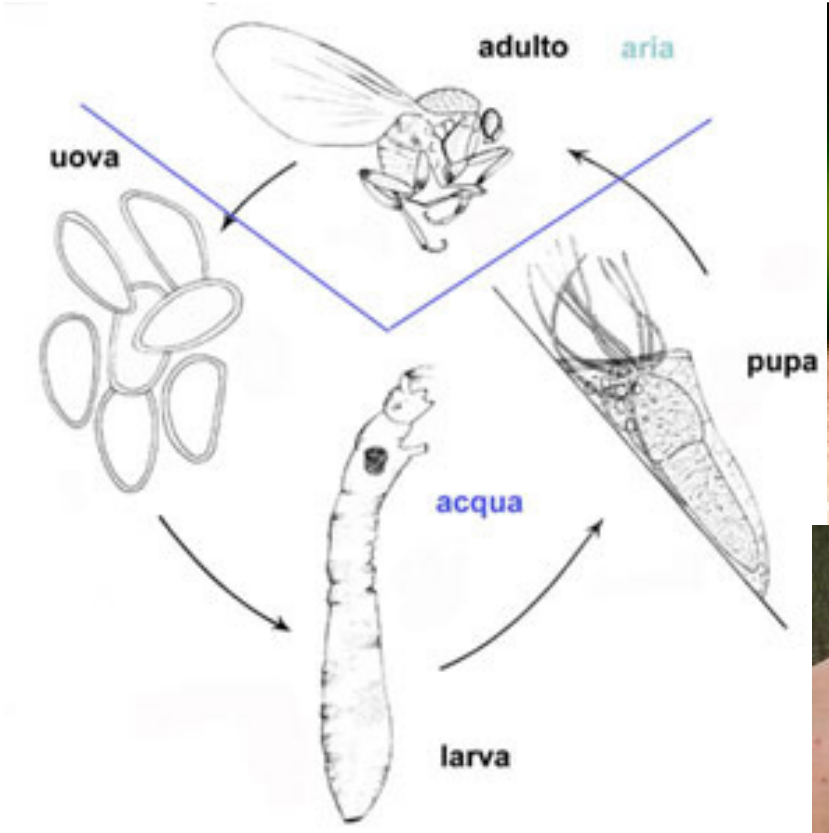

Tarsus
Tibia
Legs
Claw
Femur
Coxa
Antennae
Head
Compound eyes
Abdomen
Thorax
Front wing
Hind wing


MORPHOLOGY OF A FLY (dorsal view)
compound eye
head
arista
antenna
wing
mesothorax
abdomen
prescutum
scutum
scutellum
balancer
abdominal segment
www.infovisual.info

scolitidi

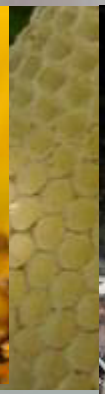





adulto
aria
uova
pupa
acqua
larva

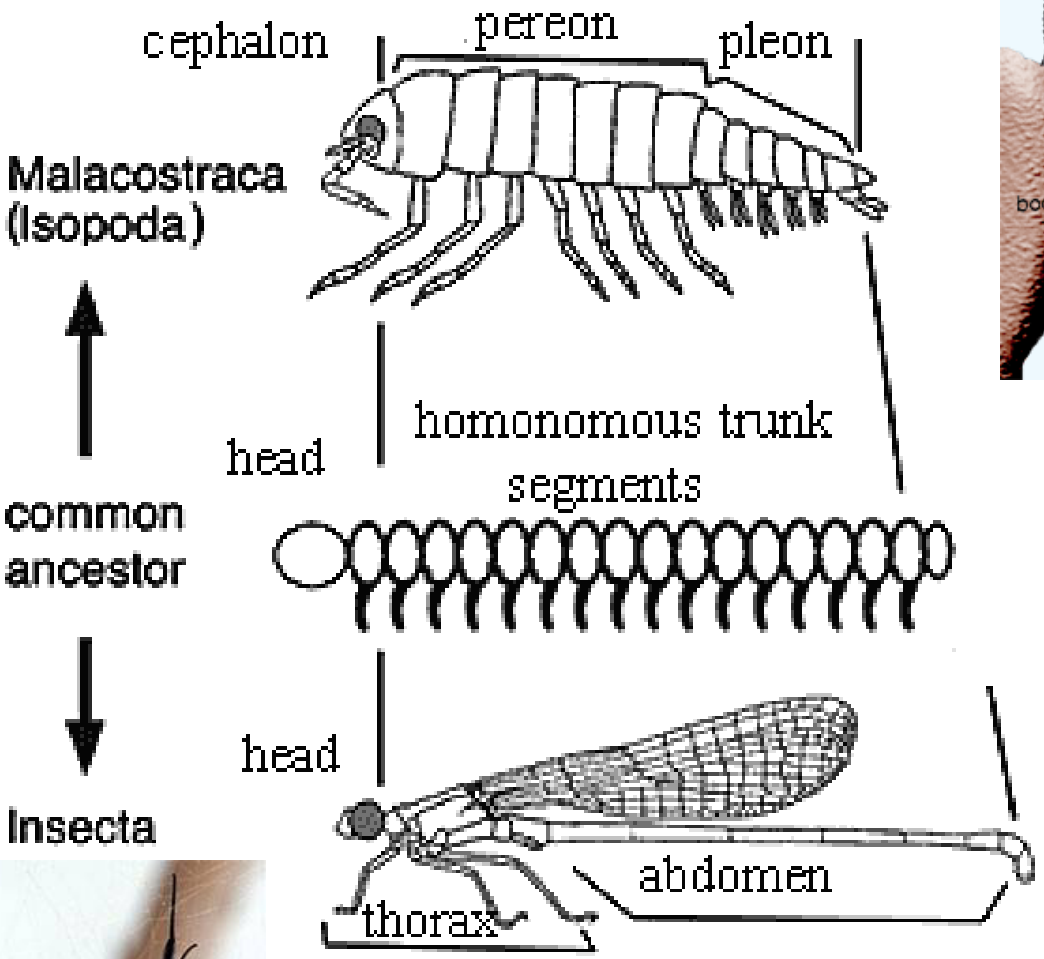


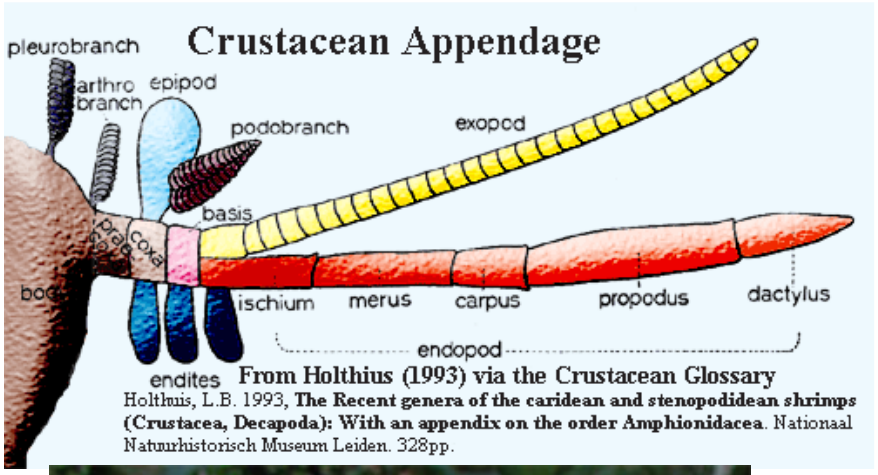


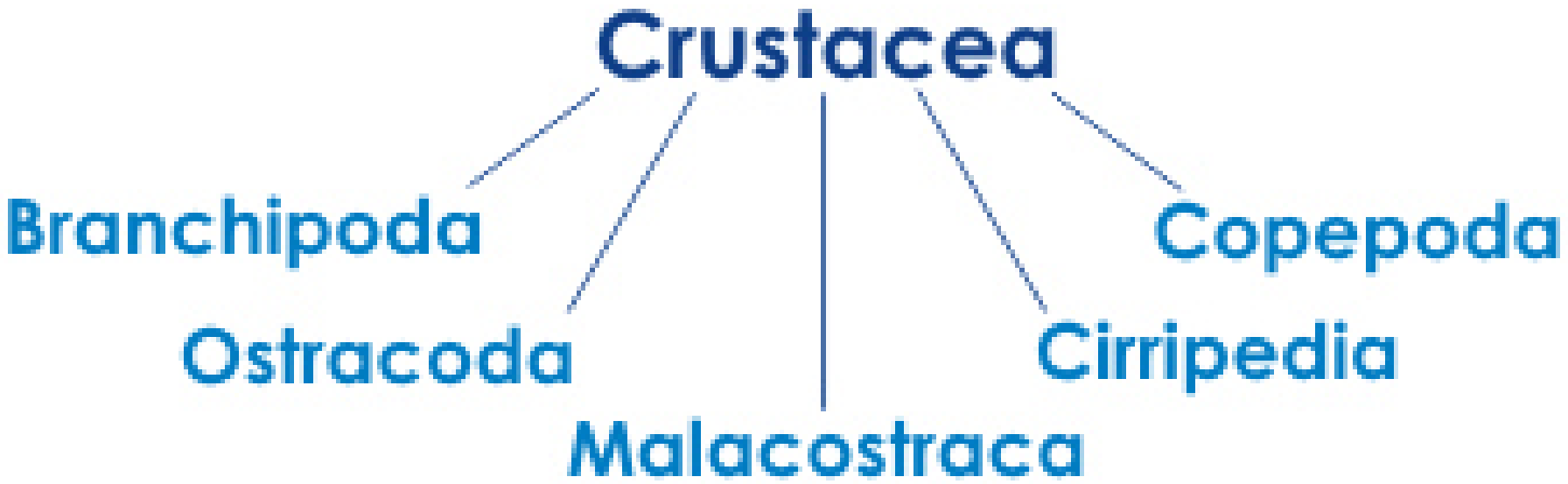



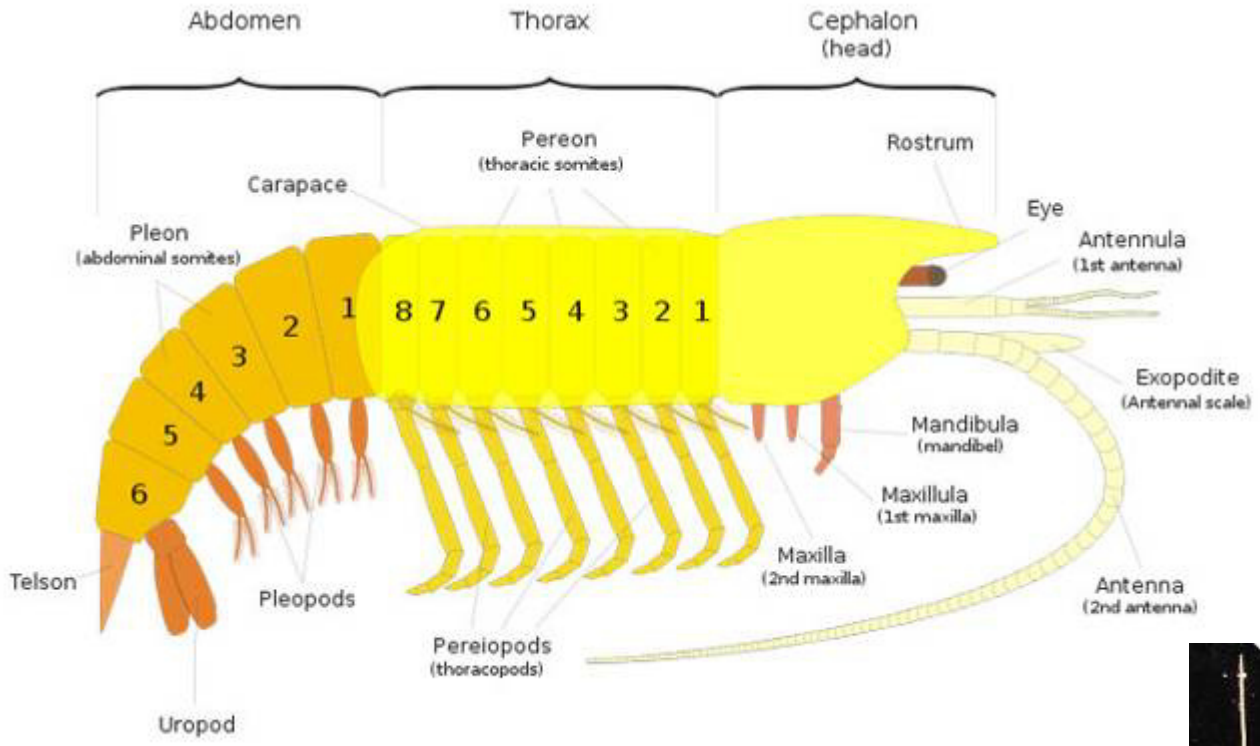
Give
BEES
A CHANCE

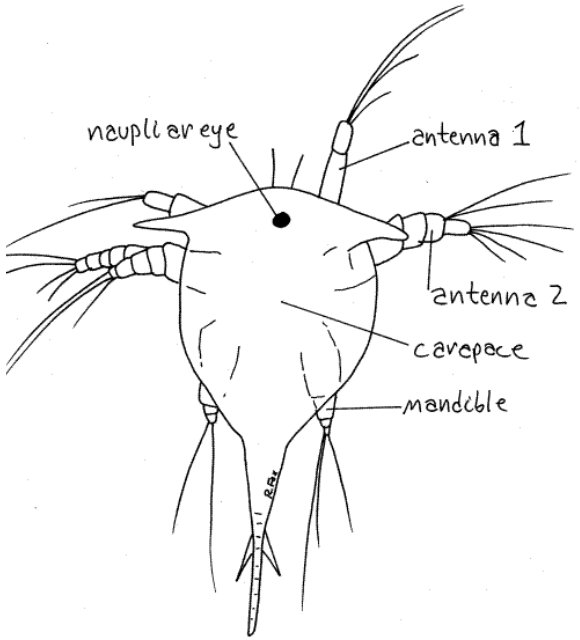


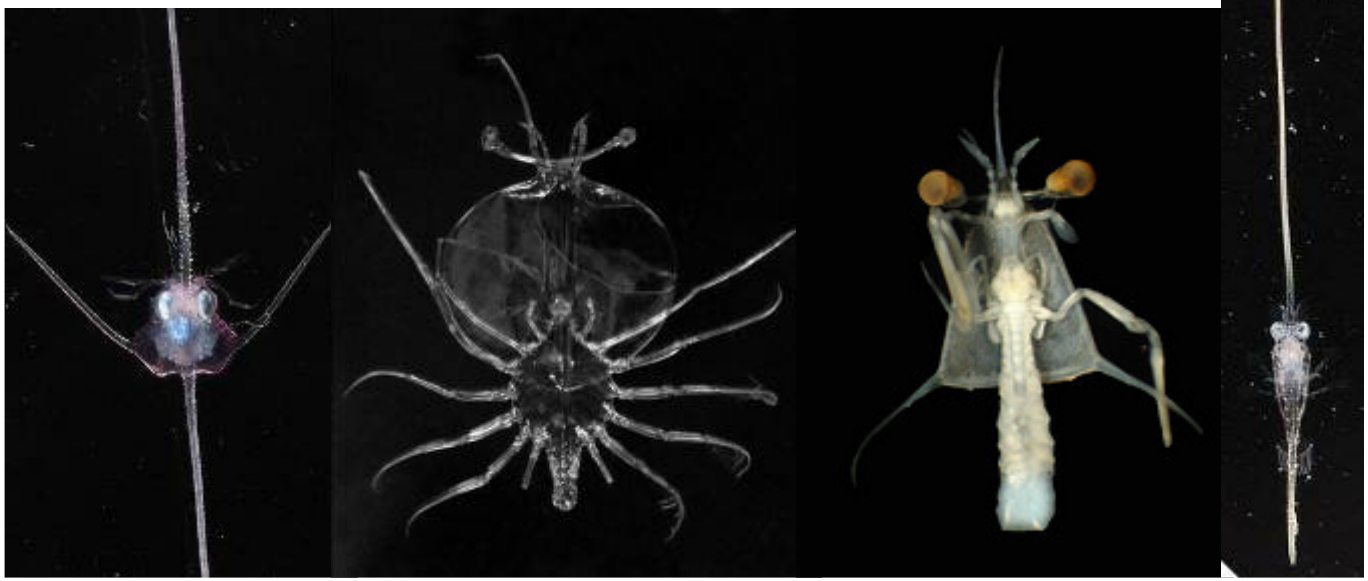

cephalon
pereon
pleon
Malacostraca
(Isopoda)
common
ancestor
head
homonomous trunk
segments
head
Insecta
abdomen
thorax


Crustacean Appendage
pleurobranch
arthro
branch
epipod
podobranch
exopod
basis
coxa
ischium
merus
carpus
propodus
dactylus
endopod
endites
From Holthius (1993) via the Crustacean Glossary
Holthuis, L.B. 1993, The Recent genera of the caridean and stenopodidean shrimps (Crustacea, Decapoda): With an appendix on the order Amphionidacea. Nationaal Naturhistorisch Museum Leiden. 328pp.

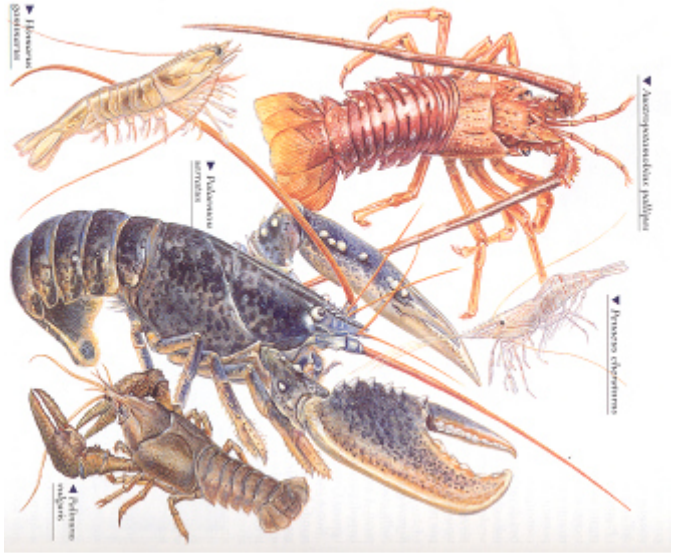

Crustacea
Branchipoda
Ostracoda
Malacostraca
Cirripedia
Copepoda

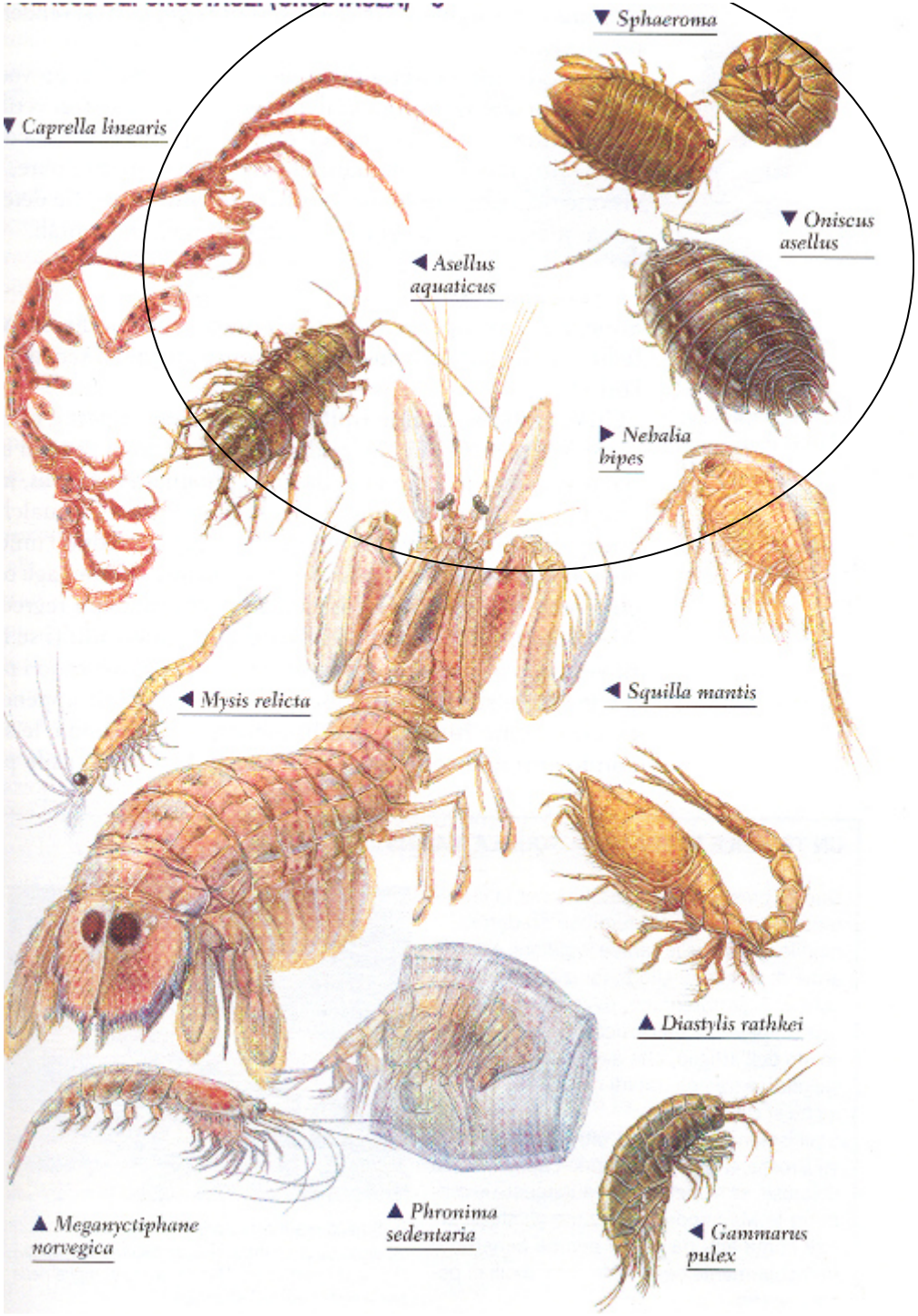

Abdomen
Thorax
Cephalon
(head)
Pereon
(thoracic somites)
Rostrum
Carapace
Eye
Pleon
(abdominal somites)
Antennula
(1st antenna)
1 2 3 4 5 6
8 7 6 5 4 3 2 1
Exopodite
(Antennal scale)
Mandibula
(mandibel)
Maxillula
(1st maxilla)
Maxilla
(2nd maxilla)
Telson
Pleopods
Antenna
(2nd antenna)
Pereiopods
(thoracopods)
Uropod

