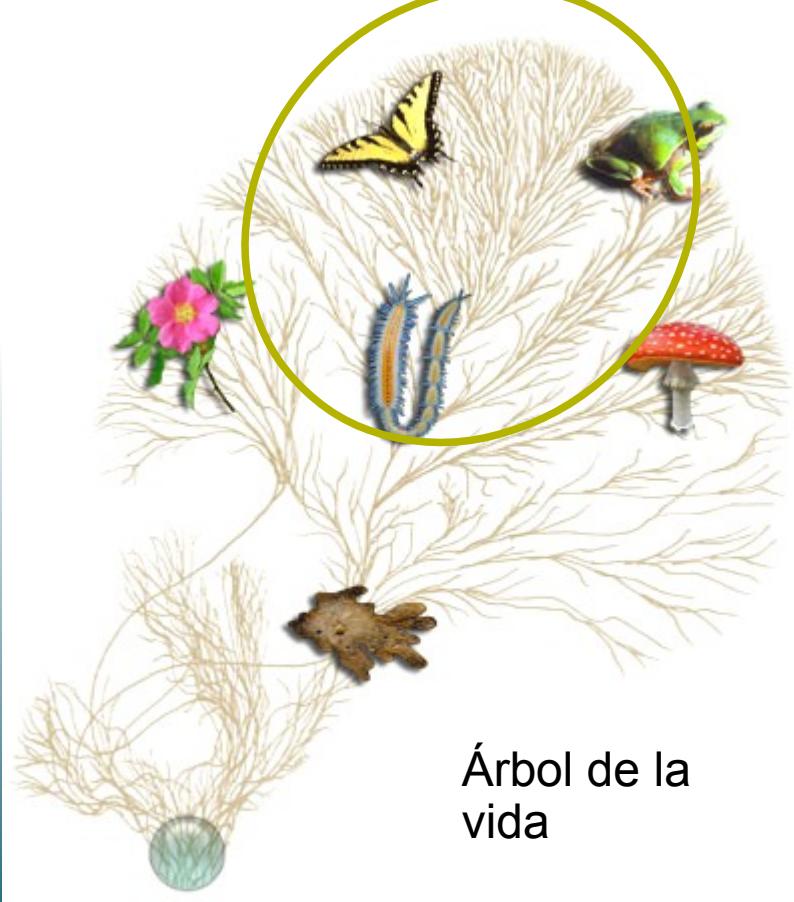


# Peces: especies y clasificación



# Árbol de la vida

PECES



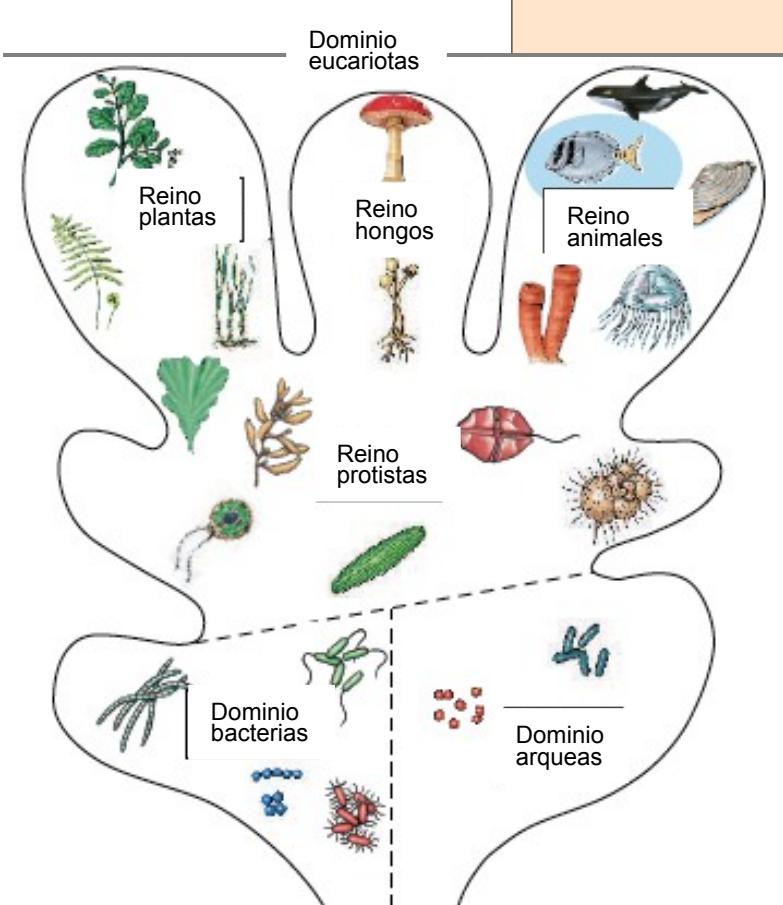
## CLASE AGNATOS (peces sin mandíbulas)



lampreas



mixinos



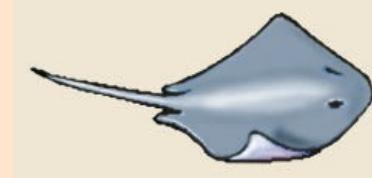
## CLASE CONDRICHTIOS (peces cartilaginosos)



Elasmobranquios

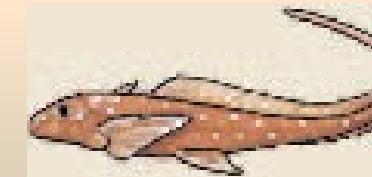


tiburones



rayas

## Holocéfalos



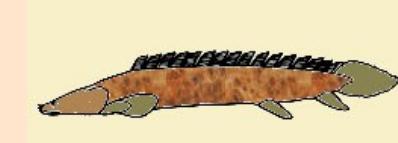
quimeras

## CLASE OSTEÍCTIOS (peces óseos)

### Actinopterigios



teleósteos



condrósteos

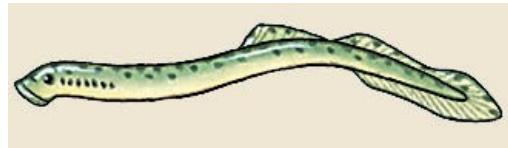
### Sarcopterygios



dipnoos

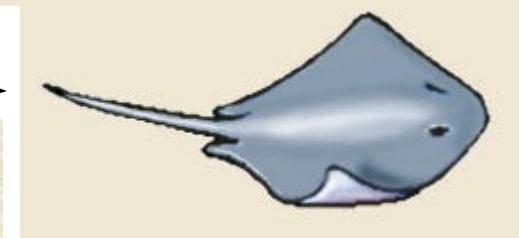
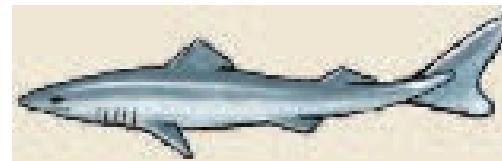
## grupos de peces

agnatos

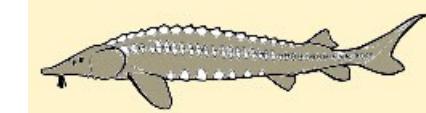


cartilaginosos

tiburones  
rayas  
quimeras



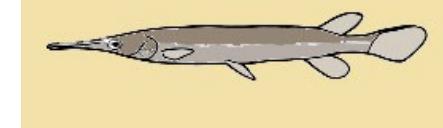
condrósteos



óseos

aletas radiadas

holósteos  
teleósteos

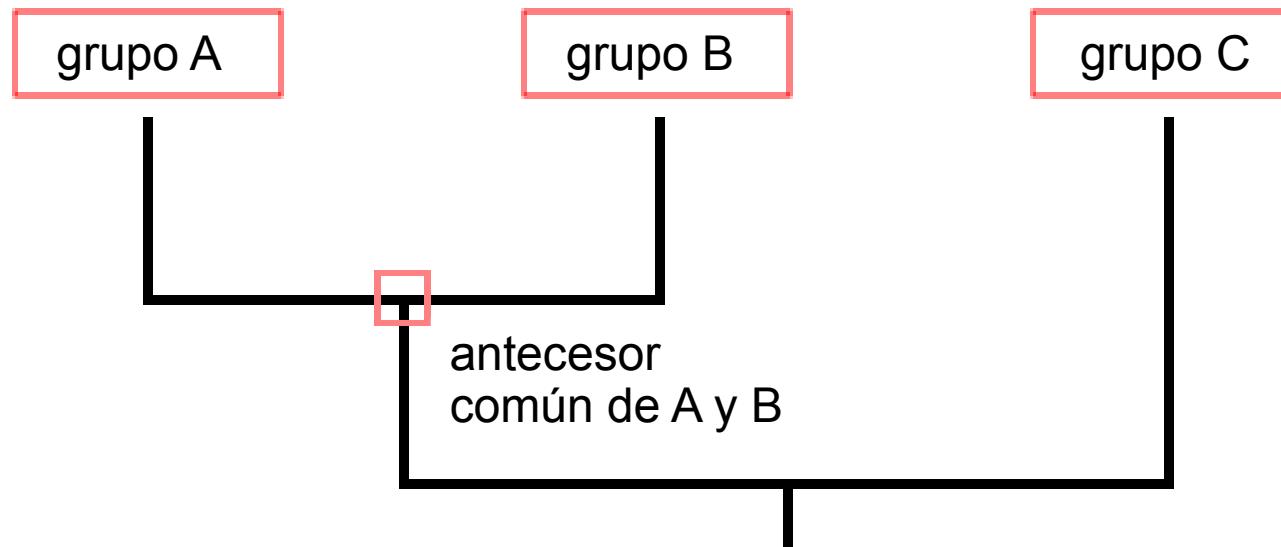


aletas lobuladas

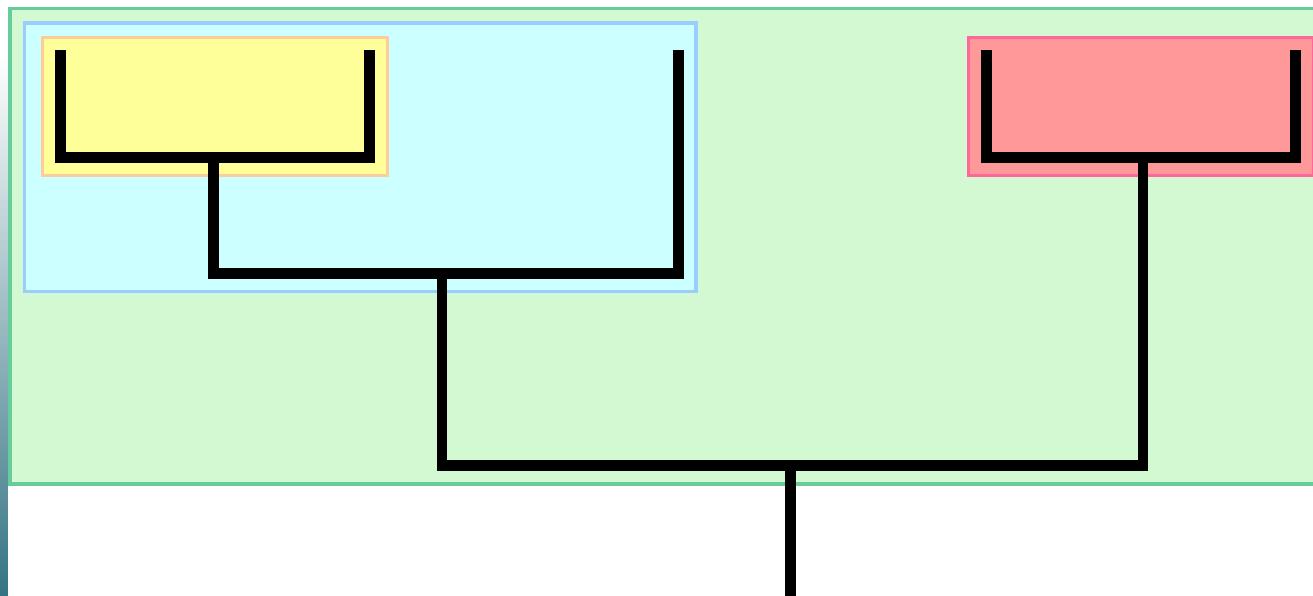
peces pulmonados  
celacantos



# Clasificación y filogenia



cada rectángulo coloreado representa un grupo de parentesco

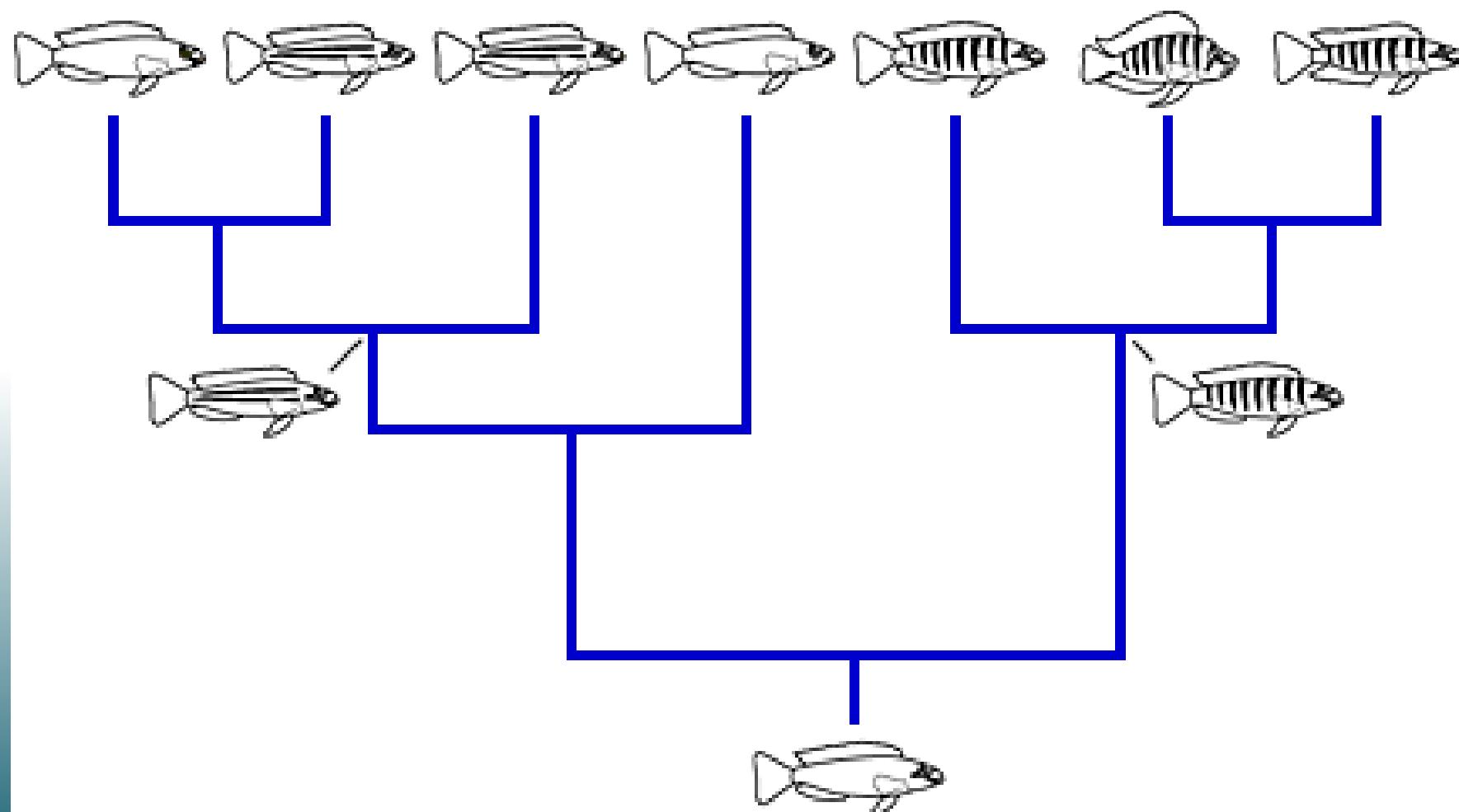
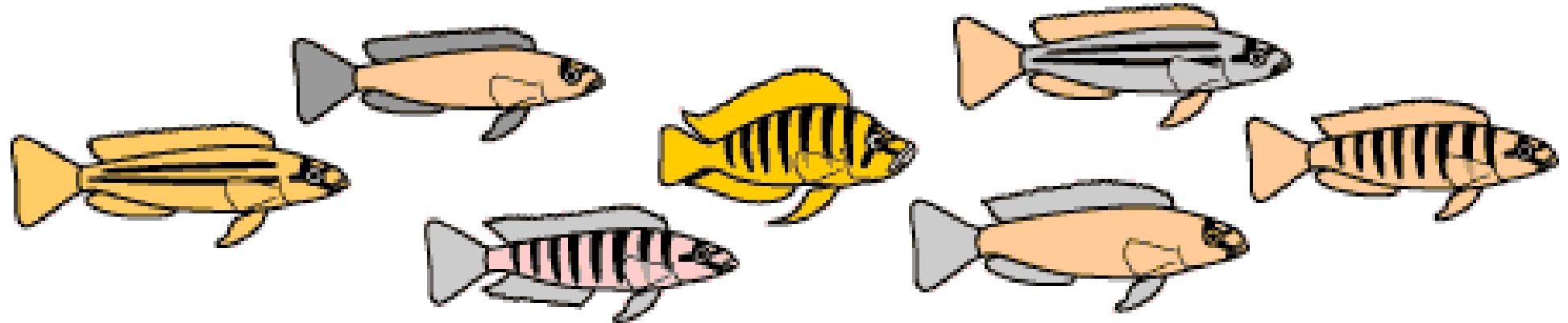


**Género:** grupo de especies que comparten características similares

**Familia:** grupo de géneros relacionados

**Orden:** grupo de familias emparentadas







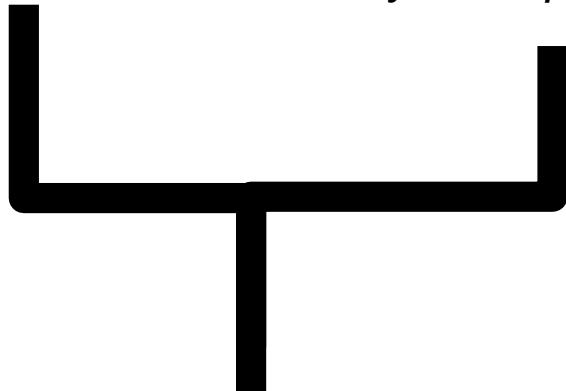
## Especie

*Corydoras aeneus*

*Corydoras paleatus*

*Brochis multiradiatus*

*Clarias batrachus*



## Género

*Corydoras*

*Brochis*

*Clarias*

## Familia

Callichthyidae

Clariidae

## Orden

Siluriformes





Order	Families	Genera	Species
Cypriniformes	Cyprinidae	<i>Barbus</i>	<i>oligolepis</i> <i>schwanenfeldi</i>
		<i>Capoeta</i>	<i>schuberti</i> <i>titteya</i>
	Cobitidae	<i>Botia</i>	<i>macracantha</i>
		<i>Acanthophthalmus</i>	<i>kuhli</i>

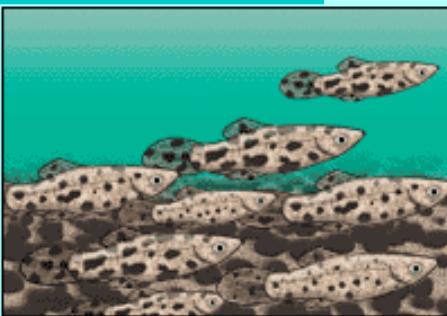


# Formación de las especies

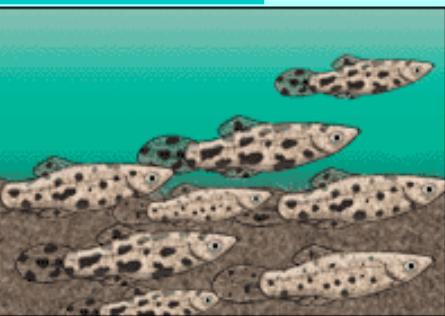
Ejemplo de selección natural

## Sin depredador

Arena gruesa

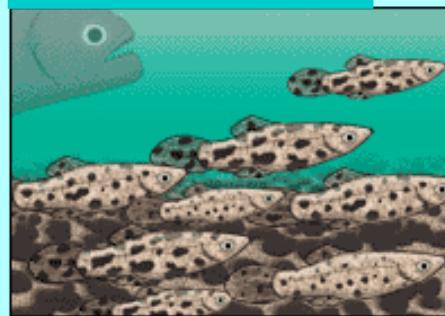


Arena fina

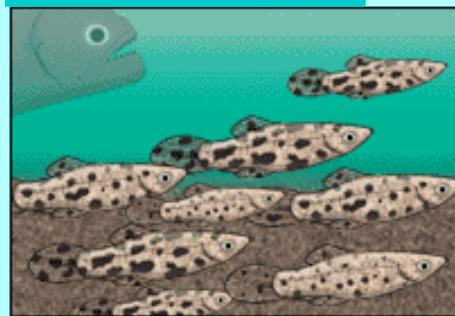


## Con depredador

Arena gruesa



Arena fina



inicio

tras 15  
generaciones

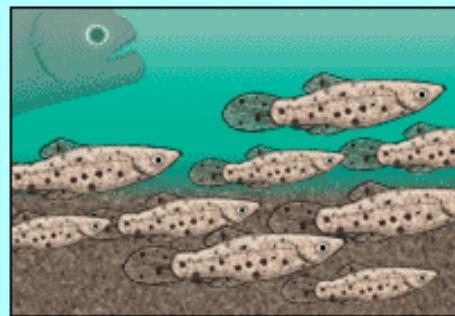
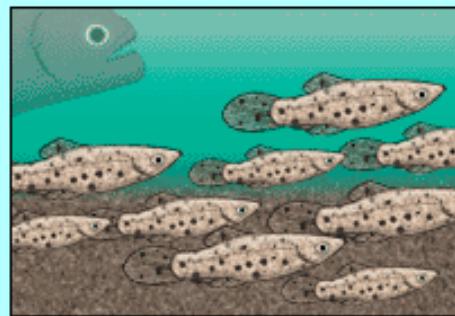
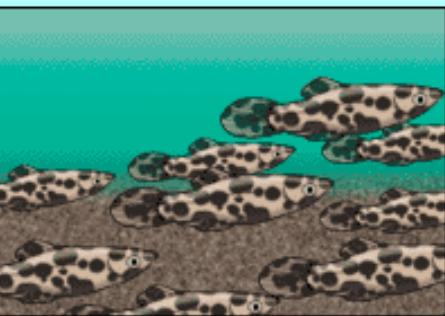
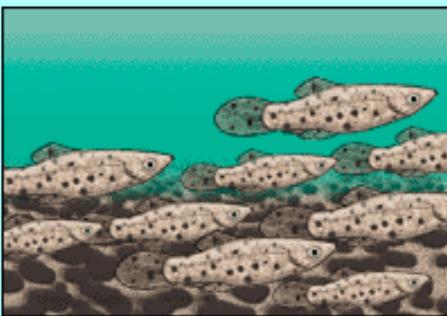
fewer than  
generations of selection

