

Seminar Marinbiologie - Entwicklungsbiologie  
Michaela Hittorf

# Polyplacophora and Cephalopoda of the Mediterranean Sea

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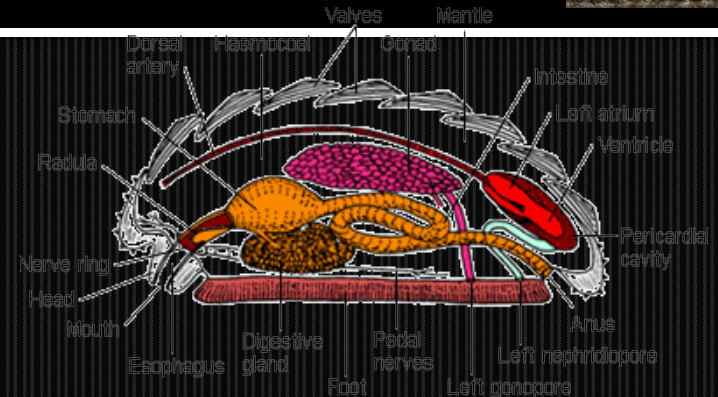
# Structure

- introduction - Polyplacophora
- Polyplacophora
- introduction – Cephalopoda
- Cephalopoda
- sources

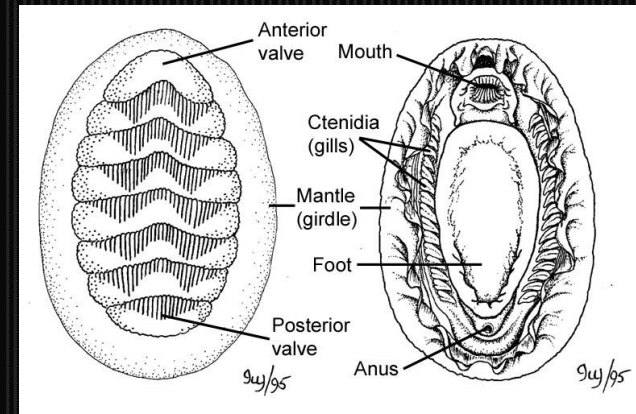
# Introduction - Polyplacophora



- Käferschnecken, Chiton
- Phylum: Mollusca
- Distribution: worldwide, marine
- Habitat: rocky intertidal zone or shallow sublittoral
- Development: sperms fertilize eggs in the water, trochophore larva, juvenile chiton
- Diet: encrusting organisms, diatoms & algae from substrate



[http://www.ucmp.berkeley.edu/images/taxa/inverts/polyplac\\_anat.gif](http://www.ucmp.berkeley.edu/images/taxa/inverts/polyplac_anat.gif)



[http://www.marlin.ac.uk/images/taxonomy\\_descriptions/polyplacophora.jpg](http://www.marlin.ac.uk/images/taxonomy_descriptions/polyplacophora.jpg)

# Polyplacophora - Leptochitonidae



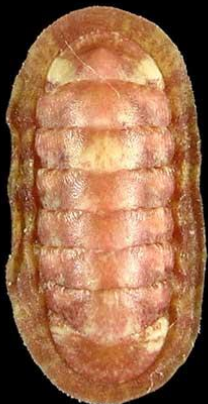
- *Lepidopleurus cajetanus*
- *Leptochiton cancellatus*
- *Leptochiton intermedius*



# Polyplacophora - Ischnochitonidae



- *Ischnochiton rissoi*
- *Callochiton septemvalvis (laevis)*
- *Middendorffia caprearum*
- *Lepidochitona cinera*



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<http://www.conchology.be/images/Label/380000web/385410.jpg>



[http://www.aphotomarine.com/images/chitons/chiton\\_callochiton%20septemvalvis\\_13-01-13\\_1.jpg](http://www.aphotomarine.com/images/chitons/chiton_callochiton%20septemvalvis_13-01-13_1.jpg)



<http://www.conchsoc.org/sites/default/files/imagecache/preview/lan%20Smit h/La1.jpg>