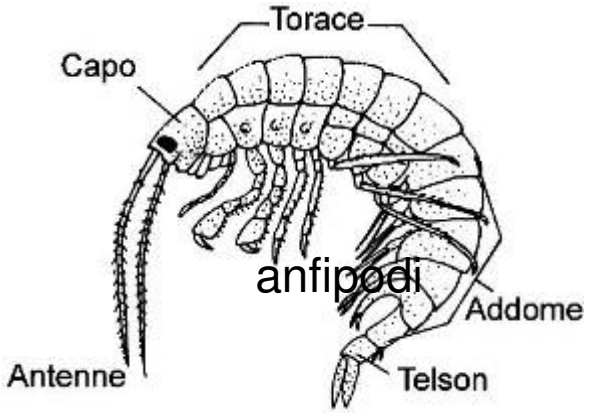

naupliar eye
antenna 1
antenna 2
carapace
mandible

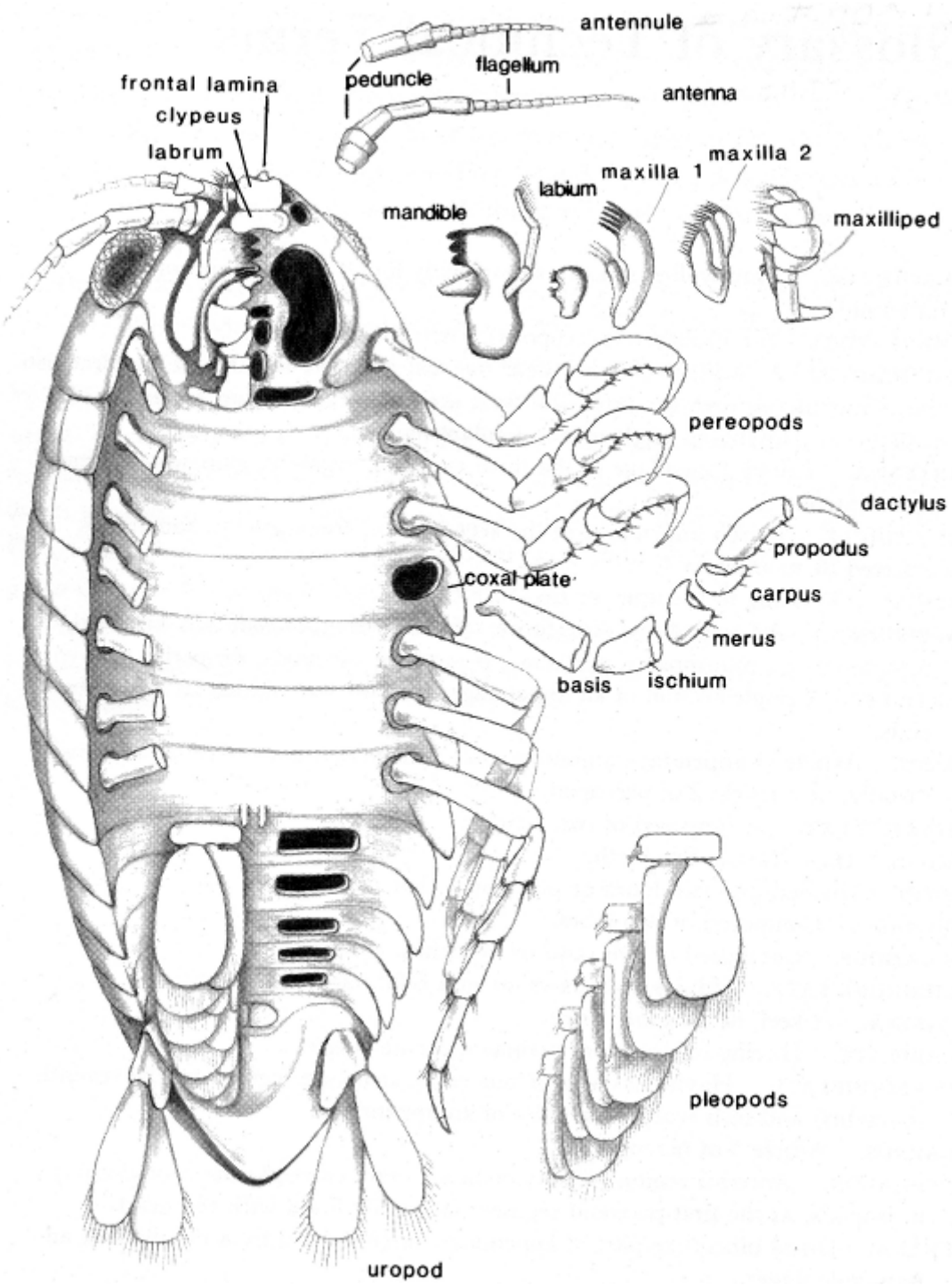


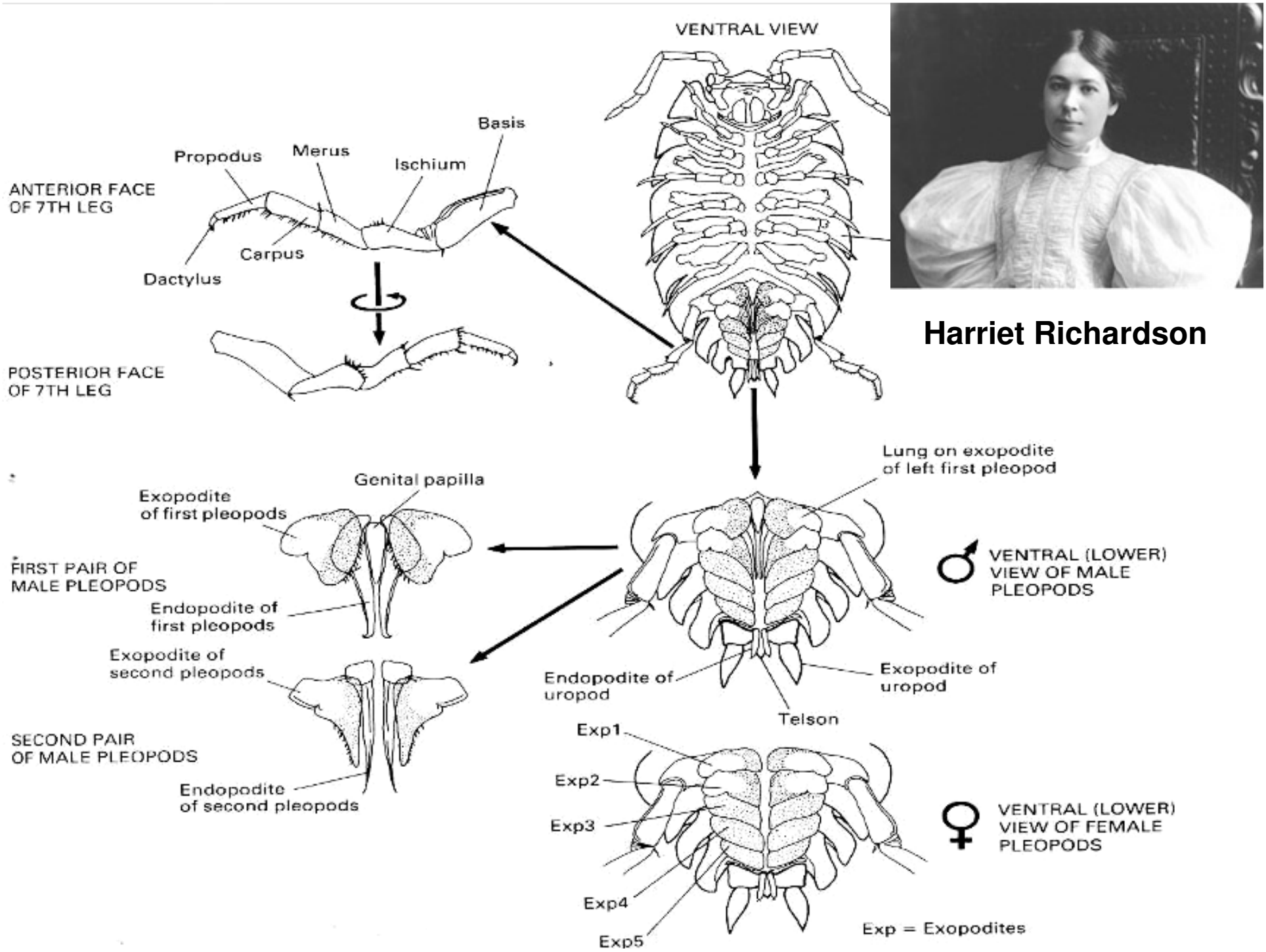

▼ Dardanus arosor
▼ Portunus pelagicus
▶ Eupagurus bernhardus
▲ Carcinus maenas
▲ Porcellana platycheles
▲ Inachus dorsettensis
▲ Homola barbata

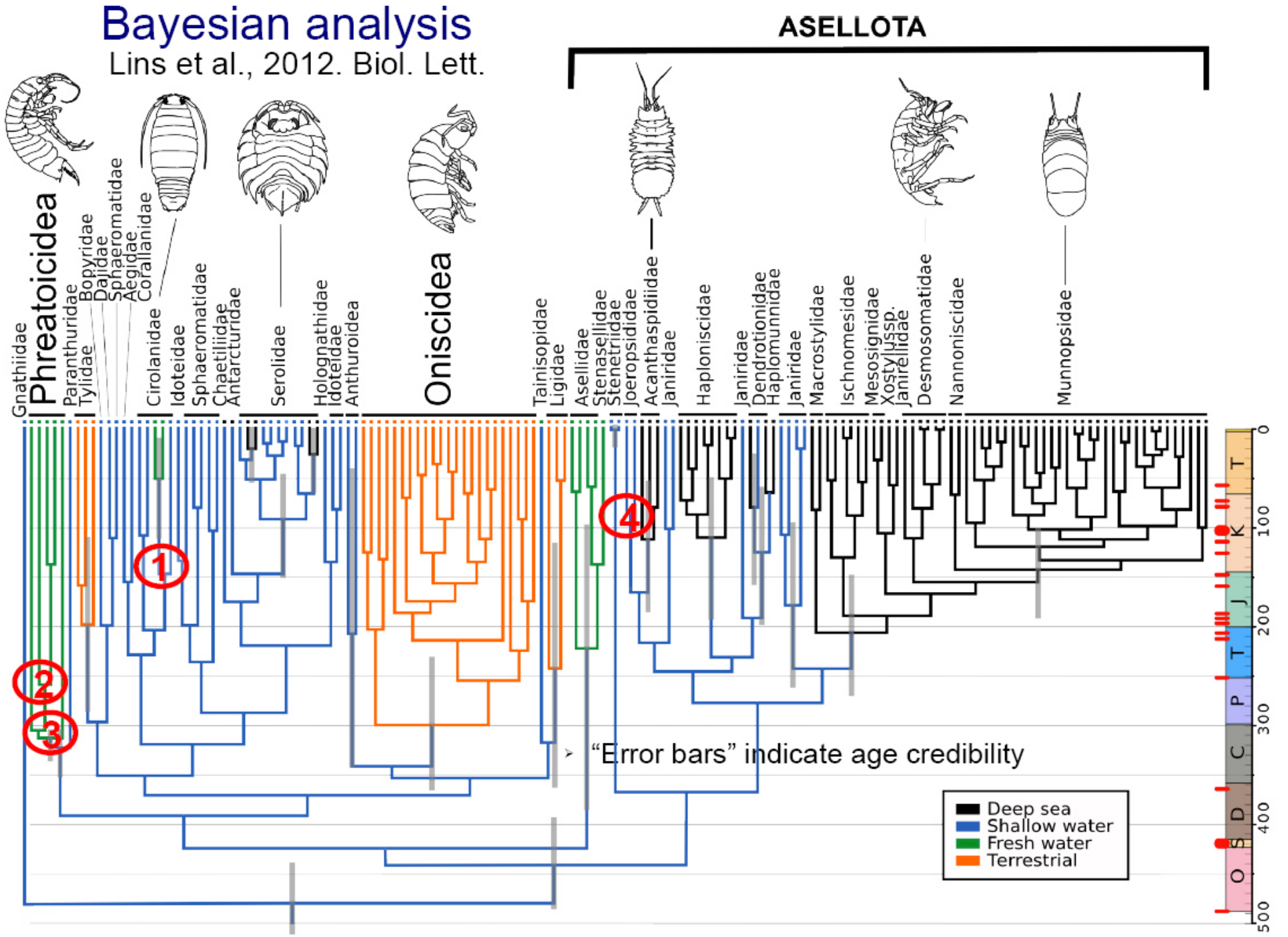



▼ Sphaeroma
▼ Caprella linearis
▼ Oniscus asellus
◀ Asellus aquaticus
▶ Nebalia bipes
◀ Mysis relicta
◀ Squilla mantis
▲ Diastylis rathkei
▲ Meganyctiphane norvegica
▲ Phronima sedentaria
◀ Gammarus pulex


Torace
Capo
anfipodi
Addome
Antenne
Telson


antennule
flagellum
peduncle
antenna
frontal lamina
clypeus
labrum
maxilla 2
maxilla 1
labium
mandible
maxilliped
pereopods
dactylus
propodus
coxal plate
carpus
merus
basis
ischium
pleopods
uropod


VENTRAL VIEW
Basis
Propodus
Merus
Ischium
ANTERIOR FACE
OF 7TH LEG
Carpus
Dactylus
POSTERIOR FACE
OF 7TH LEG
Harriet Richardson
Lung on exopodite
of left first pleopod
Genital papilla
Exopodite
of first pleopods
FIRST PAIR OF
MALE PLEOPODS
Endopodite of
first pleopods
Exopodite of
second pleopods
SECOND PAIR
OF MALE PLEOPODS
Endopodite
of second pleopods
VENTRAL (LOWER)
VIEW OF MALE
PLEOPODS
Endopodite of
uropod
Exopodite of
uropod
Telson
Exp1
Exp2
Exp3
Exp4
Exp5
VENTRAL (LOWER)
VIEW OF FEMALE
PLEOPODS
Exp = Exopodites


Bayesian analysis
Lins et al., 2012. Biol. Lett.
ASELLOTA
Phreatoicidea
Oniscidea
Gnathiidae
Paranthuridae
Tylidae
Bopyridae
Dajidae
Sphaeromatidae
Aegidae
Corallanidae
Cirolanidae
Idoteidae
Sphaeromatidae
Chaetiliidae
Antarcturidae
Serolidae
Holognathidae
Idoteidae
Anthuroidea
Tainisopidae
Ligidae
Asellidae
Stenasellidae
Stenetriidae
Joeropsidae
Acanthaspidiidae
Janiridae
Haploniscidae
Janiridae
Dendrotionidae
Haplomunnidae
Janiridae
Macrostylidae
Ischnomesidae
Mesosignidae
Xostylidae
Janirellidae
Desmosomatidae
Nannoniscidae
Munnopsidae
1
2
3
4
"Error bars" indicate age credibility
Deep sea
Shallow water
Fresh water
Terrestrial
T
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T
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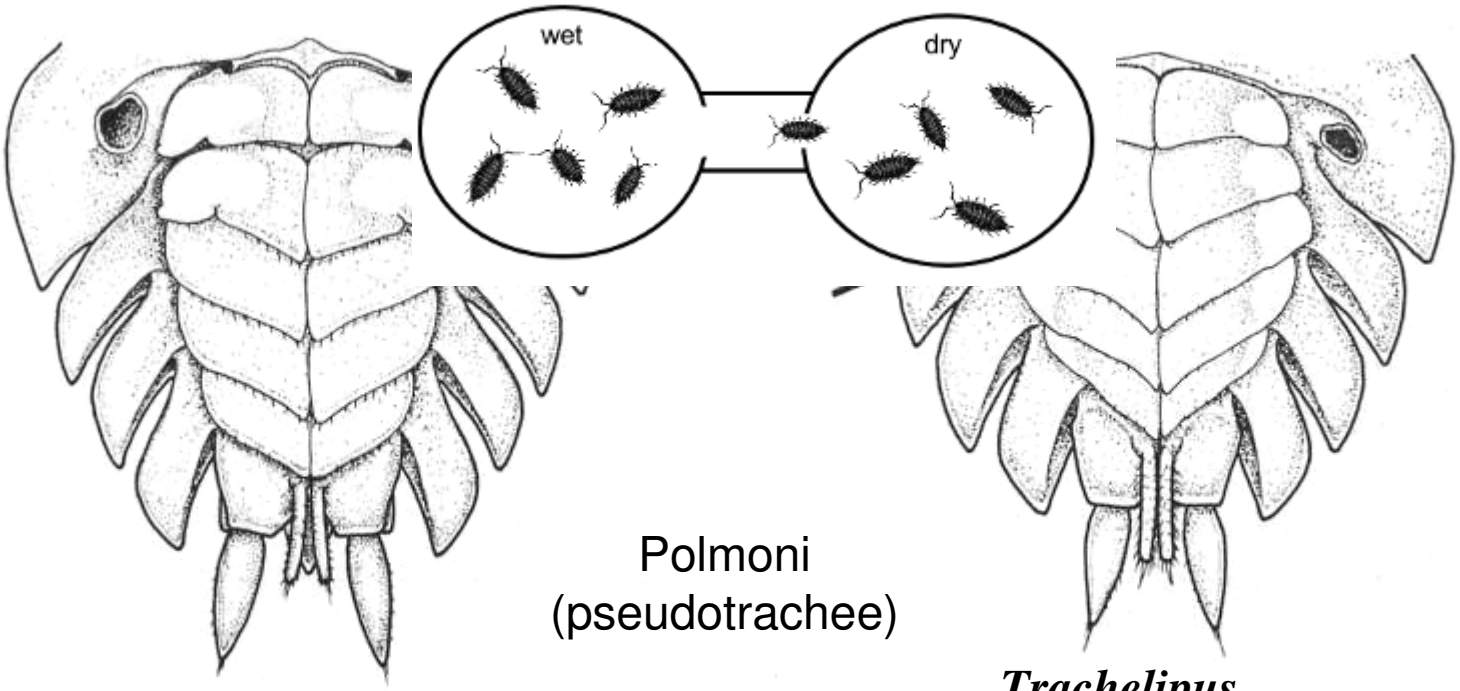
400
500



Polmoni
(pseudotrachee)