more than 15  
generations of selection

tras 15  
generaciones

fewer than  
generations of selection

more than 15  
generations of selection



<http://www.pbs.org/wgbh/evolution/sex/guppy/index.html>

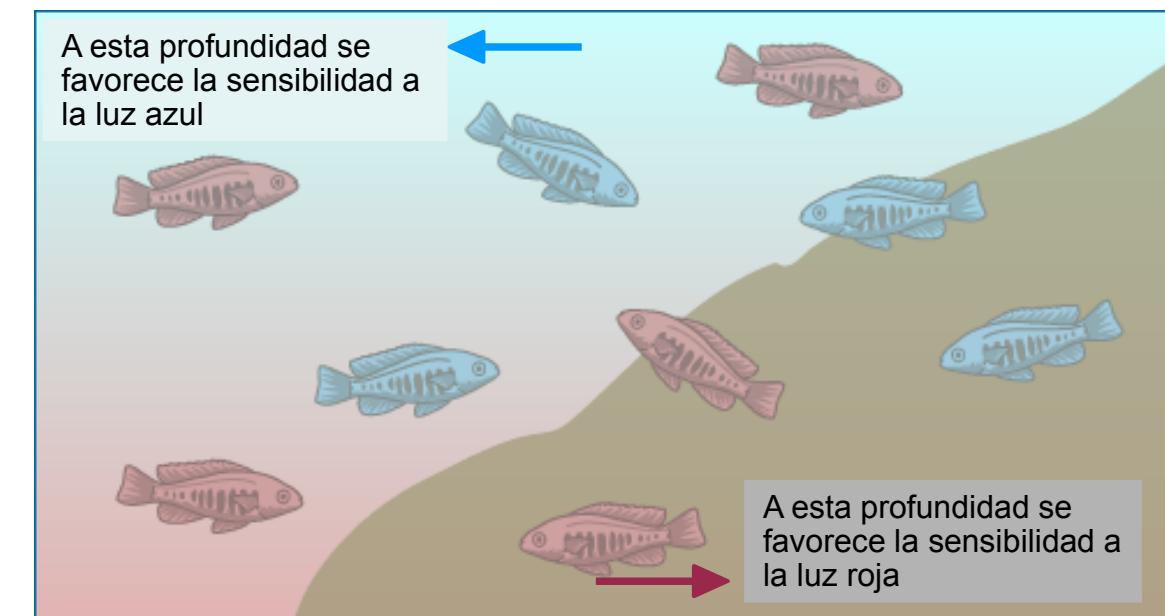
# Formación de las especies

Pundamilia pundamilia

Pundamilia nyererei

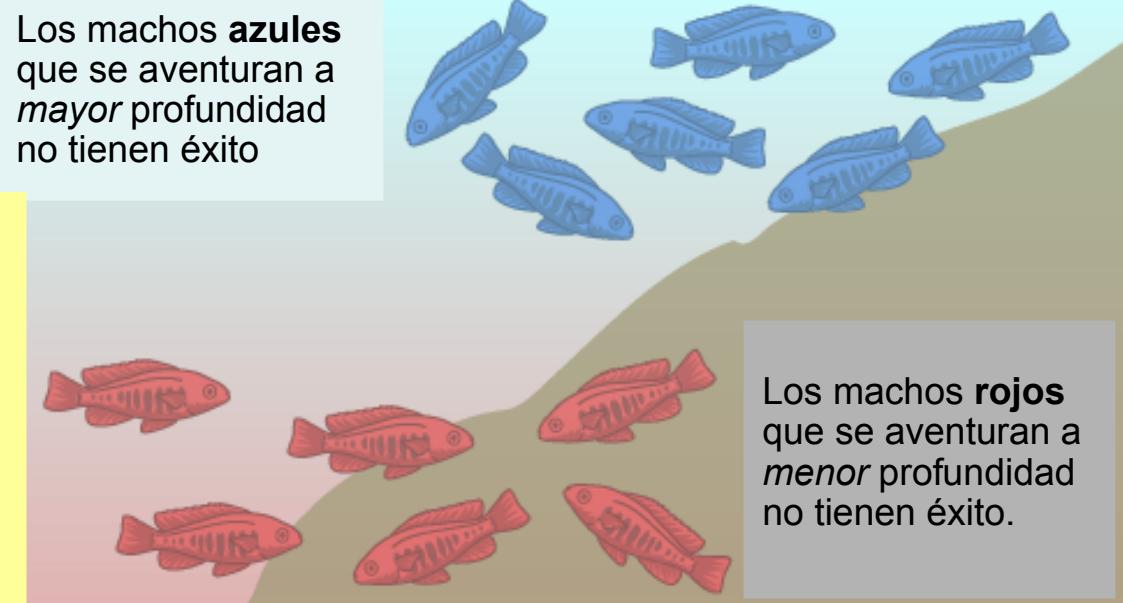


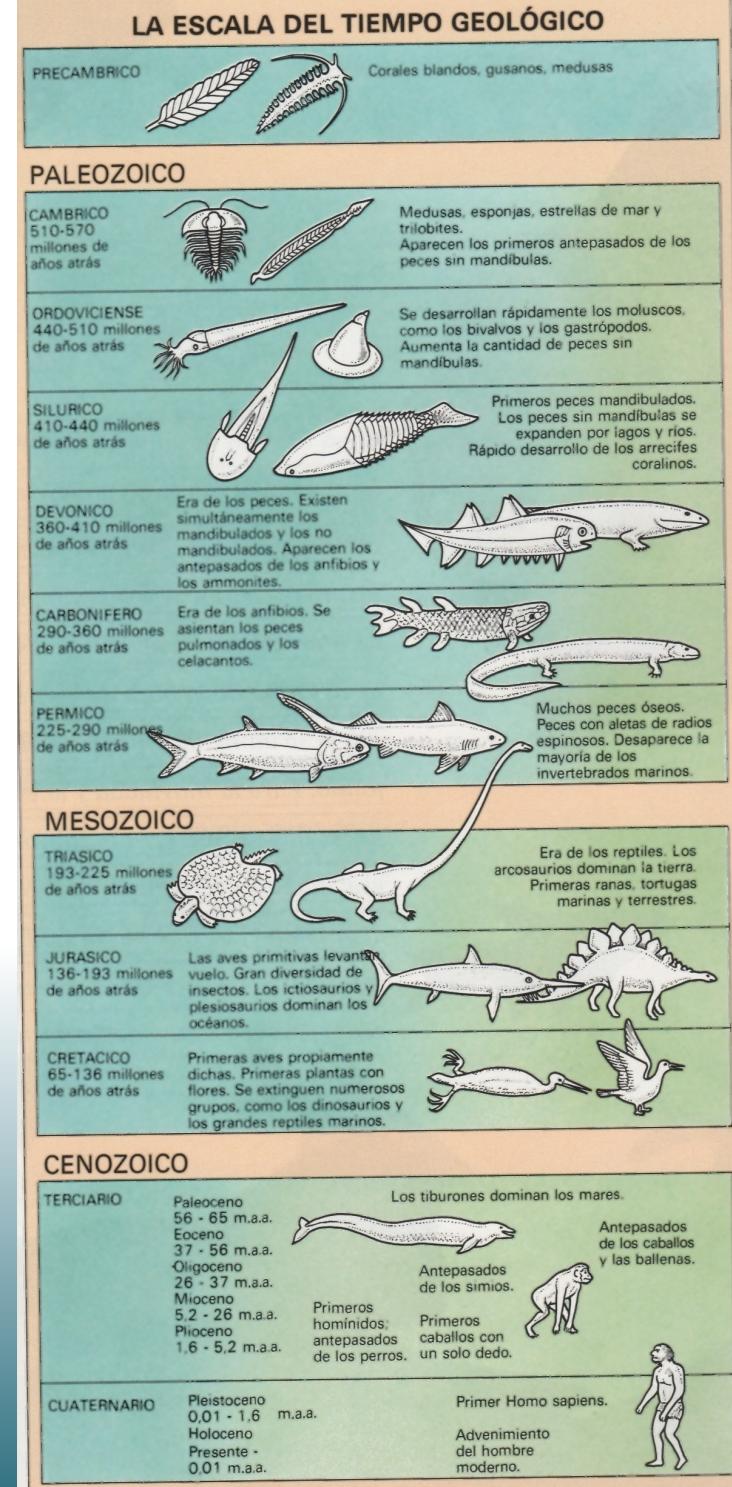
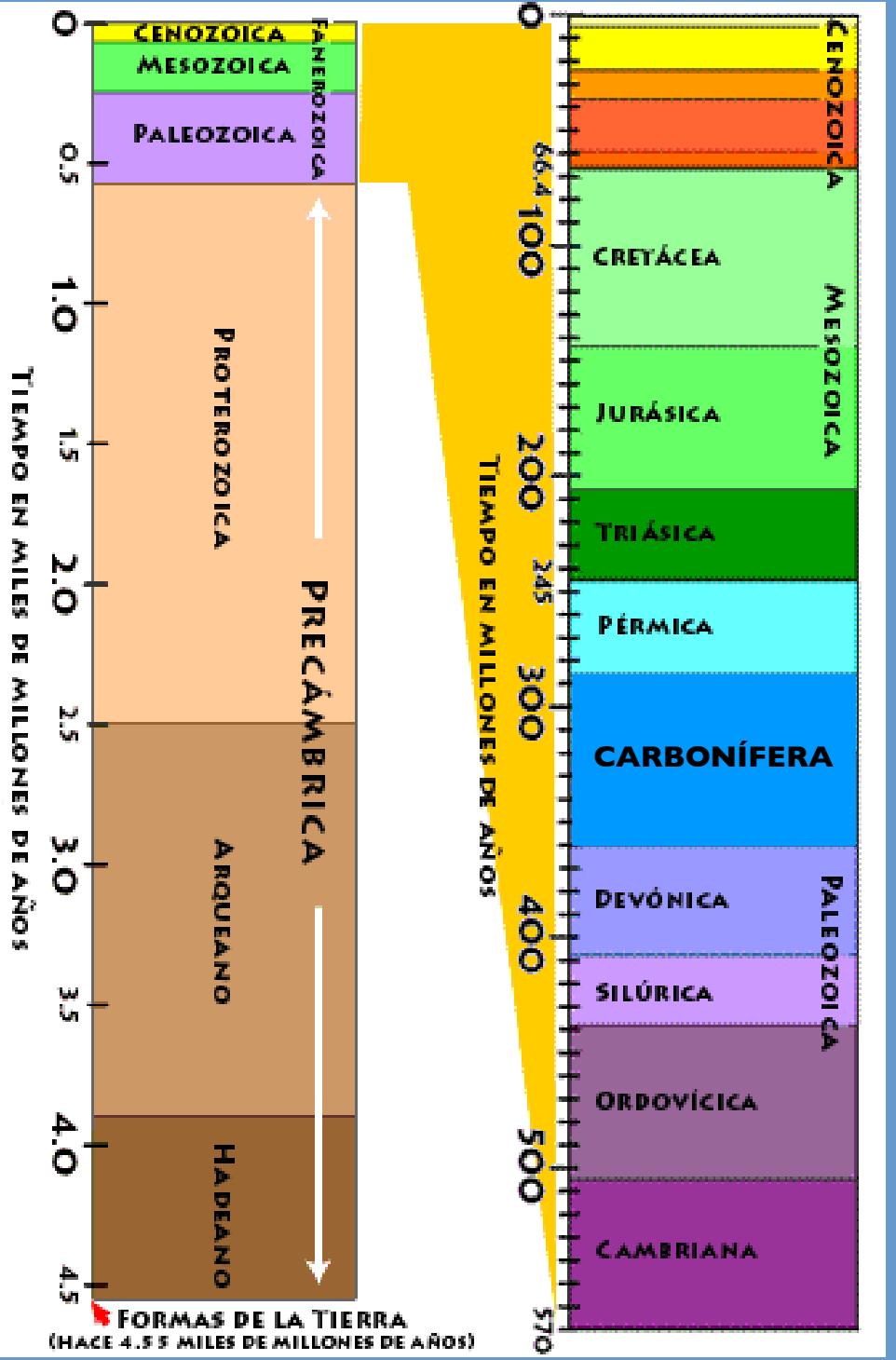
a



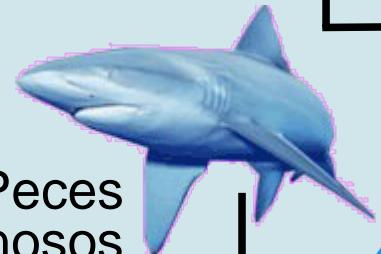
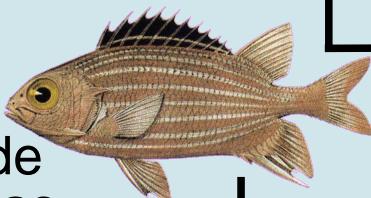
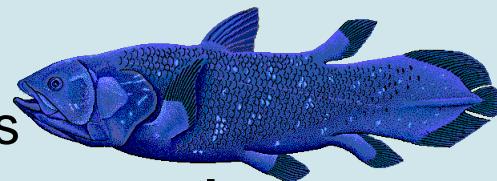
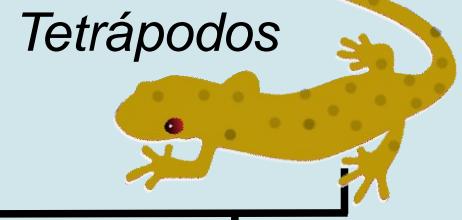
después de muchas generaciones... las poblaciones se han separado

Las hembras ven mejor a los machos de su misma zona porque el color se corresponde con el de su mayor sensibilidad visual



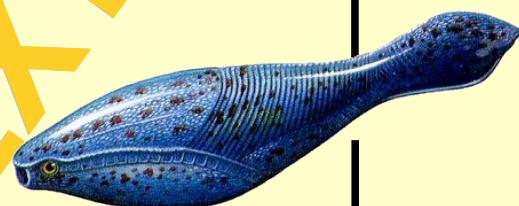
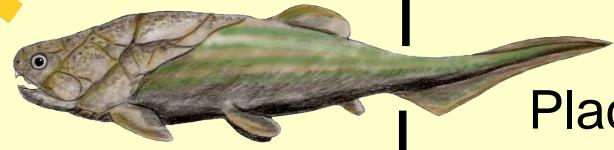
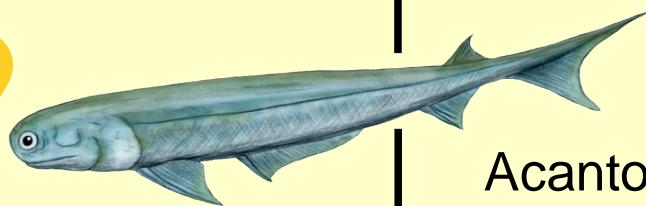
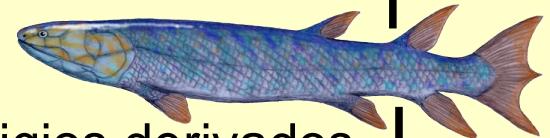


afilia  
organismos

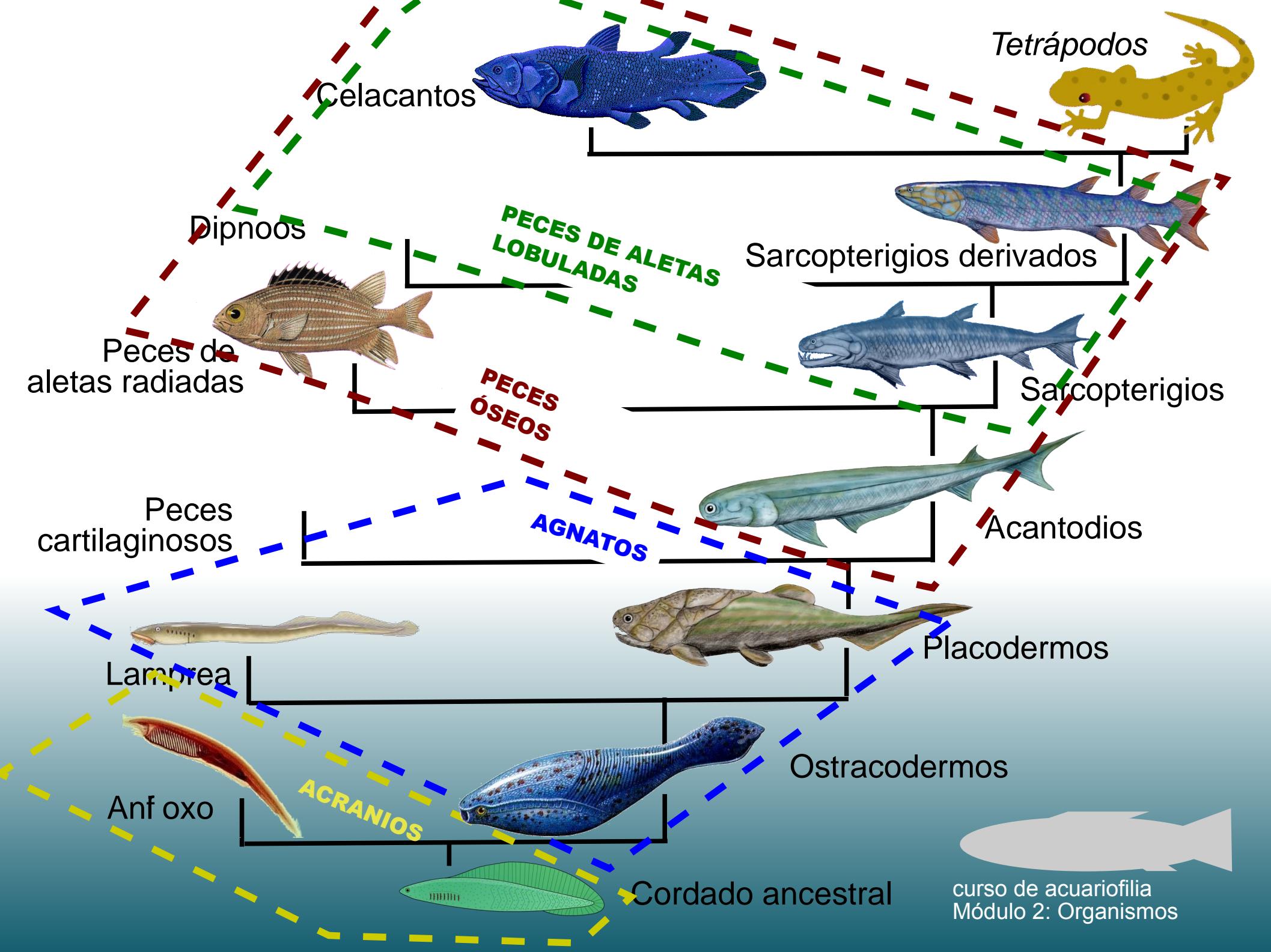


ACTUALES

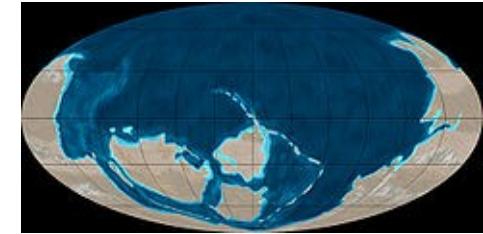
EXTINTOS



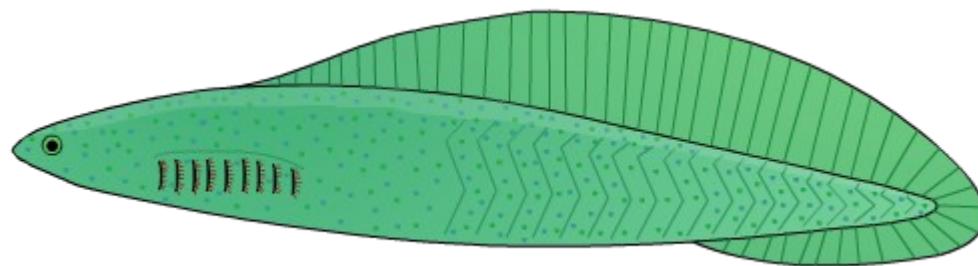
Cordado ancestral



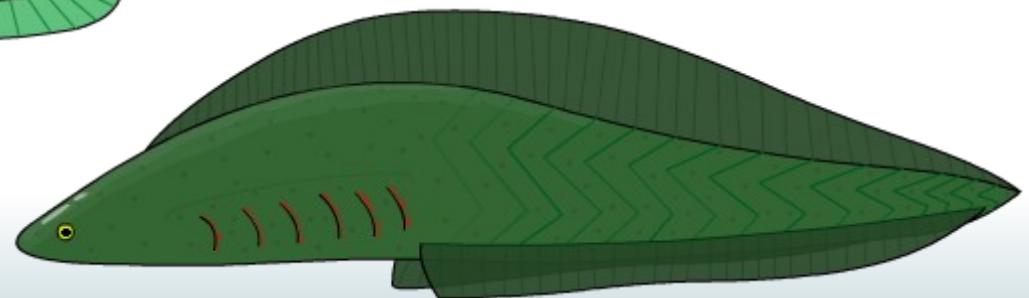
# Cámbrico



Grupo: **Craniata**



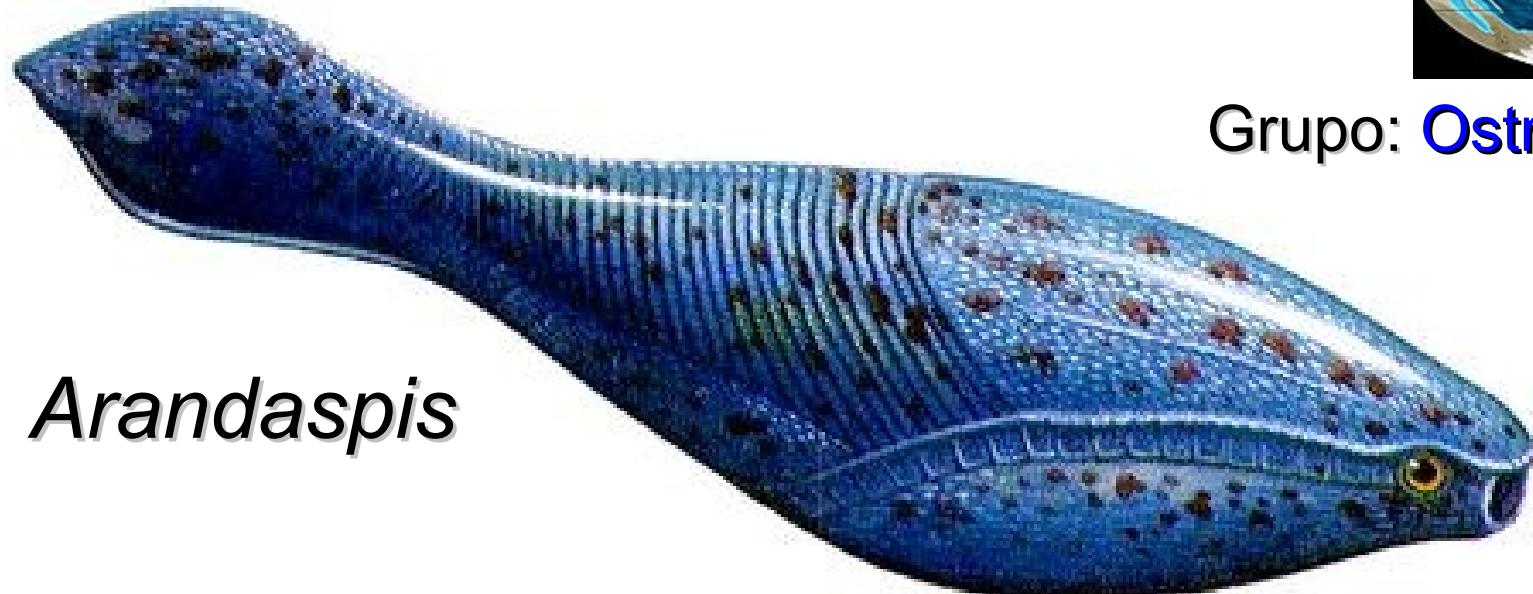
*Haikouichthys*



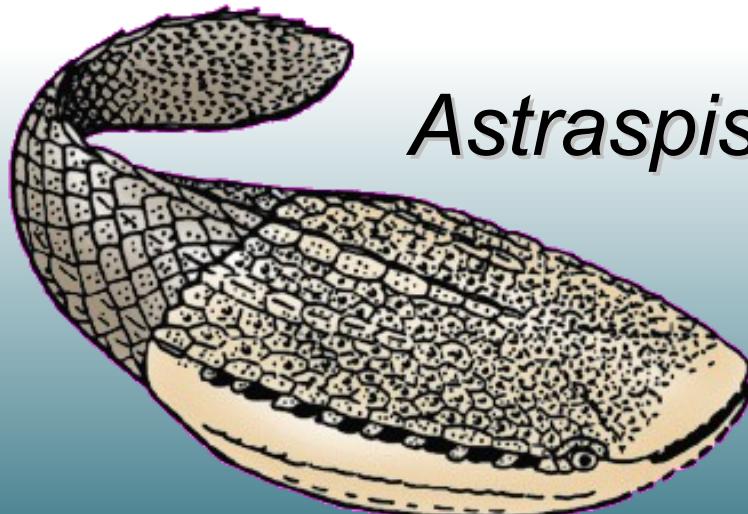
*Myllokunmingia*



# Ordovícico

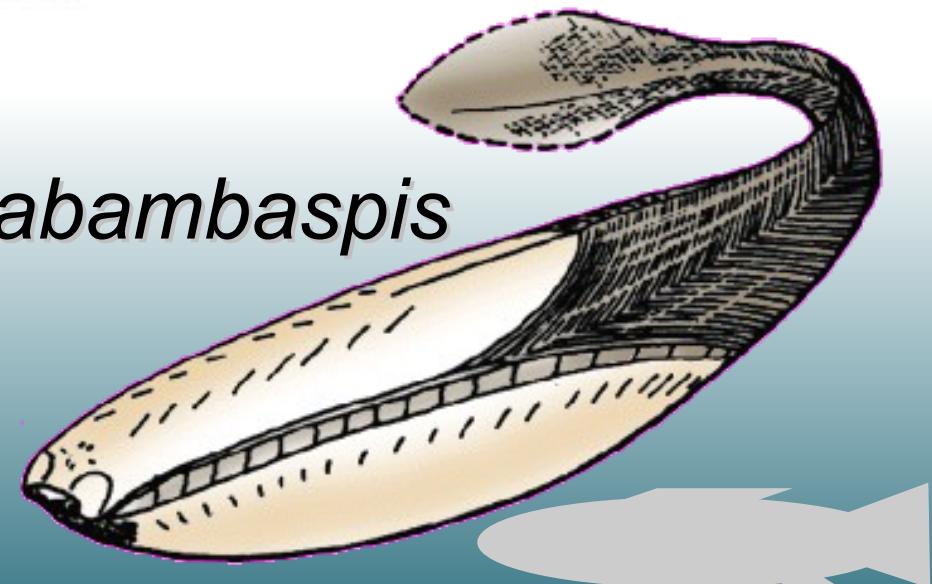


*Arandaspis*

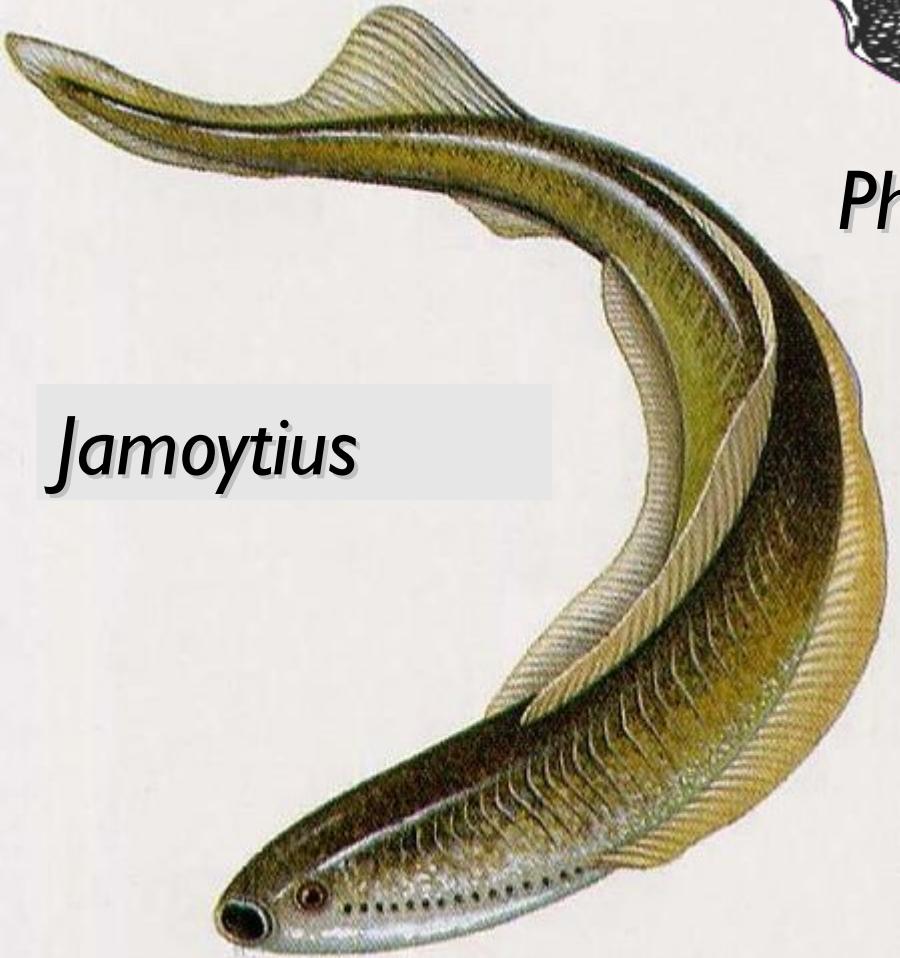


*Astraspis*

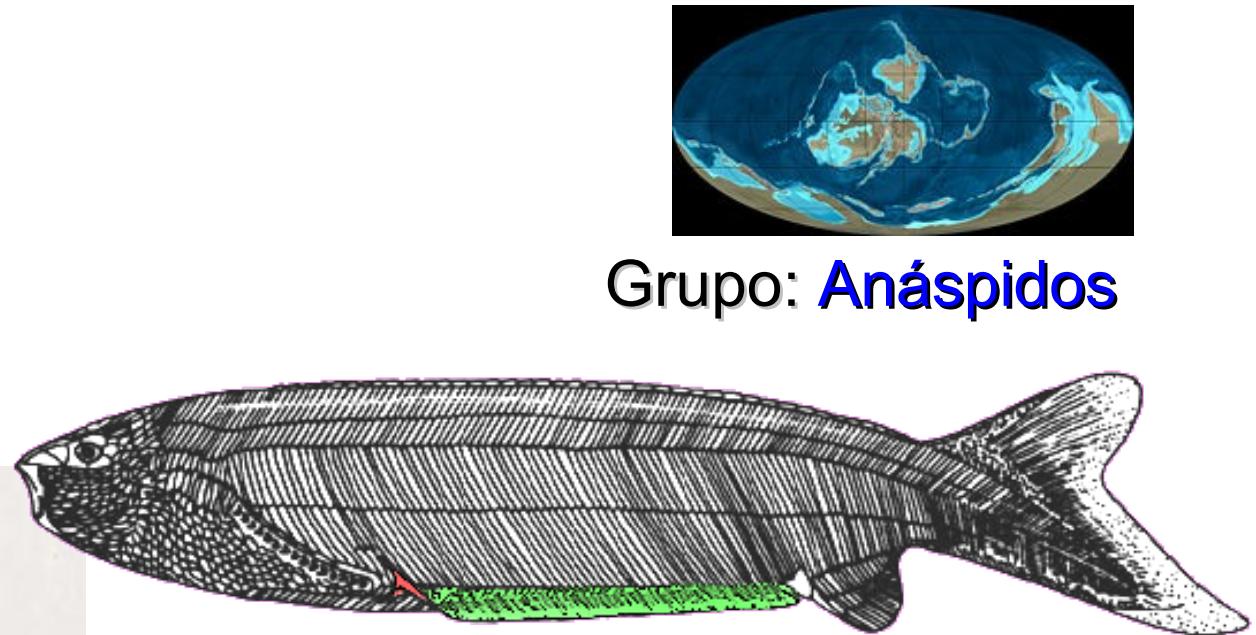
*Sacabambaspis*



# Silúrico

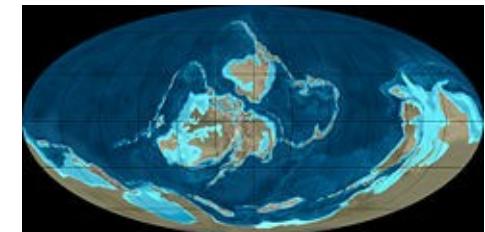


*Jamoytius*



*Pharyngolepis*

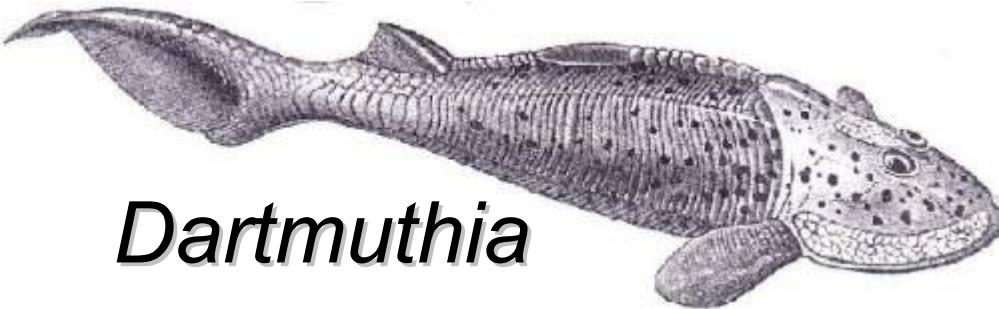
*Rhyncholepis*



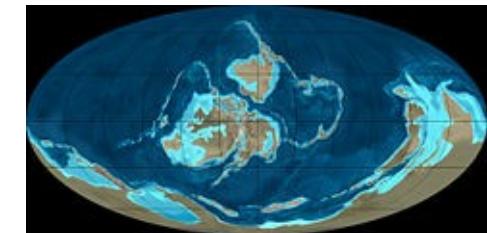
Grupo: Anáspidos



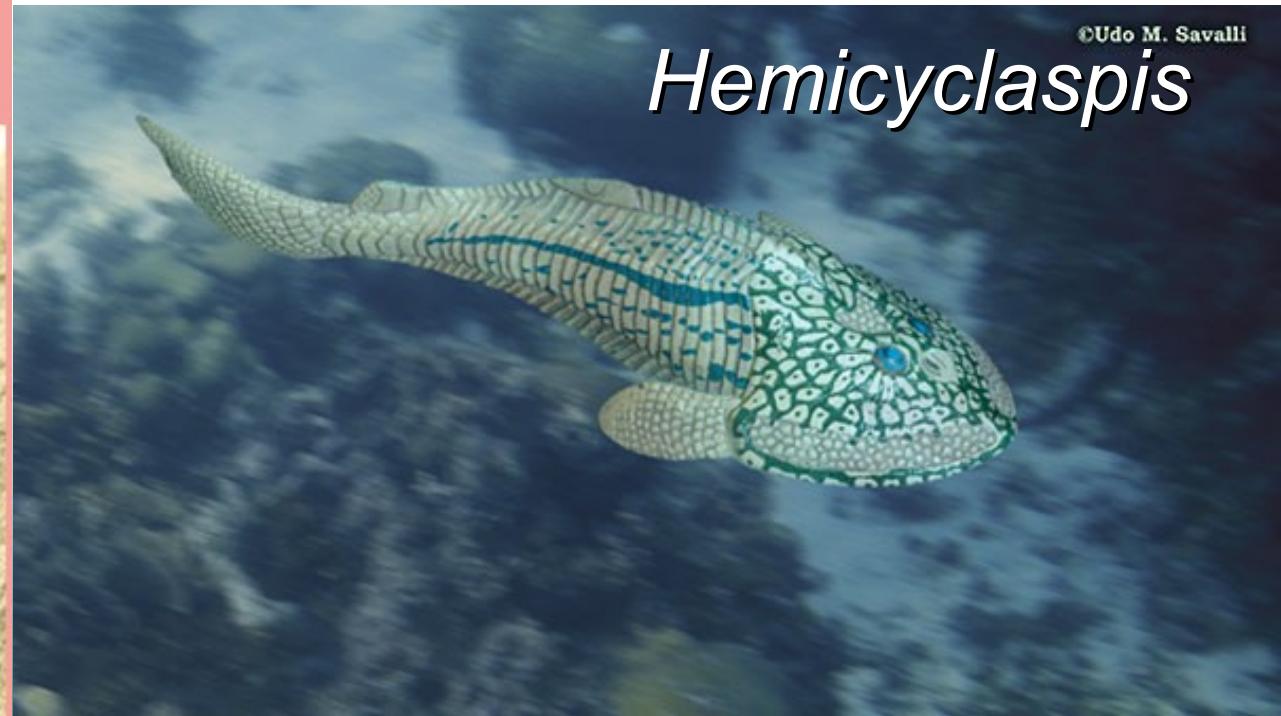
# Silúrico



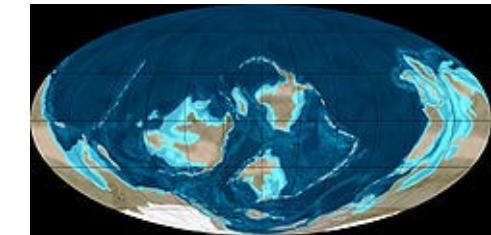
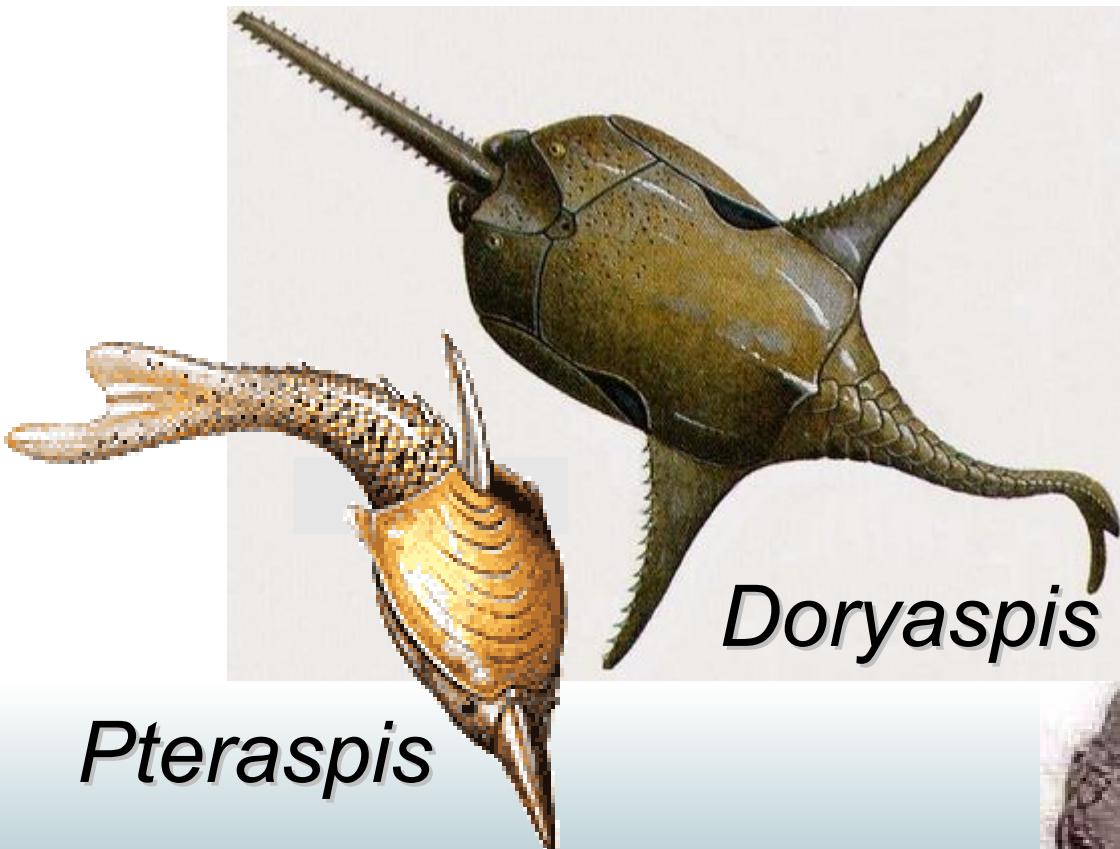
*Dartmuthia*