# Polyplacophora - Chitonidae



- *Chiton (Rhyssoplax) olivaceus*
- *Chiton corallinus*
- *Chiton phaseolinus*



# Polyplacophora - Acanthochitonidae



- *Acanthochitona communis*
- *Acanthochitona fascicularis*



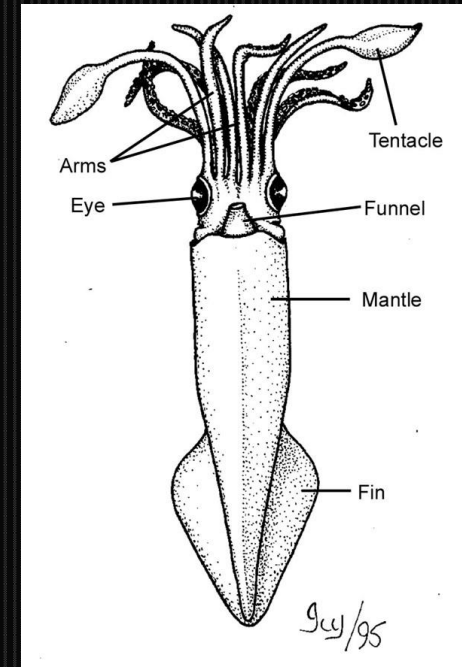
© Robert Gschwentner et. al, „Mollusken Datenbank“



[http://www.marlin.ac.uk/imgs/o\\_acafas.jpg](http://www.marlin.ac.uk/imgs/o_acafas.jpg)

# Introduction - Cephalopoda

- Kopffüßer, „head feet“
- Phylum: Mollusca, subphylum: Conchifera
- Bilateral body symmetry
- Intelligent
- Camera – type- eye



[http://www.marlin.ac.uk/images/taxonomy\\_descriptions/Cephalopoda.jpg](http://www.marlin.ac.uk/images/taxonomy_descriptions/Cephalopoda.jpg)



# Cephalopoda - Sepiidae

- *Sepia officinalis*
- *Sepia orbignyana*
- *Sepia elegans*



© Robert Gschwentner et. al, „Mollusken Datenbank“

<http://www.agefotostock.com/previewimage/bajaage/3a7863504a639052eb11be24d874f8d/C54-525978.jpg>

<http://colapesce.xoom.it/tuffatore/foto/seppia/Sepia%20elegans.jpg>

# Cephalopoda - Sepiolidae

- = „Bobtail squid“,  
Zwergtintenfisch
- *Sepiola rondeleti*
- *Sepiola affinis*
- *Sepietta oweniana*
- *Sepietta petersi*
- *Rossia macrosoma*



<http://www.natuurlijkmooi.net/images/seprona.jpg>

[http://www.alessandrofalleni.com/home/images/sezione\\_marina/05\\_MOLLUSCHI\\_CEFALOPODI/Sepiola%20Affinis.jpg](http://www.alessandrofalleni.com/home/images/sezione_marina/05_MOLLUSCHI_CEFALOPODI/Sepiola%20Affinis.jpg)

<http://www.waterframe.de/bilder/fur54060.jpg>

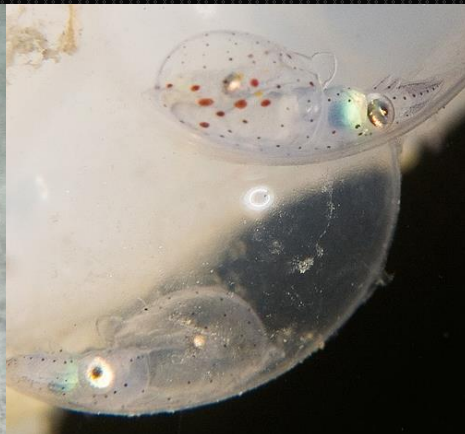
[http://www.marlin.ac.uk/imgs/o\\_rosmac3.jpg](http://www.marlin.ac.uk/imgs/o_rosmac3.jpg)

# Cephalopoda - Loliginidae

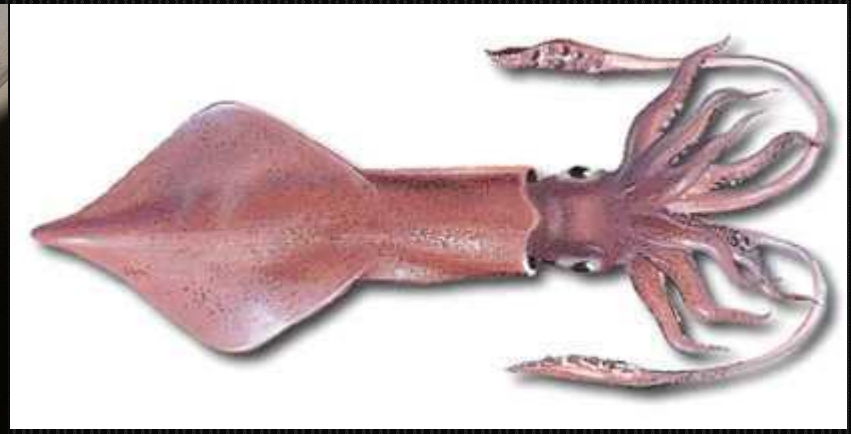
- *Loligo vulgaris* – gemeiner Kalmar, european squid