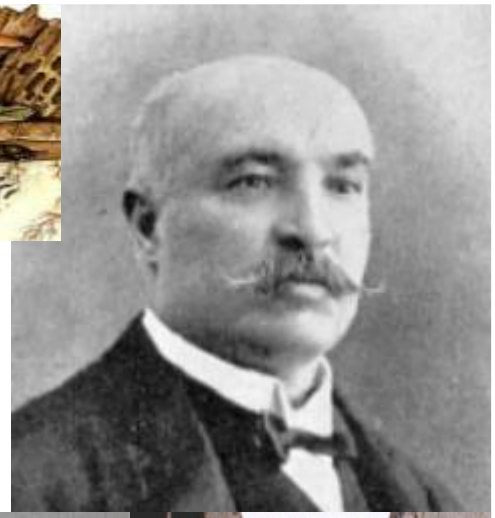
Porcellio

Trachelipus

Woodlouse showing two pairs of lungs. © Stephen Hopkin


© Karl Questel

***Hemilepistus reaumurii* (Milne-Edwards, 1840)**
Agnaridae, Tunisia



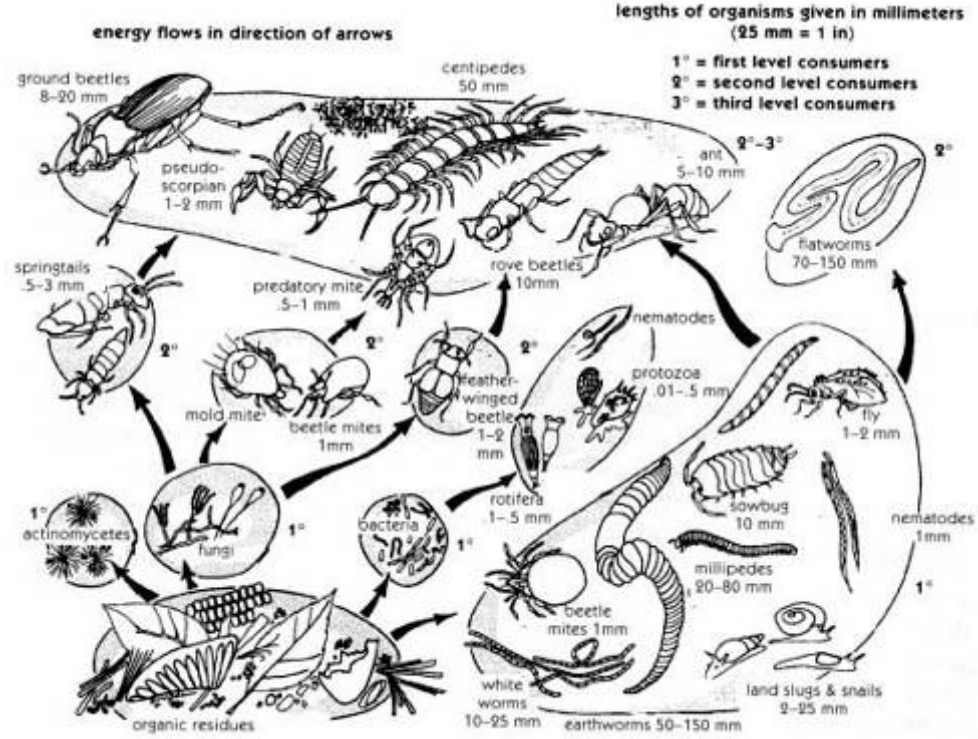
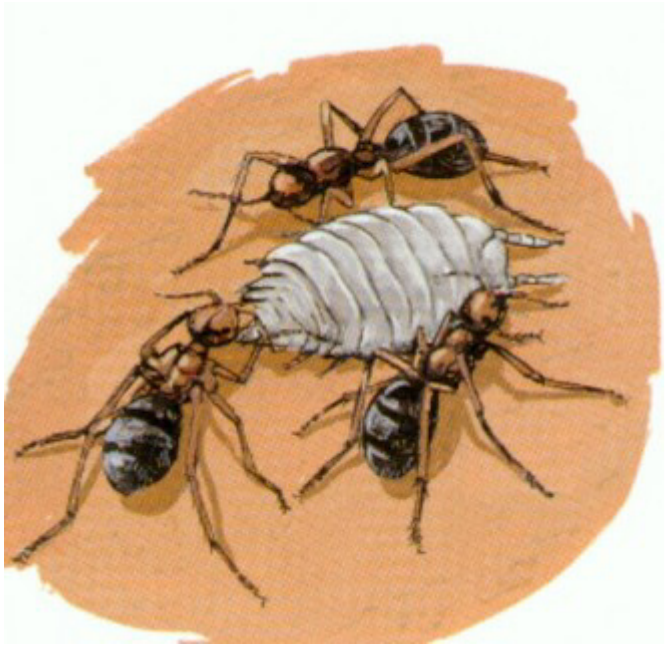


Figure 3.1 Soil organisms and their role in decomposing residues. Modified from D.L.Dindal, 1978.



Exalloniscus maschwitzi Taiti & Ferrara, 1988
Malaysia

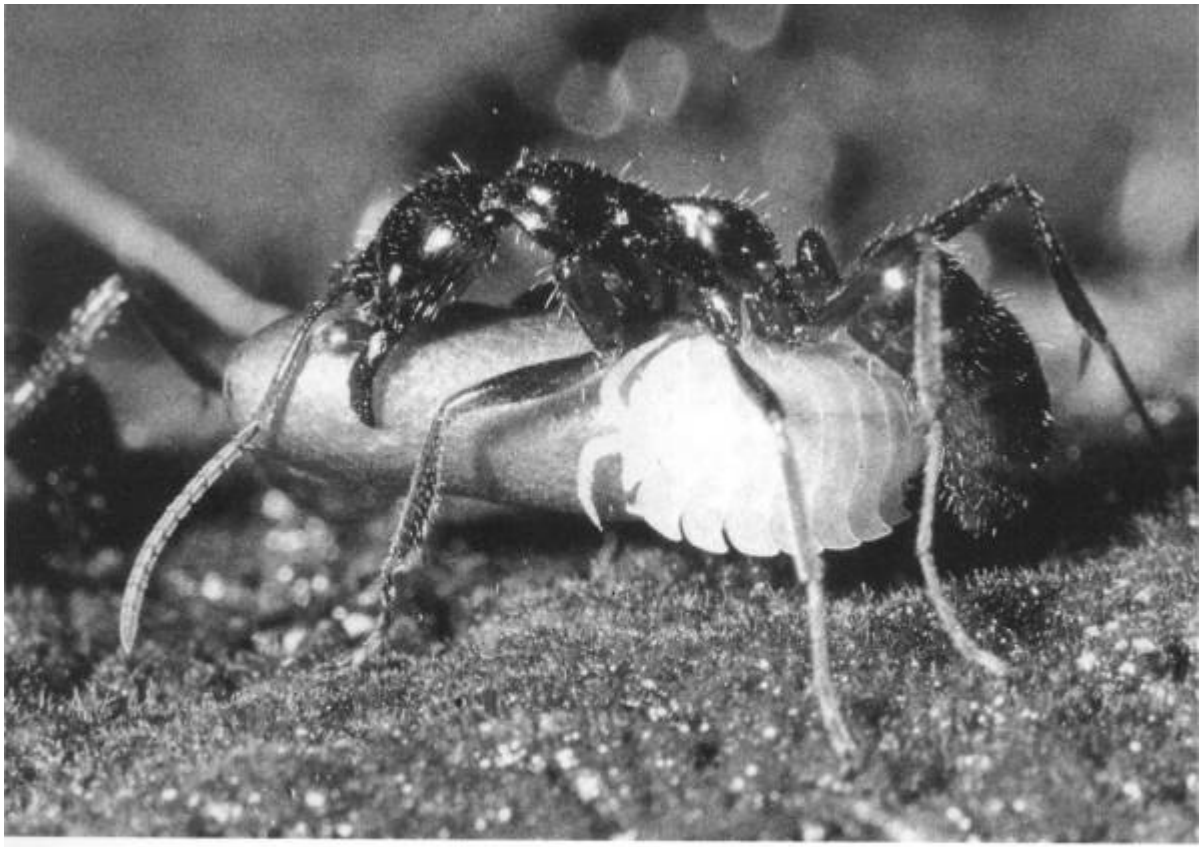
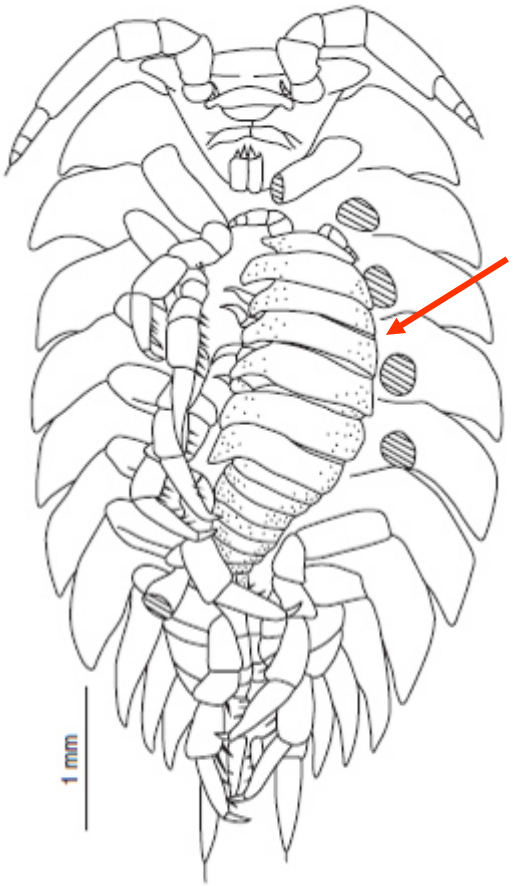
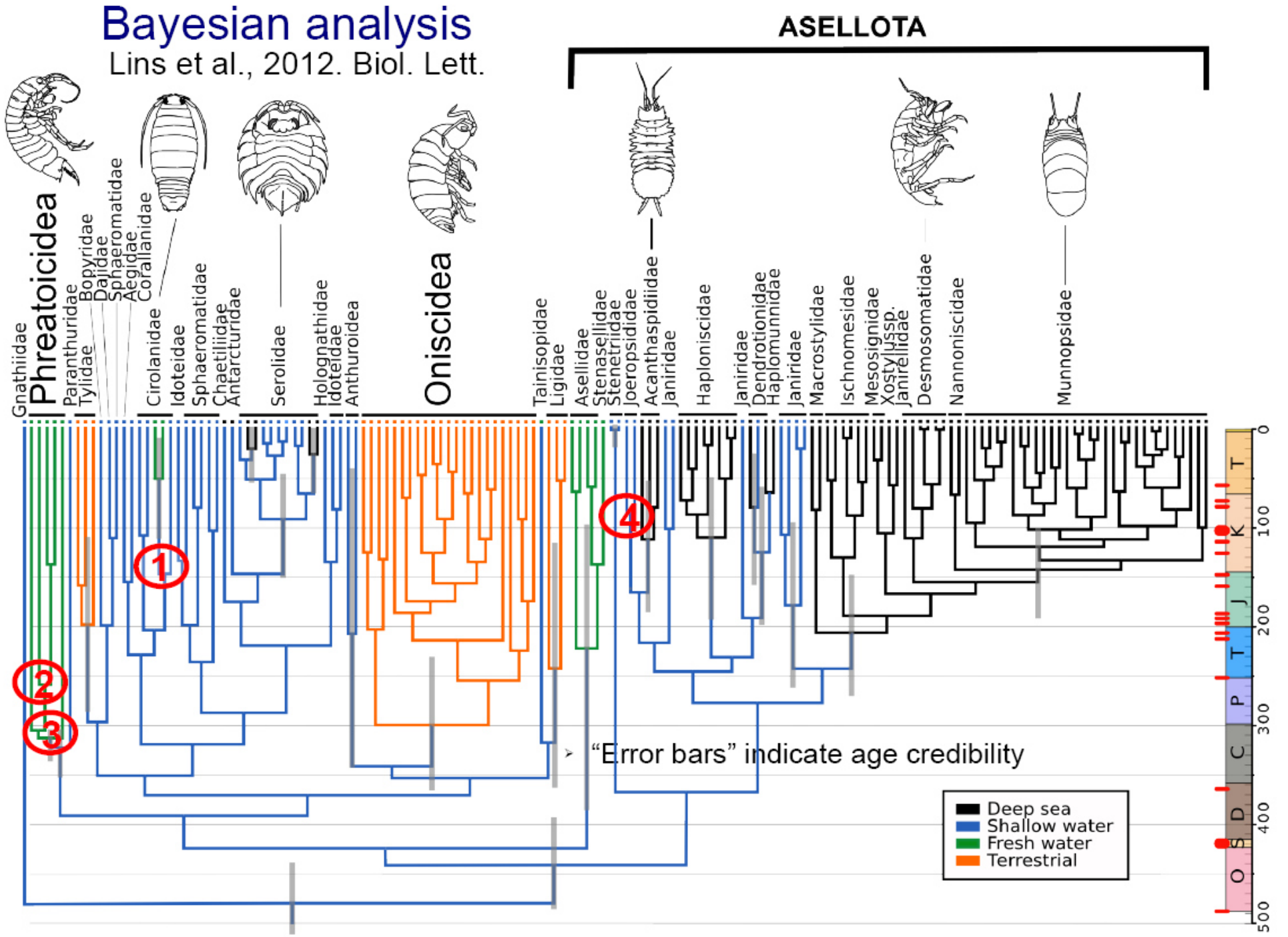


Fig. 1 - A worker of *Leptogenys* sp. (*processionalis*-group) carrying a pupa on which a specimen of *Exalloniscus maschwitzi* is transported.




Grotte de la Borne aux Cassots
Nevy sur Seille (Jura)
Cloporte
1 cm


Bayesian analysis
Lins et al., 2012. Biol. Lett.
ASELLOTA
Phreatoicidea
Oniscidea
Gnathiidae
Paranthuridae
Tylidae
Bopyridae
Dajidae
Sphaeromatidae
Aegidae
Corallanidae
Cirolanidae
Idoteidae
Sphaeromatidae
Chaetiliidae
Antarcturidae
Serolidae
Holognathidae
Idoteidae
Anthuroidea
Tainisopidae
Ligidae
Asellidae
Stenasellidae
Stenetriidae
Joeropsidae
Acanthaspidiidae
Janiridae
Haploniscidae
Janiridae
Dendrotionidae
Haplomunnidae
Janiridae
Macrostylidae
Ischnomesidae
Mesosignidae
Xostylidae
Janirellidae
Desmosomatidae
Nannoniscidae
Munnopsidae
1
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4
"Error bars" indicate age credibility
Deep sea
Shallow water
Fresh water
Terrestrial
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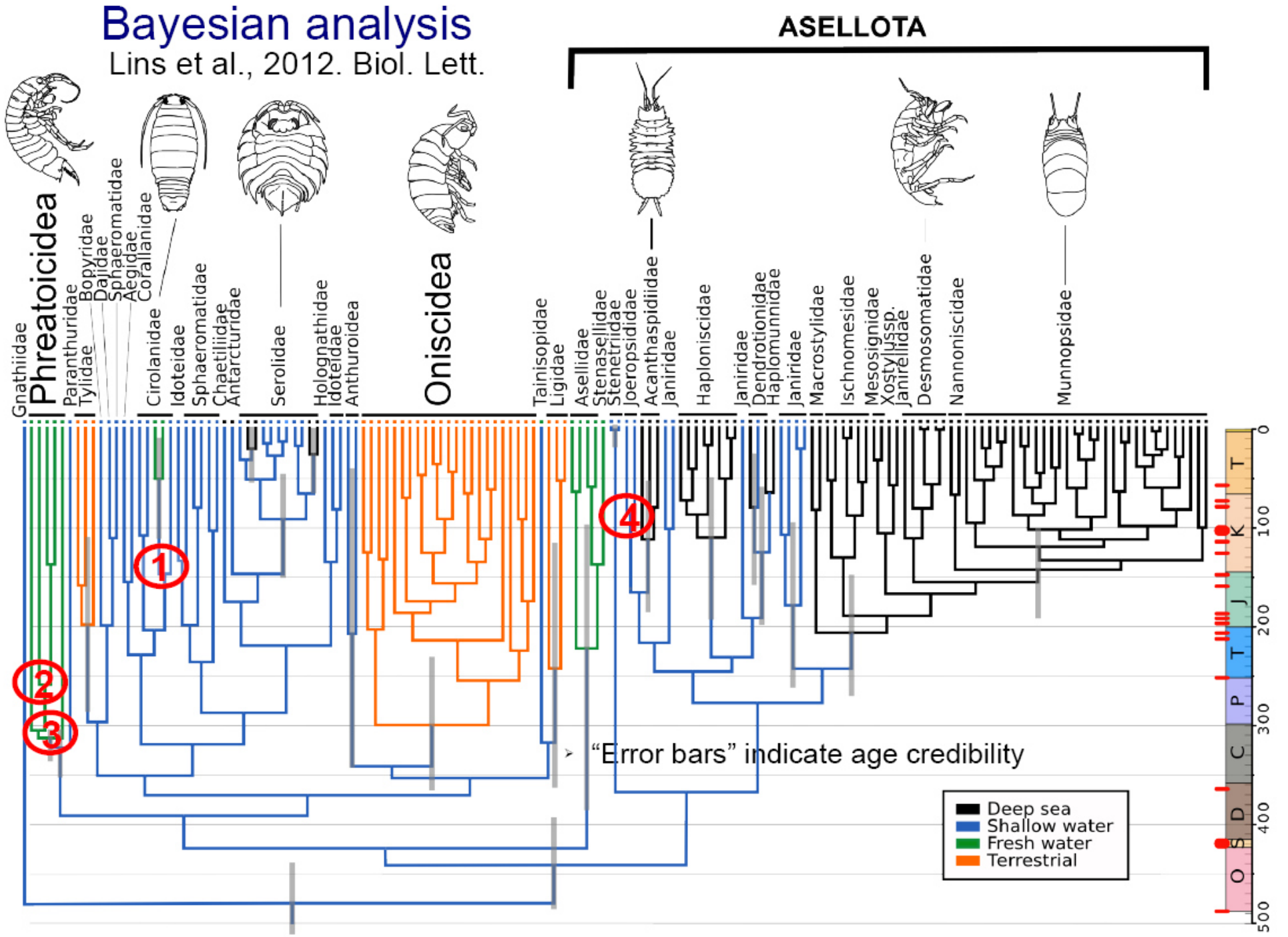
Bayesian analysis
Lins et al., 2012. Biol. Lett.
ASELLOTA
Phreatoicidea
Oniscidea
Gnathiidae
Paranthuridae
Tylidae
Bopyridae
Dajidae
Sphaeromatidae
Aegidae
Corallanidae
Cirolanidae
Idoteidae
Sphaeromatidae
Chaetiliidae
Antarcturidae
Serolidae
Holognathidae
Idoteidae
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Tainisopidae
Ligidae
Asellidae
Stenasellidae
Stenetriidae
Joeropsidae
Acanthaspidiidae
Janiridae
Haploniscidae
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Dendrotionidae
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Macrostylidae
Ischnomesidae
Mesosignidae
Xostylidae
Janirellidae
Desmosomatidae
Nannoniscidae
Munnopsidae
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Deep sea
Shallow water
Fresh water
Terrestrial
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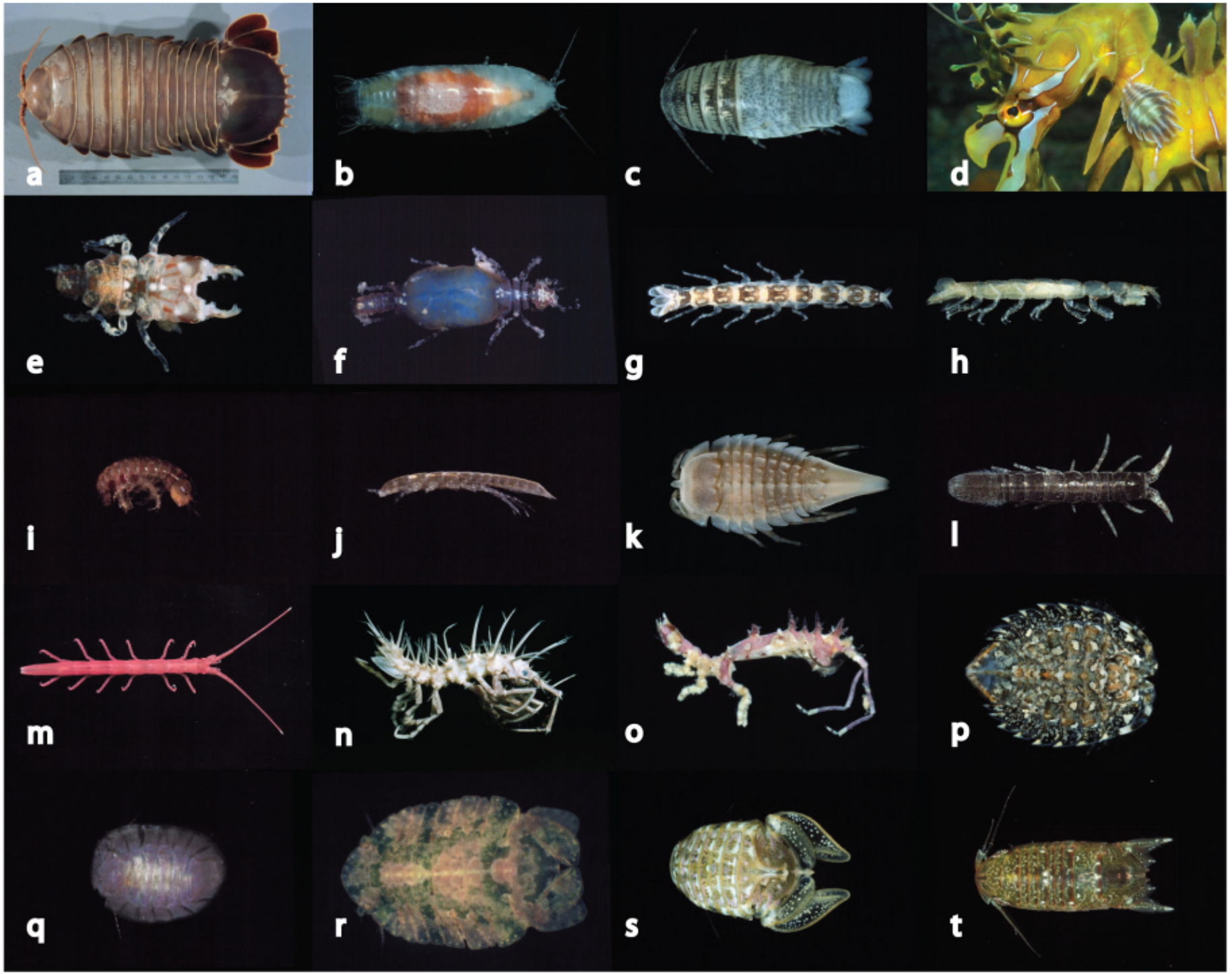
a
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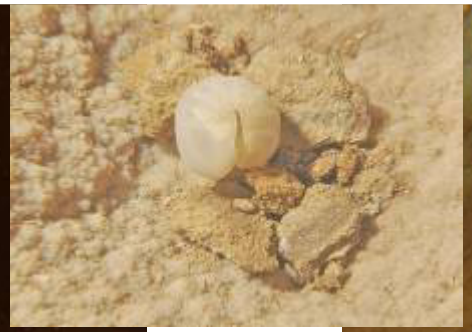
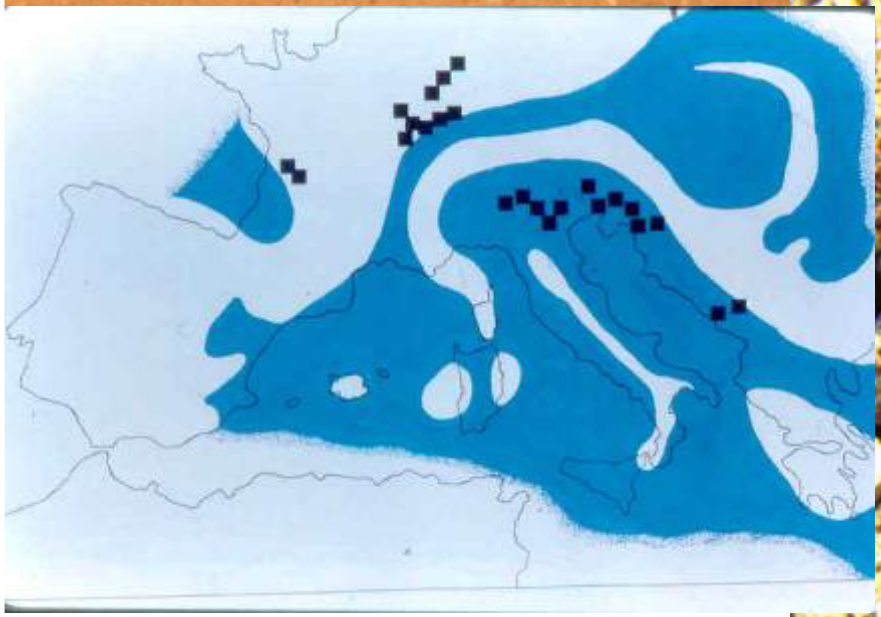
DAN
BROWN
LA VERITÀ
DEL GHIACCIO
ROMANZO