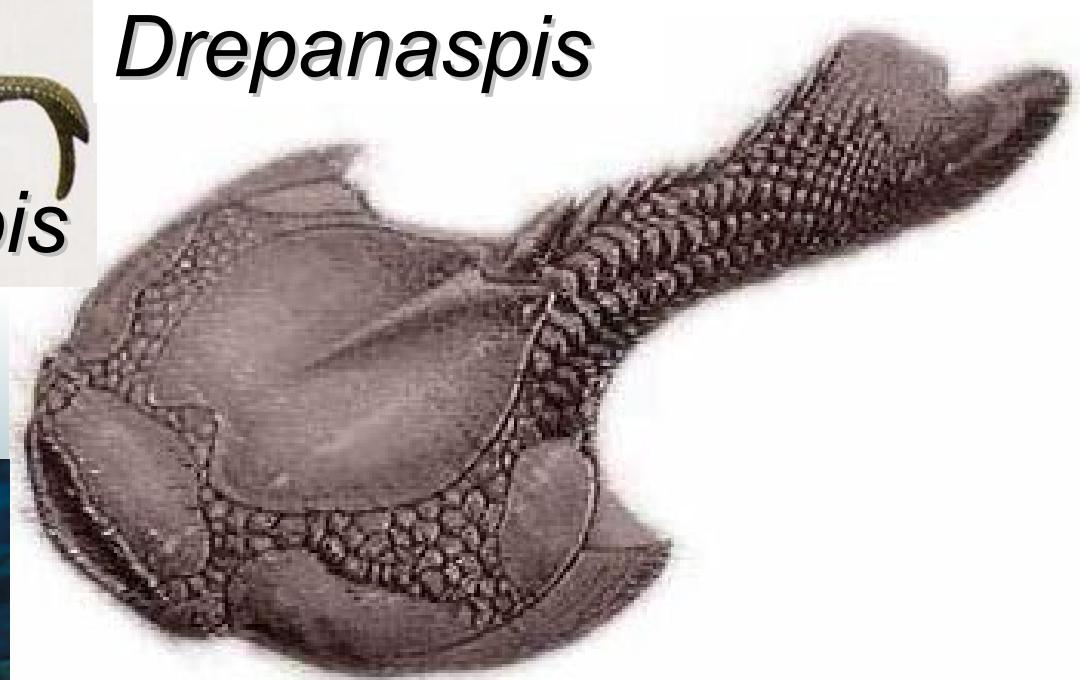
Grupo **Ostracodermos**



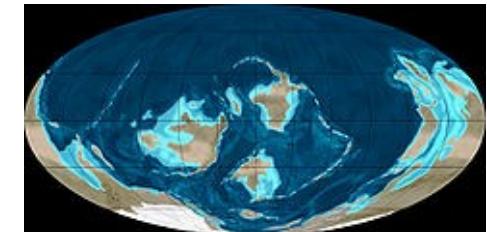
# Devónico



Grupo: **Ostracodermos**



# Devónico



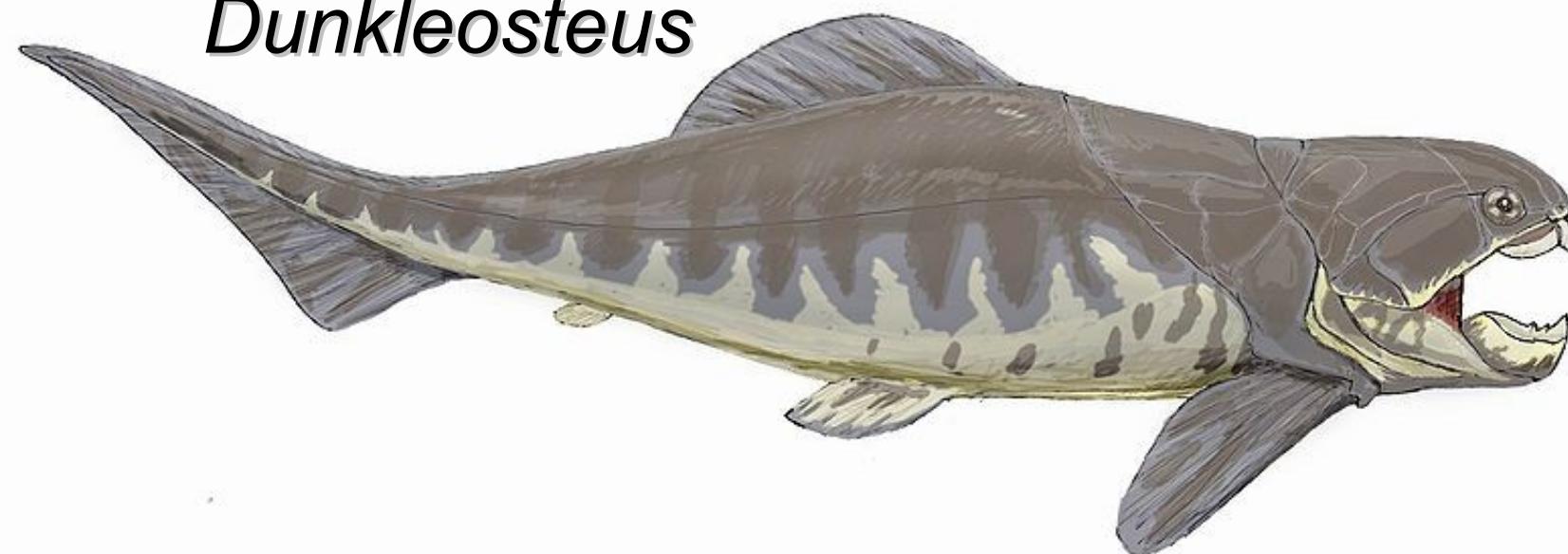
Grupo: **Placodermos**

*Gemuendina*

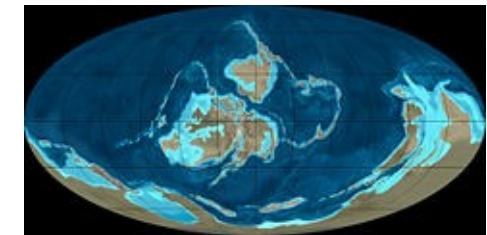
*Coccosteus*



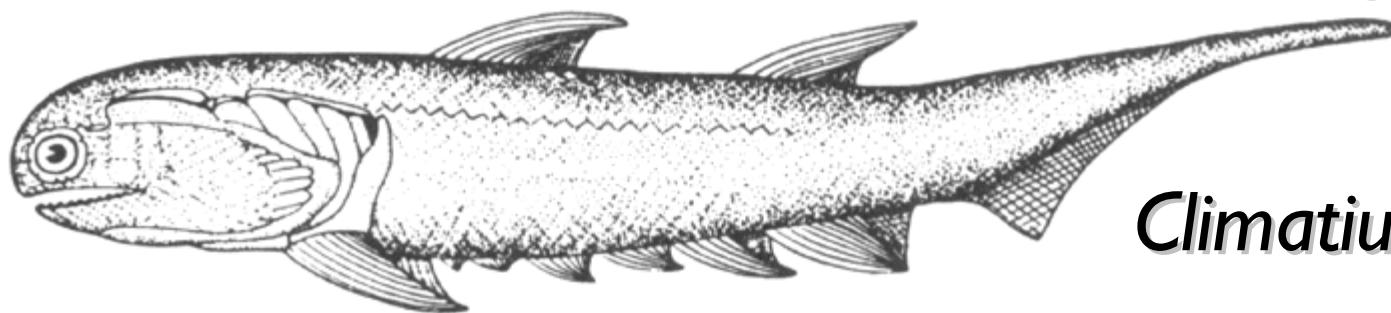
*Dunkleosteus*



# Silúrico



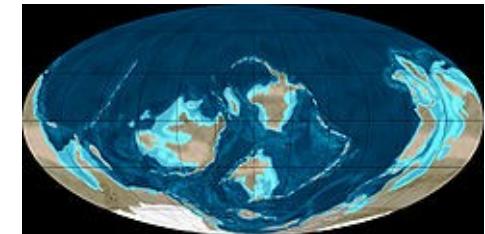
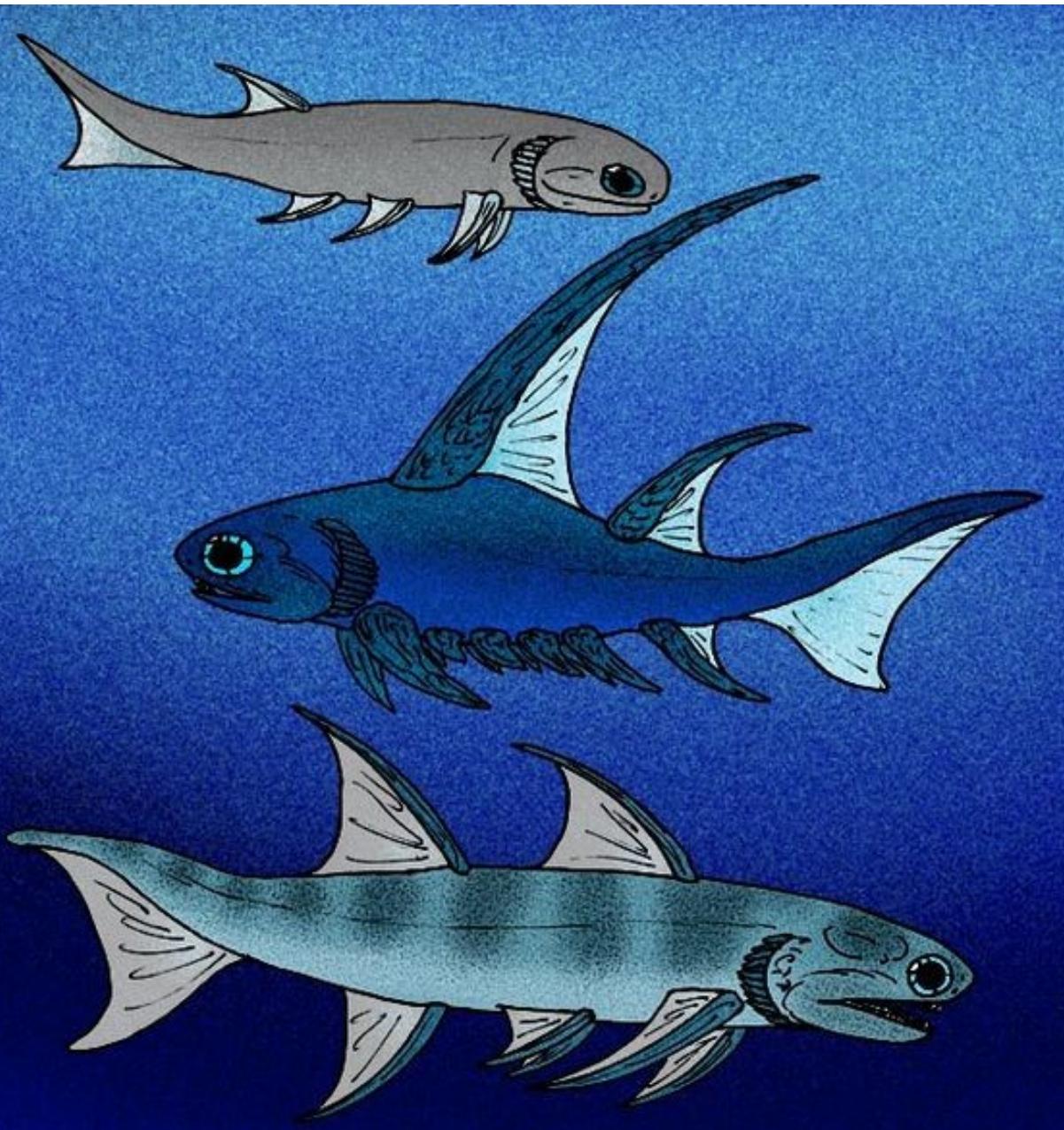
Grupo: **Acantodios**



*Climatius*



# Devónico



Grupo: **Acantodios**

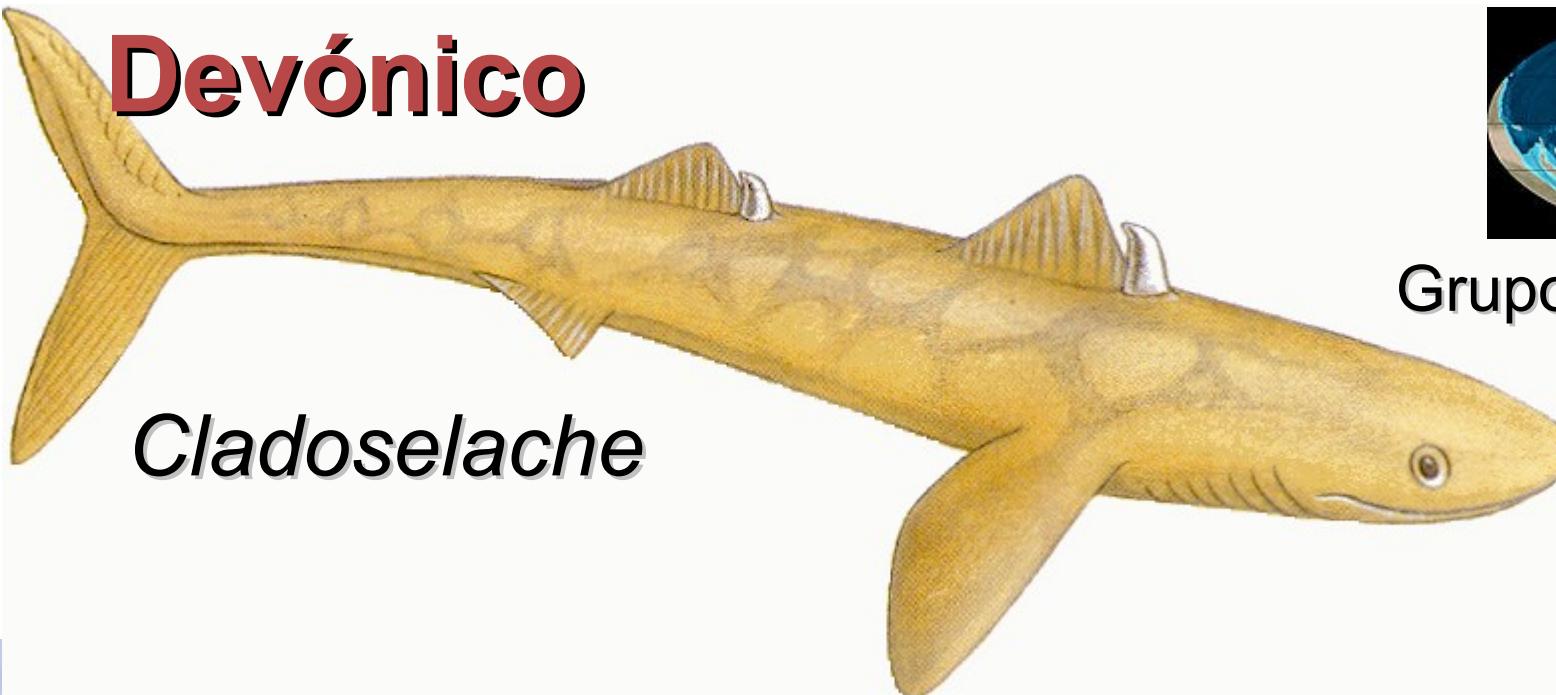
*Mesacanthus*

*Parexus*

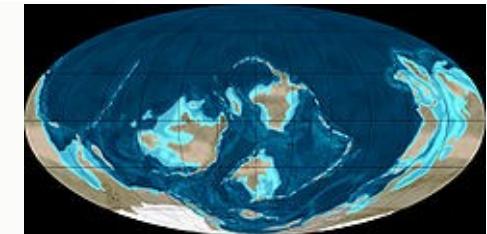
*Ishnacanthus*



# Devónico

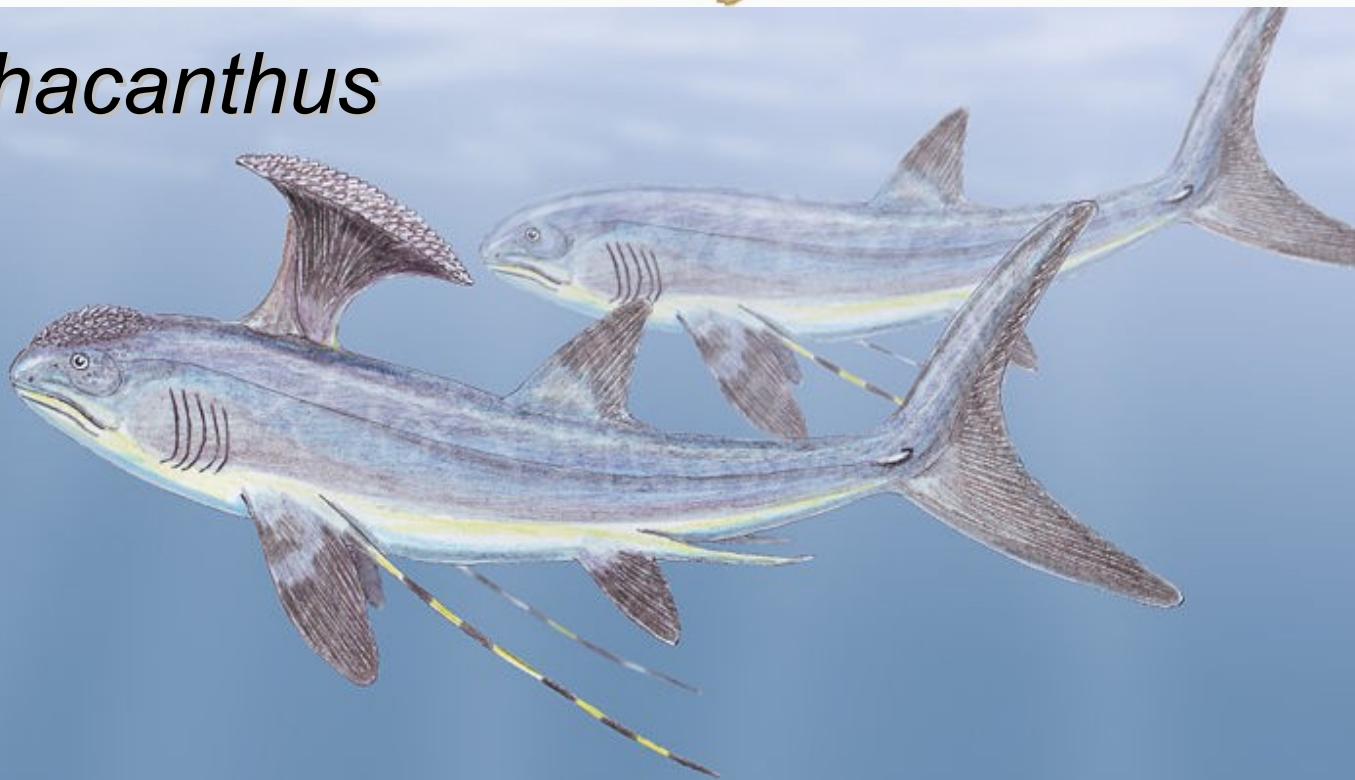


*Cladoselache*



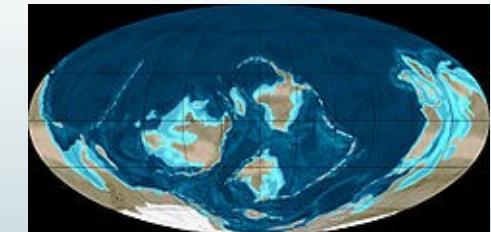
Grupo: **Condrictios**

## *Stethacanthus*



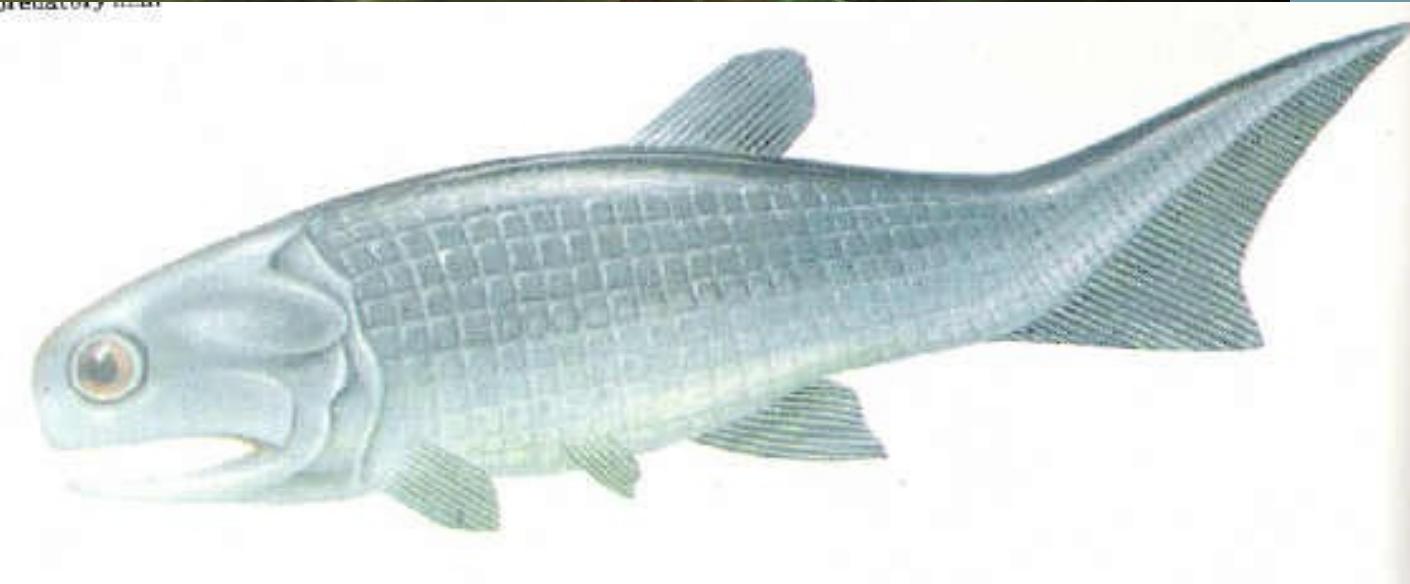
curso de acuariofilia  
Módulo 2: Organismos

# Devónico



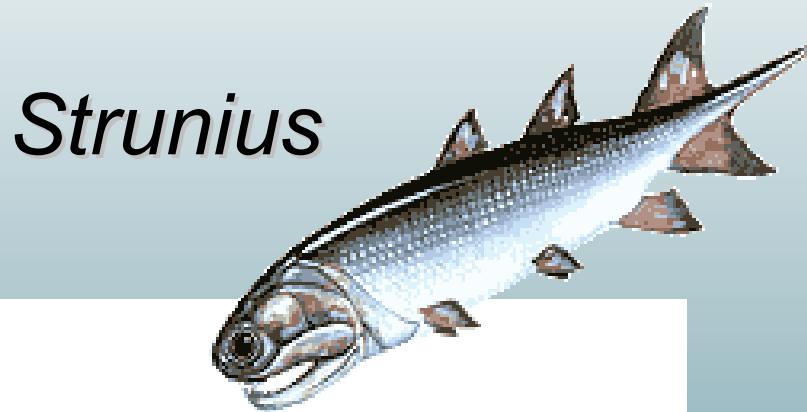
Grupo: [Actinopterigios](#)

*Cheirolepis*

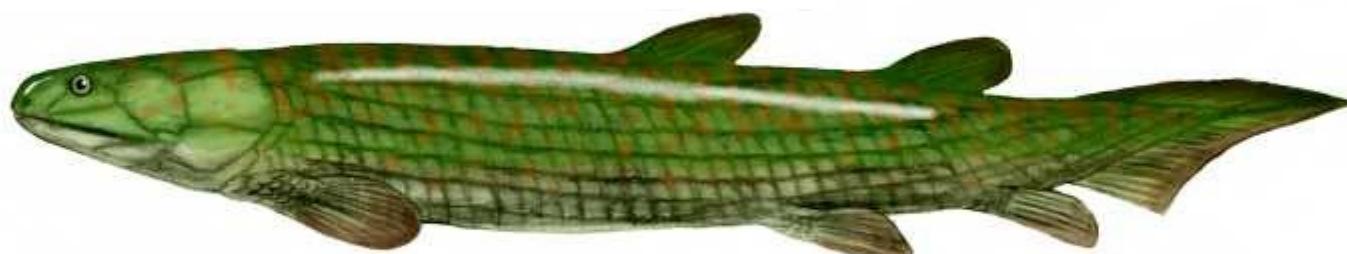
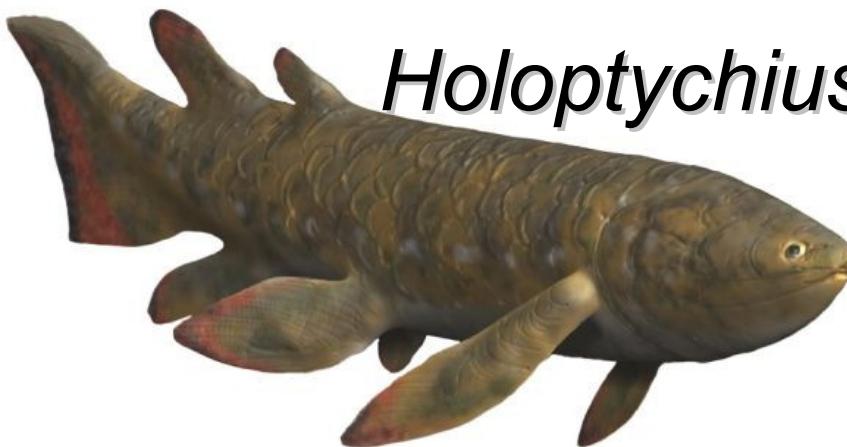