[http://www.seawater.no/fauna/mollusca/images/CRW\\_6927.jpg](http://www.seawater.no/fauna/mollusca/images/CRW_6927.jpg)



[http://www.seawater.no/fauna/mollusca/images/IMG2008\\_2676.jpg](http://www.seawater.no/fauna/mollusca/images/IMG2008_2676.jpg)



[http://www.masmar.net/var/masmar/storage/images/guias/especies/calamar-loligo-vulgaris/161637-1-esl-ES/Calamar-Loligo-vulgaris\\_large.jpg](http://www.masmar.net/var/masmar/storage/images/guias/especies/calamar-loligo-vulgaris/161637-1-esl-ES/Calamar-Loligo-vulgaris_large.jpg)



# Cephalopoda - Ommastrephidae

- *Todarodes sagittatus* (*Ommastrephes sagittatus*), european flying squid
- *Illex coindetii* – southern shortfin squid



[http://images.marinespecies.org/resized/19743\\_todarodes-sagittatus.jpg](http://images.marinespecies.org/resized/19743_todarodes-sagittatus.jpg)



[http://www.ictiorem.es/especies/fotos\\_principales/L/Illex\\_coindetii\\_L.jpg](http://www.ictiorem.es/especies/fotos_principales/L/Illex_coindetii_L.jpg)



[http://www.ictiorem.es/especies/fotos\\_auxiliares/L/Illex\\_coindetii\\_1\\_L.jpg](http://www.ictiorem.es/especies/fotos_auxiliares/L/Illex_coindetii_1_L.jpg)

# Cephalopoda - Onychoteuthidae

- *Onychoteuthis banksi* – common clubhook squid



[http://images.marinespecies.org/resized/2030\\_onychoteuthis-banksii-leach-1817.jpg](http://images.marinespecies.org/resized/2030_onychoteuthis-banksii-leach-1817.jpg)



# Cephalopoda - Octopodidae

- *Octopus vulgaris* – common octopus
- *Octopus macropus* (*Callistoctopus macropus*)  
– white - spotted octopus, grass octopus
- *Octopus salutii* – spider octopus, Schirmkrake
- *Eledone moschata* – musky octopus
- *Eledone cirrhosa*



[http://www.marlin.ac.uk/imgs/o\\_octvul.jpg](http://www.marlin.ac.uk/imgs/o_octvul.jpg)



[http://www.unterwasser-welt-mittelmeer.de/assets/images/Callistoctopus\\_macropus\\_902\\_XL\\_k.jpg](http://www.unterwasser-welt-mittelmeer.de/assets/images/Callistoctopus_macropus_902_XL_k.jpg)



[http://www.unterwasser-welt-mittelmeer.de/assets/images/Octopus\\_salutii\\_002\\_XL\\_k.jpg](http://www.unterwasser-welt-mittelmeer.de/assets/images/Octopus_salutii_002_XL_k.jpg)



<http://www.natuurlijkmooi.net/images/elemosa.jpg>



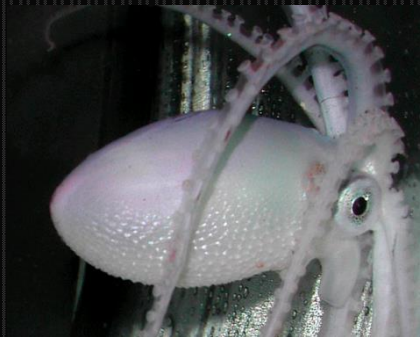
<http://www.natuurlijkmooi.net/images/elecira.jpg>

# Cephalopoda - Argonautoidea

- *Argonauta argo*
- *Ocythoe tuberculata* – tuberculate pelagic octopus, football octopus
- *Tremoctopus violaceus* – blanket octopus, Löcherkrake



[http://upload.wikimedia.org/wikipedia/commons/thumb/a/a1/Argonauta\\_argo\\_Merculiano.jpg/800px-Argonauta\\_argo\\_Merculiano.jpg](http://upload.wikimedia.org/wikipedia/commons/thumb/a/a1/Argonauta_argo_Merculiano.jpg/800px-Argonauta_argo_Merculiano.jpg)



<http://tolweb.org/tree/ToLimages/ocythoetubercules>



<http://tolweb.org/tree/ToLimages/TremOverview2.jpg>

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# The end.

Thank you for your attention!  
Questions ???



<http://replicatedtypo.com/wp-content/uploads/2012/04/octopus.jpg>