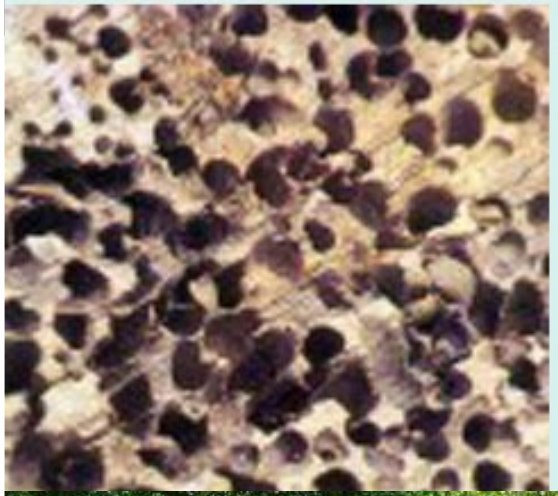
Monolistra pretneri

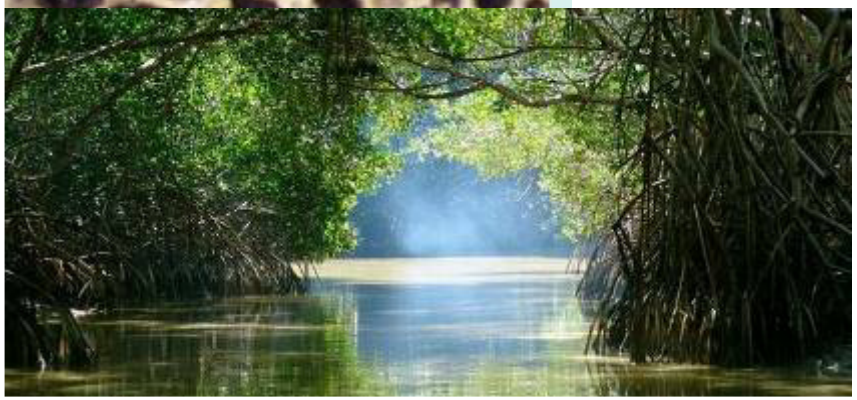


Caecosphaeroma



Creaseriella anops





Limnoria lignorum

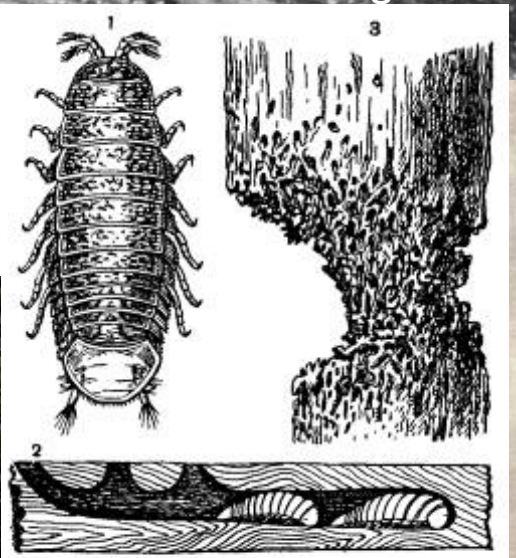
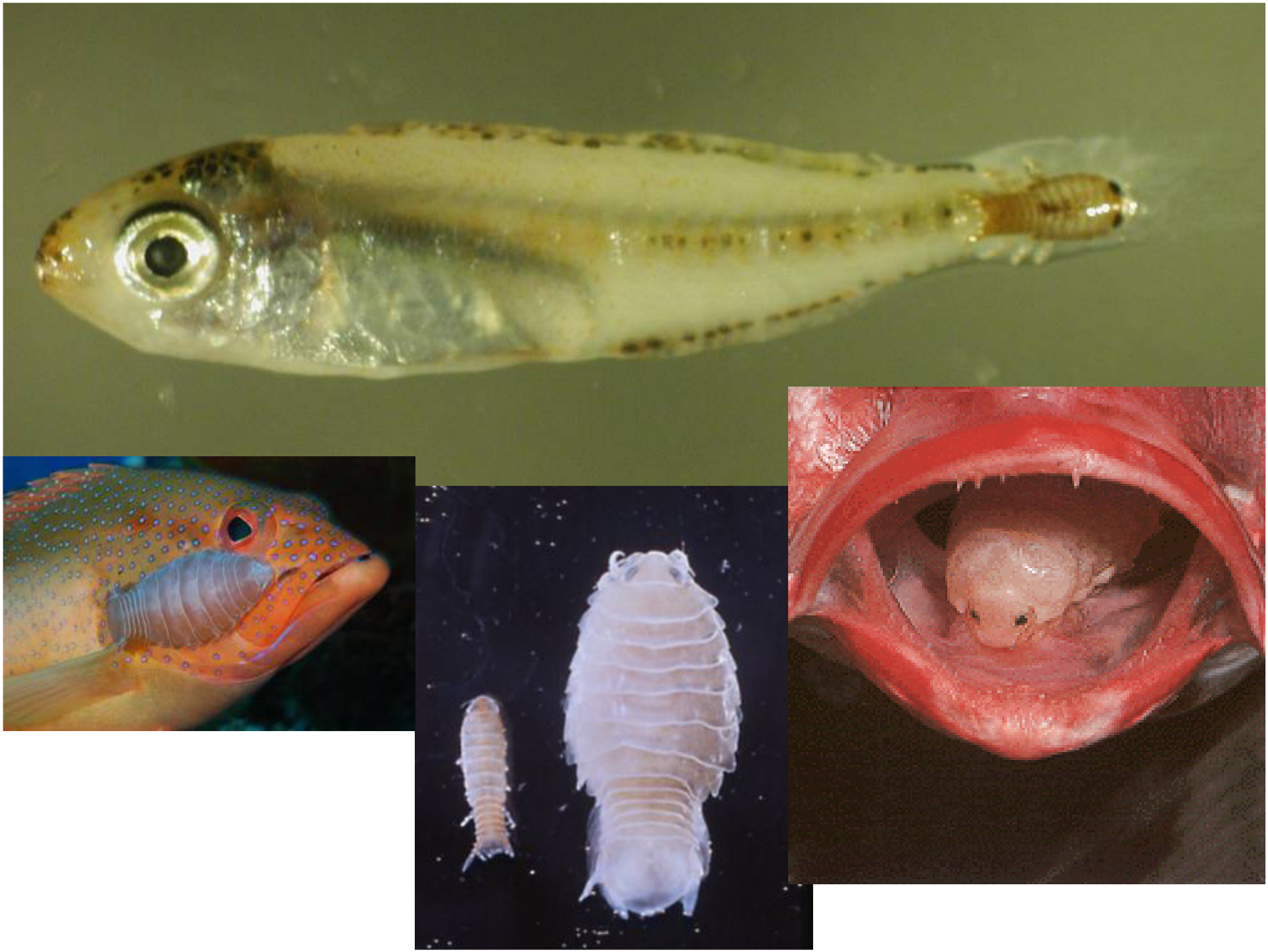
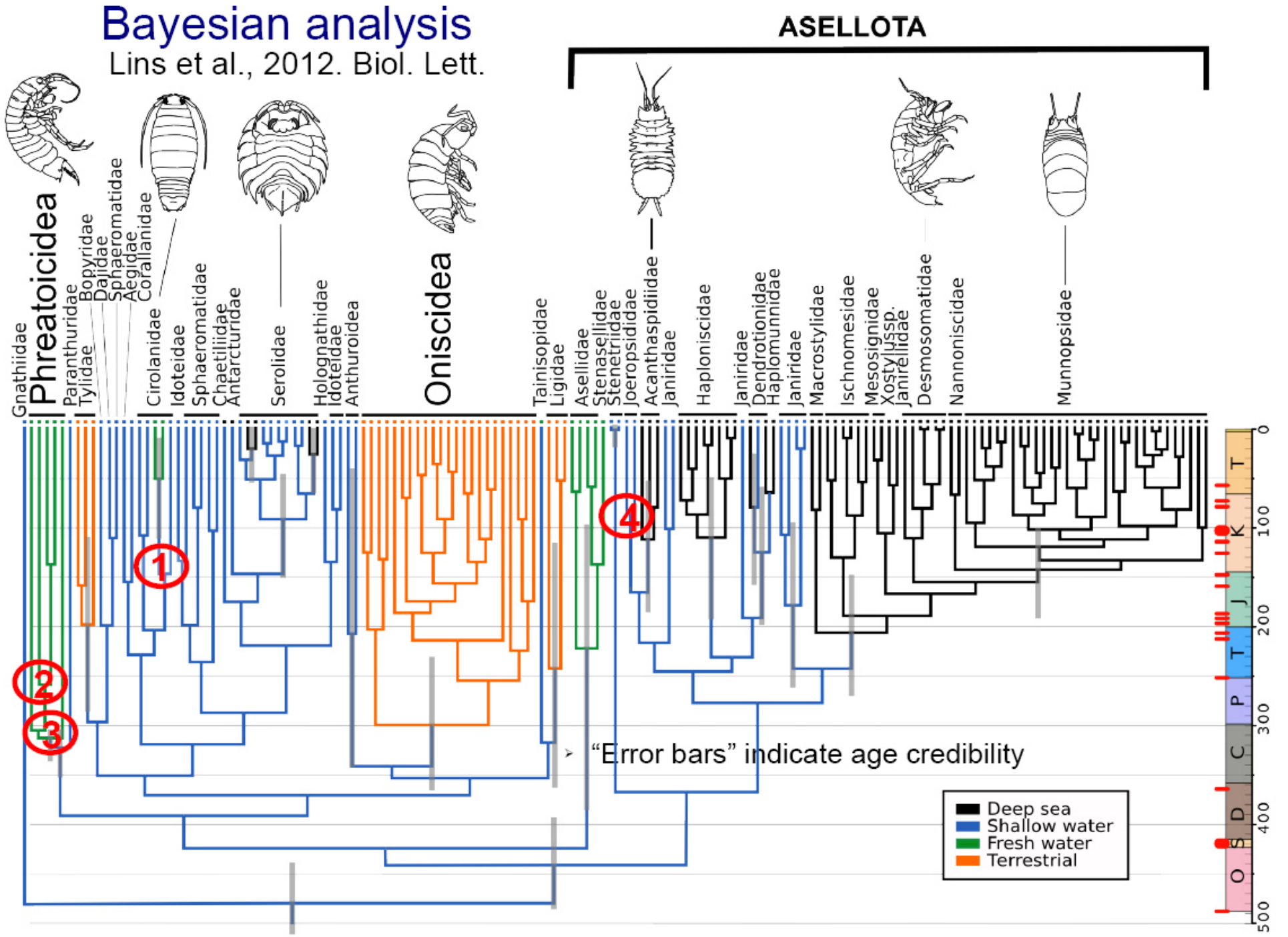


Рис. 245. Лимнория и вызываемые ею повреждения:

1 — Limnoria lignorum; *2* — разрез ее хода в дереве; *3* — свая, источенная лимнорией.




Bayesian analysis
Lins et al., 2012. Biol. Lett.
ASELLOTA
Phreatoicidea
Oniscidea
Gnathiidae
Paranthuridae
Tylidae
Bopyridae
Dajidae
Sphaeromatidae
Aegidae
Corallanidae
Cirolanidae
Idoteidae
Sphaeromatidae
Chaetiliidae
Antarcturidae
Serolidae
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Idoteidae
Anthuroidea
Tainisopidae
Ligidae
Asellidae
Stenasellidae
Stenetriidae
Joeropsidae
Acanthaspidiidae
Janiridae
Haploniscidae
Janiridae
Dendrotionidae
Haplomunnidae
Janiridae
Macrostylidae
Ischnomesidae
Mesosignidae
Xostylidae
Janirellidae
Desmosomatidae
Nannoniscidae
Munnopsidae
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"Error bars" indicate age credibility
Deep sea
Shallow water
Fresh water
Terrestrial
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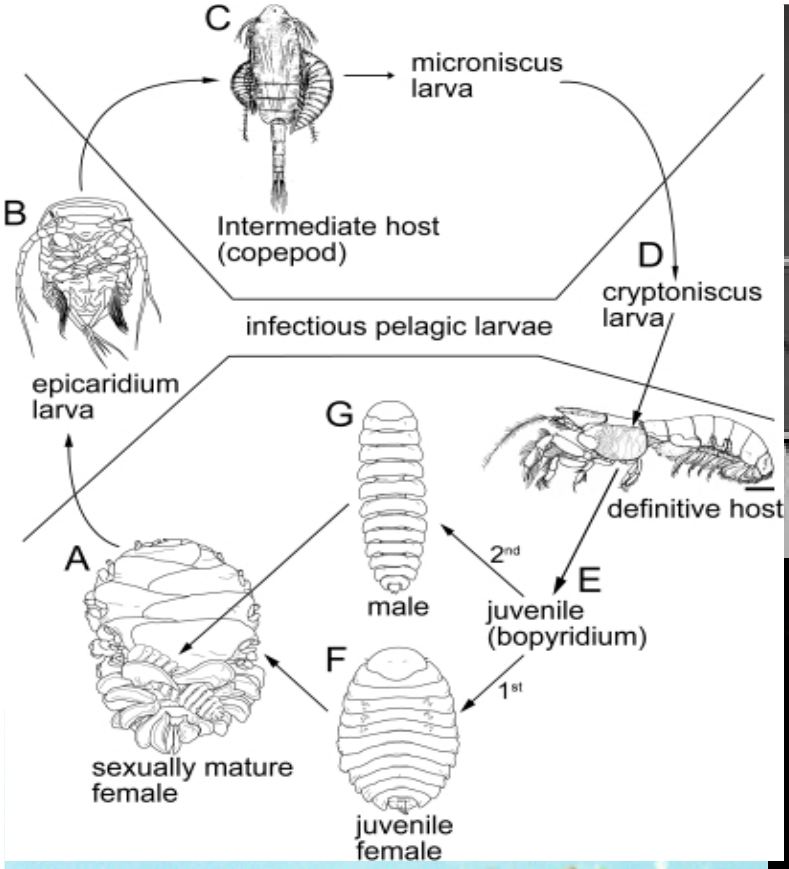
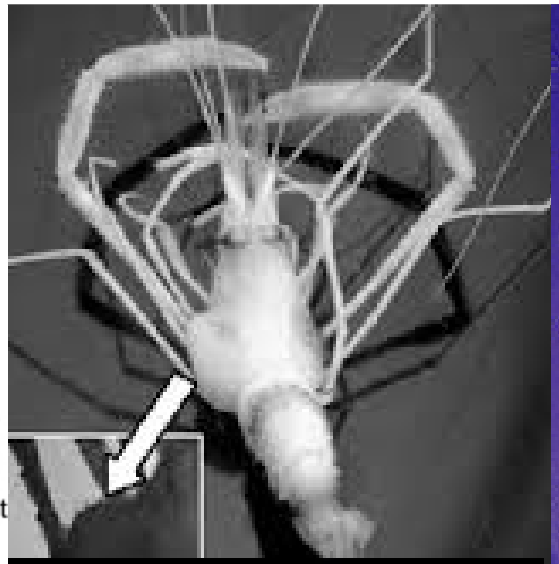

C
microniscus
larva
B
Intermediate host
(copepod)
D
cryptoniscus
larva
infectious pelagic larvae
epicaridium
larva
G
definitive host
A
2nd
male
E
juvenile
(bopyridium)
F
1st
sexually mature
female
juvenile
female



Crustaceana 28 (2), 1975. E. J. Brill, Leiden

ANCYRONISCUS BONNIERI (ISOPODA, EPICARIDEA) INFECTING BRITISH POPULATIONS OF *DYNAMENE BIDENTATA* (ISOPODA, SPHAEROMATIDAE)