*Moythomasia*

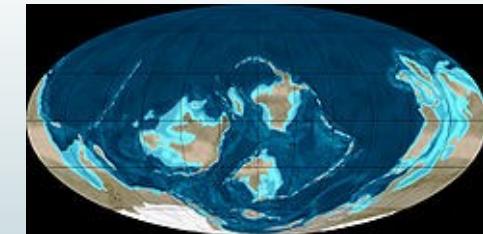
# Devónico



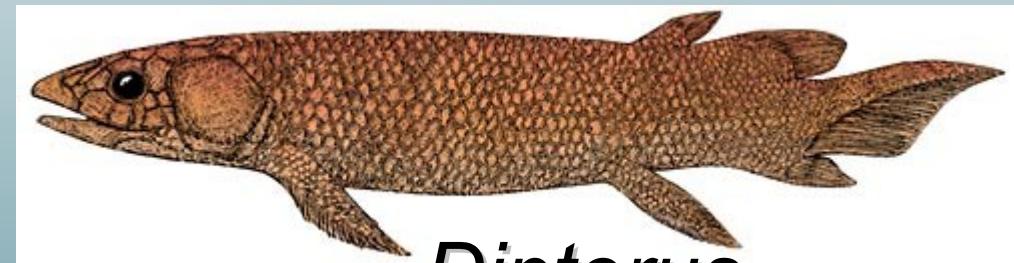
*Holoptychius*



*Osteolepis*



Grupo: **Sarcopterigios**

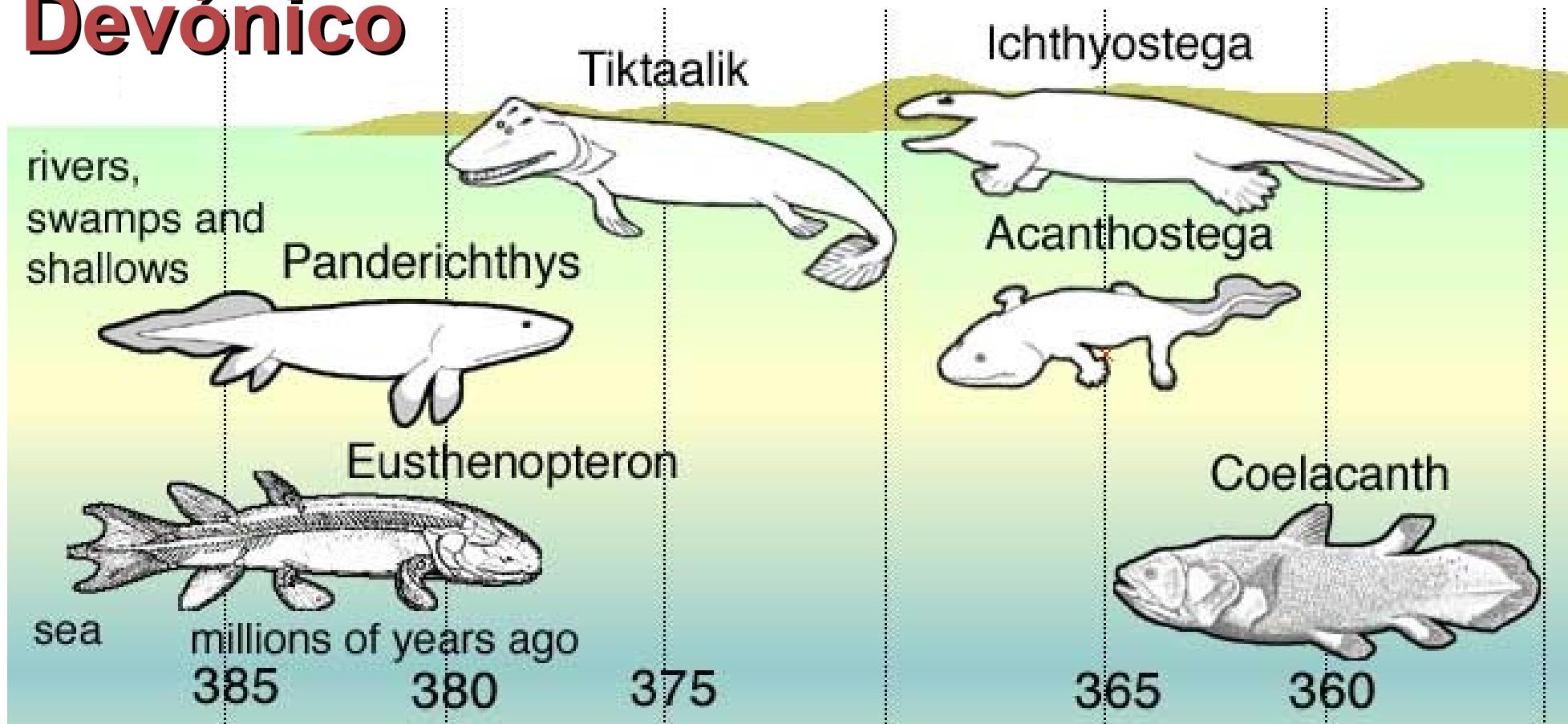


*Dipterus*



*Eusthenopteron*

# Devónico



**Tiktaalik**



**Panderichthys**



# Clasificación de los peces

## SPh. Vertebrados

SpCl. Agnatos – lampreas peces

SpCl. Gnatosomados

Cl. Condrichtios – rayas y tiburones

Cl. Osteictios – peces óseos

SCI. Actinopterigios – peces de aletas radiadas

SCI. Sarcopterygios – peces de aletas lobuladas

Cl. Anfibios

tetrápodos

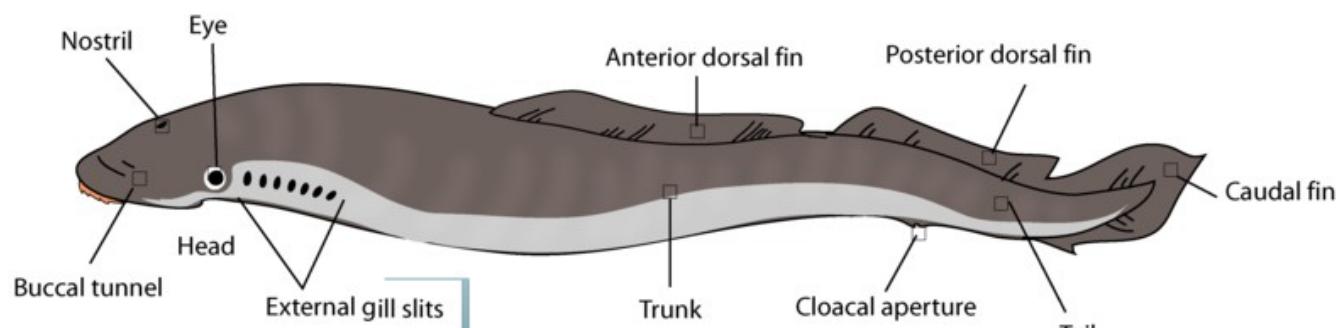
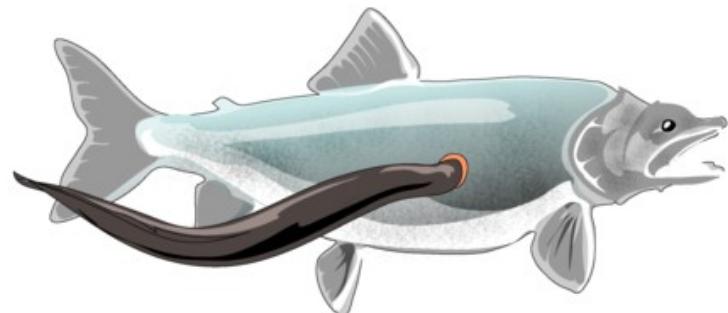
Cl. Reptiles

Cl. Aves

Cl. Mamíferos

# agnatos

## (lampreas)



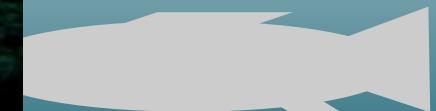
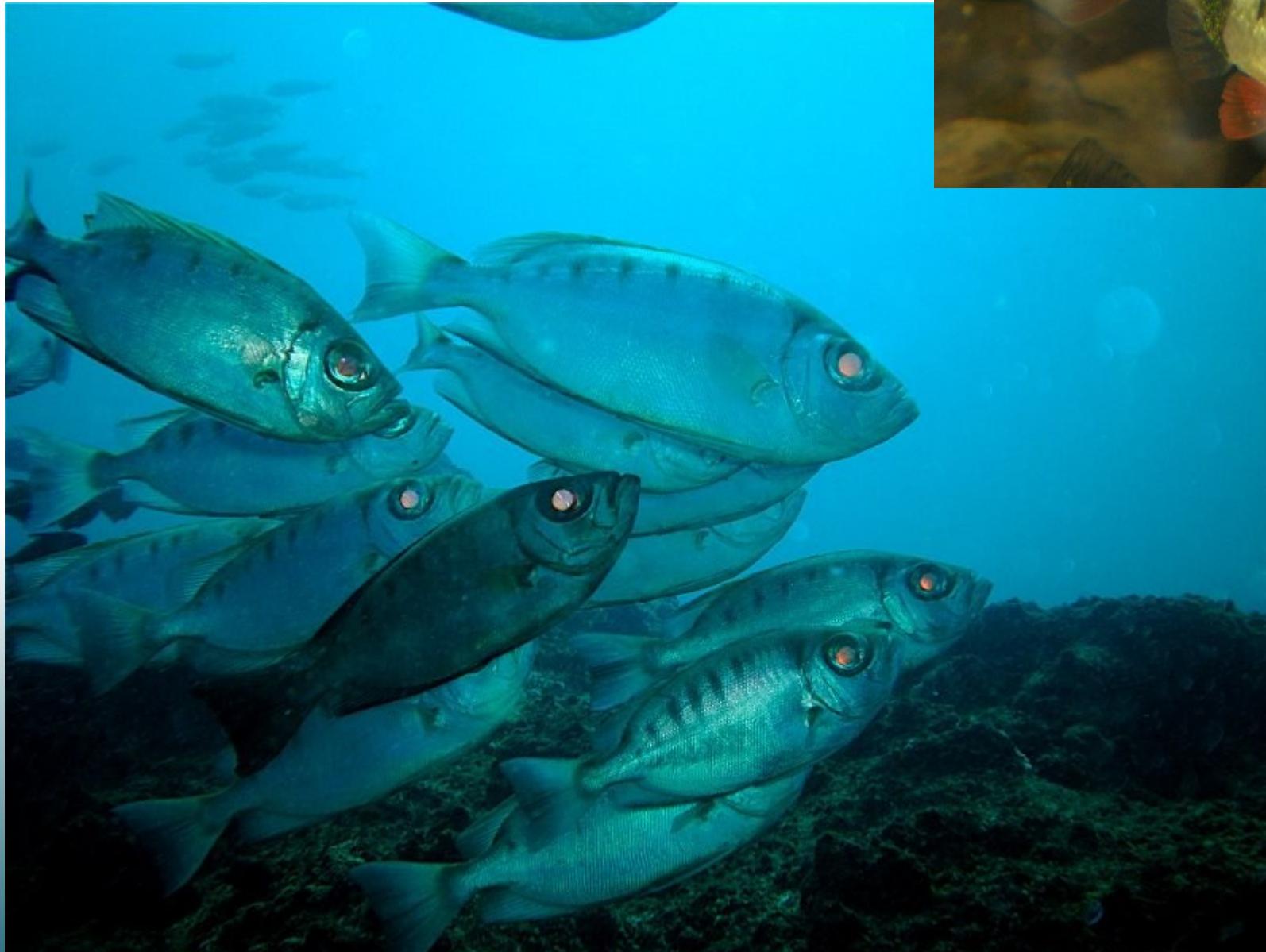
curso de acuariofilia  
Módulo 2: Organismos

# condictios

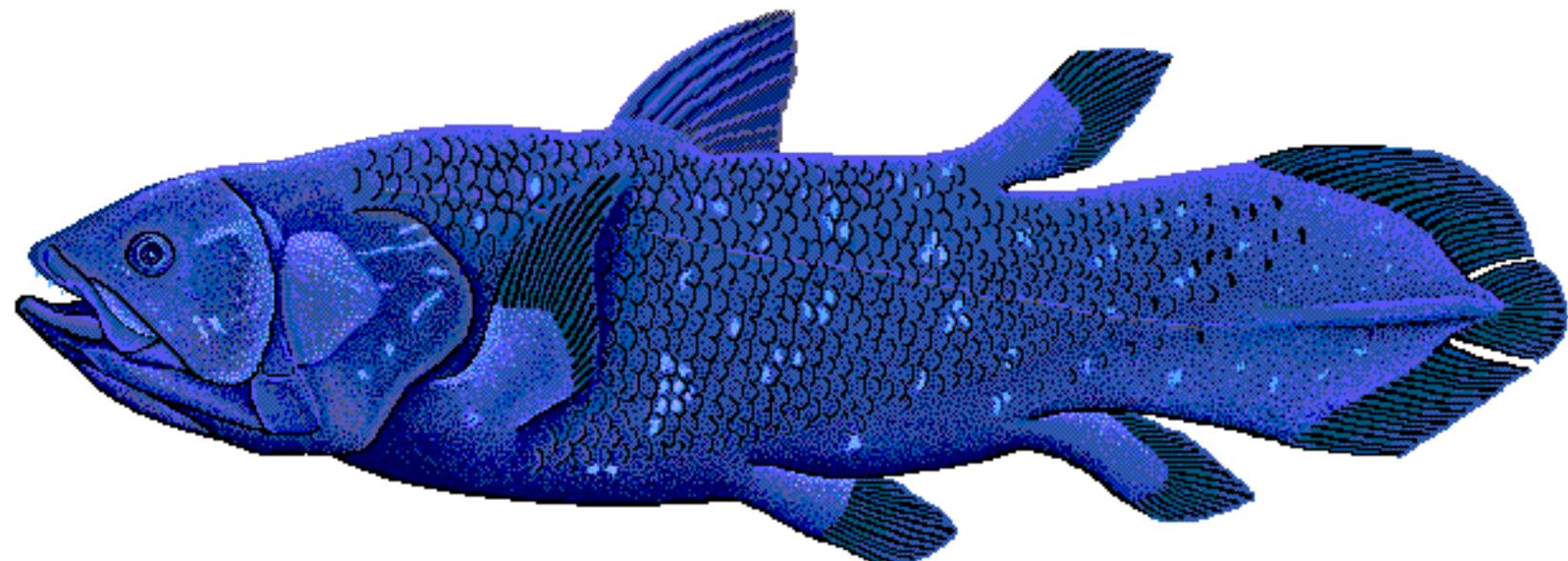


curso de acuariofilia  
Módulo 2: Organismos

# actinopterigios



# sarcopterigios



## celacanto



curso de acuariofilia  
Módulo 2: Organismos

# sarcopterigios



pez  
pulmonado



curso de acuariofilia  
Módulo 2: Organismos

# El nombre de los peces

## Nombre científico

es el único reconocido internacionalmente. Se da en latín o latinizado. Consta de dos palabras (nomenclatura binomial):

- el nombre del *género* con mayúscula inicial
- el nombre *específico* en minúscula

ejemplo: ***Poecilia reticulata***



Los avances científicos pueden hacer que se tenga que cambiar el nombre. Esto sólo suele afectar al género. Puede ser fuente de confusiones y problemas.

ejemplo: ***Lebistes reticulatus* es un nombre antiguo de *Poecilia reticulata***

Si no se identifica la especie con seguridad, pero se reconoce el género, se usa la abreviación *sp.*

ejemplo: ***Poecilia sp.***



# El nombre de los peces

## Nombre común:

No sigue ninguna regla. Puede ser una traducción del latín, de otro idioma, una parte del nombre científico o inventarse según las circunstancias.

Es distinto en cada lengua o en cada país y suele prestarse a confusión. Mientras que algunas especies no tienen nombre común, otras tienen varios.

ejemplo: a la especie de nombre científico *Betta splendens* se la conoce con varios nombres comunes como **betta, combatiente, luchador de Siam, luchador siamés y pez luchador**



# RAZAS Y VARIEDADES

En la naturaleza existen variantes dentro de las especies.

Los criadores las aprovechan para producir nuevas coloraciones y formas mediante cruzamientos selectivos.

Variedades de gupi



Variedades de escalare



Silver



Silver Diamond



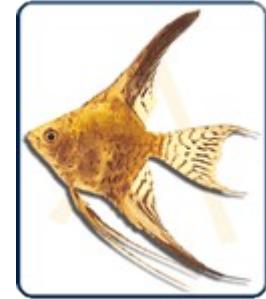
Gold Long Fin



Black Marble



Goldhead Marble



Leopard Long Fin



Zebra Long Fin



Koi



Half Black

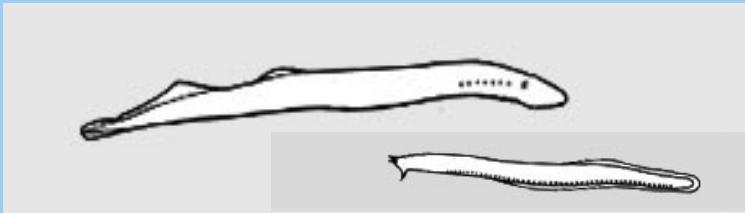


# HÍBRIDOS

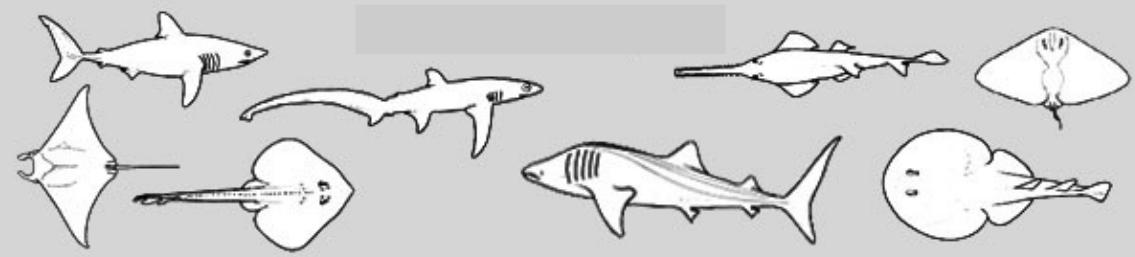
Algunas especies -normalmente del mismo género, pero no siempre- pueden cruzarse entre sí y tener descendencia. Estos ejemplares son híbridos. Esto es raro en la naturaleza, pero más común entre los acuaristas. Es una práctica desaconsejable porque desnaturaliza las líneas genéticas.

*Cichlasoma labiatum x Heros severus*





Agnatos 110 especies

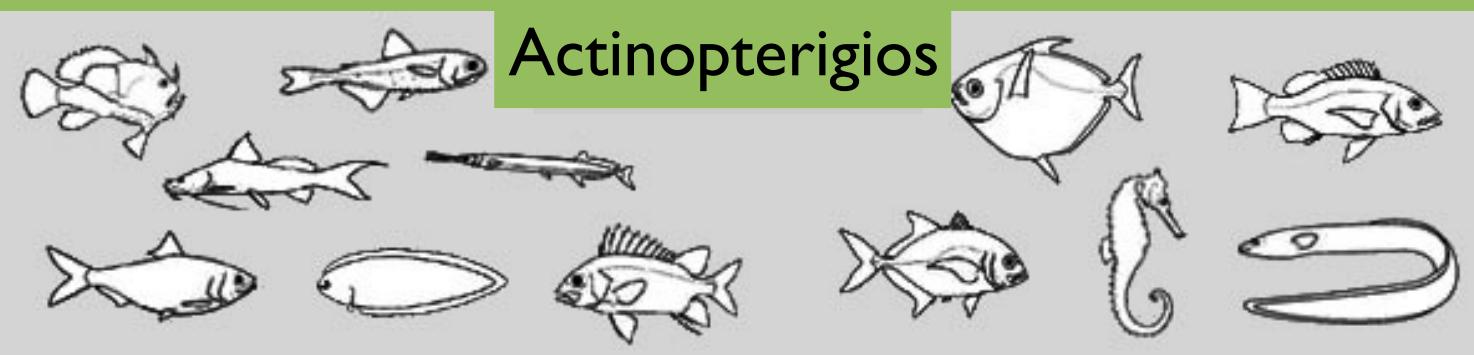


Condrichtios 970 especies



Sarcopterygios

8 especies



Actinopterigios

27.000 especies

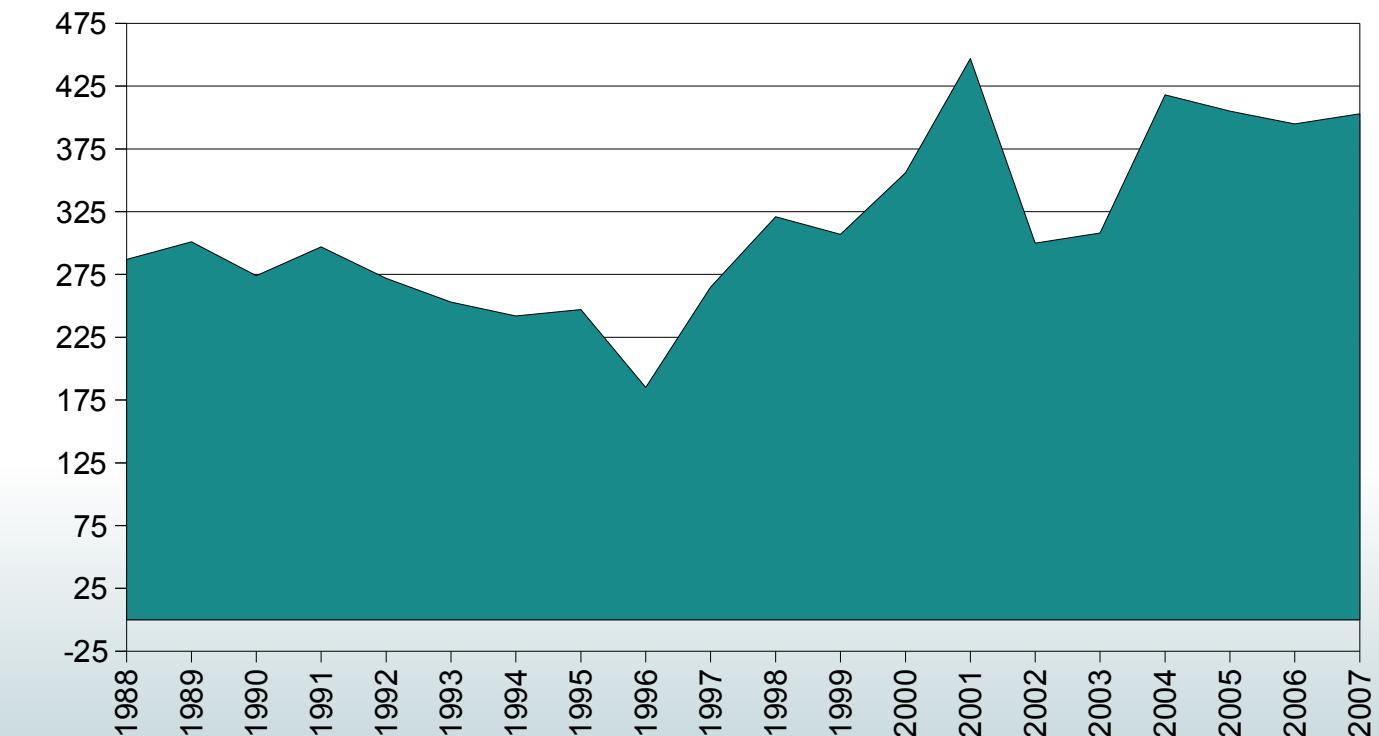


# Especies nuevas descritas en los últimos años

Año      Especies nuevas

Total 6283

1988	287
1989	301
1990	274
1991	297
1992	272
1993	253
1994	242
1995	247
1996	185
1997	265
1998	321
1999	307
2000	356
2001	447
2002	300
2003	308
2004	418
2005	405
2006	395
2007	403



# Condrictios

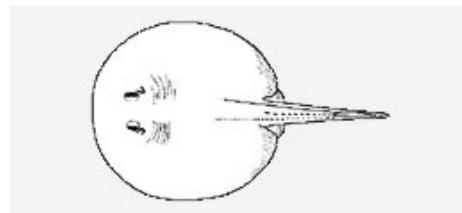
12 órdenes

Hexanchiformes  
Heterodontiformes  
Orectolobiformes  
Lamniformes  
**Carcharhiniformes**  
Squaliformes  
Pristiophoriformes  
Squatiniformes  
Pristiformes  
Torpediniformes  
**Rajiformes**  
Chimaeriformes



# Condrictios

## Rajiformes



Potamotrygonidae  
21 sp



curso de acuariofilia  
Módulo 2: Organismos

Rajiformes

## Potamotrygonidae

### *Potamotrygon motoro*

© Aquahobby.com



70 cm



curso de acuariofilia  
Módulo 2: Organismos

# Osteíctios

47 órdenes

## Actinopterigios

Polypteriformes  
Acipenseriformes  
Lepisosteiformes  
Amiiformes  
Osteoglossiformes  
Elopiformes  
Albuliformes  
Notacanthiformes  
Anguilliformes  
Saccopharyngiformes  
Clupeiformes  
Gonorynchiformes  
Cypriniformes  
Characiformes  
Siluriformes  
Gymnotiformes  
Esociformes  
Osmeriformes  
Salmoniformes  
Stomiiformes  
Ateleopodiformes  
Aulopiformes  
Myctophiformes  
Lampriformes  
Polymixiiformes  
Percopsiformes

Gadiformes  
Ophidiiformes  
Batrachoidiformes  
Lophiiformes  
Gobiesociformes  
Atheriniformes  
Cyprinodontiformes  
Beloniformes  
Stephanoberyciformes  
Beryciformes  
Cetomimiformes  
Zeiformes  
Gasterosteiformes  
Syngnathiformes  
Synbranchiformes  
Scorpaeniformes  
Perciformes  
Pleuronectiformes  
Tetraodontiformes

## Sarcopterygios

Ceratodontiformes  
Lepidosireniformes  
Coelacanthiformes



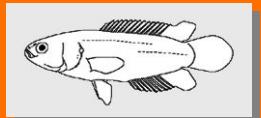
# Osteíctios

número de especies  
órdenes con más de 1.000 especies

Perciformes 10377

p. ej.  
Cichlidae

1546  
Anabantidae  
31

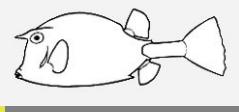


Cypriniformes 3717

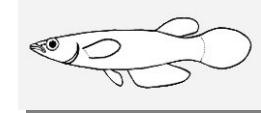
Siluriformes 3249

RESTO 7423

41 órdenes



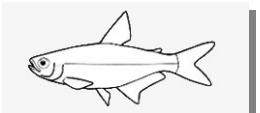
Cyprinodontiformes 1133



Scorpaeniformes 1551

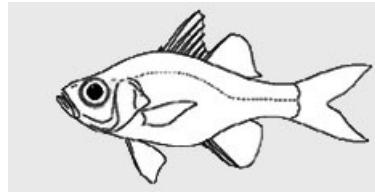


Characiformes 1852

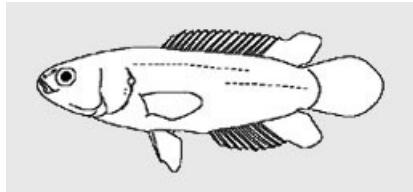


# Perciformes

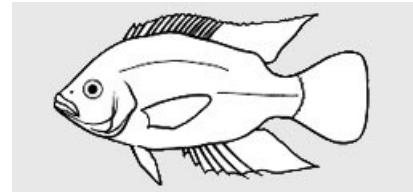
## familias de interés en acuariofilia de aguas continentales



Ambassidae



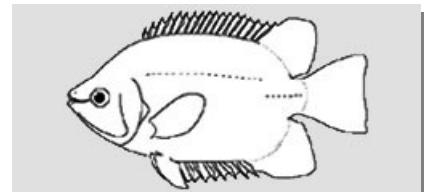
Anabantidae



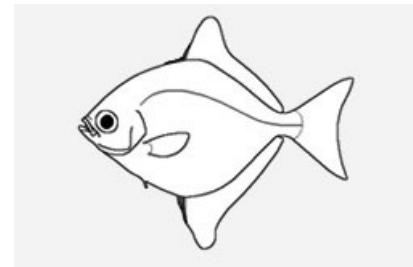
Cichlidae

agua dulce  
agua salobre

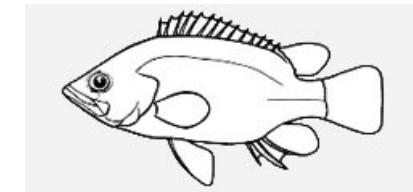
7  
3



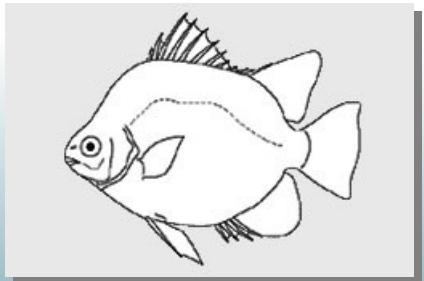
Helostomatidae



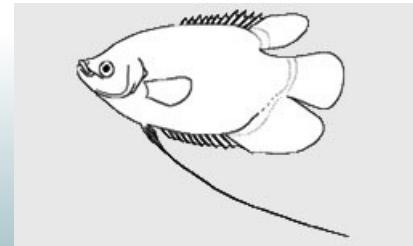
Monodactylidae



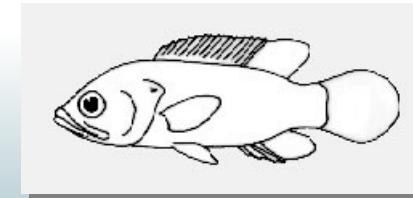
Nandidae



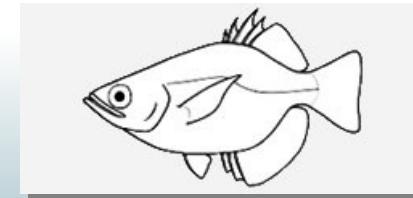
Scatophagidae



Osphronemidae



Polycentridae

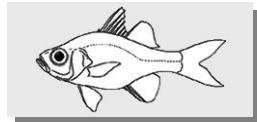


Toxotidae



Perciformes

# Ambassidae



*Chanda wolffii*

Ambassidae  
48 sp

20 cm

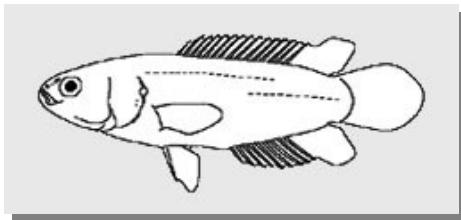


SOUTH ASIA

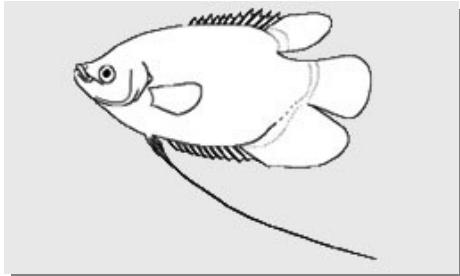


curso de acuariofilia  
Módulo 2: Organismos

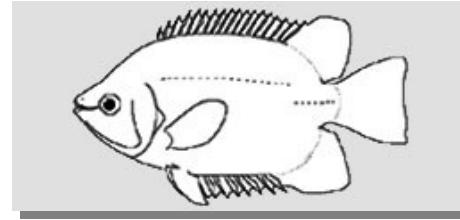
# Anabantoideos



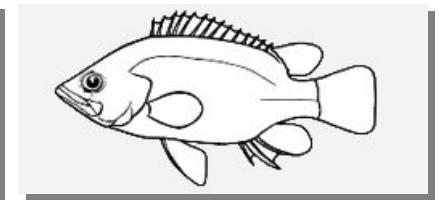
Anabantidae  
31 sp



Osphronemidae  
119 sp



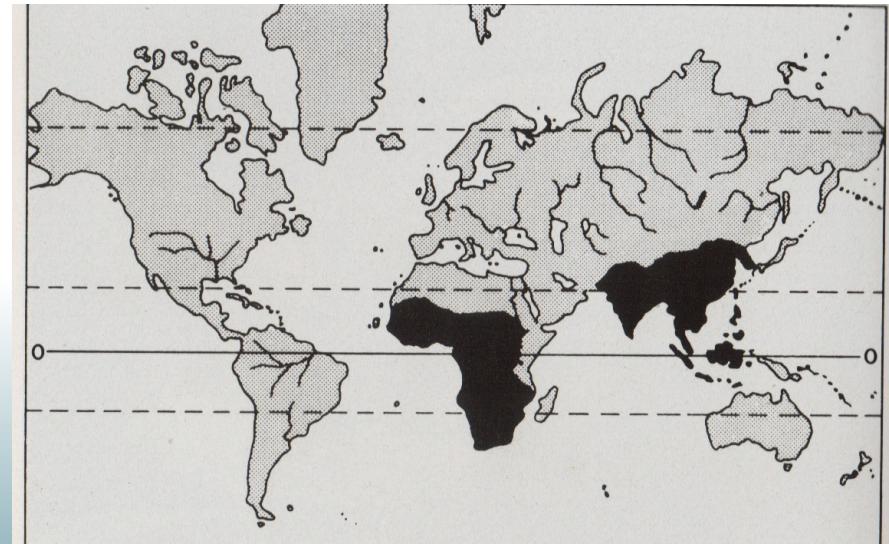
Helostomatidae  
1 sp



Nandidae  
21 sp

-Laberinto

-Nido de burbujas



Perciformes

## Anabantidae

*Anabas testudineus*



20 cm



Perciformes

## Anabantidae

*Ctenopoma oxyrhynchum*



10 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Osphronemidae

## *Macropodus opercularis*



10 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Osphronemidae

*Betta splendens*



7 cm



curso de acuariofilia  
Módulo 2: Organismos

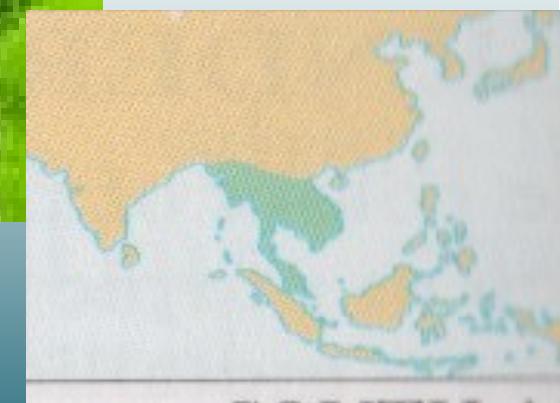
Perciformes

# Osphronemidae

*Betta smaragdina*



7 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Osphronemidae

*Colisa labiosa*

7 cm



Perciformes

# Osphronemidae

*Colisa lalia*

5 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

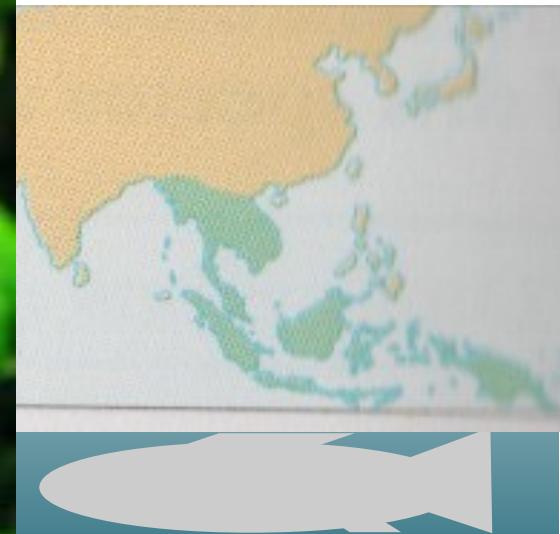
# Osphronemidae

*Trichogaster leeri*



Foto: Bjarne Sætrang/www.aquadigital.net

12 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Helostomatidae

## *Helostoma temminckii*



15 cm



E. Naus



AQUAHOB  
BY E.



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Nandidae

*Badis badis*



6 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Nandidae

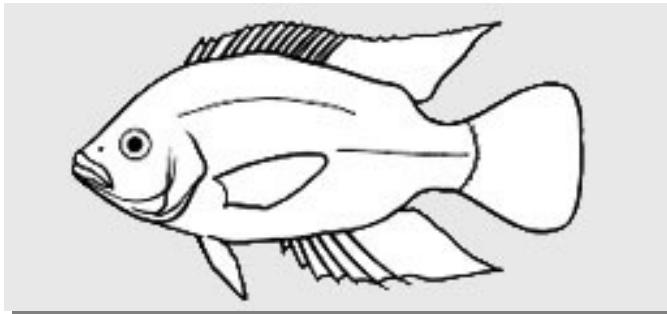
*Nandus nandus*

Nandidae  
8 sp

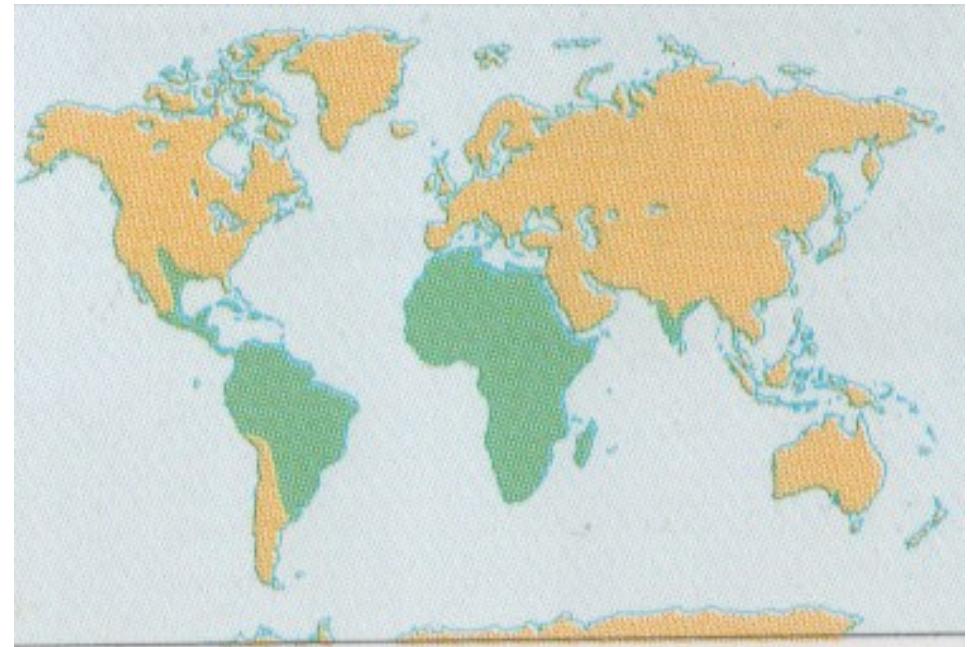
20 cm



curso de acuariofilia  
Módulo 2: Organismos



**Cichlidae**  
**1546 sp**



- Familia amplia y diversa
- Robustos y activos, muchos son agresivos
- Los padres cuidan de las crías



Perciformes

## Cichlidae

*Aピstogramma agassizii*



7 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

Cichlidae

*Apistogramma cacatuoides*



7 cm



Curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Cichlidae

*Nannacara anomala*



7 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Cichlidae

*Mikrogeophagus ramirezi*



7 cm



curso de acuariofilia  
Módulo 2: Organismos

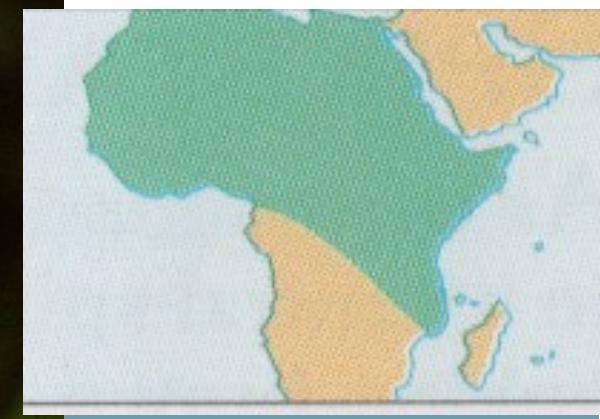
Perciformes

# Cichlidae

*Pelvicachromis pulcher*



10 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Cichlidae

*Aequidens pulcher*



15 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Cichlidae

*Astronotus ocellatus*



30 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Cichlidae

*Amphilophus citrinellus*



30 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

Cichlidae

*Geophagus brasiliensis*



20 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Cichlidae

*Herichthys cyanoguttatum*



30 cm



curso de acuariofilia  
Módulo 2: Organismos

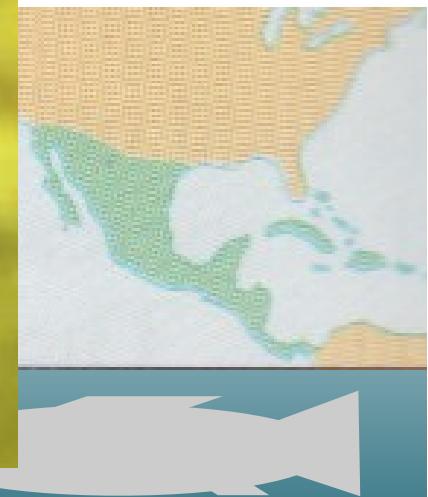
Perciformes

## Cichlidae

*Amatitlania nigrofasciata*



15 cm



Perciformes

# Cichlidae

*Heros severus*



15 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Cichlidae

*Thorichthys meeki*



15 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Cichlidae

*Pterophyllum scalare*



12 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Cichlidae

*Sympphysodon aequifasciatus*

20 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

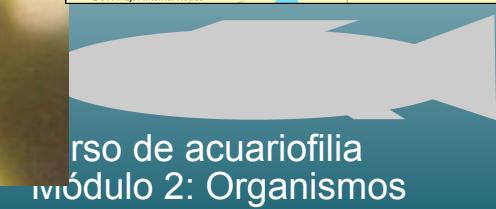
# Cichlidae

## *Julidochromis marlieri*



12 cm

Tanganyika.



Perciformes

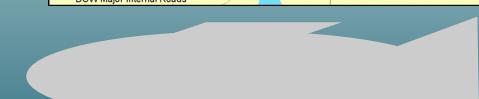
# Cichlidae

## *Neolamprologus brichardi*



9 cm

Tanganyika.



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

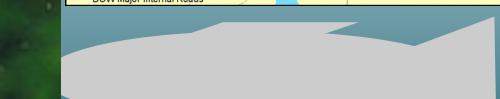
# Cichlidae

## *Cyprichromis leptosoma*



12 cm

Tanganyika



Curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Cichlidae

## *Melanochromis auratus*



13 cm



Malawi



curso de acuariofilia  
Módulo 2: Organismos

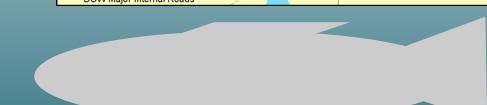
Perciformes

# Cichlidae

## *Pseudotropheus lombardoi*



12 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Cichlidae

## *Pseudotropheus zebra*

15 cm



Malawi



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Cichlidae

## *Labeotropheus fuelleborni*



15 cm

Malawi

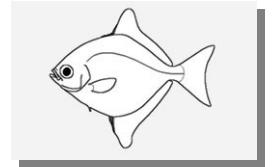


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Curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Monodactylidae



*Monodactylus argenteus*

Monodactylidae  
6 sp



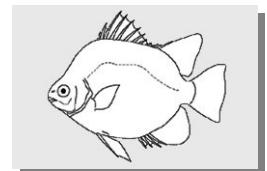
20 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Scatophagidae



*Scatophagus argus*

Scatophagidae  
4 sp

30 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

# Toxotidae

*Toxotes jaculatrix*

Toxotidae  
7 sp

30 cm



curso de acuariofilia  
Módulo 2: Organismos

Perciformes

## Polycentridae

*Monocirrhus polyacanthus*

Polycentridae  
2 sp

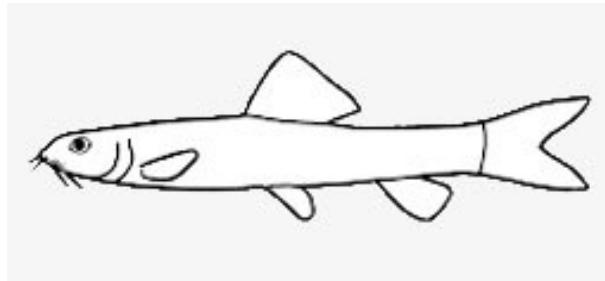
10 cm



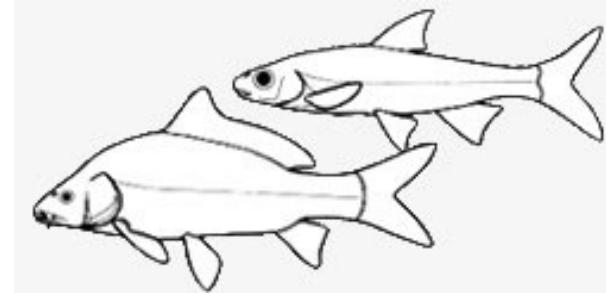
curso de acuariofilia  
Módulo 2: Organismos

# Cipriniformes

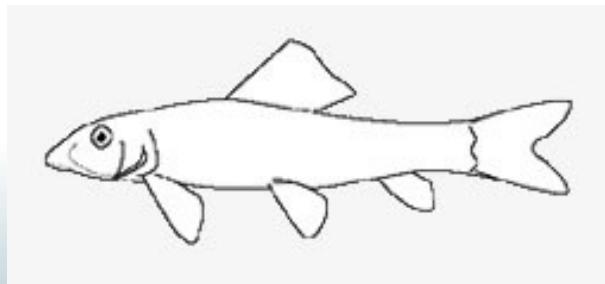
## familias de interés en acuariofilia



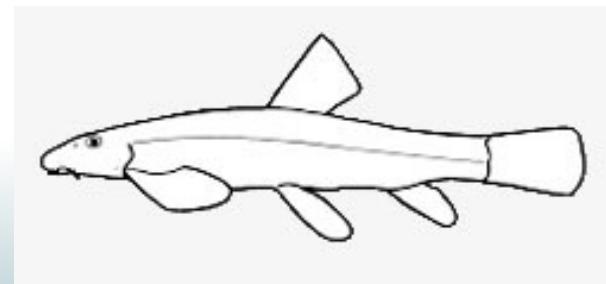
**Cobitidae**



**Cyprinidae**



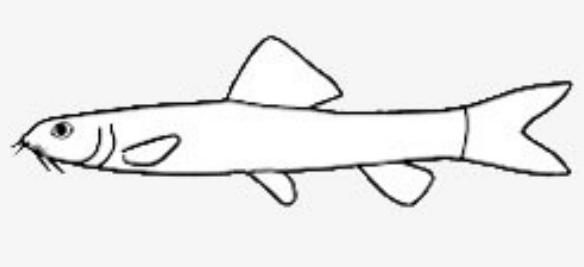
**Gyrinocheilidae**



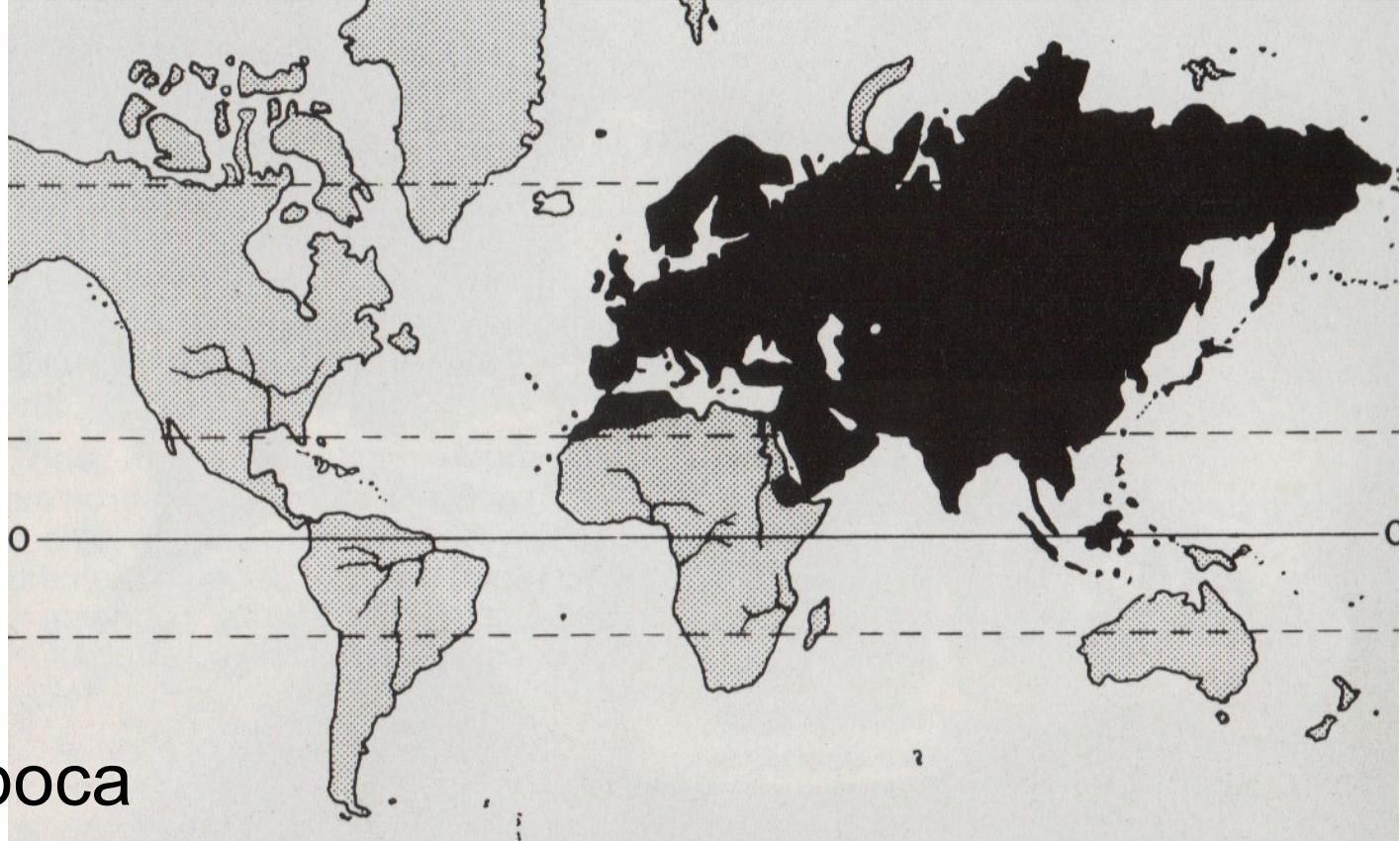
**Balitoridae**



curso de acuariofilia  
Módulo 2: Organismos



Cobitidae  
217 sp



-Barbillones en la boca

-Espinias bajo los ojos

-Buscan escondrijos



Cipriniformes Cobitidae

*Acanthophtalmus kulhi*



11 cm



curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cobitidae

*Botia macracantha*



30 cm



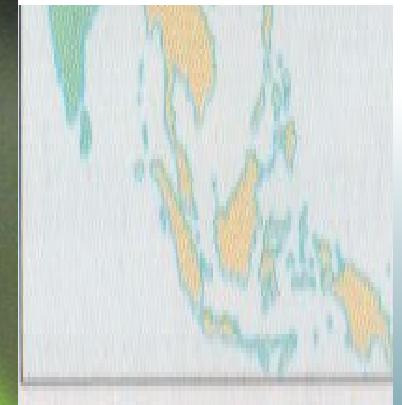
curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cobitidae

*Botia striata*



7 cm



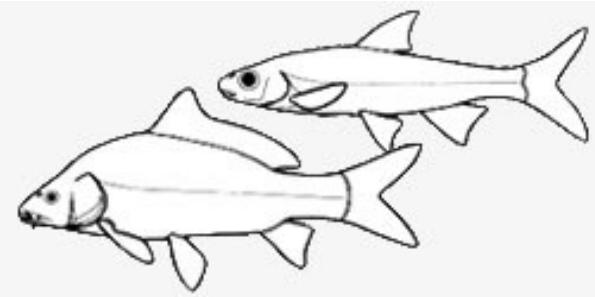
curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cobitidae

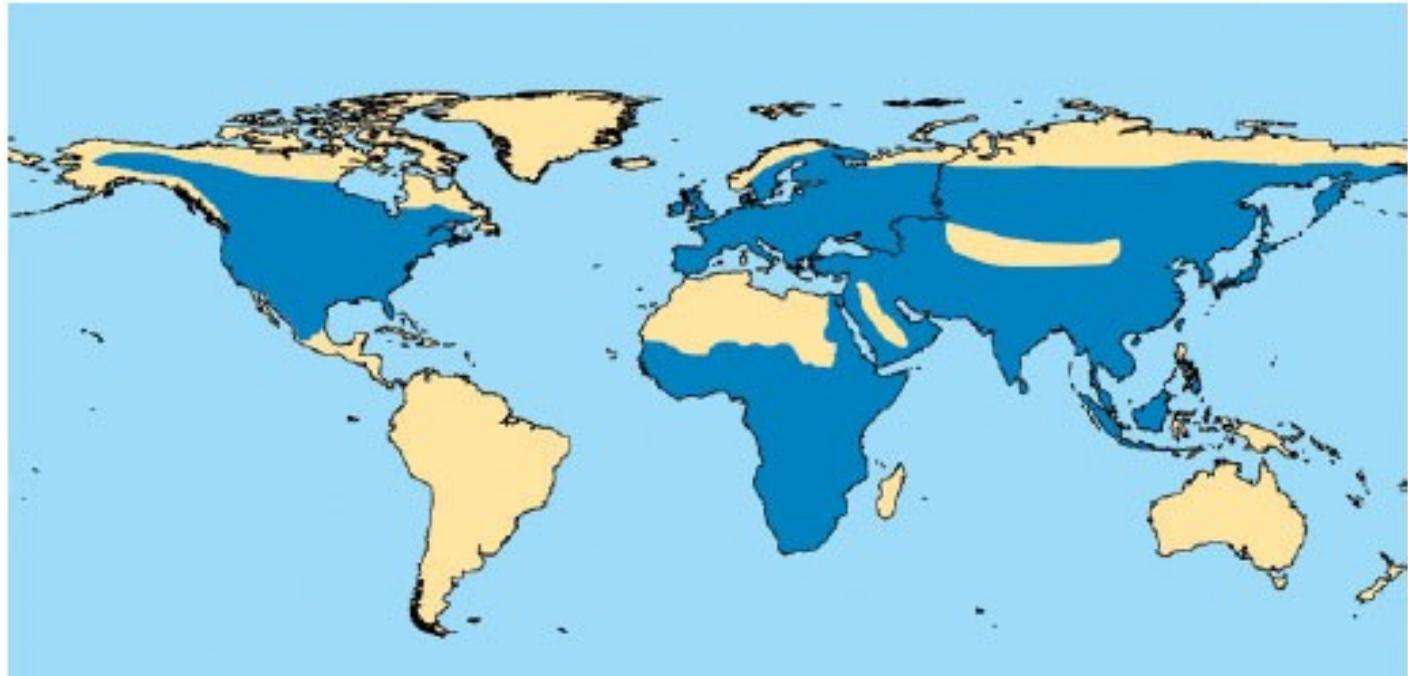
*Misgurnus anguillicaudatus*



curso de acuariofilia  
Módulo 2: Organismos



Cyprinidae  
2698 sp



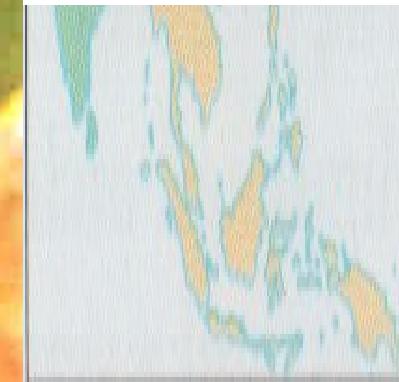
- Barbillones en la boca
- Familia muy extensa
- Suelen vivir en grupos



Cipriniformes Cyprinidae

*Puntius conchonius*

7 cm



Cipriniformes Cyprinidae

*Barbodes pentazona*

5 cm



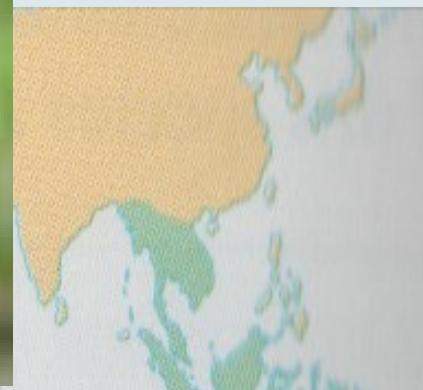
Cipriniformes Cyprinidae

*Puntius tetrazona*

© Aquahobby.com



6 cm

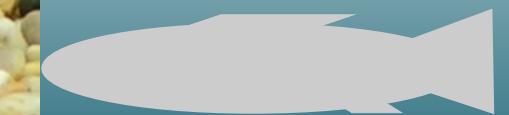


curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cyprinidae

*Puntius titteya*

5 cm



curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cyprinidae

*Danio rerio*



5 cm



curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cyprinidae

*Danio albolineatus*



5 cm



curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cyprinidae

*Tanichtys albonubes*



5 cm



de acuariofilia  
lo 2: Organismos

Cipriniformes Cyprinidae

*Rasbora borapetensis*



5 cm



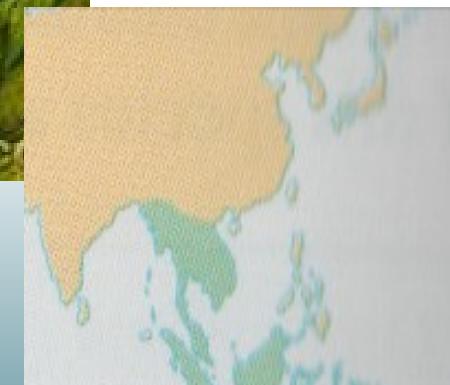
curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cyprinidae

*Rasbora heteromorpha*



4 cm



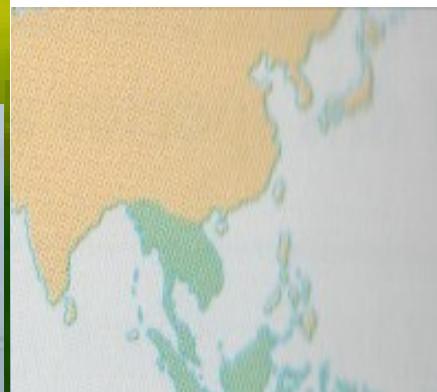
curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cyprinidae

*Rasbora maculata*



2,5 cm



de acuariofilia  
o 2: Organismos

Cipriniformes Cyprinidae

*Rasbora trilineata*



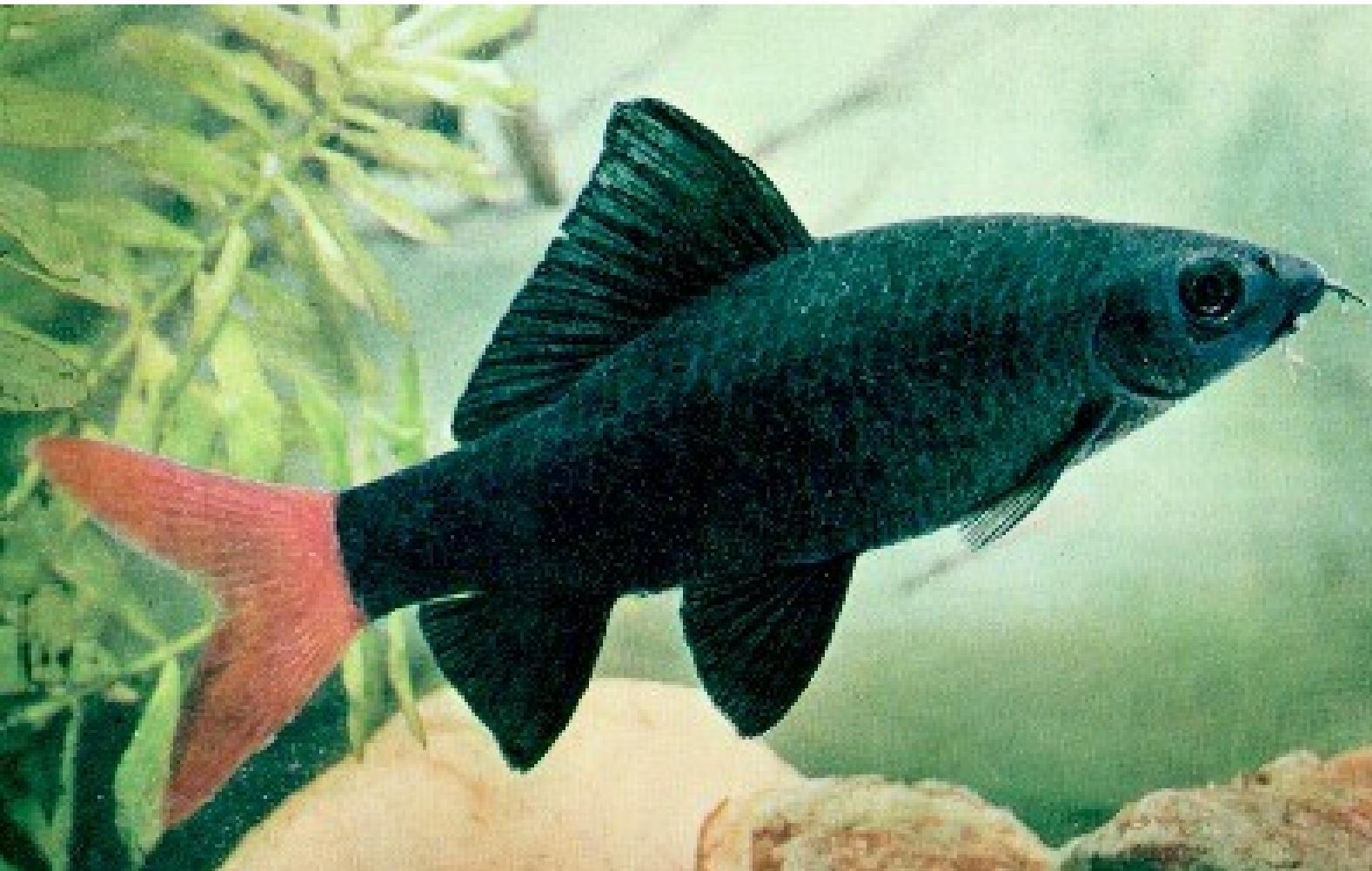
8 cm



curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cyprinidae

*Epalzeorhynchos bicolor*



15 cm



curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes

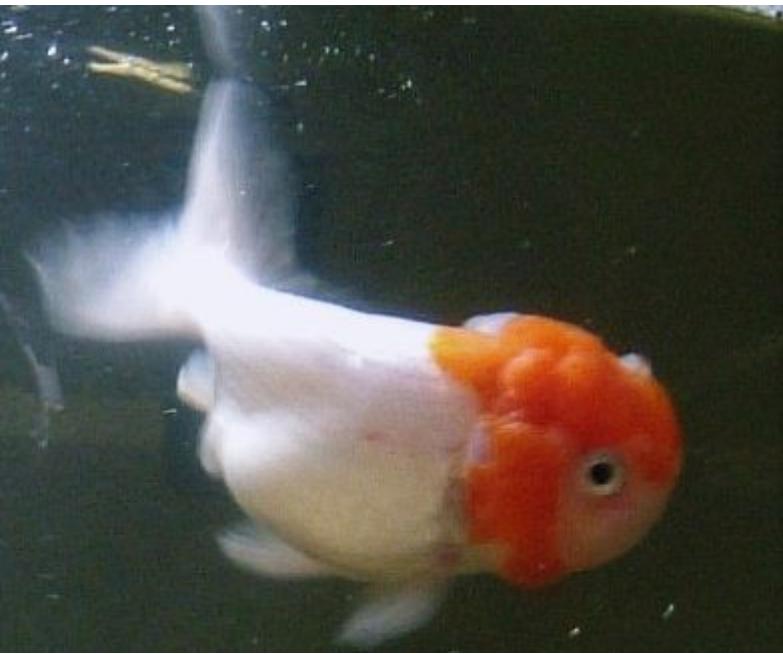
# Cyprinidae

*Carassius auratus*

5-30 cm



Cipriniformes Cyprinidae



*Carassius auratus*

5-30 cm



curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes Cyprinidae

*Carassius auratus*

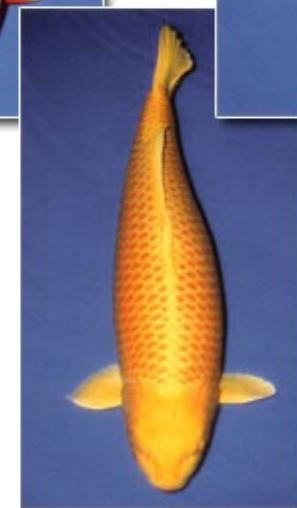
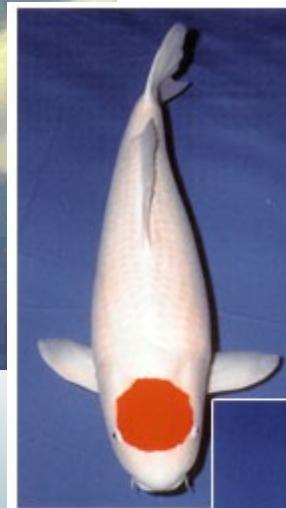
5-30 cm



Cipriniformes Cyprinidae

*Cyprinus carpio* Koi

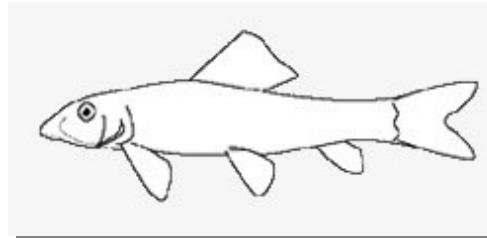
50 cm



Cipriniformes

## Gyrinocheilidae

*Gyrinocheilus aymonieri*



Gyrinocheilidae  
3 sp.