BY

D. M. HOLDICH

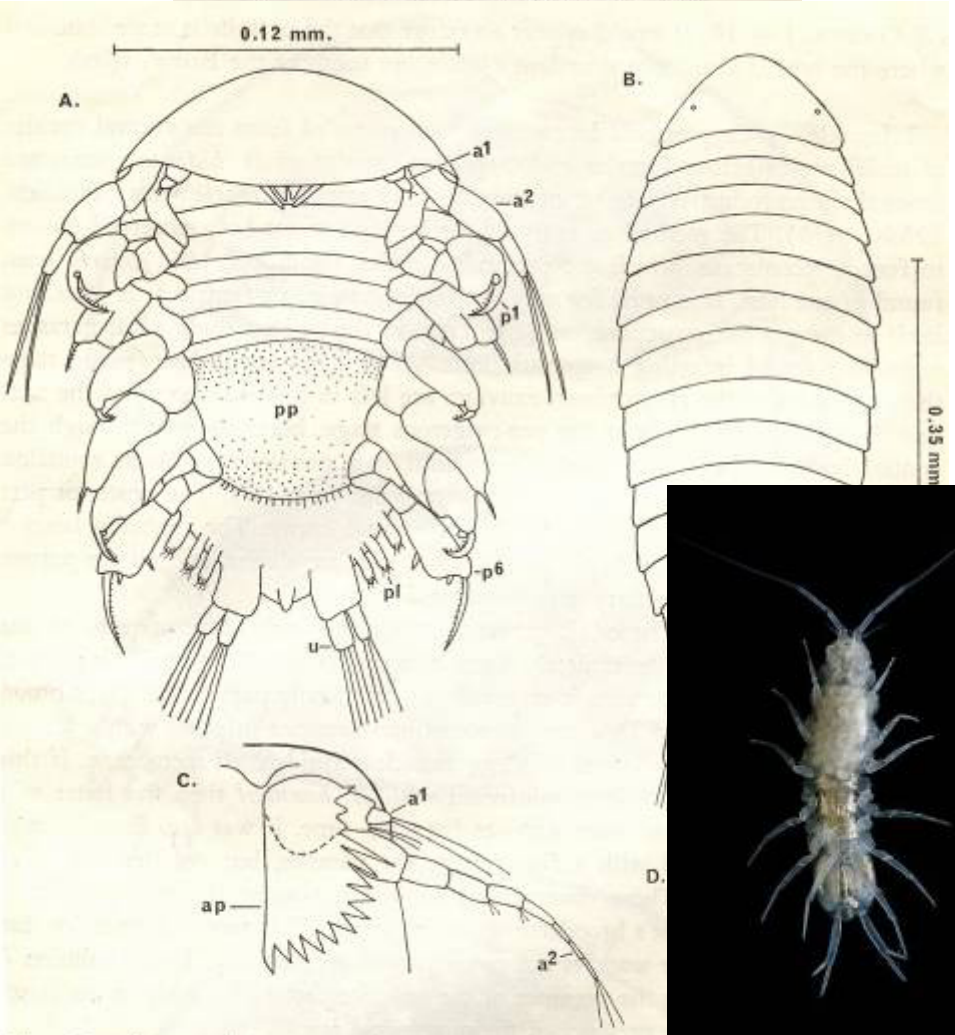
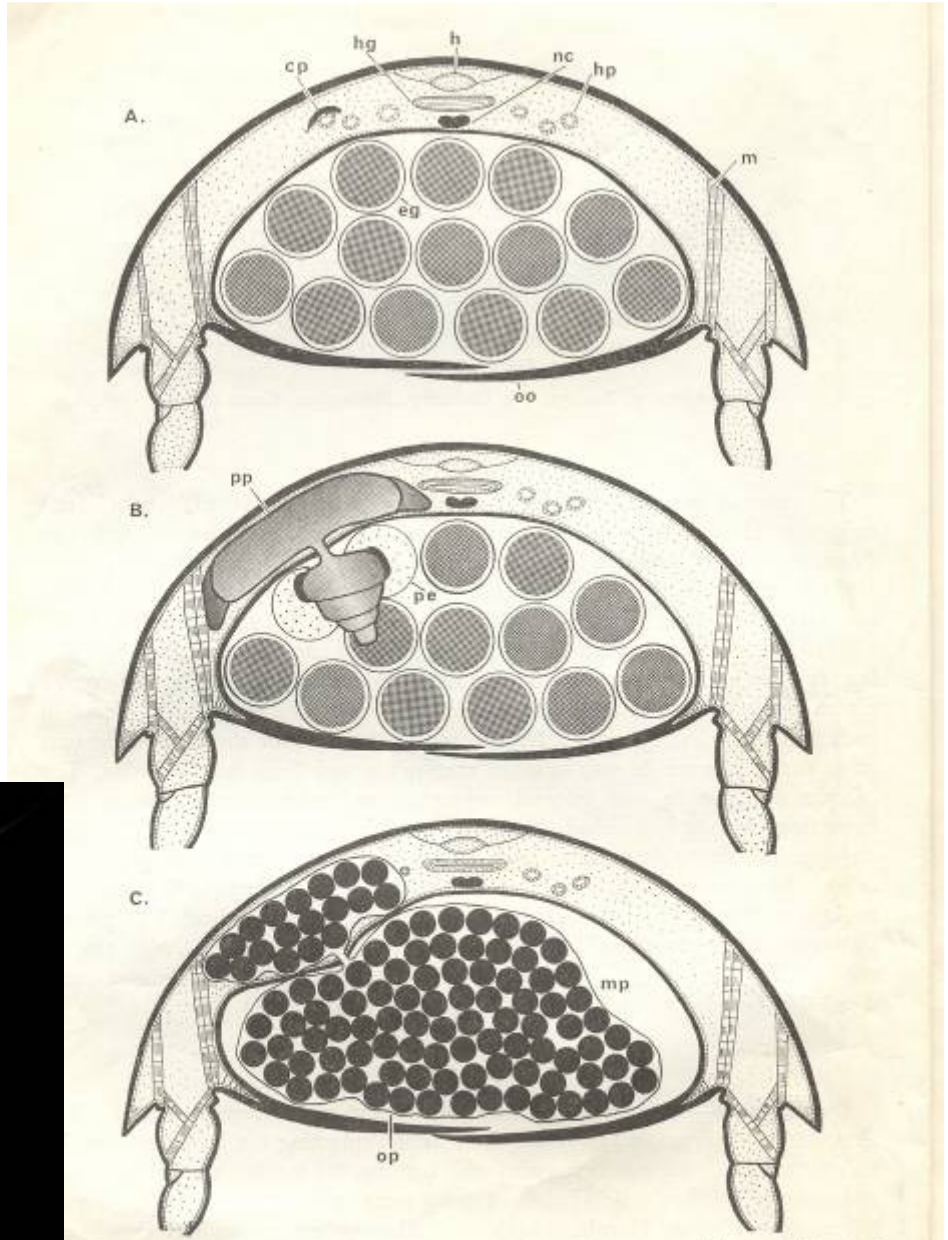
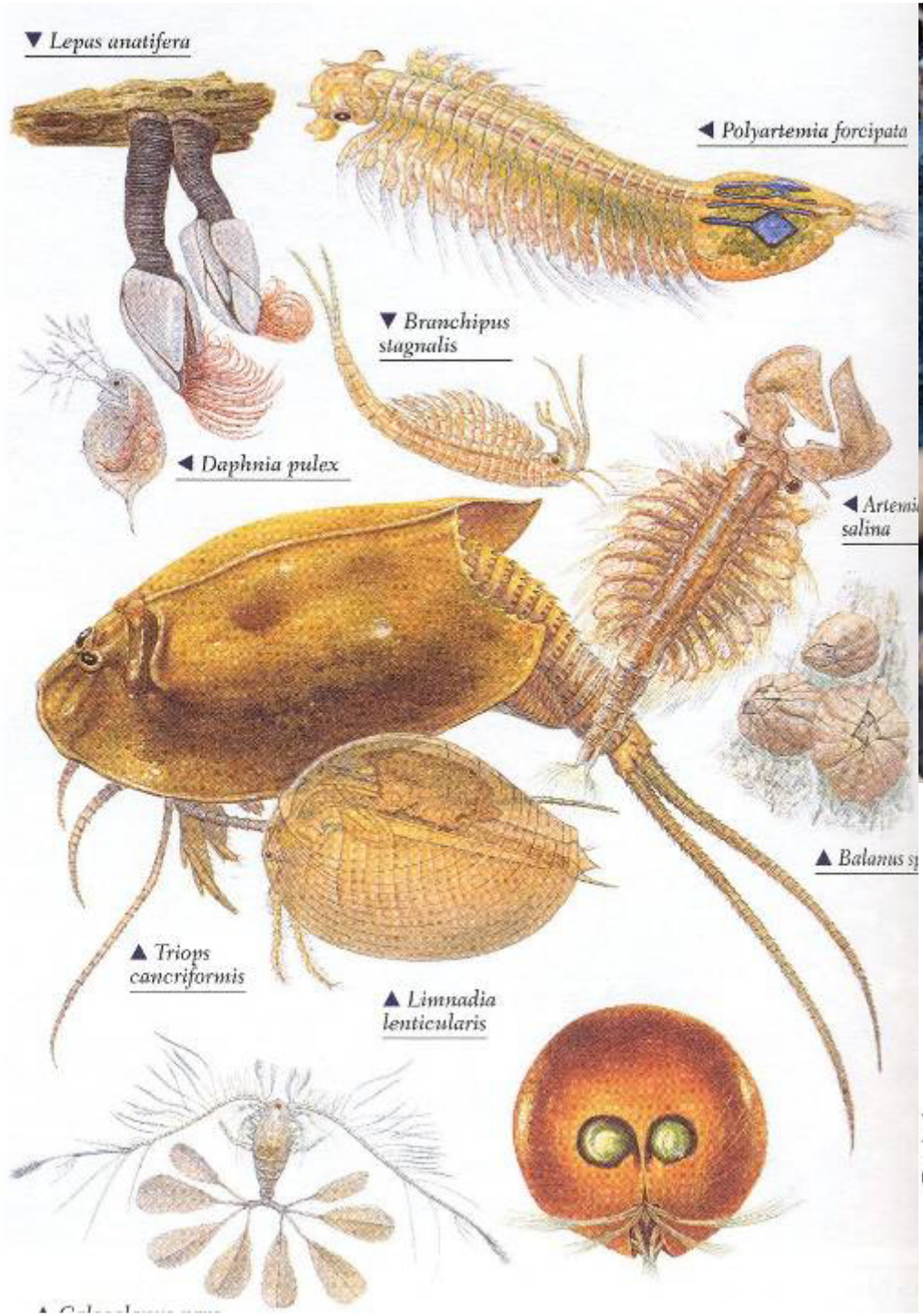
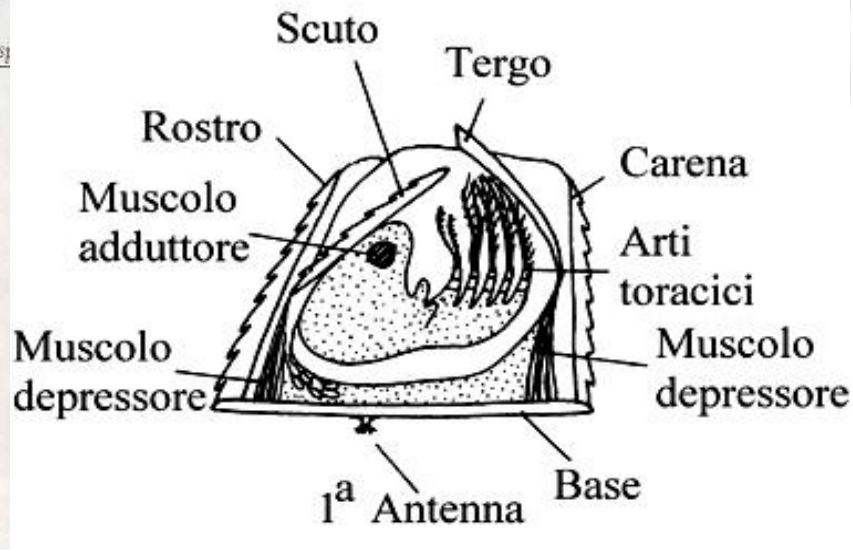


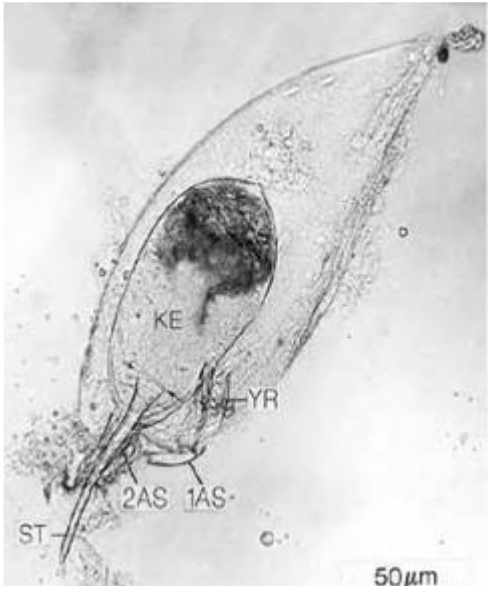
Fig. 2. Larval stages of *Ancyroniscus bonnieri* Caullery & Mesnil, 1919. A, epicaridean larva; B, cryptoniscan larva; C, detail of basal plate of antennule of cryptoniscan larva; D, pereopod of cryptoniscan larva. a^1, antennule; a^2, antenna; p^1, pereopod 1; p^6, pereopod 6; pl, pleopod; u, uropod; pp, pleonal plate; ap, antennular plate.

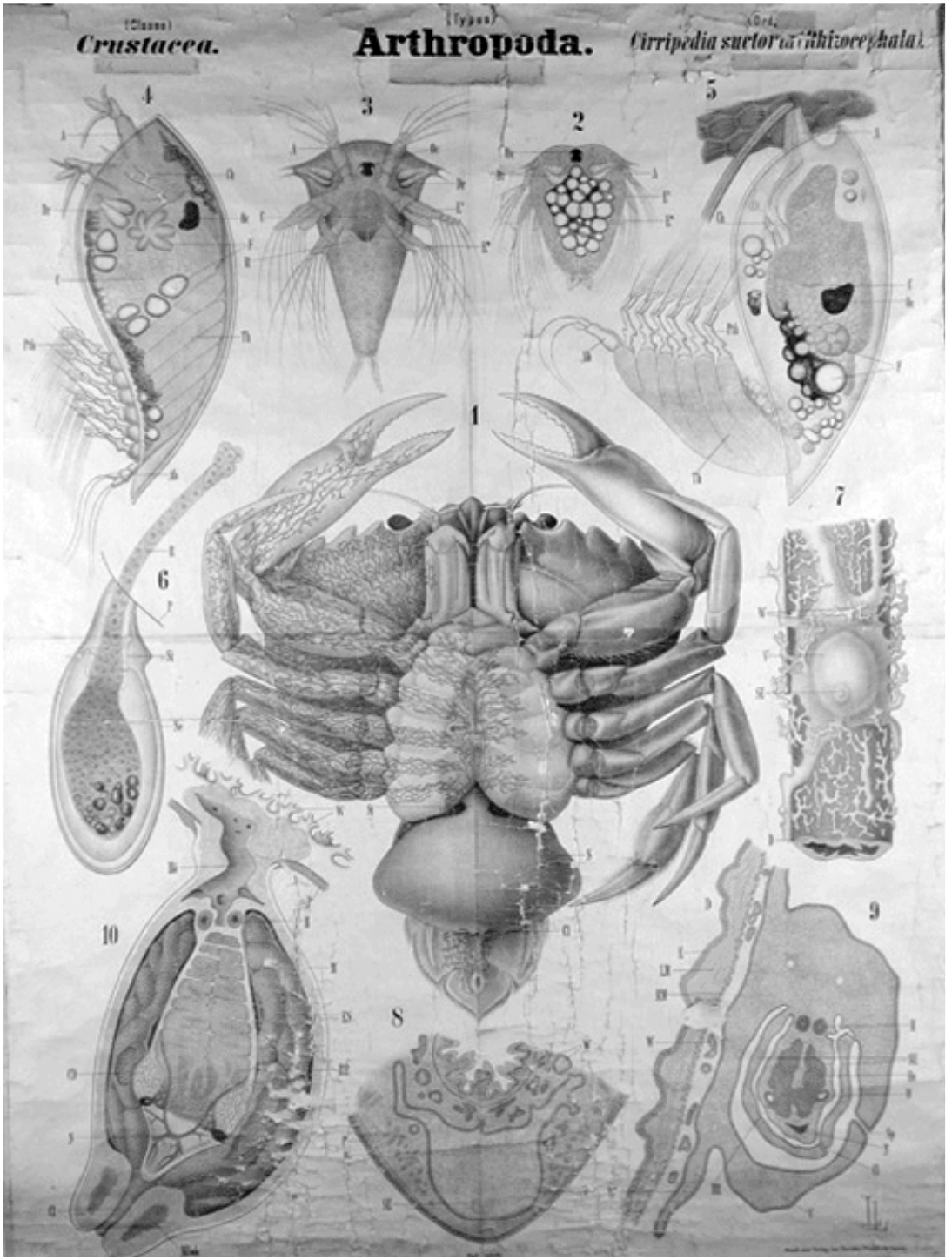


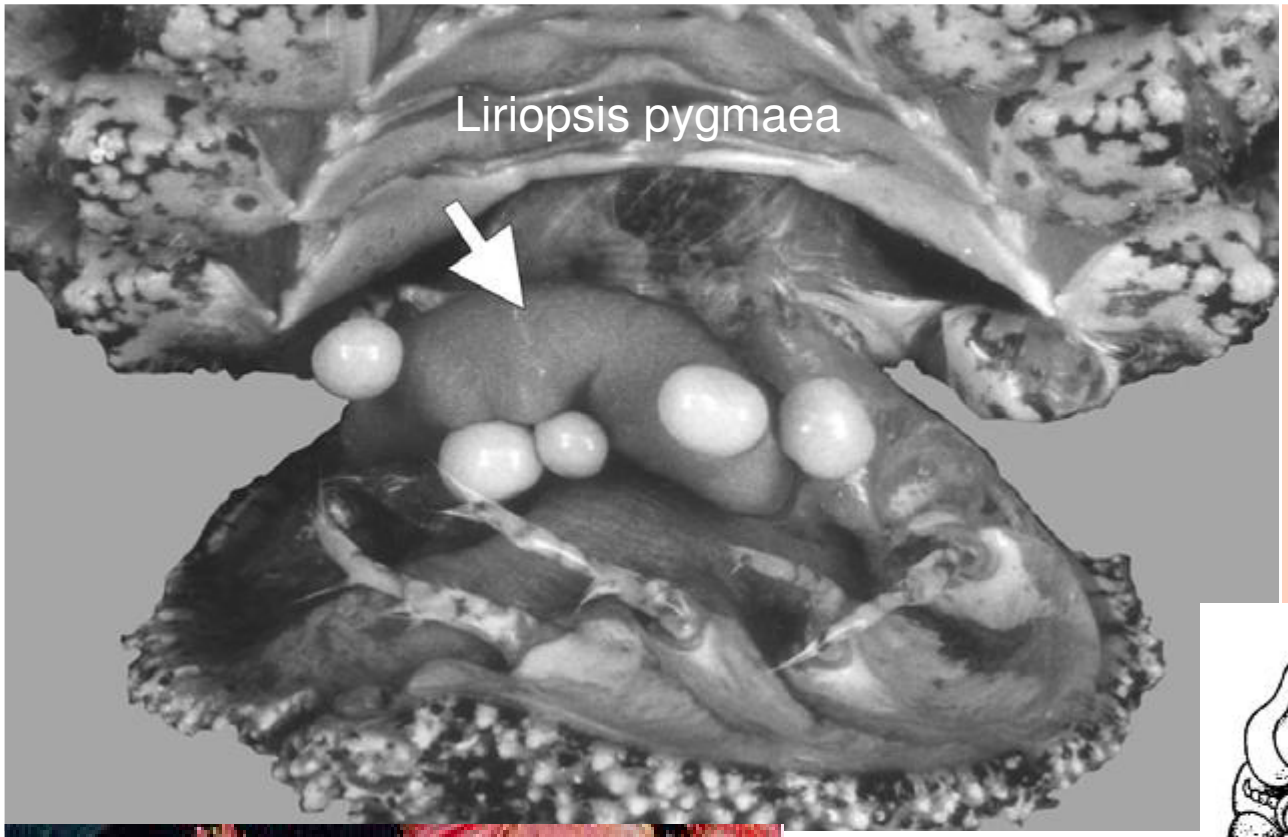
ig. 1. Diagrammatic representation of an ovigerous female *Dynamene bidentata* (Adams) in ransverse section showing the three main stages of the internal parasitic phase of *Ancyroniscus onnieri* Caullery & Mesnil, 1919. A, stage soon after entry of cryptoniscan larva; B, pre-ovigerous age with female parasite partially situated in the host's marsupium and absorbing the brood; C, ovigerous stage of female parasite. m, muscle; hp, hepatopancreatic caeca; nc, nerve cord; h, heart; hg, hindgut; cp, cryptoniscan larva attached to hepatopancreatic caeca; mp, marsupium of host; eg, stage A egg; oo, oostegite; pp, preovigerous parasite; pe, partially absorbed egg; op, ovigerous parasite.