15 cm

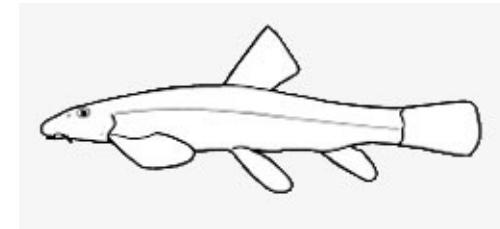


curso de acuariofilia  
Módulo 2: Organismos

Cipriniformes

Balitoridae

*Homaloptera leonardi*



Balitoridae  
716 sp.

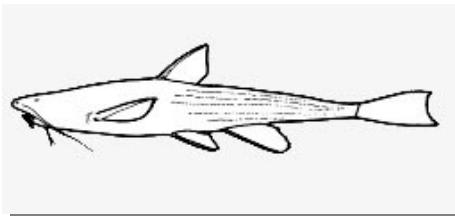
10 cm



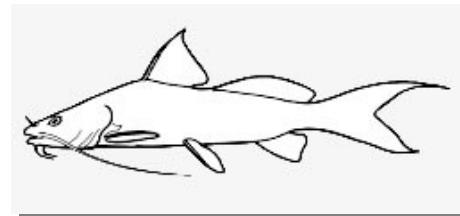
curso de acuariofilia  
Módulo 2: Organismos

# Siluriformes

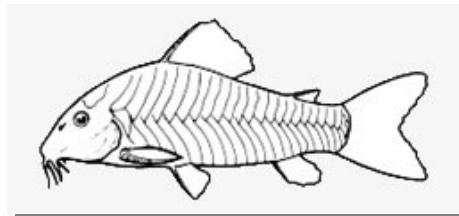
## familias de interés en acuariofilia



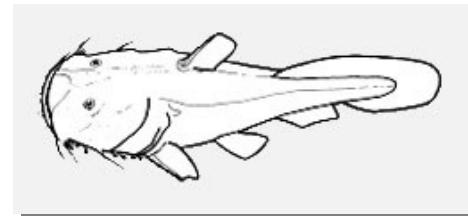
Aspredinidae



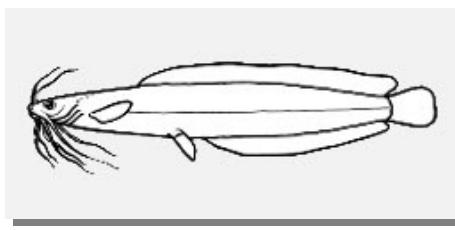
Bagridae



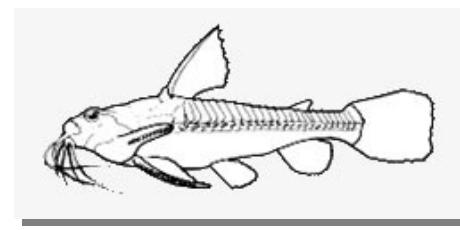
Callichthyidae



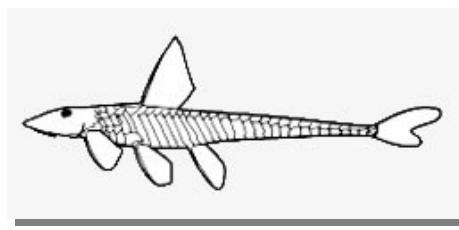
Chacidae



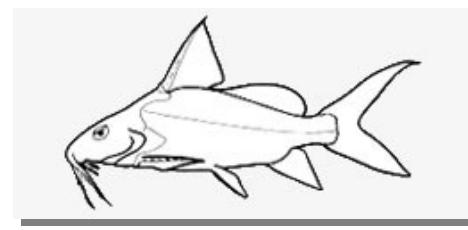
Clariidae



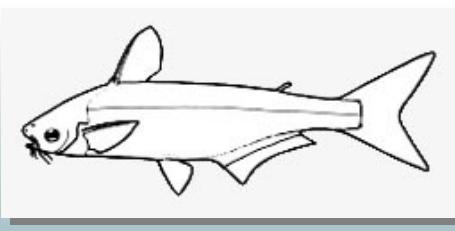
Doradidae



Loricariidae



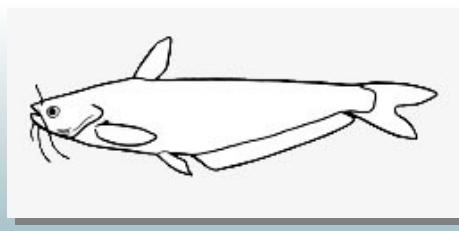
Mochokidae



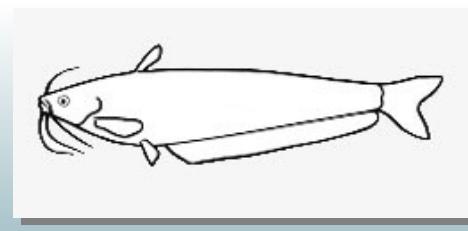
Pangasiidae



Pimelodidae



Schilbeidae

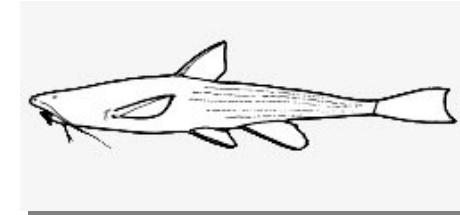


Siluridae



Siluriformes

## Aspredinidae



*Bunocephalus coracoideus*

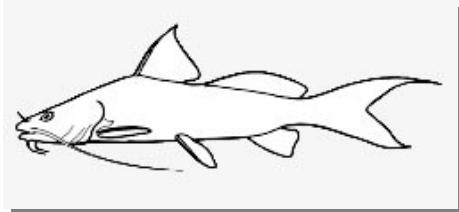


Aspredinidae  
36 sp

| 3 cm



curso de acuariofilia  
Módulo 2: Organismos



Bagridae  
197 sp

-Una espina en la dorsal y espinas serradas en las pectorales

-Una aleta adiposa de tamaño variable

-Sin escamas

-Cuatro pares de barbillones



Siluriformes

Bagridae

*Leiocassis micropogon*



20 cm

*Leiocassis micropogon*

© 2004 Benny Ng



curso de acuariofilia  
Módulo 2: Organismos

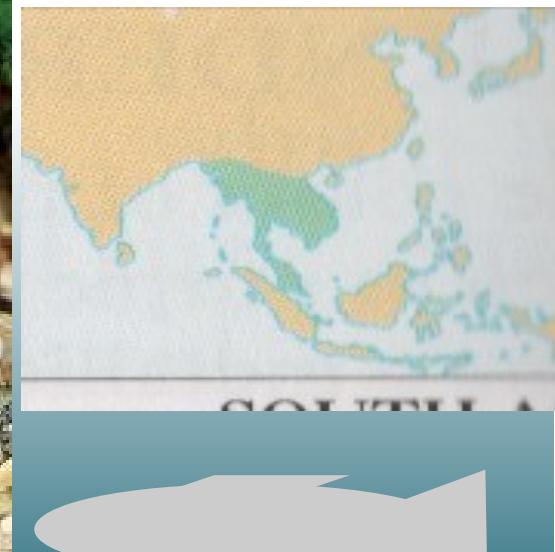
Siluriformes

## Bagridae

*Mystus vittatus*



20 cm



curso de acuariofilia  
Módulo 2: Organismos

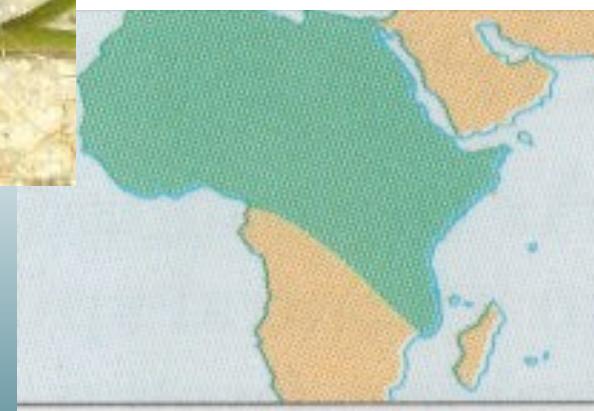
Siluriformes

Bagridae

*Anaspidoglanis macrostomus*



24 cm



curso de acuariofilia  
Módulo 2: Organismos



Callichthyidae  
195 sp

-Placas óseas en lugar de escamas

-Dos pares de barbillones

-Toman aire de la superficie  
periódicamente



Siluriformes

## Callichthyidae

*Brochis splendens*



8 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Callichthyidae

*Corydoras aeneus*



8 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Callichthyidae

*Corydoras paleatus*



8 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Callichthyidae

### *Corydoras panda*



4,5 cm



Curso de acuariofilia  
módulo 2: Organismos

Siluriformes

## Callichthyidae

### *Corydoras scwhartzi*



6,5 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Callichthyidae

*Corydoras pygmaeus*



2,5 cm

[www.aquadigital.net](http://www.aquadigital.net)



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Callichthyidae

*Callichthys callichthys*

© JJPhoto.dk

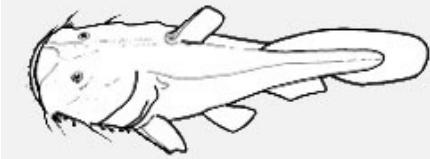


18 cm



Siluriformes

## Chacidae



*Chaca chaca*



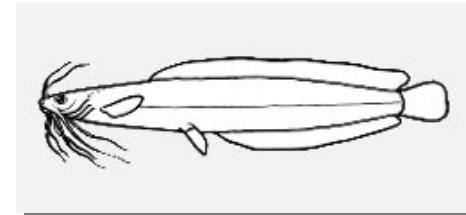
Chacidae  
2 sp

20 cm



Siluriformes

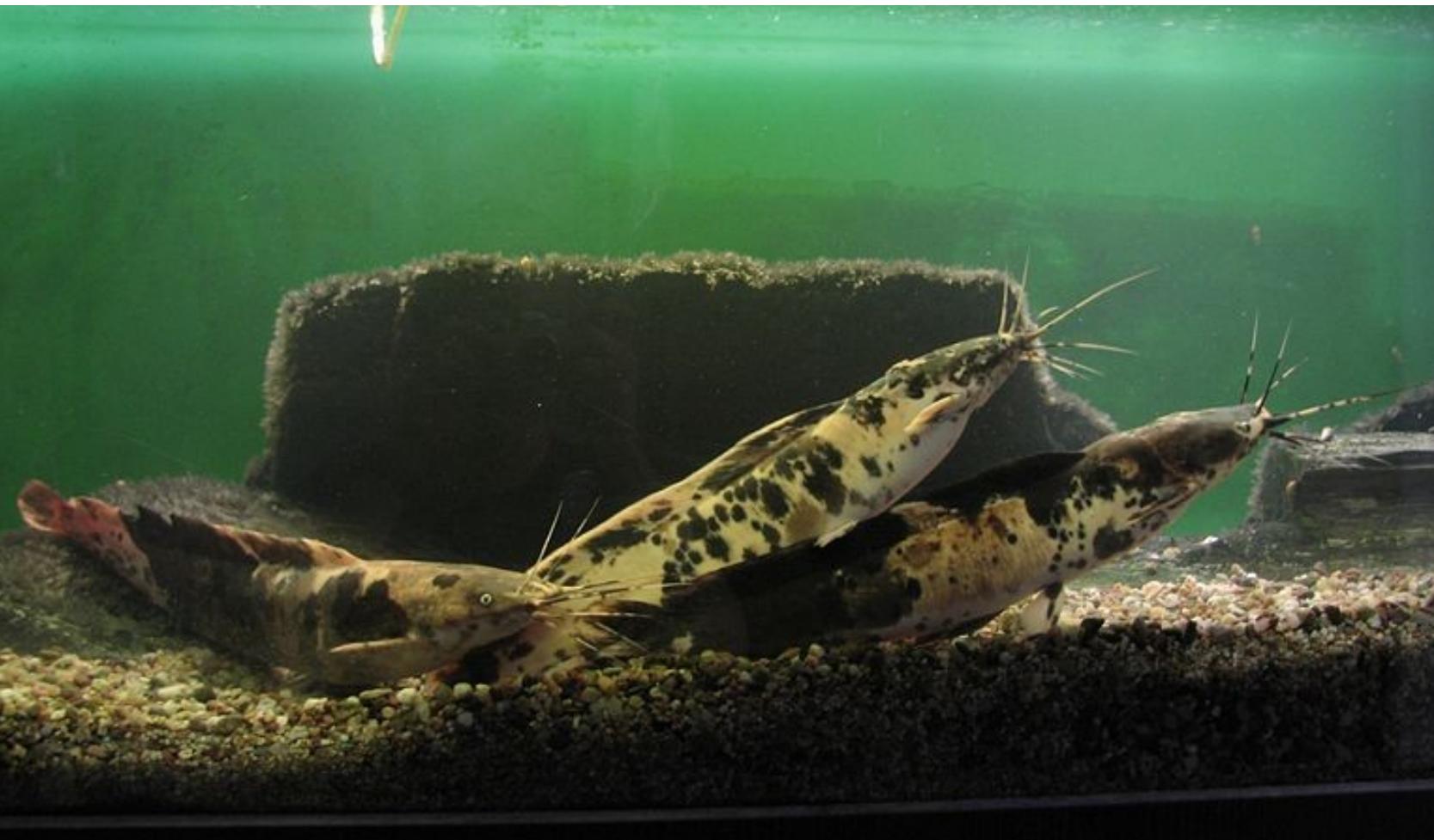
## Clariidae



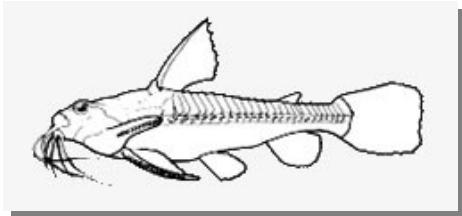
*Clarias batrachus*

Clariidae  
112 sp

55 cm



curso de acuariofilia  
Módulo 2: Organismos



Doradidae  
85 sp

- Una fila de placas óseas
- Tres pares de barbillones
- Producen sonidos con las espinas pectorales



Siluriformes

## Doradidae

*Acanthodoras cataphractus*



10 cm



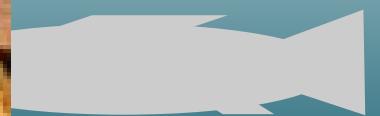
curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Doradidae

*Agamyxis pectinifrons*

16 cm



de acuariofilia  
o 2: Organismos

Siluriformes

## Doradidae

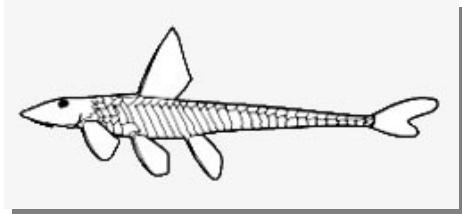
*Amblydoras hancockii*



13 cm



curso de acuariofilia  
Módulo 2: Organismos



Loricariidae  
768 sp



- Placas óseas
- Barbillones pequeños o ausentes
- Boca ínfra y labios protuberantes



Siluriformes

## Loricariidae

*Hypostomus plecostomus*



30 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Loricariidae

*Otocinclus affinis*

5 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Loricariidae

*Panaque nigrolineatus*



25 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Loricariidae

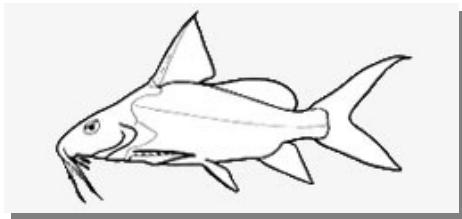
*Rineloricaria parva*



11 cm



curso de acuariofilia  
Módulo 2: Organismos



Mochokidae  
199 sp

- Gran aleta adiposa
- Tres pares de barbillones
- Espinias pectorales y dorsal con mecanismo de bloqueo



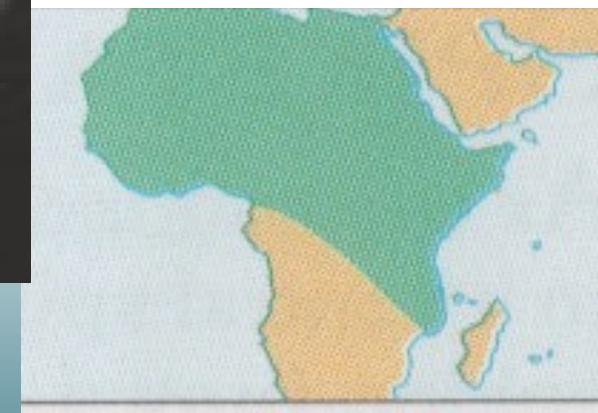
Siluriformes

# Mochokidae

*Synodontis decorus*



20 cm



curso de acuariofilia  
Módulo 2: Organismos

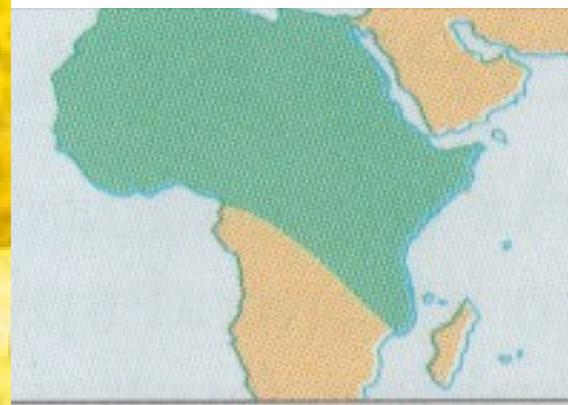
Siluriformes

# Mochokidae

*Synodontis nigriventris*



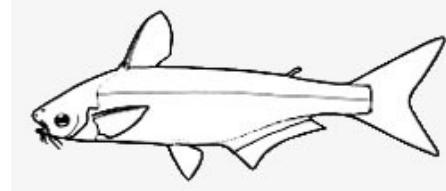
9 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Pangasiidae



*Pangasianodon hypophthalmus*

Pangasiidae  
28 sp

50 cm





Pimelodidae  
96 sp

-Cuerpo desnudo, sin placas ni escamas



-Tres pares de barbillones muy largos



Siluriformes

Pimelodidae

*Pimelodus pictus*

© Aquahobby.com

25 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

Pimelodidae

*Pseudoplatystoma fasciatum*



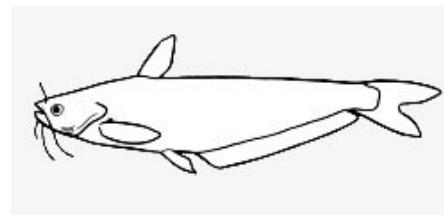
90 cm



curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

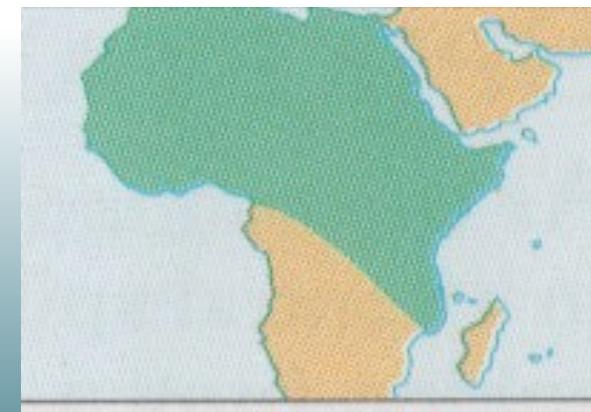
## Schilbeidae



*Eutropiellus buffei*

Schilbeidae  
64 sp

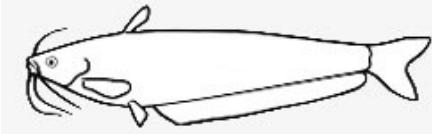
8 cm



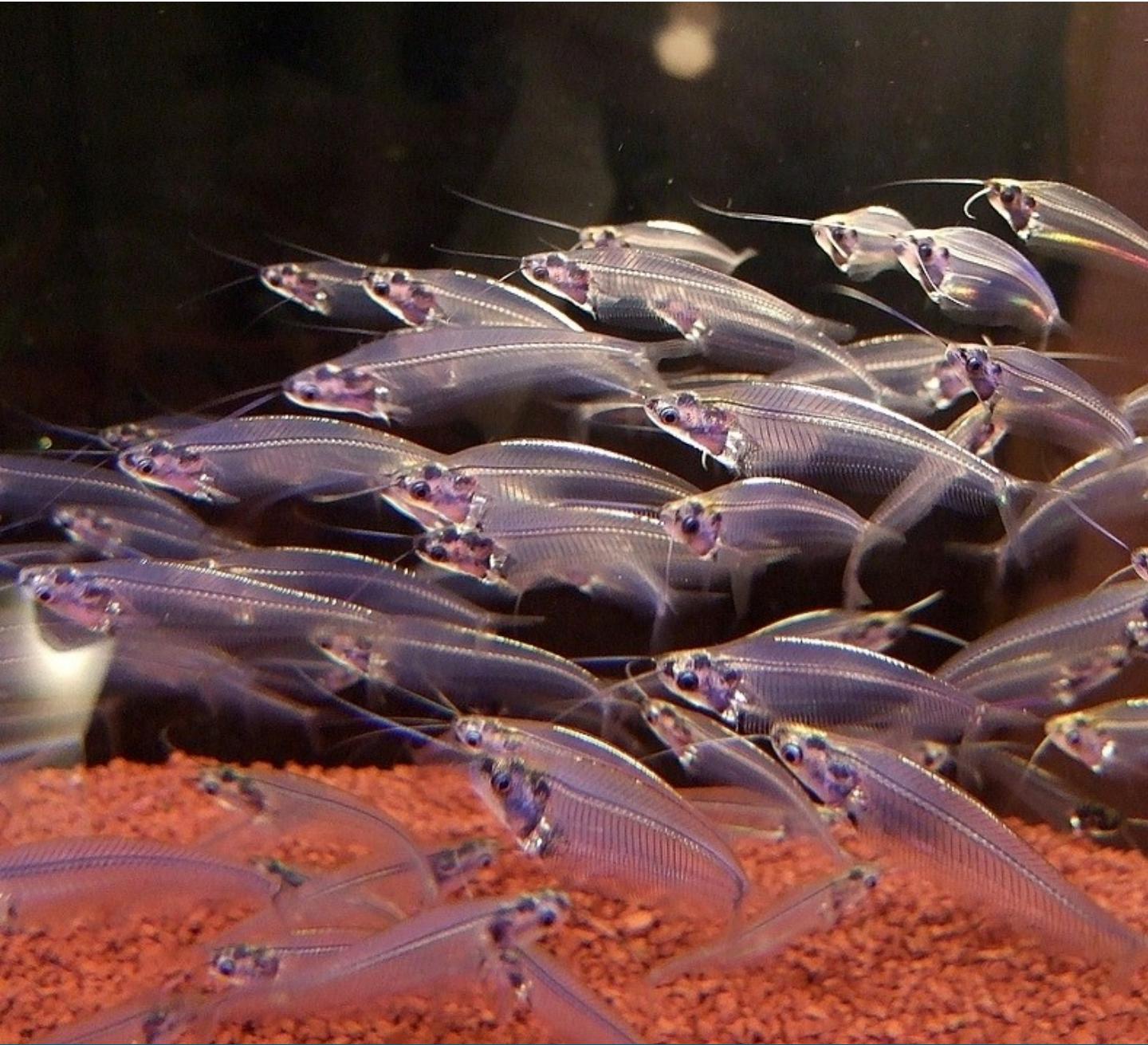
curso de acuariofilia  
Módulo 2: Organismos