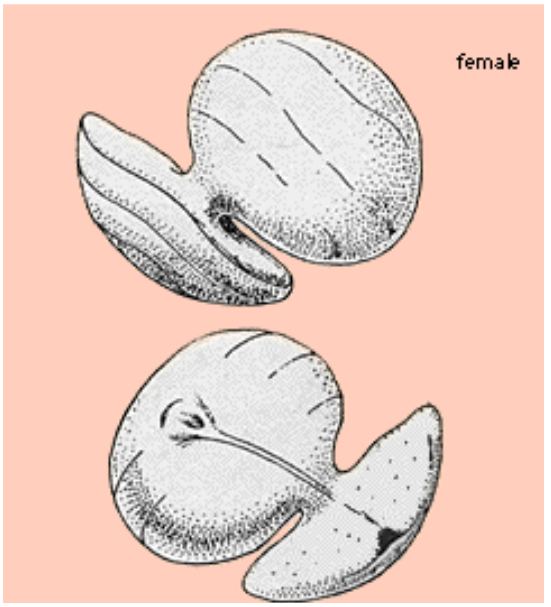

▼ Lepas anatifera
◀ Polyartemia forcipata
▼ Branchipus stagnalis
◀ Daphnia pulex
◀ Artemi salina
▲ Balanus s
▲ Triops cancriformis
▲ Limnadia lenticularis

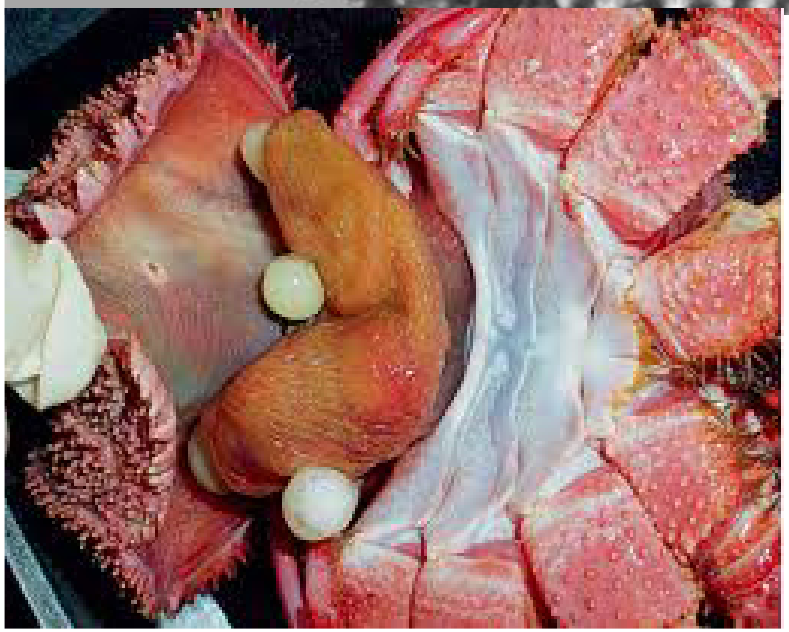

Scuto
Tergo
Rostro
Carena
Muscolo adduttore
Arti toracici
Muscolo depressore
Muscolo depressore
1ª Antenna
Base


KE
YR
2AS
1AS
ST
50µm


(Classe)
Crustacea.
(Typus)
Arthropoda.
(Ord.
Cirripedia suctoria Rhizocephala.
1
2
3
4
5
6
7
8
9
10







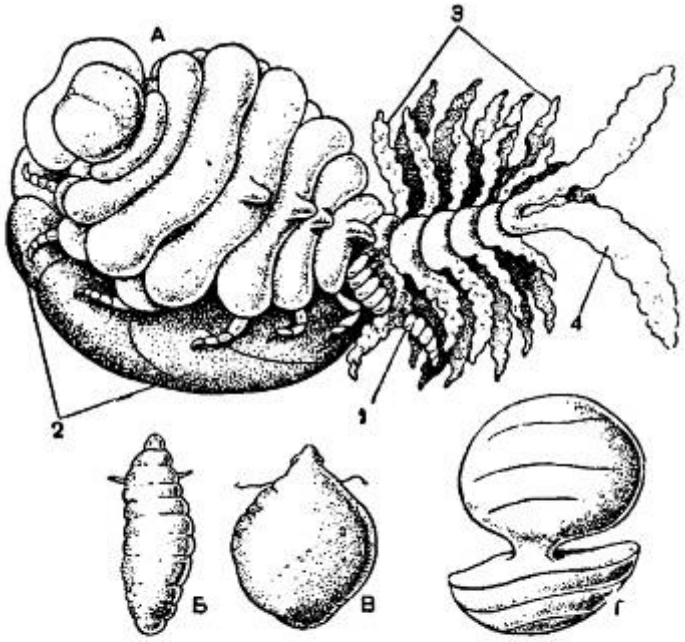
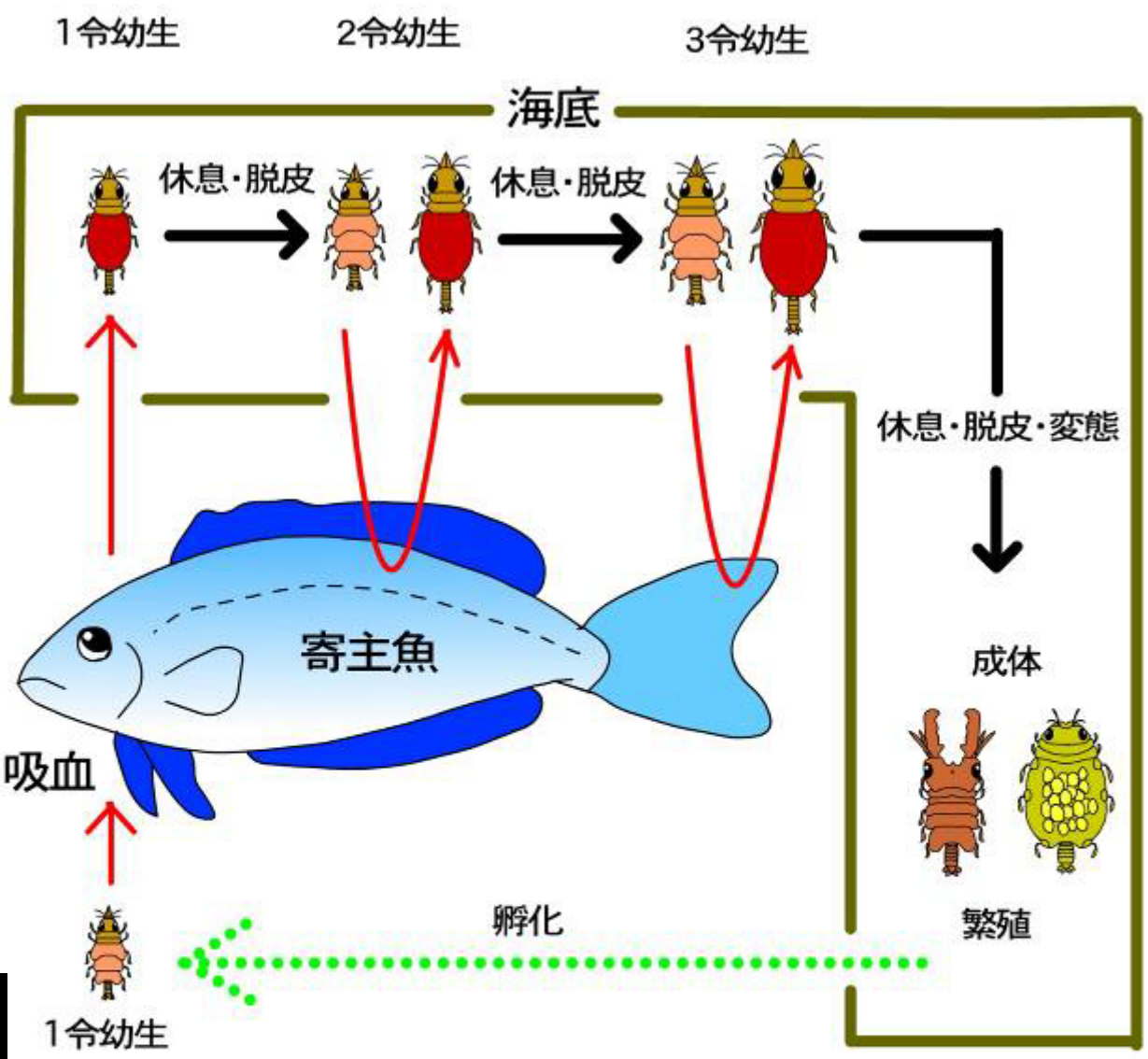


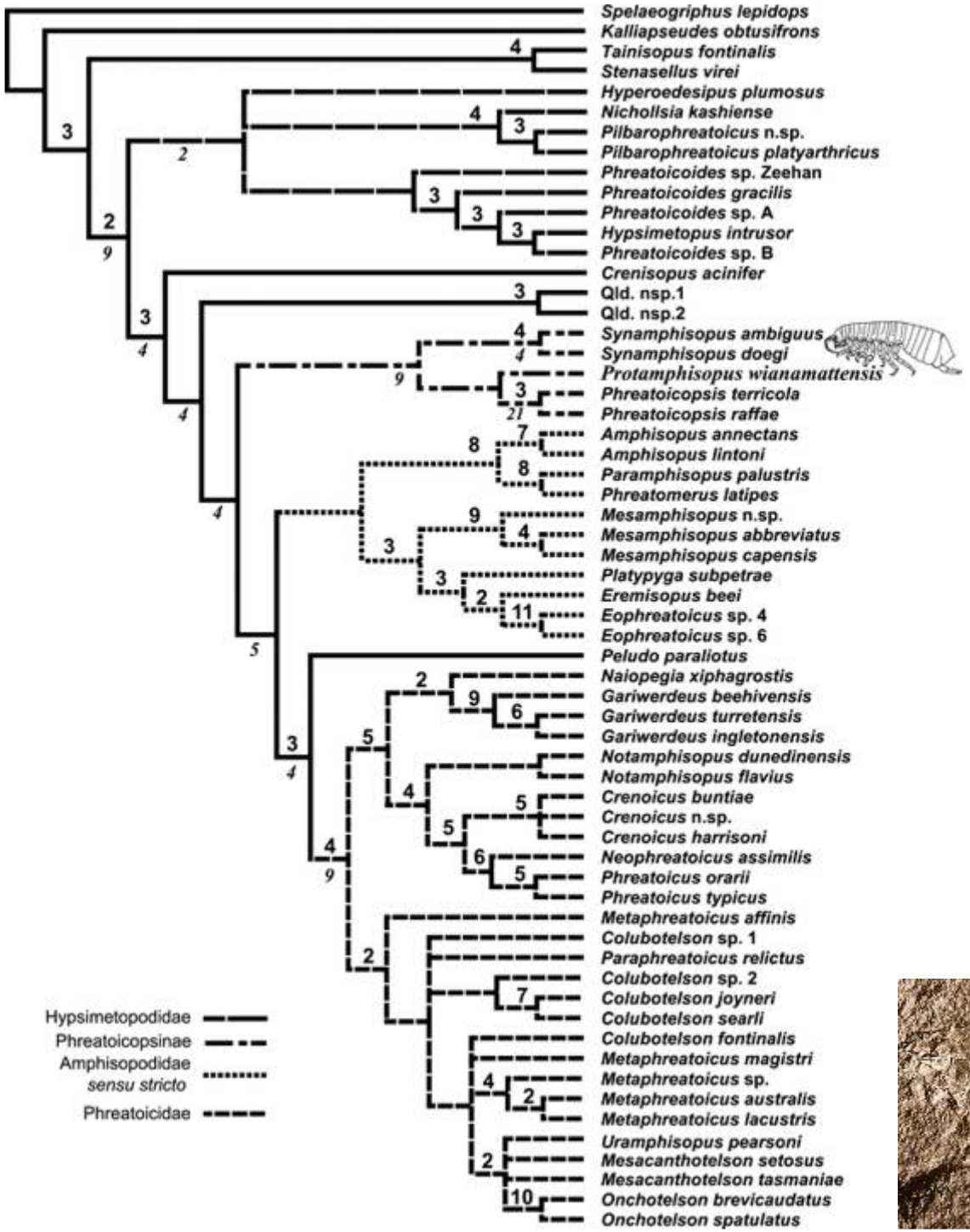
Рис. 247. Паразитические равноногие:

А — Cancricepon elegans, самка с выводковой сумкой и карликовым самцом (*1*); *Б*, *В*, *Г* — Liriopsis, молодая питающаяся самка (*Б*, *В*) и половозрелая непитающаяся самка (*Г*); *2* — выводковая сумка; *3* — плеоподы; *4* — уроподы.

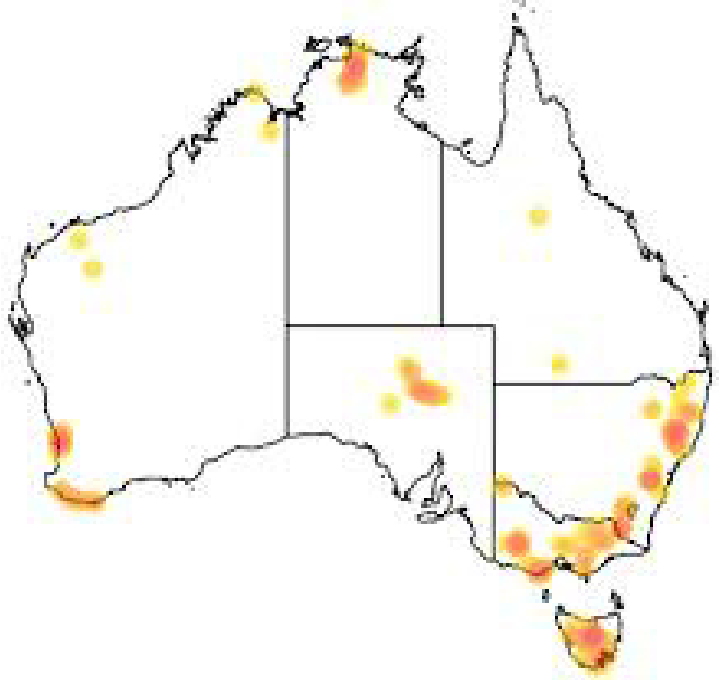


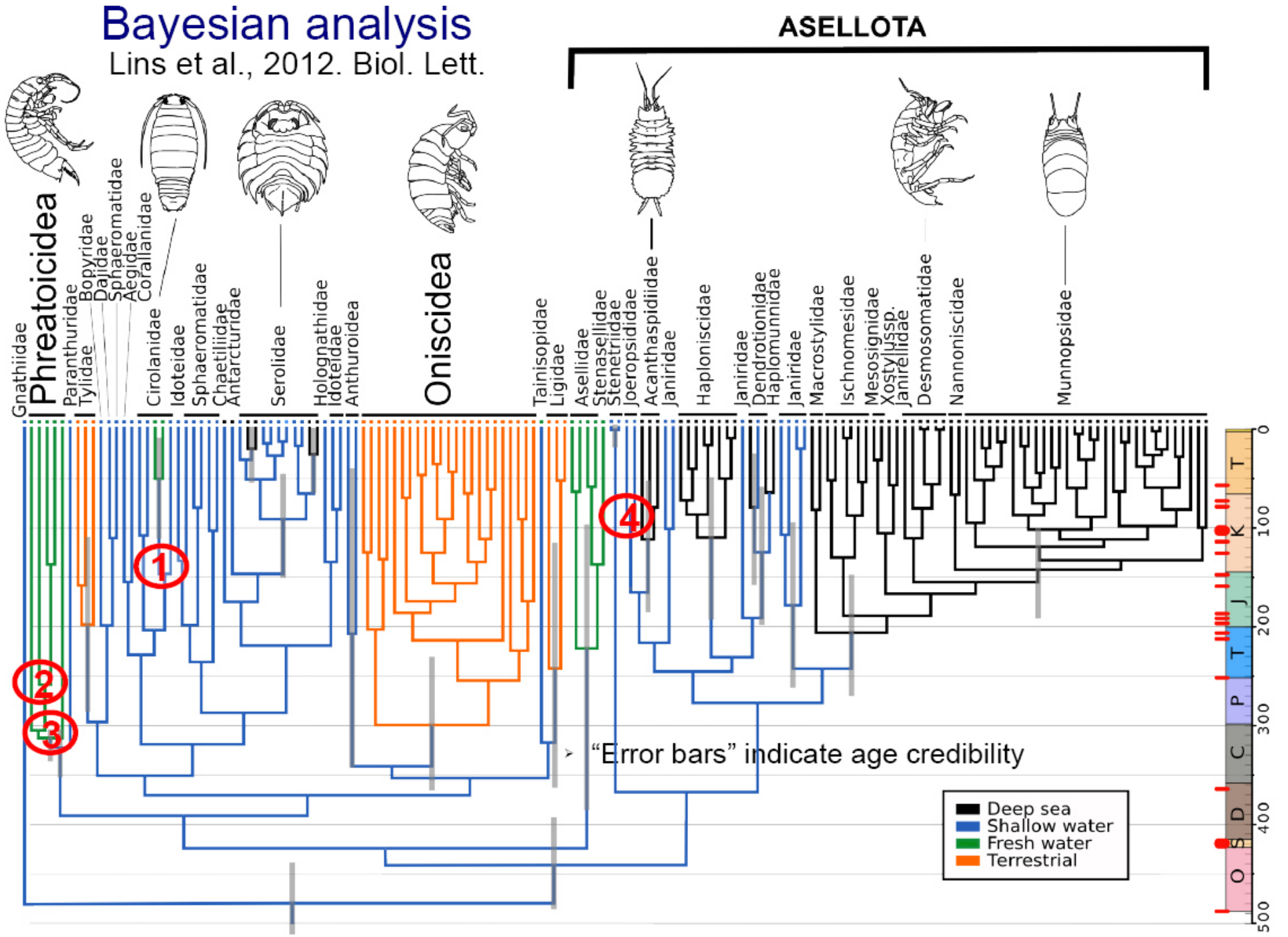
ウミクワガタ類のライフサイクル

寄主魚：軟骨魚類、ハゼ科、ベラ科、スズメダイ科、ブダイ科など
ほとんどの魚類

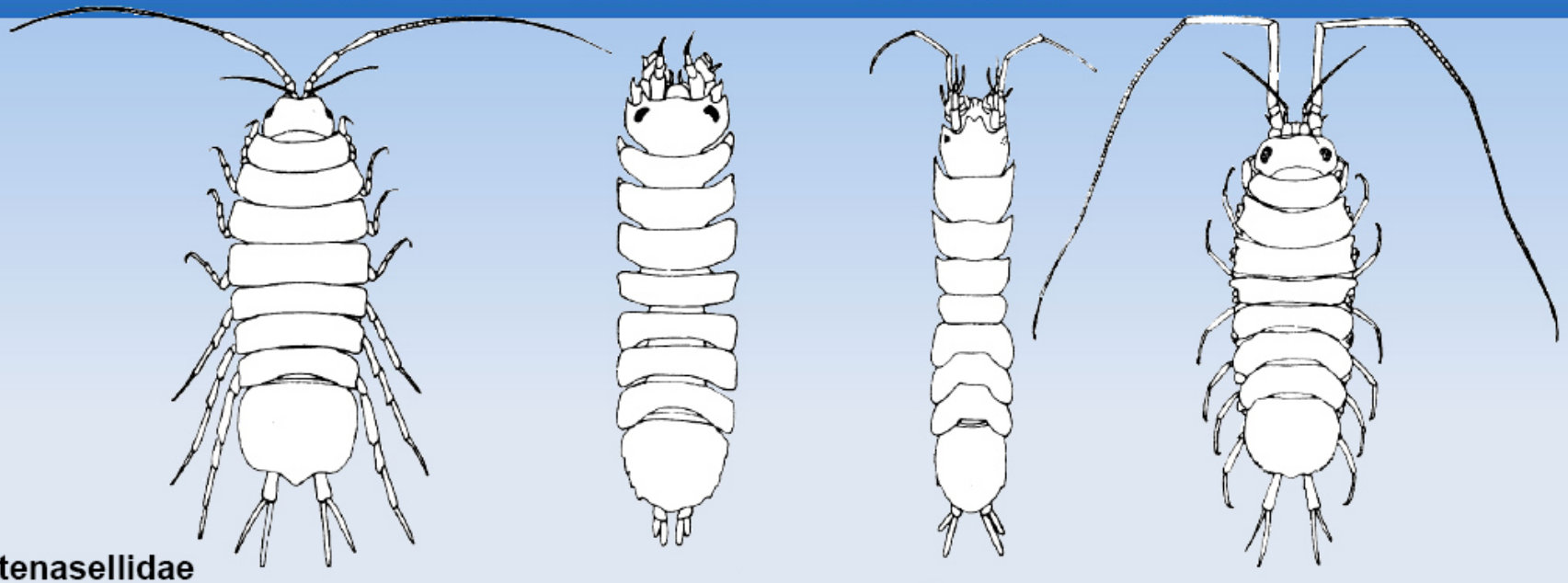

Spelaeogriphus lepidops
Kalliapseudes obtusifrons
Tainisopus fontinalis
Stenasellus virei
Hyperoedesipus plumosus
Nicholsia kashiense
Pilbarophreatoicus n.sp.
Pilbarophreatoicus platyarthricus
Phreatoicoides sp. Zeehan
Phreatoicoides gracilis
Phreatoicoides sp. A
Hypsimetopus intrusor
Phreatoicoides sp. B
Crenisopus acinifer
Qld. nsp.1
Qld. nsp.2
Synamphisopus ambiguus
Synamphisopus doegi
Protamphisopus wianamattensis
Phreatoicopsis terricola
Phreatoicopsis raffae
Amphisopus annectans
Amphisopus lintoni
Paramphisopus palustris
Phreatomerus latipes
Mesamphisopus n.sp.
Mesamphisopus abbreviatus
Mesamphisopus capensis
Platypyga subpetrae
Eremisopus beei
Eophreatoicus sp. 4
Eophreatoicus sp. 6
Peludo paraliotus
Naiopegia xiphagrostis
Gariwerdeus beehivensis
Gariwerdeus turretensis
Gariwerdeus ingletonensis
Notamphisopus dunedinensis
Notamphisopus flavius
Crenoicus buntiae
Crenoicus n.sp.
Crenoicus harrisoni
Neophreatoicus assimilis
Phreatoicus orarii
Phreatoicus typicus
Metaphreatoicus affinis
Colubotelson sp. 1
Paraphreatoicus relictus
Colubotelson sp. 2
Colubotelson joyneri
Colubotelson searli
Colubotelson fontinalis
Metaphreatoicus magistri
Metaphreatoicus sp.
Metaphreatoicus australis
Metaphreatoicus lacustris
Uramphisopus pearsoni
Mesacanthotelson setosus
Mesacanthotelson tasmaniae
Onchotelson brevicaudatus
Onchotelson spatulatus
Hypsimetopodidae
Phreatoicopsinae
Amphisopodidae
sensu stricto
Phreatoicidae


Phreatoicopsis terricola
copyright Australian Museum, 1996

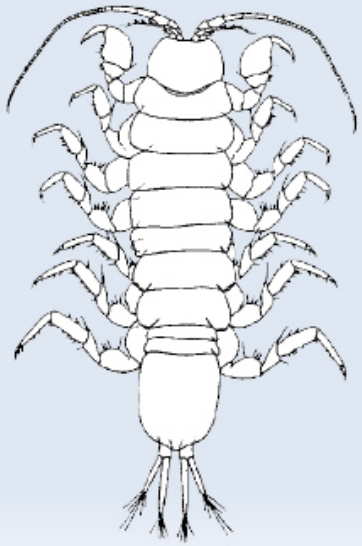



Bayesian analysis
Lins et al., 2012. Biol. Lett.
ASELLOTA
Phreatoicidea
Oniscidea
Gnathiidae
Paranthuridae
Tylidae
Bopyridae
Dajidae
Sphaeromatidae
Aegidae
Corallanidae
Cirolanidae
Idoteidae
Sphaeromatidae
Chaetiliidae
Antarcturidae
Serolidae
Holognathidae
Idoteidae
Anthuroidea
Tainisopidae
Ligidae
Asellidae
Stenasellidae
Stenetriidae
Joeropsidae
Acanthaspidiidae
Janiridae
Haploniscidae
Janiridae
Dendrotionidae
Haplomunnidae
Janiridae
Macrostylidae
Ischnomesidae
Mesosignidae
Xostylidae
Janirellidae
Desmosomatidae
Nannoniscidae
Munnopsidae
1
2
3
4
"Error bars" indicate age credibility
Deep sea
Shallow water
Fresh water
Terrestrial
T
K
J
T
P
C
D
S
O
0
100
200
300
400
500

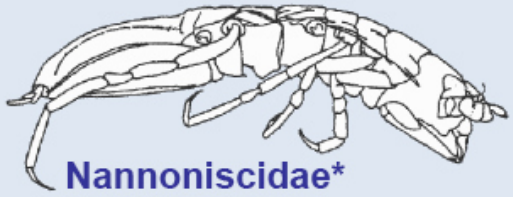
Asellota – 30 families



Stenasellidae

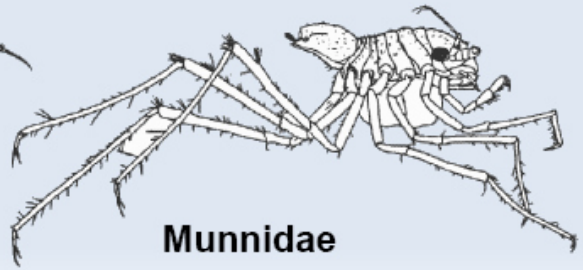


Desmosomatidae*



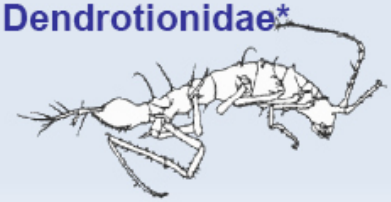
Nannoniscidae*

Munnopsidae*

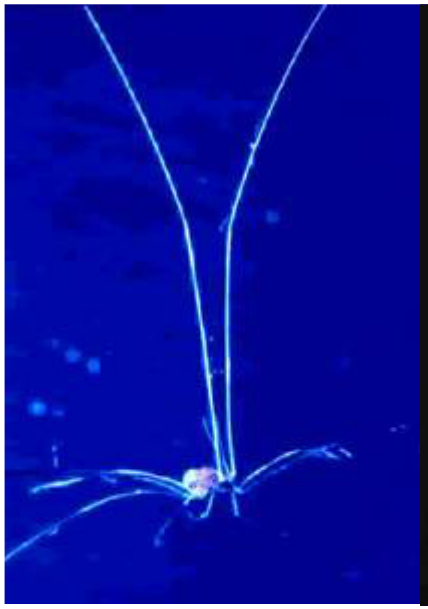


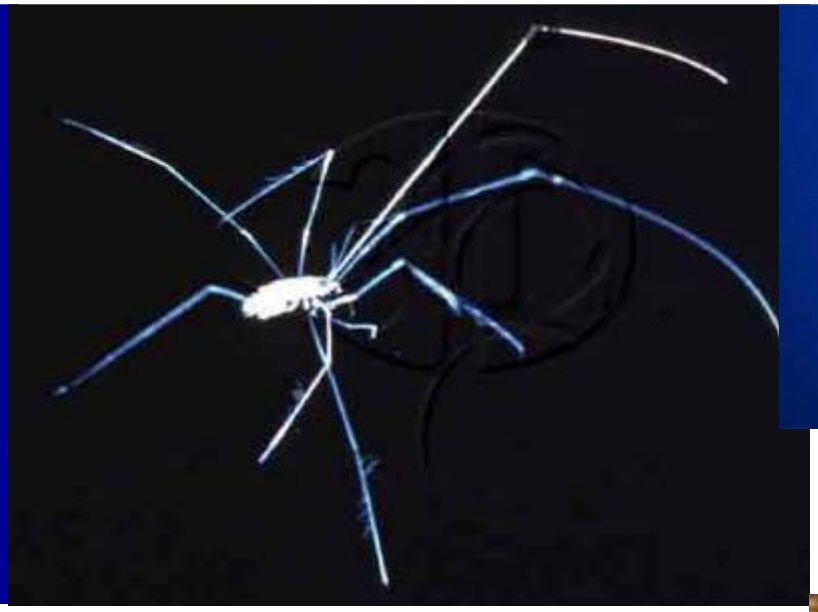
Munnidae

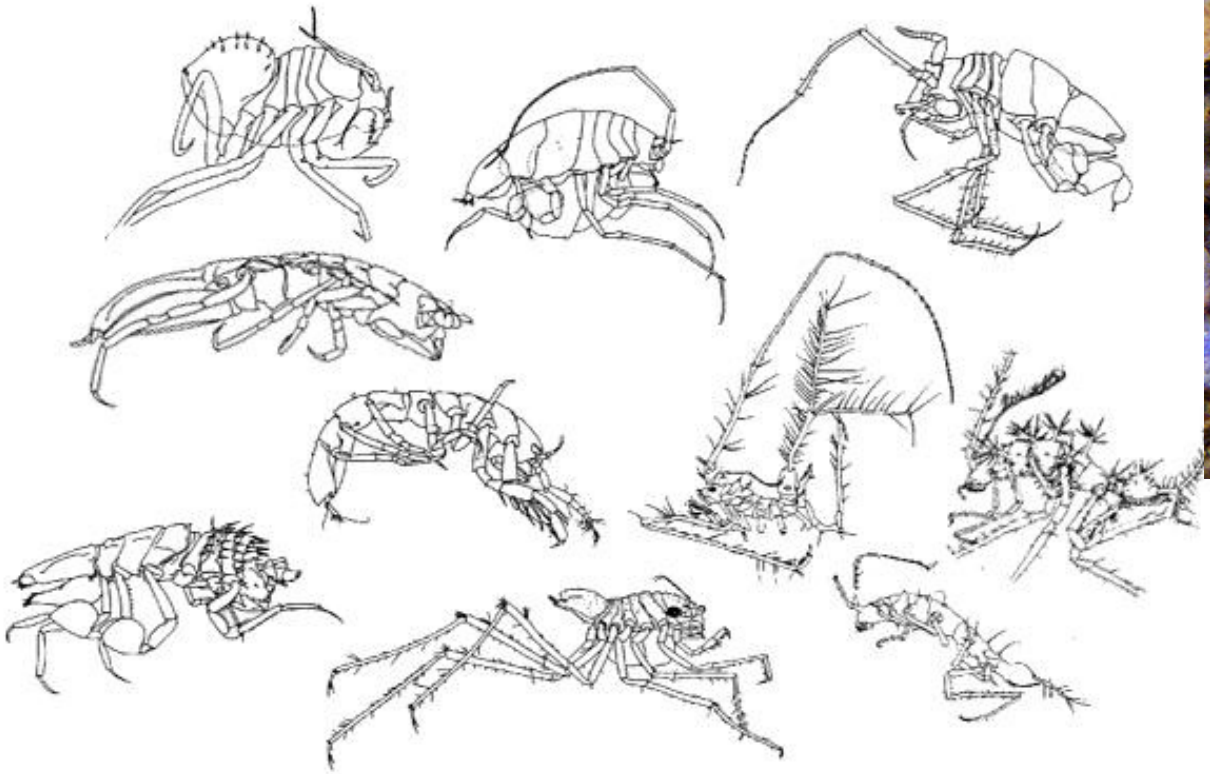
Dendrotionidae*

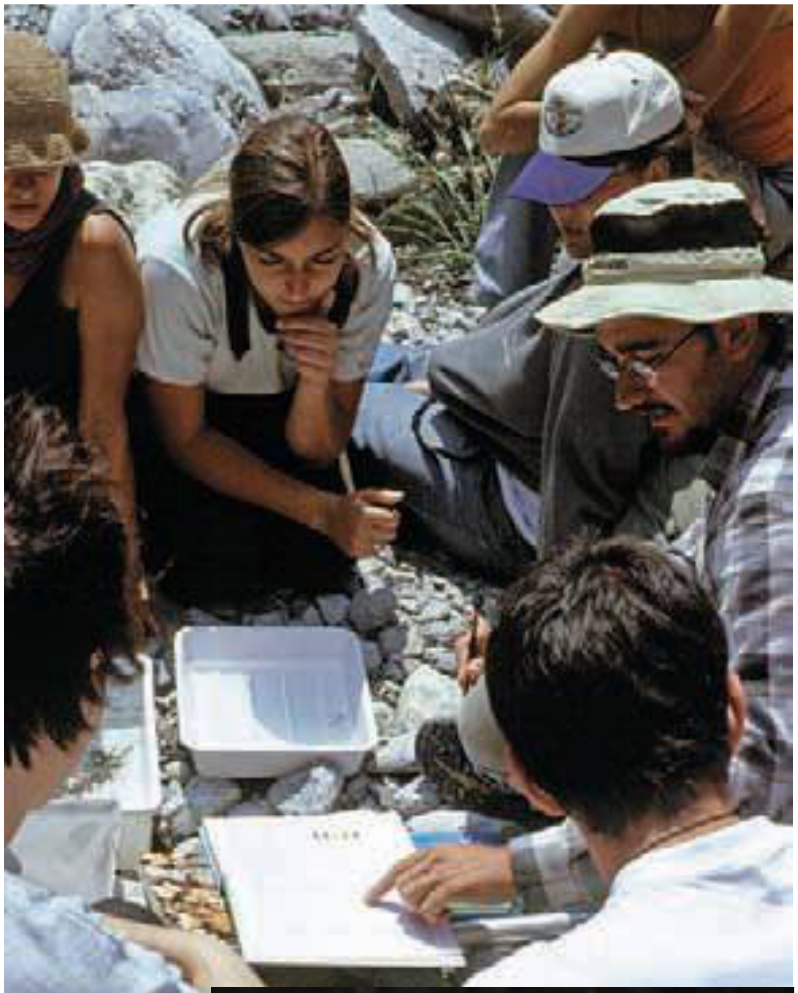


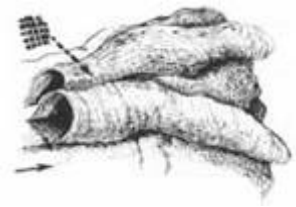
*Primarily deep-sea taxa







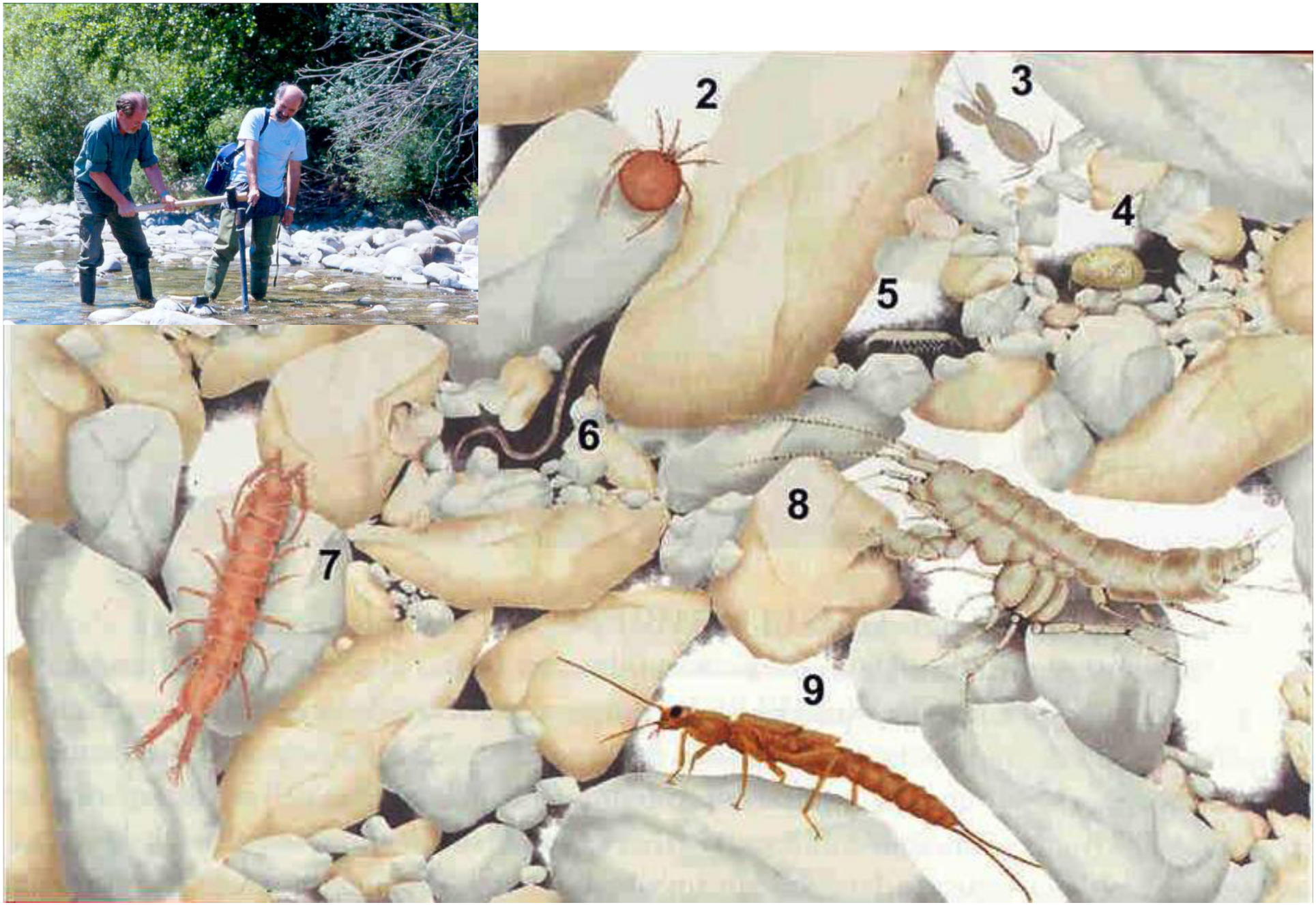


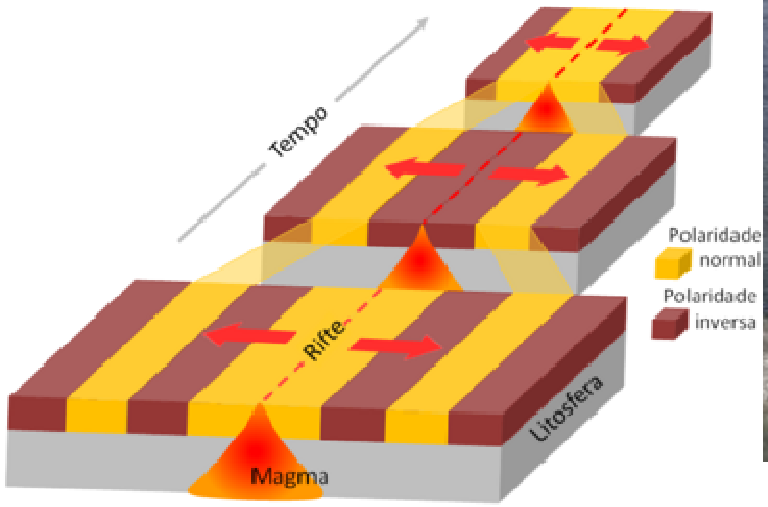


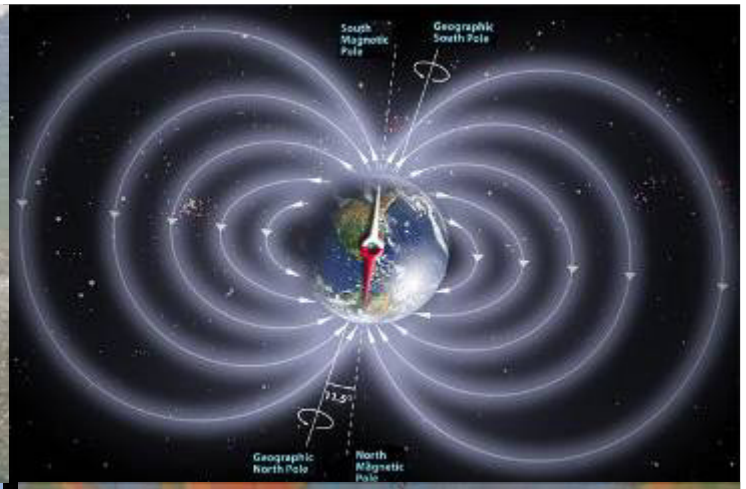
idropsichidi

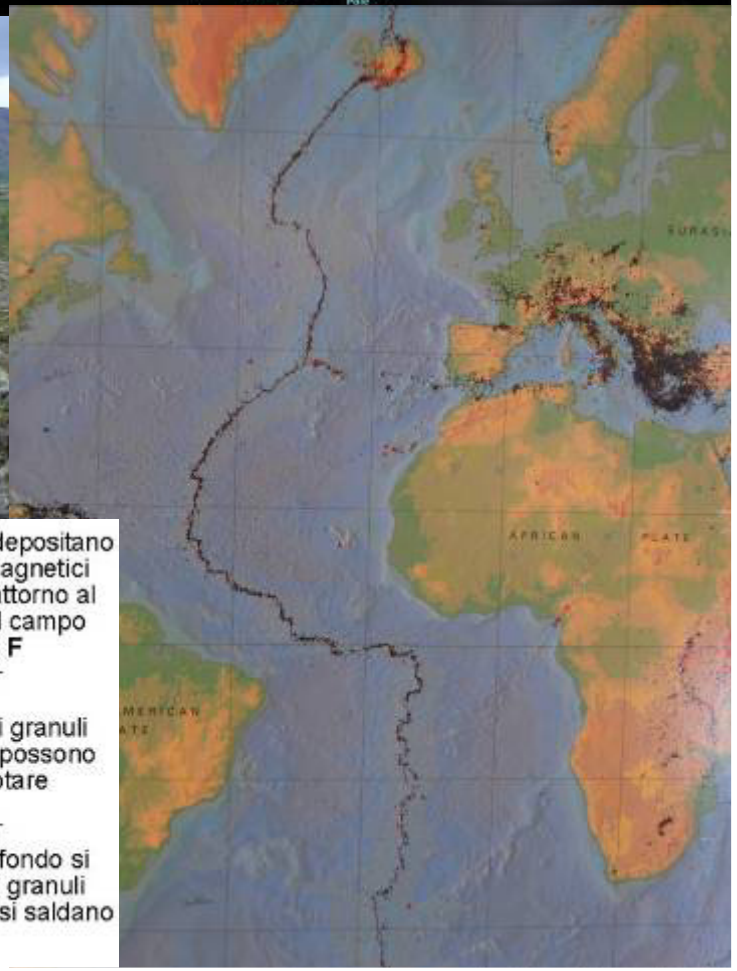
filopotamidi

policentropodidi

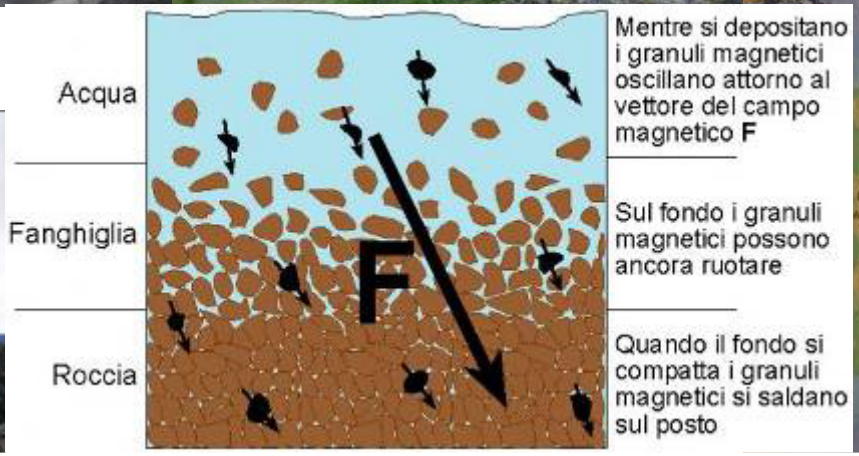

2
3
4
5
6
7
8
9

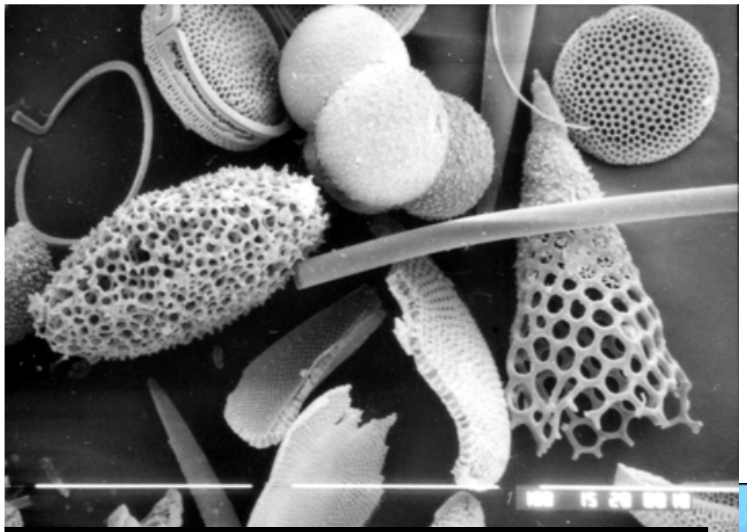

Tempo
Polaridade normal
Polaridade inversa
Rifte
Litosfera
Magma

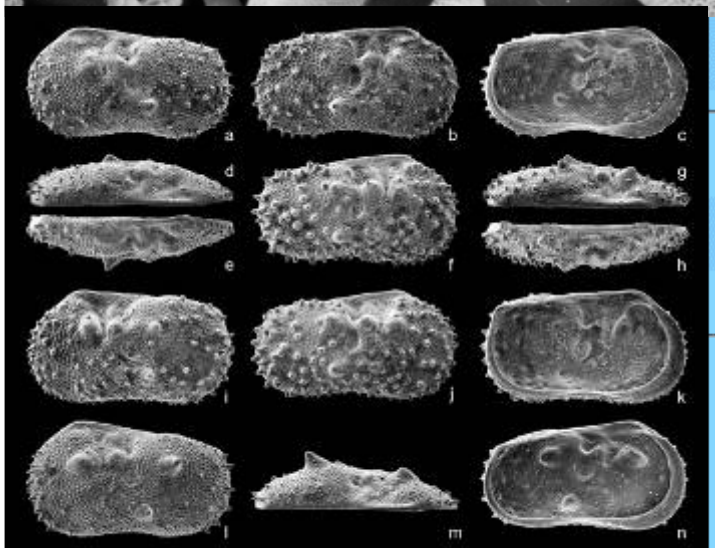

South Magnetic Pole
Geographic South Pole
11.5°
Geographic North Pole
North Magnetic Pole