Siluriformes

## Siluridae



*Kryptopterus bicirrhos*



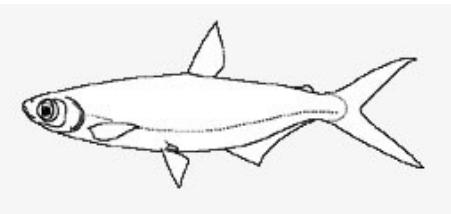
Siluridae  
94 sp

10 cm

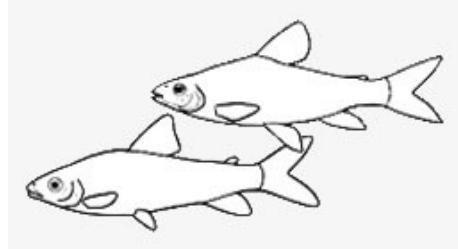


curso de acuariofilia  
Módulo 2: Organismos

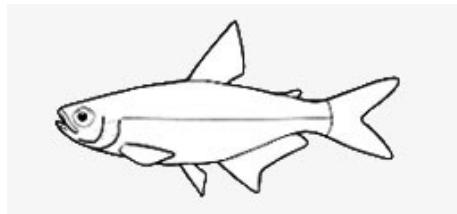
# Characiformes



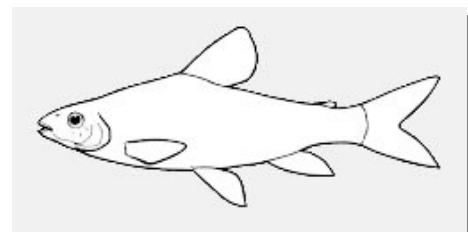
Alestidae



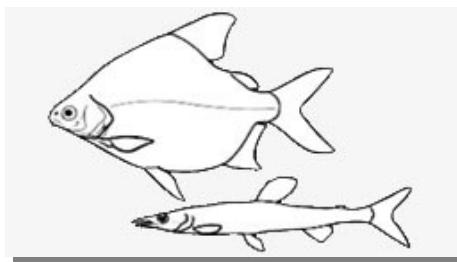
Anostomidae



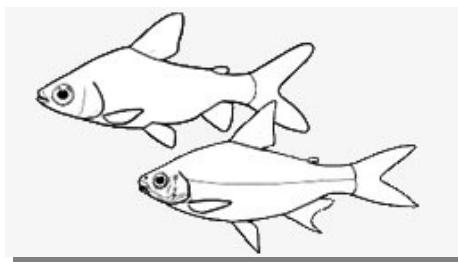
Characidae



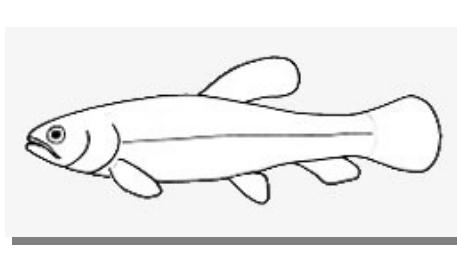
Chilodontidae



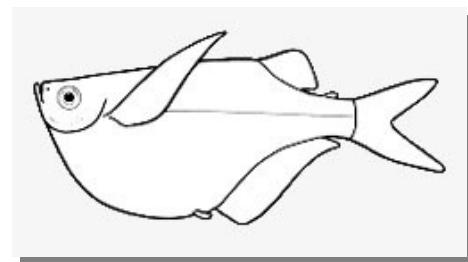
Citharinidae



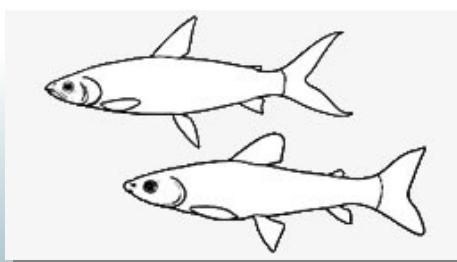
Curimatidae



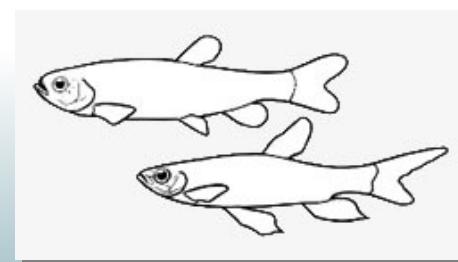
Erythrinidae



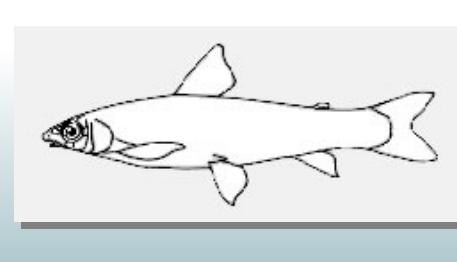
Gasteropelecidae



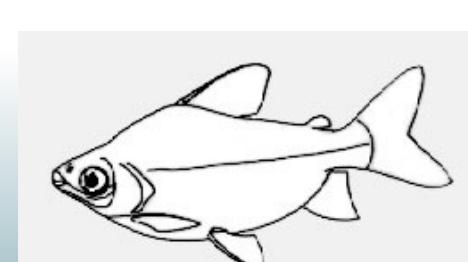
Hemiodontidae



Lebiasinidae



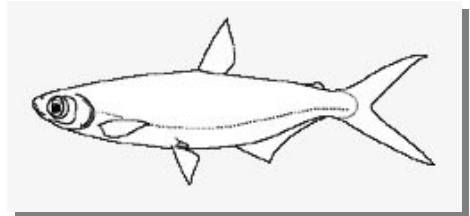
Parodontidae



Prochilodontidae



curso de acuariofilia  
Módulo 2: Organismos



Alestidae  
113 sp

-Tetras africanos

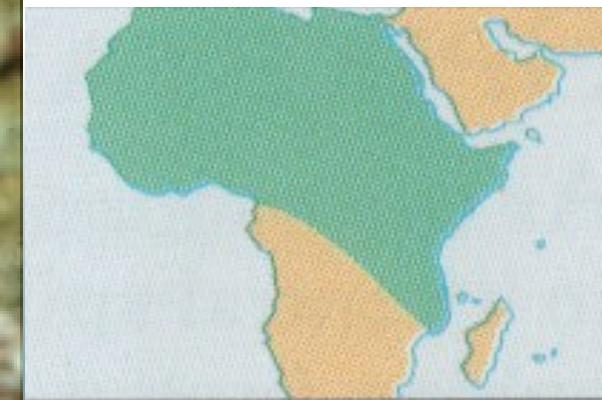


Characiformes Alestidae

*Arnoldichthys spilopterus*



8 cm



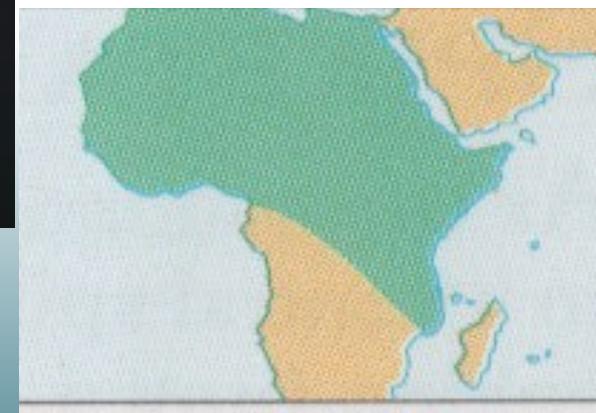
curso de acuariofilia  
Módulo 2: Organismos

Characiformes Alestidae

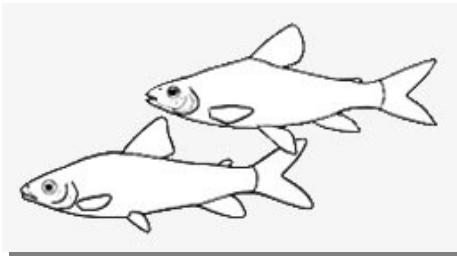
*Phenacogrammus interruptus*



8 cm



curso de acuariofilia  
Módulo 2: Organismos



Anostomidae  
140 sp

-Muchos nadan en posición oblicua hacia abajo



-Herbívoros o detrítivoros



Characiformes Anostomidae

*Abramites hypselonotus*



13 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes **Anostomidae**

*Anostomus anostomus*



13 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes Anostomidae

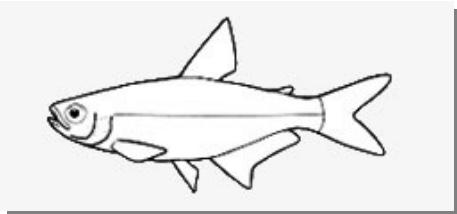
*Leporinus fasciatus*



30 cm



curso de acuariofilia  
Módulo 2: Organismos



Characidae  
1114 sp

-Familia muy grande y diversa

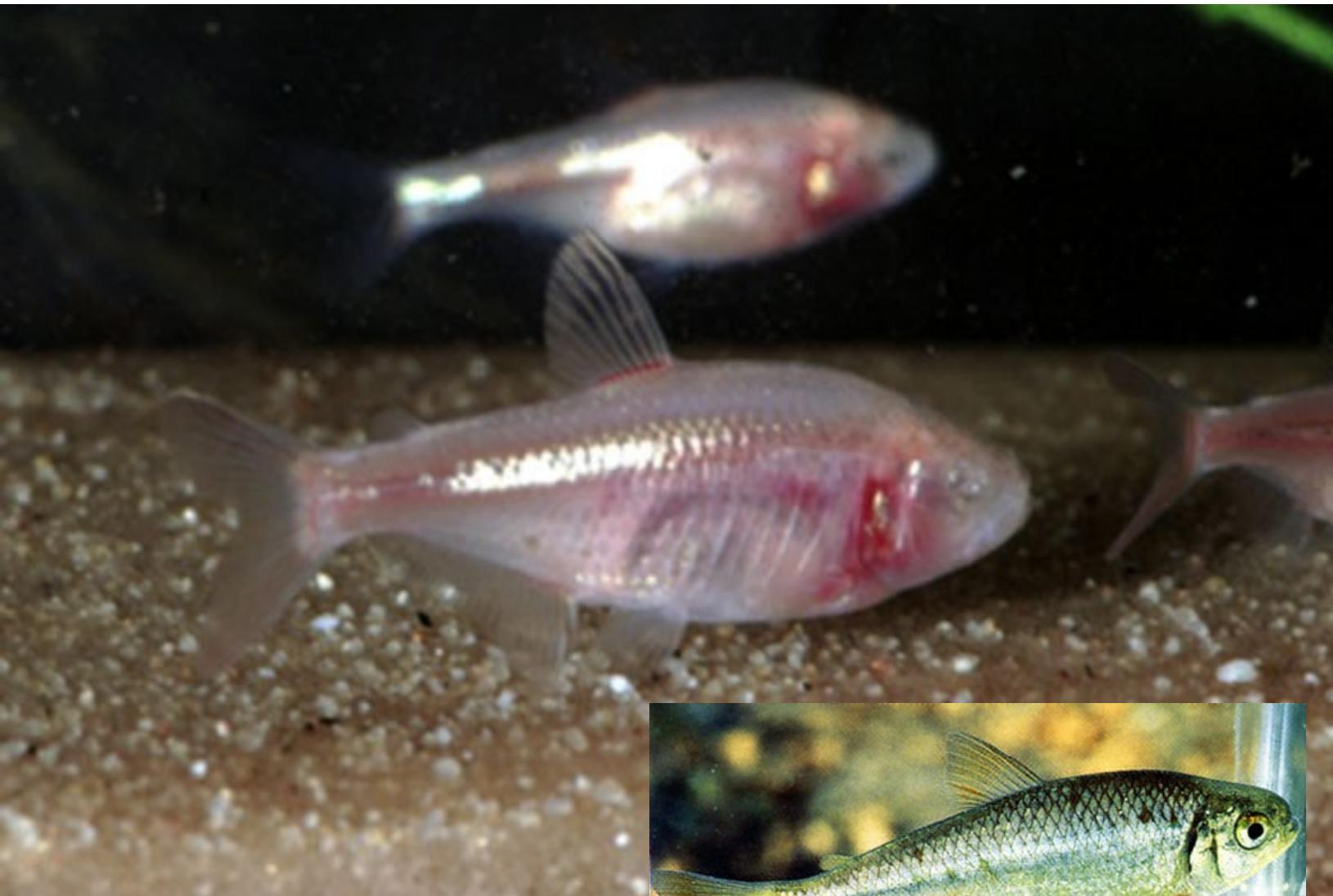
-La mayoría presentan una pequeña aleta adiposa

-Muchos son propios de arroyos de aguas negras ácidas. Posiblemente la principal familia en acuariofilia

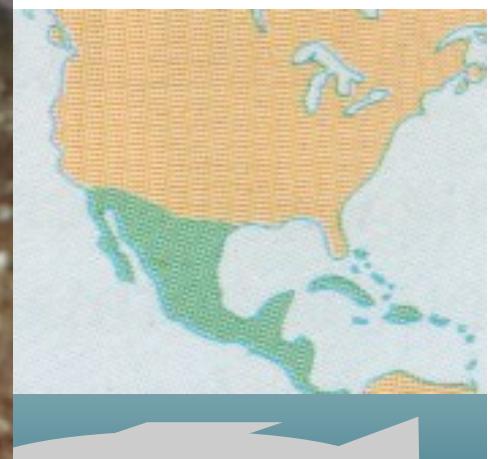


Characiformes Characidae

*Astyanax mexicanus*



9 cm



Characiformes Characidae

*Gymnocorymbus ternetzi*



5 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes Characidae

*Hemigrammus bleheri*



3,5 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes Characidae

*Hemigrammus rhodostomus*



5 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes Characidae

*Hemigrammus ocellifer*



4 cm



e acuariofilia  
2: Organismos

Characiformes Characidae

## *Hemigrammus erythrozonus*



3,5 cm



e acuariofilia  
Módulo 2: Organismos

Characiformes Characidae

*Hyphessobrycon eques*



3 cm



e acuariofilia  
2: Organismos

Characiformes Characidae

## *Hyphessobrycon erythrostigma*



5 cm



Curso de acuariofilia  
Módulo 2: Organismos

Characiformes **Characidae**

*Hyphessobrycon herbertaxelrodi*



4 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes Characidae

*Hyphessobrycon pulchripinnis*



4 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes Characidae

*Moenkhausia oligolepis*



12 cm



Characiformes Characidae

*Nematobrycon palmeri*



4 cm



Characiformes Characidae

*Paracheirodon axelrodi*



5 cm



so de acuariofilia  
dulo 2: Organismos

Characiformes **Characidae**

*Paracheirodon innesi*



3 cm



de acuariofilia  
Modulo 2: Organismos

Characiformes Characidae

*Pristella maxillaris*



4,5 cm



e acuariofilia  
Modulo 2: Organismos

Characiformes **Characidae**

*Pygocentrus nattereri*



30 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes Characidae

*Thayeria obliqua*

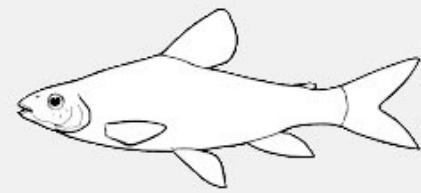


7 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes **Chilodontidae**



*Chilodus punctatus*

Chilodontidae  
4 sp

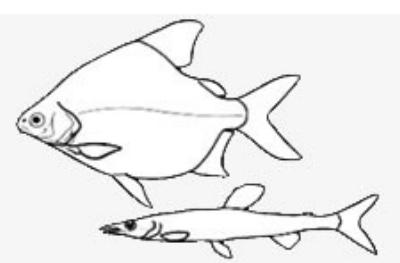
9 cm



curso de acuariofilia  
Módulo 2: Organismos

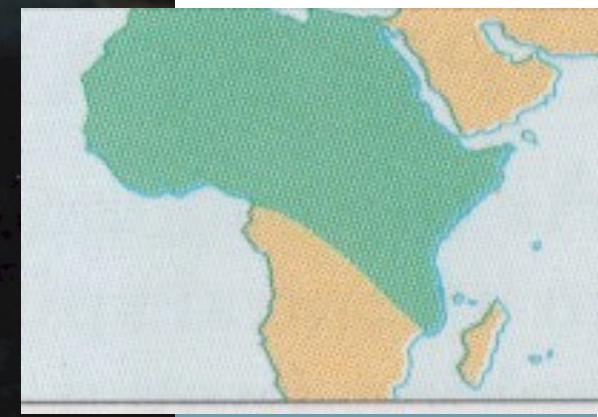
Characiformes Citharinidae

*Distichodus affinis*

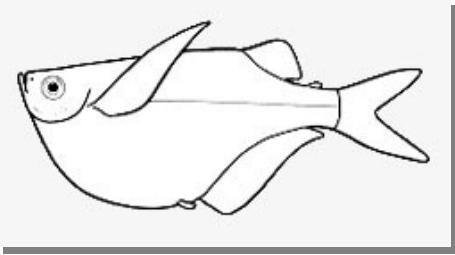


Citharinidae  
100 sp

12 cm



curso de acuariofilia  
Módulo 2: Organismos



Gasteropelecidae  
9 sp



- Profunda quilla en la zona pectoral
- Capaces de saltar o volar ayudados por las largas aletas pectorales