EURASIAN
AFRICAN
PLATE

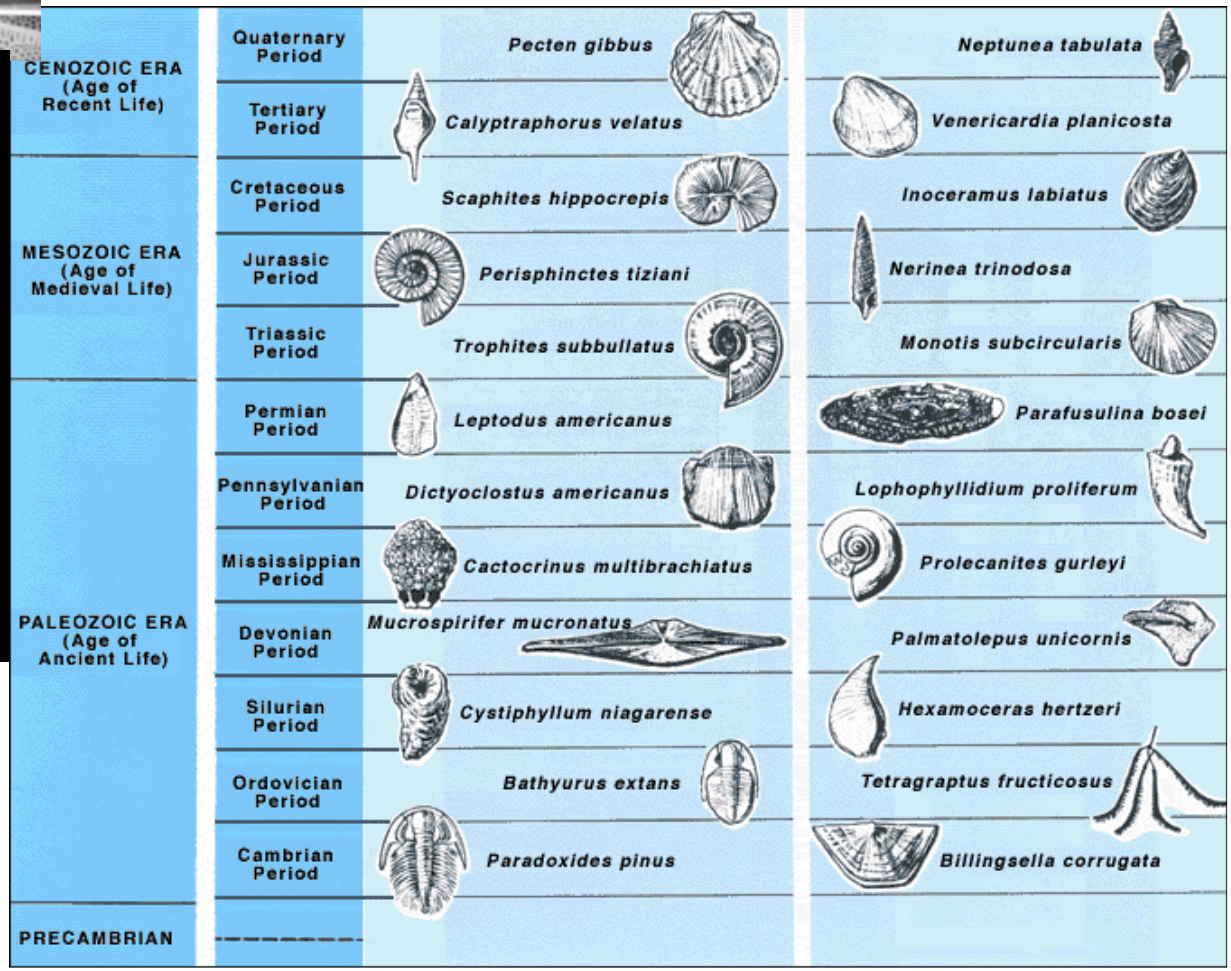

Europa - Reykjanes - América

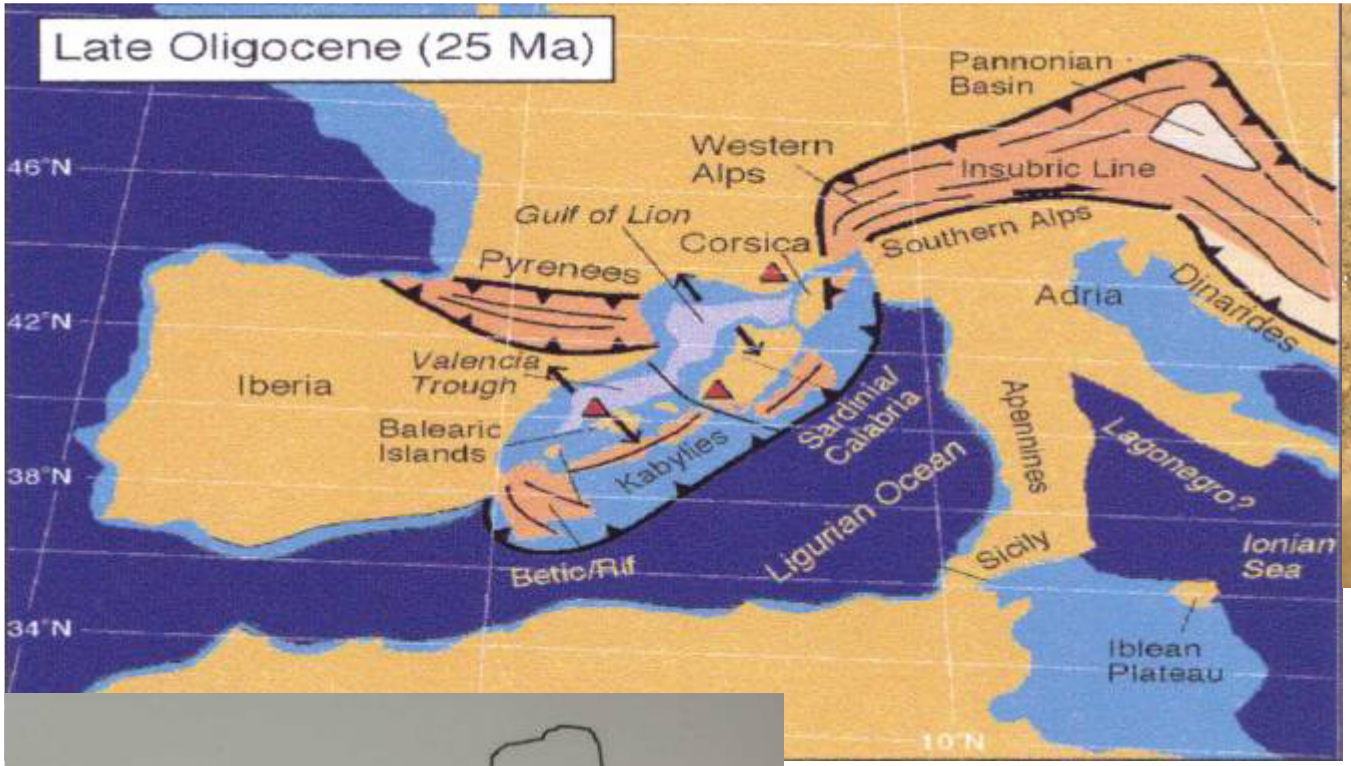

Acqua
Fanghiglia
Roccia
F
Mentre si depositano i granuli magnetici oscillano attorno al vettore del campo magnetico F
Sul fondo i granuli magnetici possono ancora ruotare
Quando il fondo si compatta i granuli magnetici si saldano sul posto

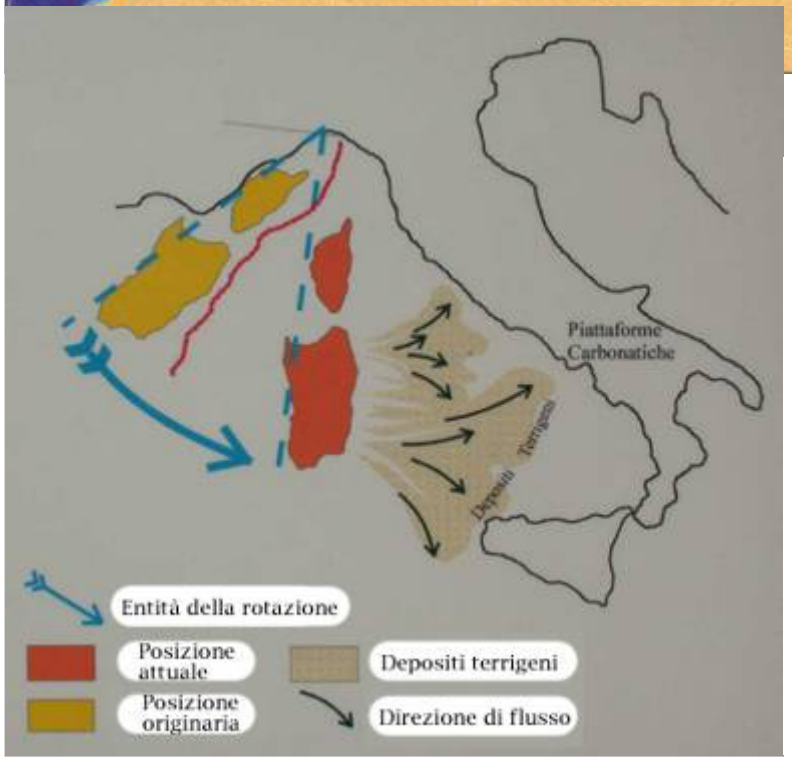




Boxgrove: Slindon Silts (freshwater pond fauna)







After Rosenbaum et al., 2002

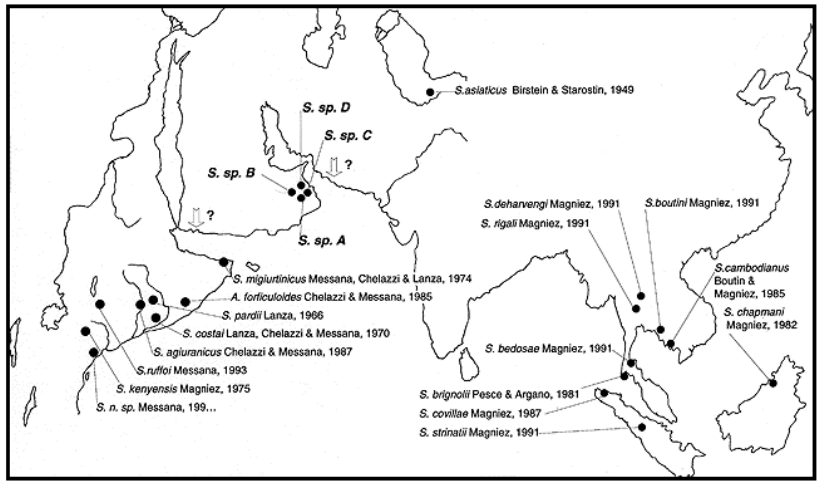
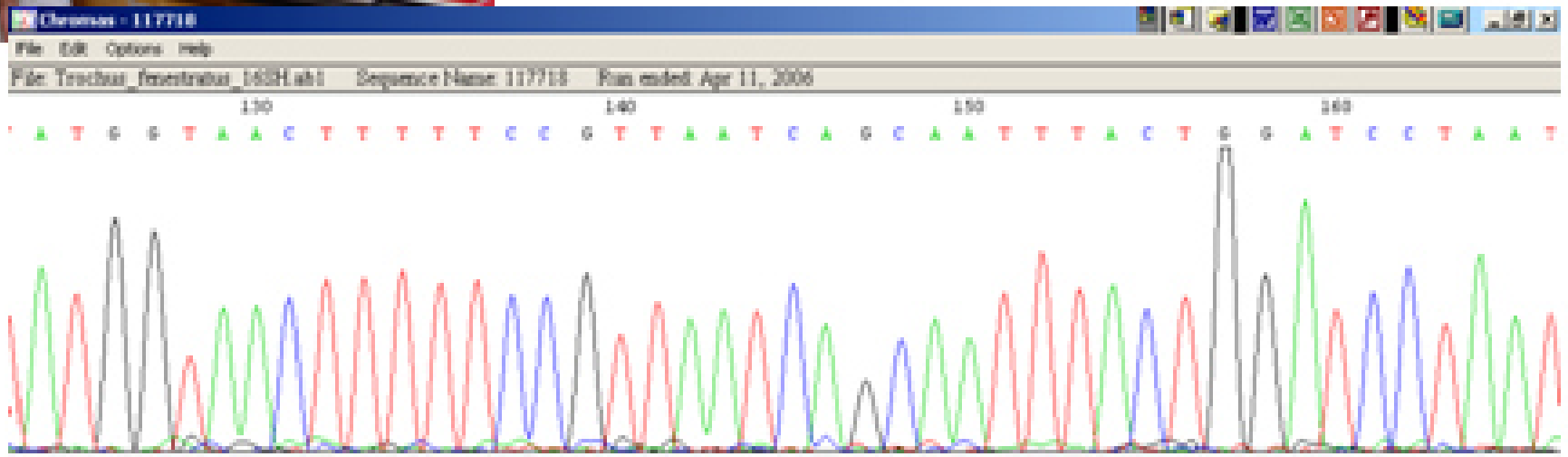


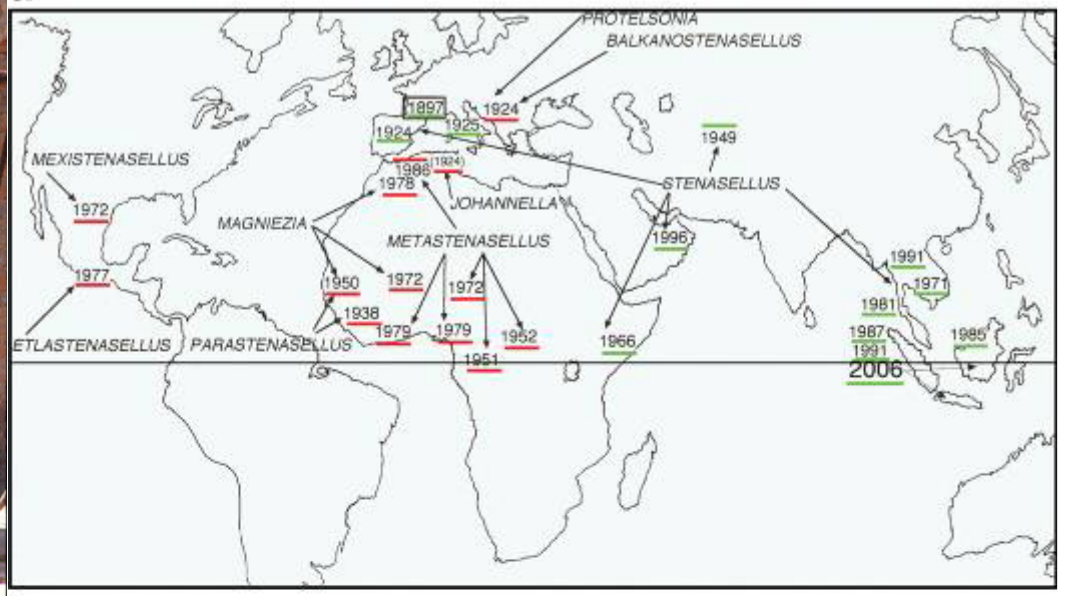
Fig. 1. Map with the localisation of the East African and Asiatic species of the genus *Stenasellus* Dollfus, 1897, car. emend. Racovitza, 1924.

Sequenziamento

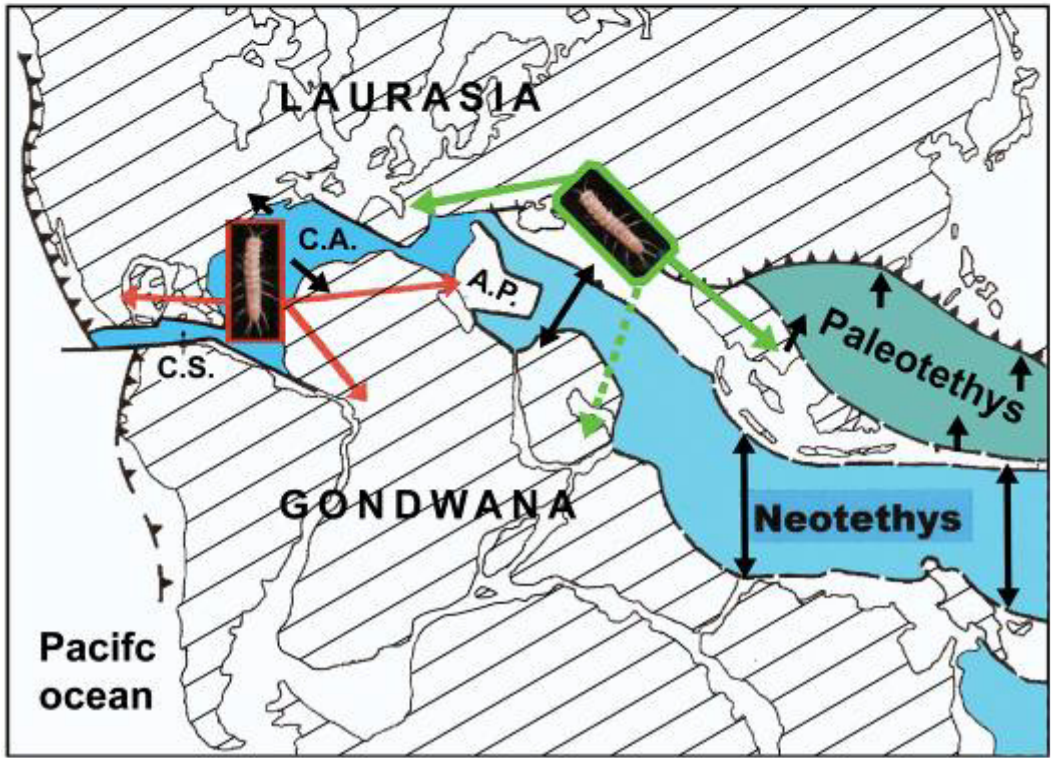


GCTTTAATTGTTCCTAAGTCGCCCCAACTAAAGATTACTCACAAATTTAATTTTCGTTATCACGAAACAT
AAAAATCTTACTTAAACAGCAAGATTTAAAAAAATTTATCATTTCACTCAAGCTCAATAGGGTCTTCTTG
TCCCTCAATTGAATTTAGACTTCTTCATCTAAAAATTAATTTCTAAAAATTTAGAAAGAGACAGCTTAGCT
TTCGTCAAACCATTCATACAAGCCTCCAATTAAAAGGCAAATGATTATGCTACCTTTGCACGGTCAGGG
TACCGCGGCCGTTTAACACTCTCGTCACTGGGCAGGCCCGACTCTTTATATTTAGGTTACAAAGAG

a


PROTELSONIA
BALKANOSTENASELLUS
1897
1924
1924
1925
1949
MEXISTENASELLUS
1988 (1924)
1978
STENASELLUS
JOHANNELLA
1972
MAGNIEZIA
METASTENASELLUS
1996?
1991
1977
1950
1972
1972
1971
1938
1981
1979
1979
1952
1987
1985
1991
ETLASTENASELLUS
PARASTENASELLUS
1951
1966
2006

b


LAURASIA
C.A.
A.P.
C.S.
Paleotethys
GONDWANA
Neotethys
Pacifc
ocean