Characiformes Gasteropelecidae

*Carnegiella strigata*



3,5 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes **Gasteropelecidae**

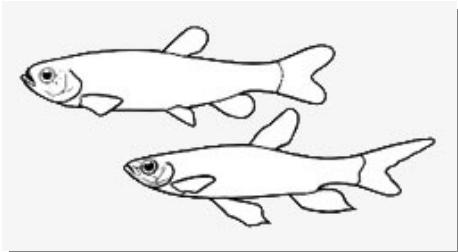
*Gasteropelecus sternicla*



4 cm



curso de acuariofilia  
Módulo 2: Organismos



Lebiasinidae  
62 sp

- Cuerpo alargado y cilíndrico
- Escamas grandes
- Línea lateral reducida



Characiformes Lebiasinidae

*Copella arnoldi*



8 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes Lebiasinidae

*Nannostomus marginatus*



3,5 cm



curso de acuariofilia  
Módulo 2: Organismos

Characiformes Lebiasinidae

*Pyrrhulina filamentosa*

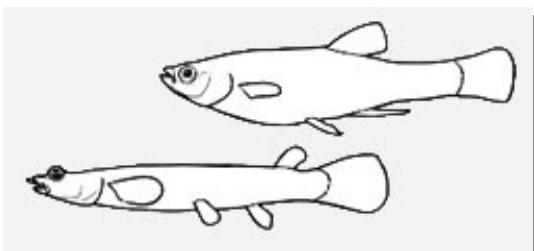


8 cm

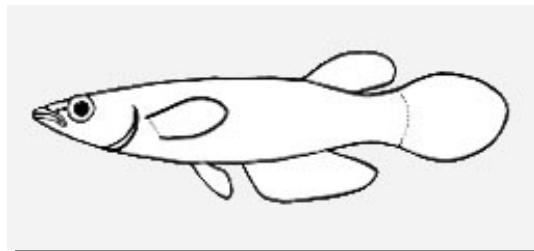


curso de acuariofilia  
Módulo 2: Organismos

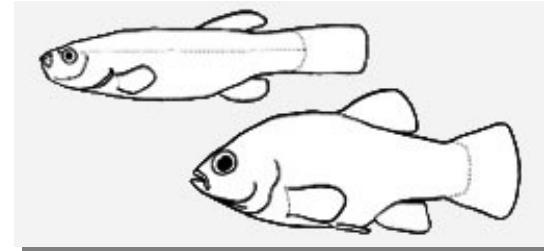
# Cyprinodontiformes



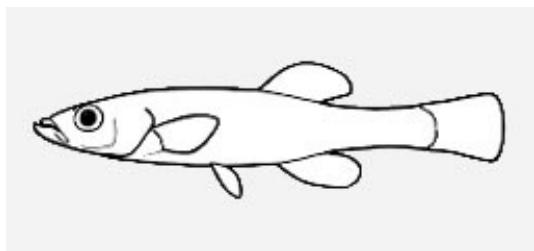
Anablepidae



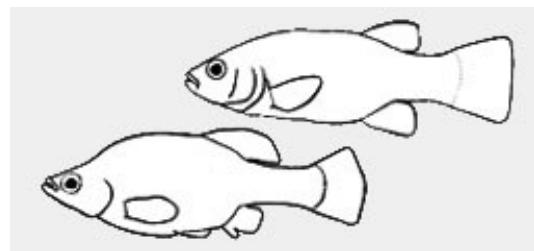
**Aplocheilidae**



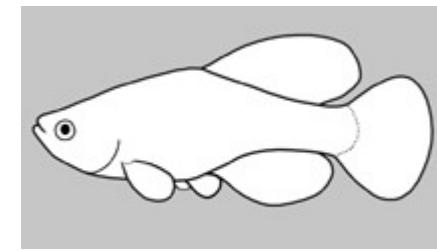
Cyprinodontidae



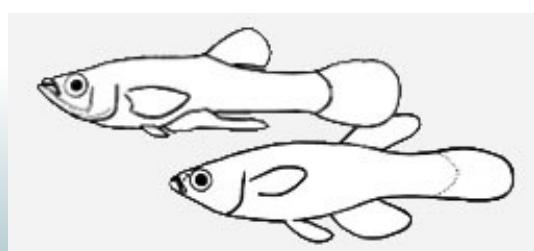
Fundulidae



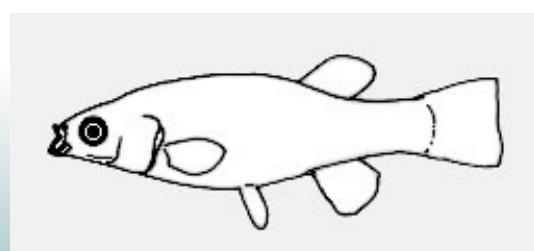
Goodeidae



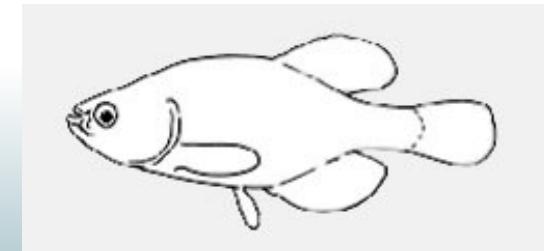
**Nothobranchiidae**



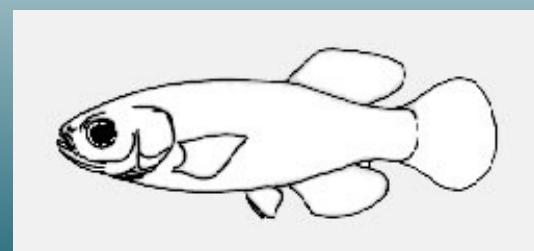
Poeciliidae



Profundulidae



Rivulidae



Valenciidae

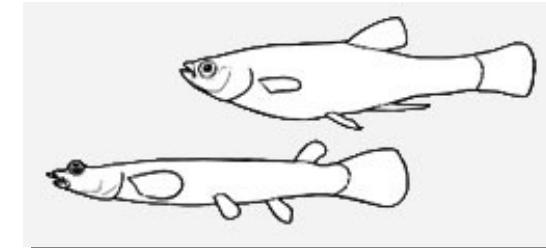


curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Anablepidae

*Anableps anableps*

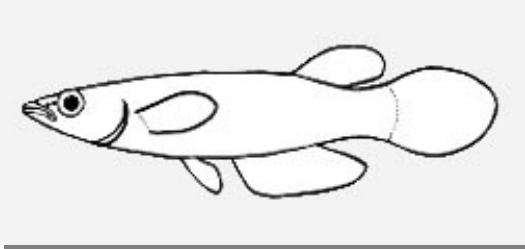


Anablepidae  
17 sp

8 cm



curso de acuariofilia  
Módulo 2: Organismos



Aplocheilidae  
14 sp



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Aplocheilidae

### *Aplocheilus panchax*



8 cm



Cyprinodontiformes

## Apocheilidae

*Pachypanchax playfairii*



8 cm



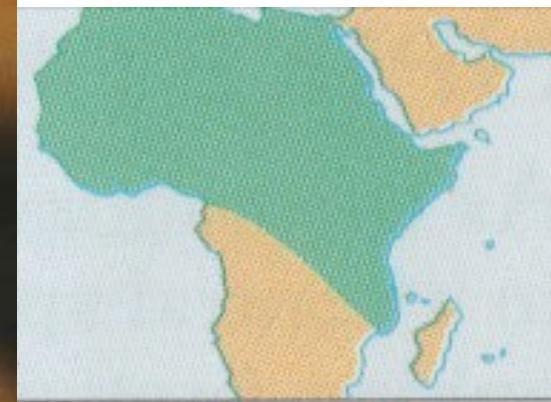
Cyprinodontiformes

## Aplocheilidae

*Pseudepiplatys annulatus*



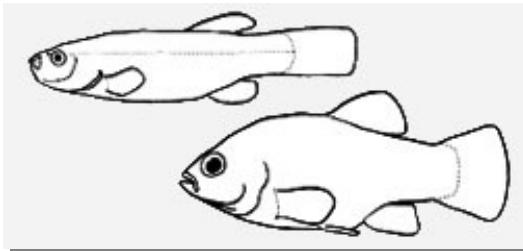
4 cm



Cyprinodontiformes

## Cyprinodontidae

*Jordanella floridae*



Cyprinodontidae  
120 sp

7 cm

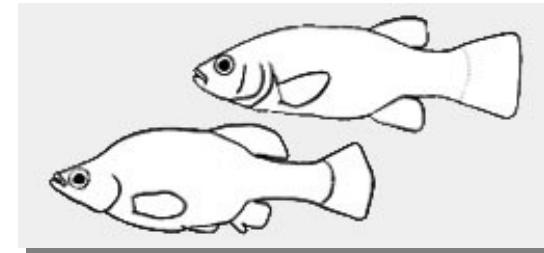


curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Goodeidae

*Ameca splendens*

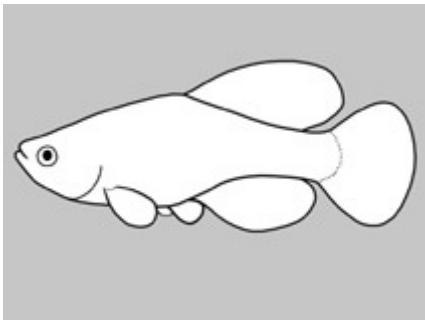


Goodeidae  
48 sp

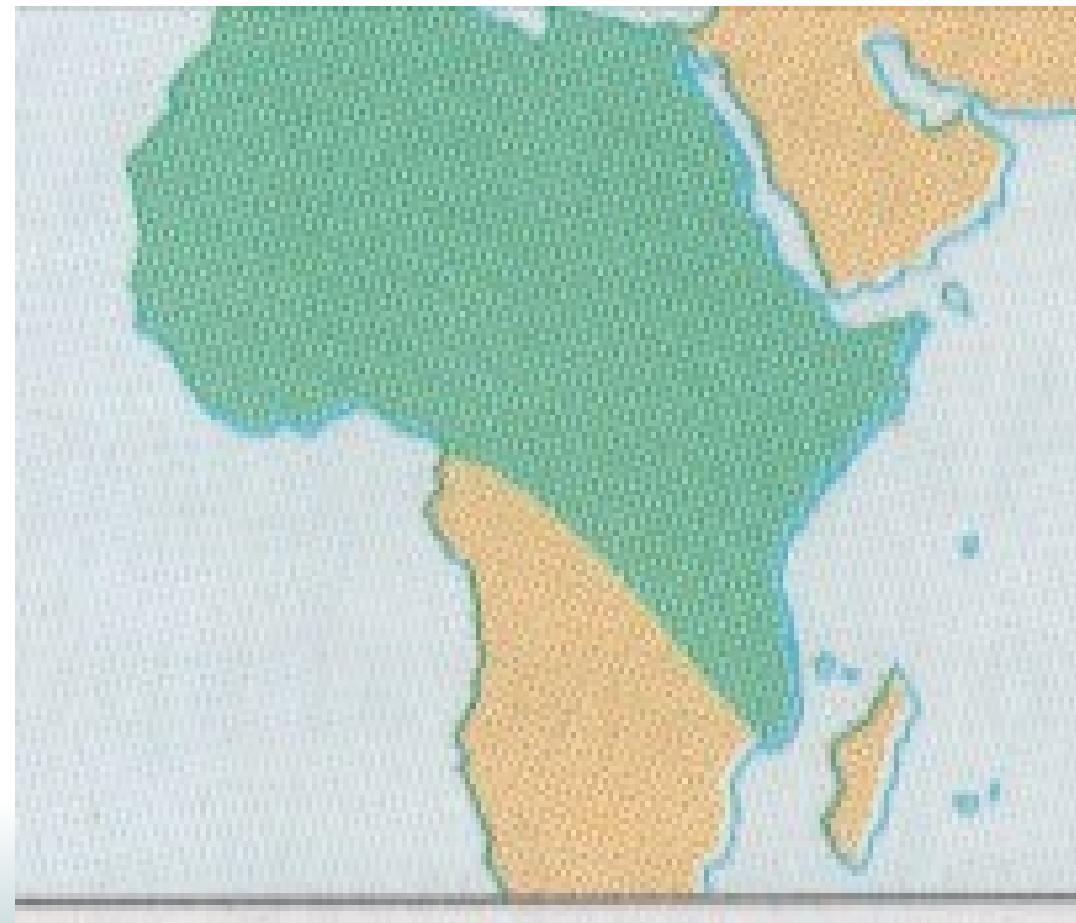
8 cm



rso de acuariofilia  
Módulo 2: Organismos



Nothobranchiidae  
223 sp



curso de acuariofilia  
Módulo 2: Organismos

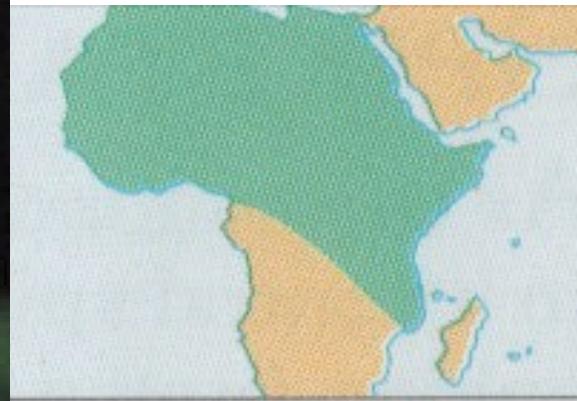
Cyprinodontiformes

## Nothobranchiidae

### *Aphyosemion australe*



6 cm



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Nothobranchiidae

### *Aphyosemion bivittatum*



5 cm



curso de acuariofilia  
Módulo 2: Organismos

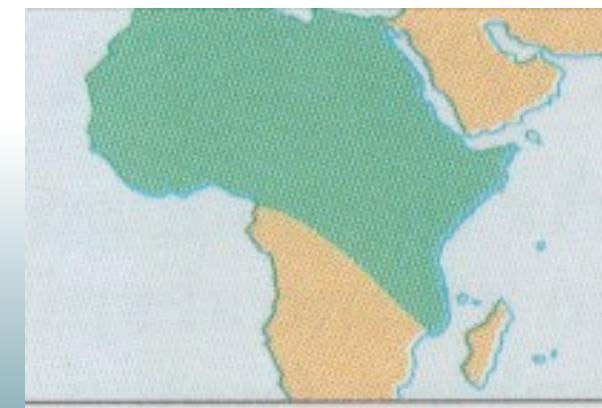
Cyprinodontiformes

## Nothobranchiidae

### *Aphyosemion striatum*



6 cm



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Nothobranchiidae

*Epiplatys dageti*



4 cm



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Nothobranchiidae

*Fundulopanchax gardneri*



6 cm



curso de acuariofilia  
Módulo 2: Organismos

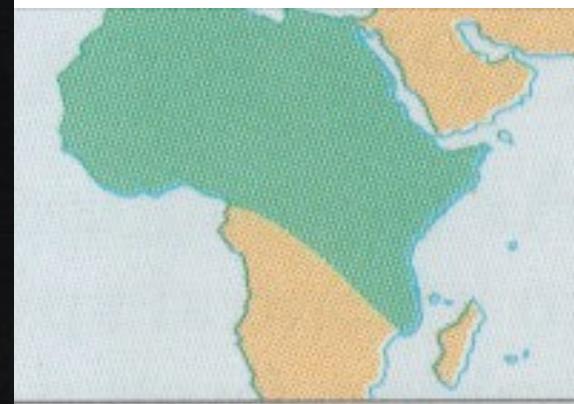
Cyprinodontiformes

## Nothobranchiidae

### *Fundulopanchax sjostedti*



12 cm



curso de acuariofilia  
Módulo 2: Organismos

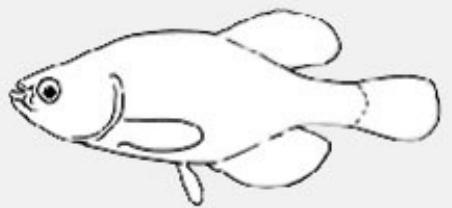
Cyprinodontiformes

## Nothobranchiidae

*Nothobranchius rachovii*



de acuariofilia  
Módulo 2: Organismos



Rivulidae  
322 sp



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Rivulidae

*Austrolebias bellottii*



7 cm

© Maurice CHAUCHE



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Rivulidae

*Austrolebias nigripinnis*



7 cm



Cyprinodontiformes

Rivulidae

*Pterolebias longipinnis*



8 cm

© Maurice CHAUCHE



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

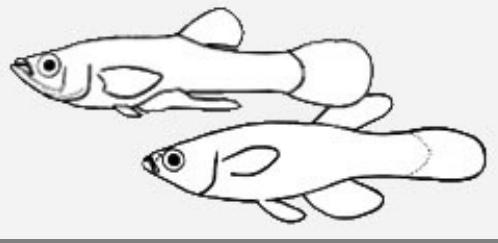
## Rivulidae

*Rivulus magdalena*ae



5 cm





Poeciliidae  
335 sp



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

Poeciliidae

*Gambusia affinis*



5 cm



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Poeciliidae

### *Heterandria formosa*



2 cm



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Poeciliidae

*Poecilia latipinna*



10 cm

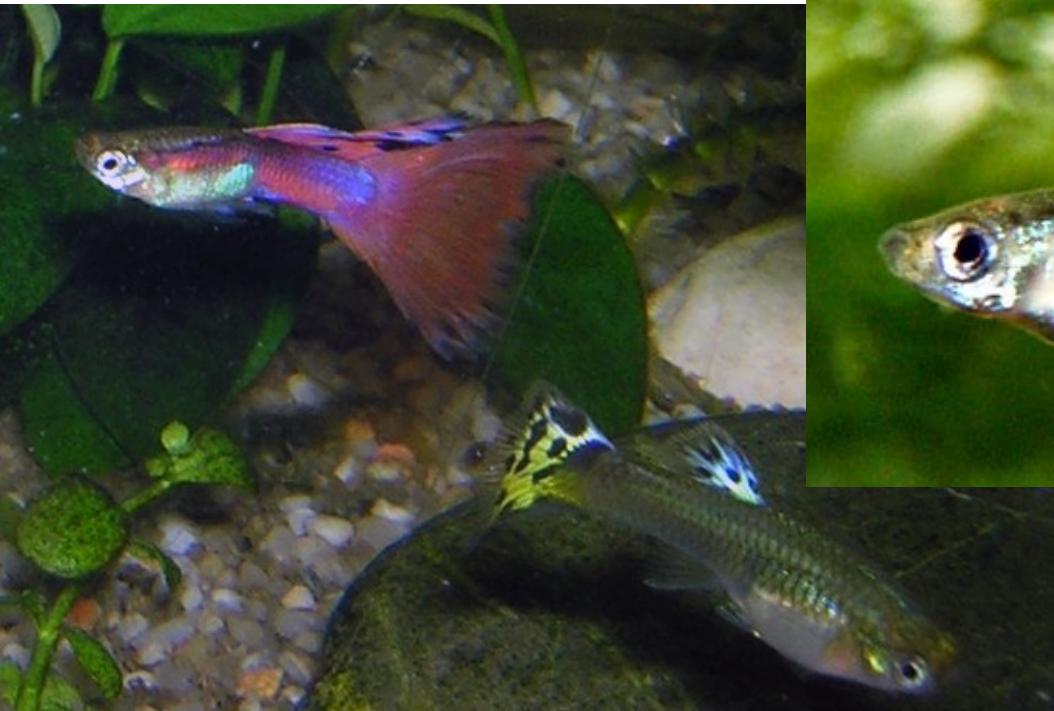


curso de acuariofilia  
Módulo 2: Organismos

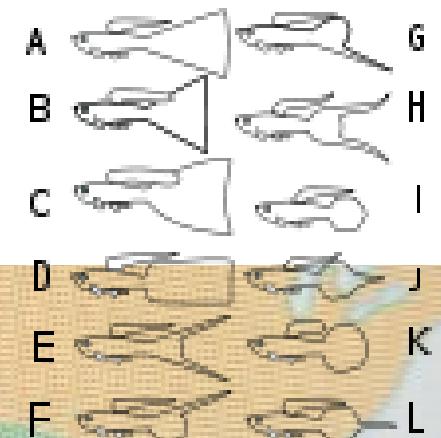
Cyprinodontiformes

## Poeciliidae

### *Poecilia reticulata*



3 cm



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Poeciliidae

*Poecilia sphenops*



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Poeciliidae

*Poecilia velifera*



15 cm



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Poeciliidae

### *Xiphophorus hellerii*



10 cm



curso de acuariofilia  
Módulo 2: Organismos

Cyprinodontiformes

## Poeciliidae

### *Xiphophorus maculatus*



4 cm

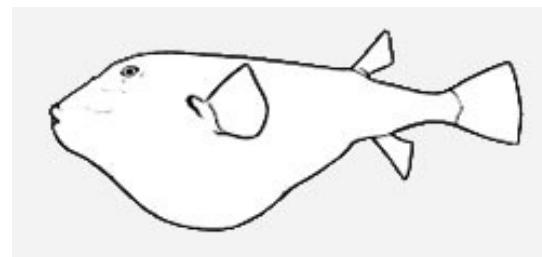
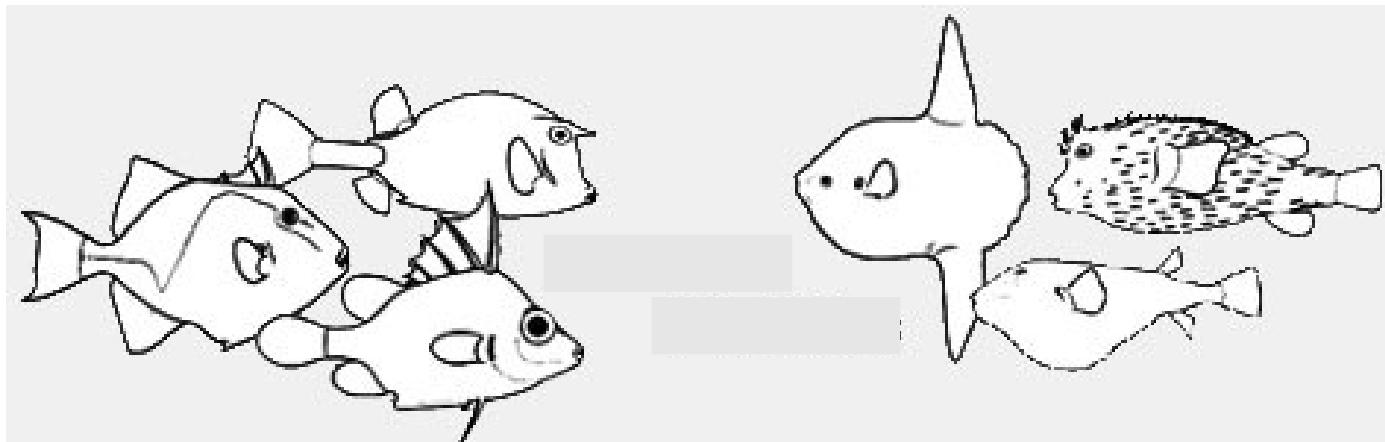


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curso de acuariofilia  
Módulo 2: Organismos

# Tetraodontiformes



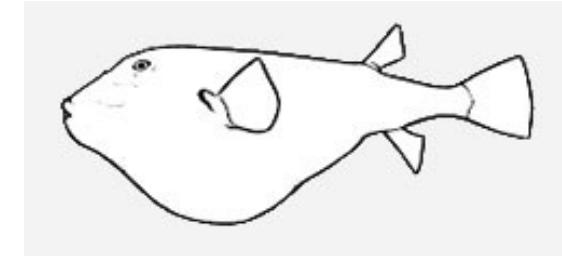
Tetraodontidae  
183 sp



Tetraodontiformes

## Tetraodontidae

*Tetraodon nigroviridis*



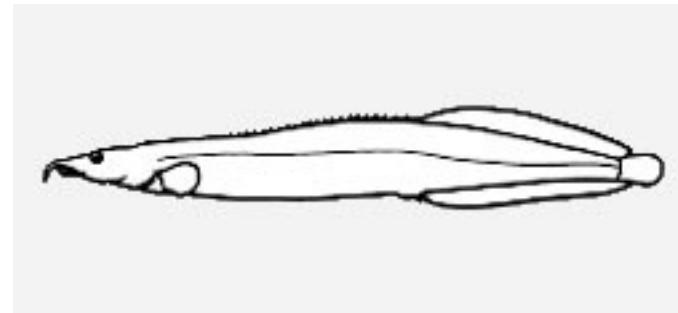
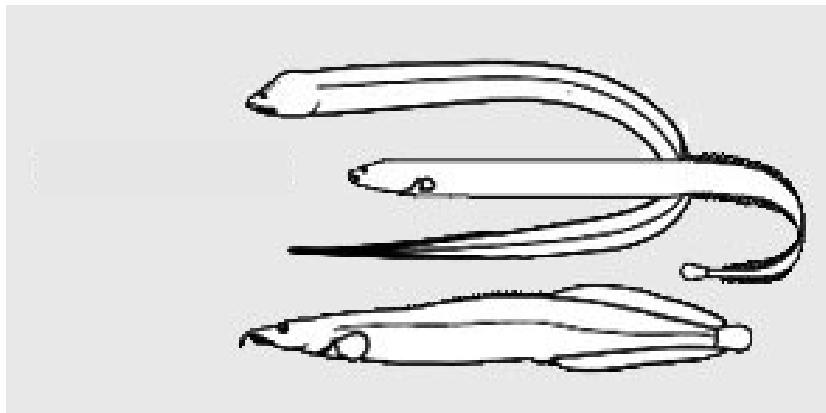
Tetraodontidae  
183 sp

10 cm



so de acuariofilia  
dulo 2: Organismos

# Synbranchiformes



Mastacembelidae  
77 sp



Synbranchiformes

## Mastacembelidae



### *Macrognathus circumcinctus*

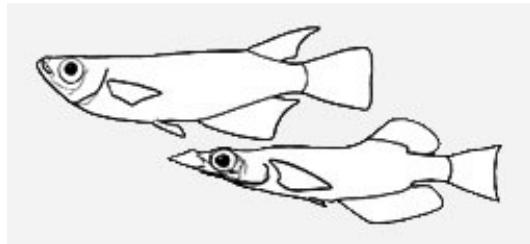


Mastacembelidae  
77 sp

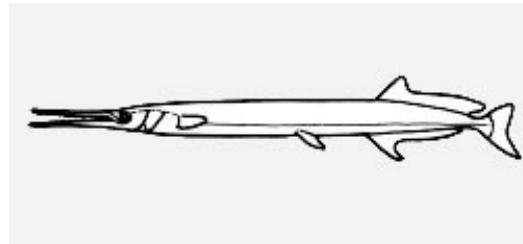
20 cm



# Beloniformes



Adrianichthyidae



Belonidae



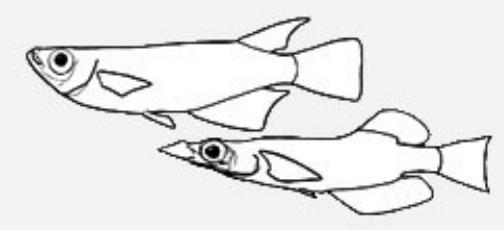
Hemiramphidae



Beloniformes

## Adrianichthyidae

*Oryzias javanicus*



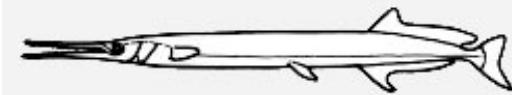
Adrianichthyidae  
27 sp

4,5 cm



Beloniformes

## Belonidae



*Xenentodon cancila*



Belonidae  
34 sp

30 cm



Beloniformes

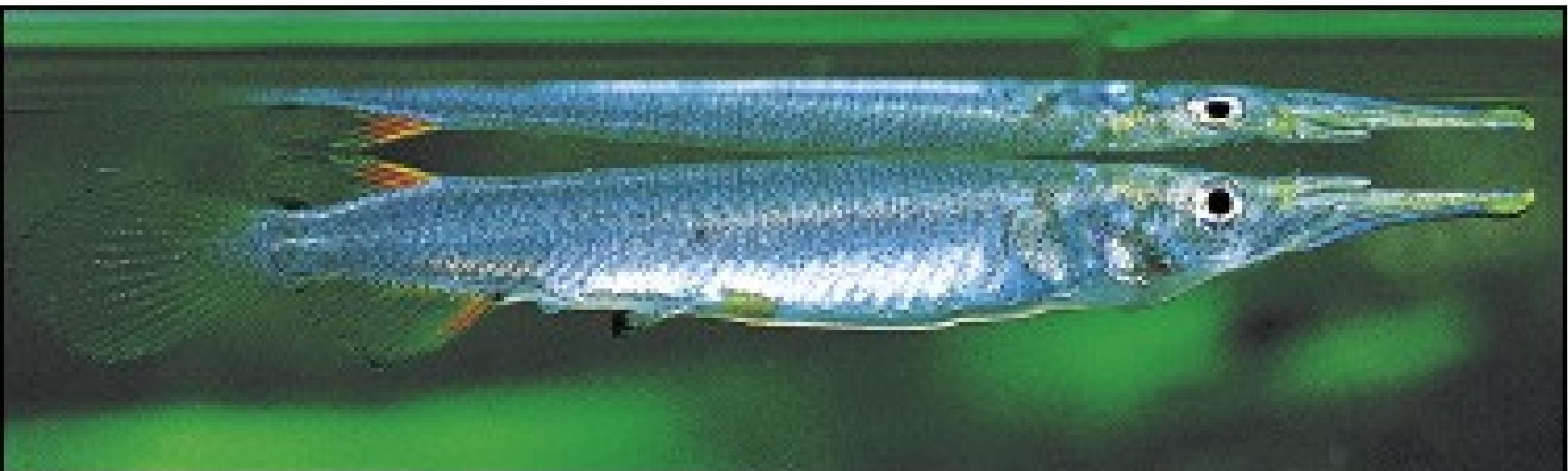
# Hemiramphidae



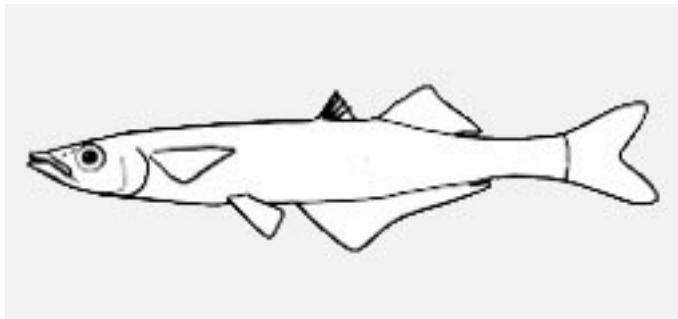
*Dermogenys pusilla*

Hemiramphidae  
112 sp

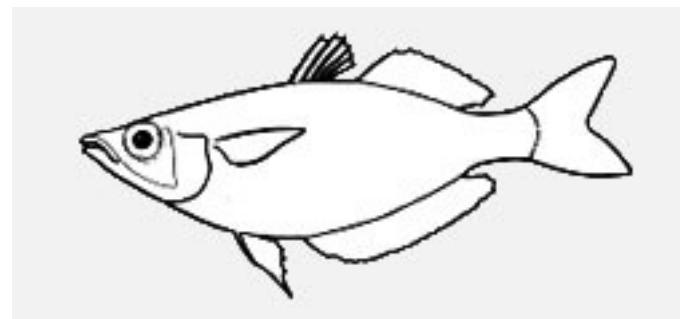
6 cm



# Atheriniformes



Atherinidae



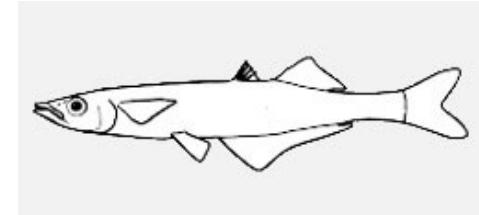
Melanotaeniidae



curso de acuariofilia  
Módulo 2: Organismos

Atheriniformes

## Atherinidae



*Bedotia geayi*



Atherinidae  
65 sp

10 cm

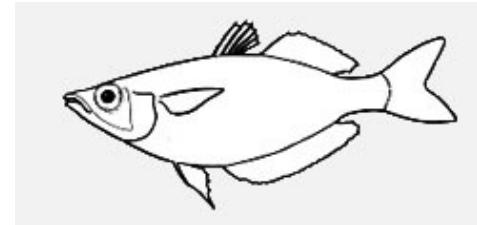


e acuariofilia  
2: Organismos

Atheriniformes

## Atherinidae

### *Melanotaenia boesemani*



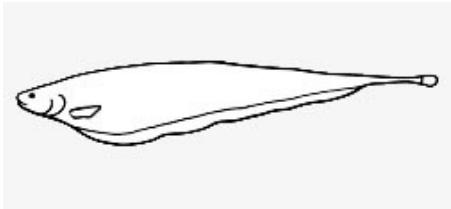
Melanotaeniidae  
70 sp

9 cm

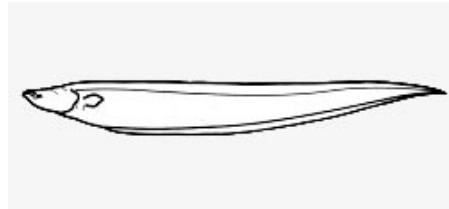


de acuariofilia  
Cap 2: Organismos

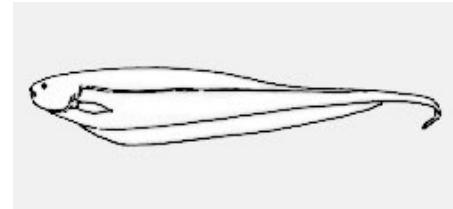
# Gymnotiformes



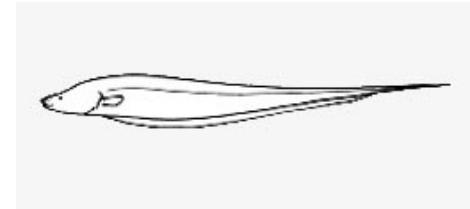
Apteronotidae



Gymnotidae



Hypopomidae



Sternopygidae



curso de acuariofilia  
Módulo 2: Organismos

Gymnotiformes

## Apteronotidae



### *Apteronotus albifrons*



Apteronotidae  
58 sp

50 cm



Gymnotiformes

## Gymnotidae



### *Electrophorus electricus*



Gymnotidae  
9 sp

230 cm



e acuariofilia  
2: Organismos

Gymnotiformes

## Gymnotidae



### *Gymnotus carapo*

Gymnotidae  
9 sp

60 cm



curso de acuariofilia  
Módulo 2: Organismos

Gymnotiformes

## Sternopygidae

*Eigenmannia virescens*



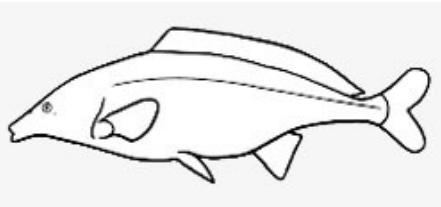
Sternopygidae  
28 sp

40 cm

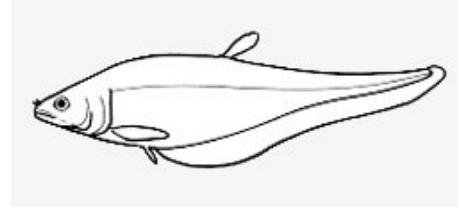


curso de acuariofilia  
Módulo 2: Organismos

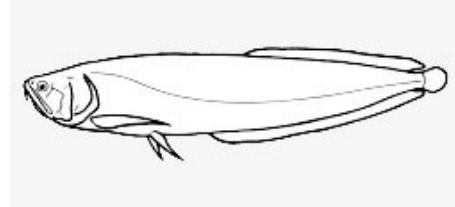
# Osteoglossiformes



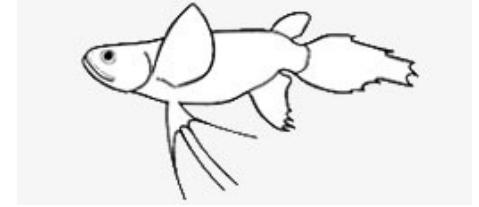
Mormyridae



Notopteridae



Osteoglossidae



Pantodontidae

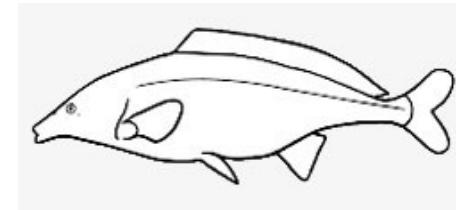


curso de acuariofilia  
Módulo 2: Organismos

Osteoglossiformes

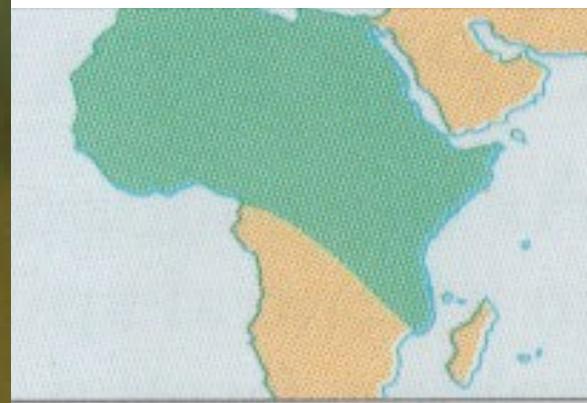
## Mormyridae

*Gnathonemus petersii*

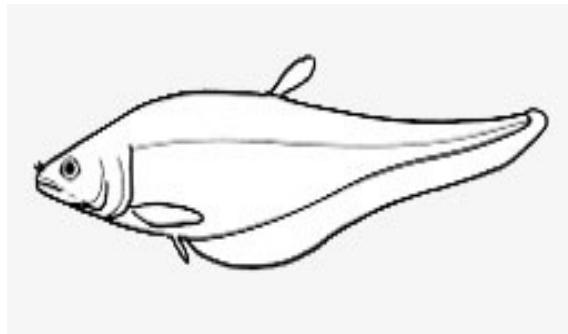


Mormyridae  
190 sp

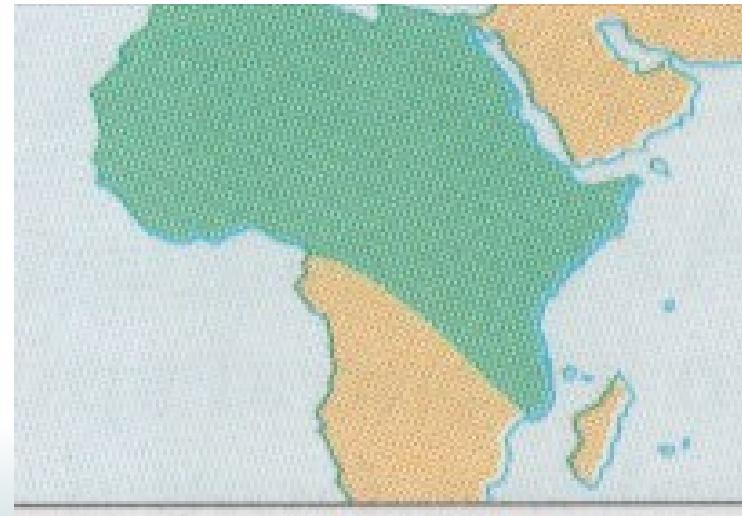
23 cm



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Módulo 2: Organismos



Notopteridae  
10 sp

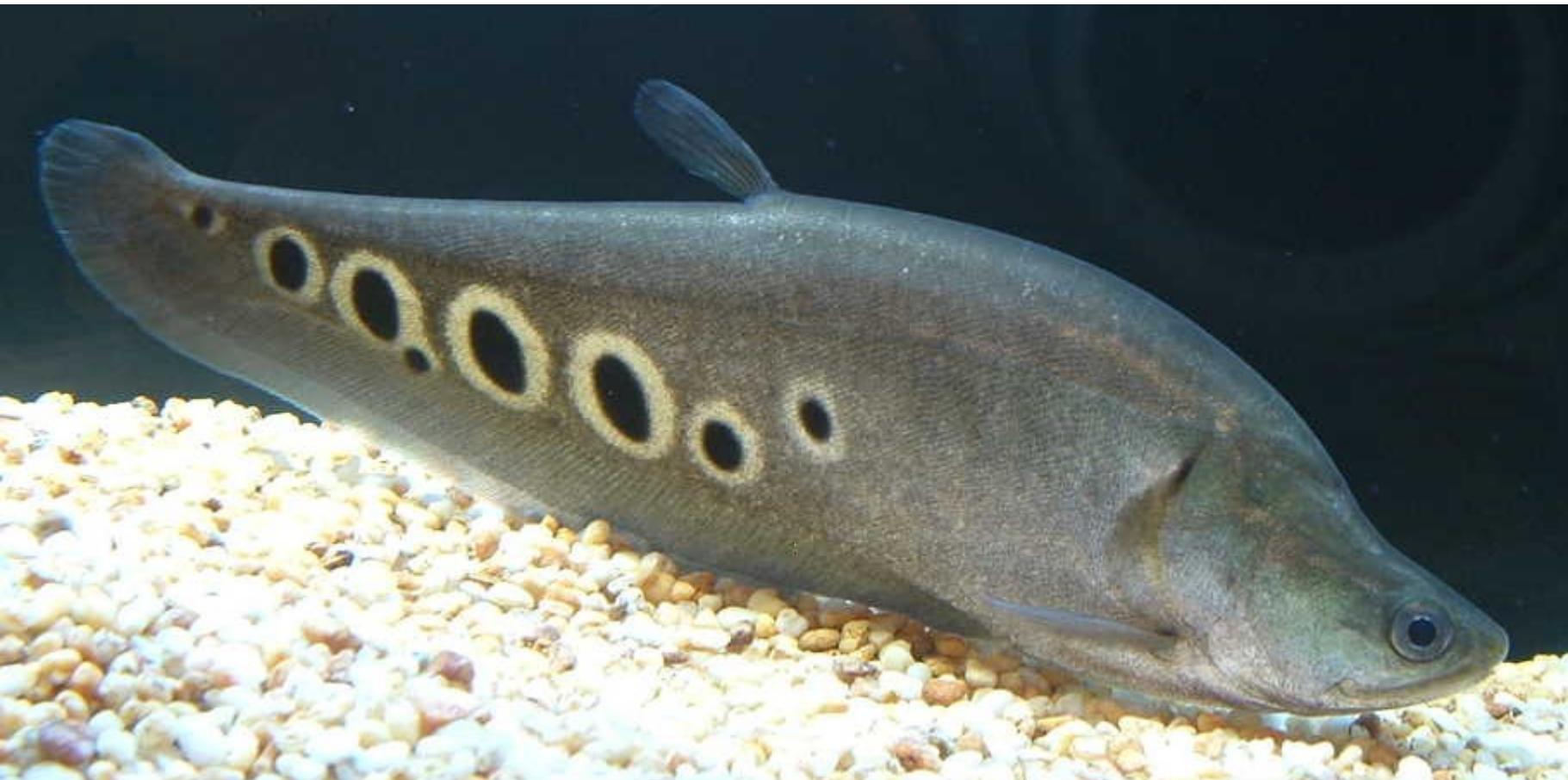


curso de acuariofilia  
Módulo 2: Organismos

Osteoglossiformes

## Notopteridae

*Chitala chitala*



23 cm



Osteoglossiformes

## Notopteridae

*Notopterus notopterus*



30 cm



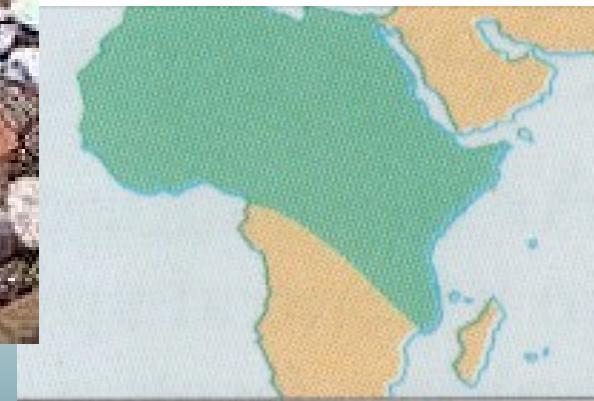
Osteoglossiformes

## Notopteridae

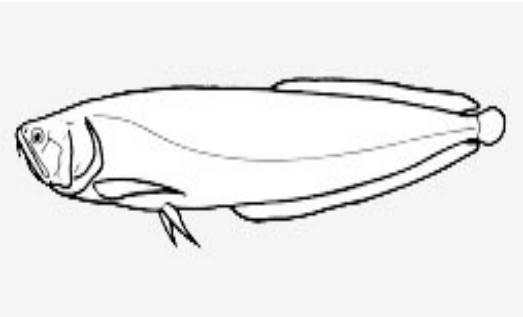
*Xenomystus nigri*



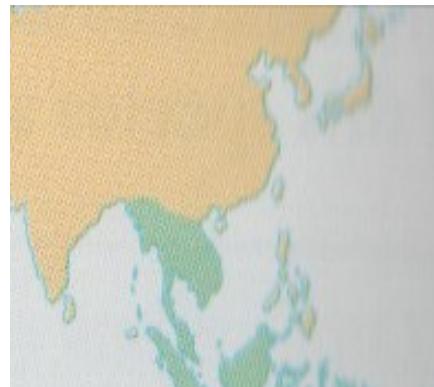
30 cm



curso de acuariofilia  
Módulo 2: Organismos



Osteoglossidae  
8 sp



Osteoglossiformes

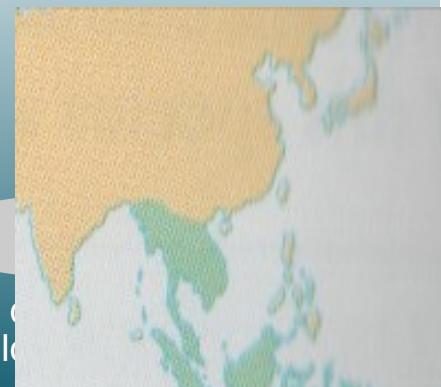
## Osteoglossidae

*Scleropages formosus*



90 cm

curso  
Módulo



Osteoglossiformes

## Osteoglossidae

*Osteoglossum bicirrhosum*



100 cm

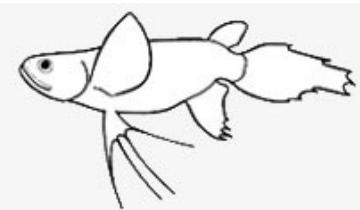
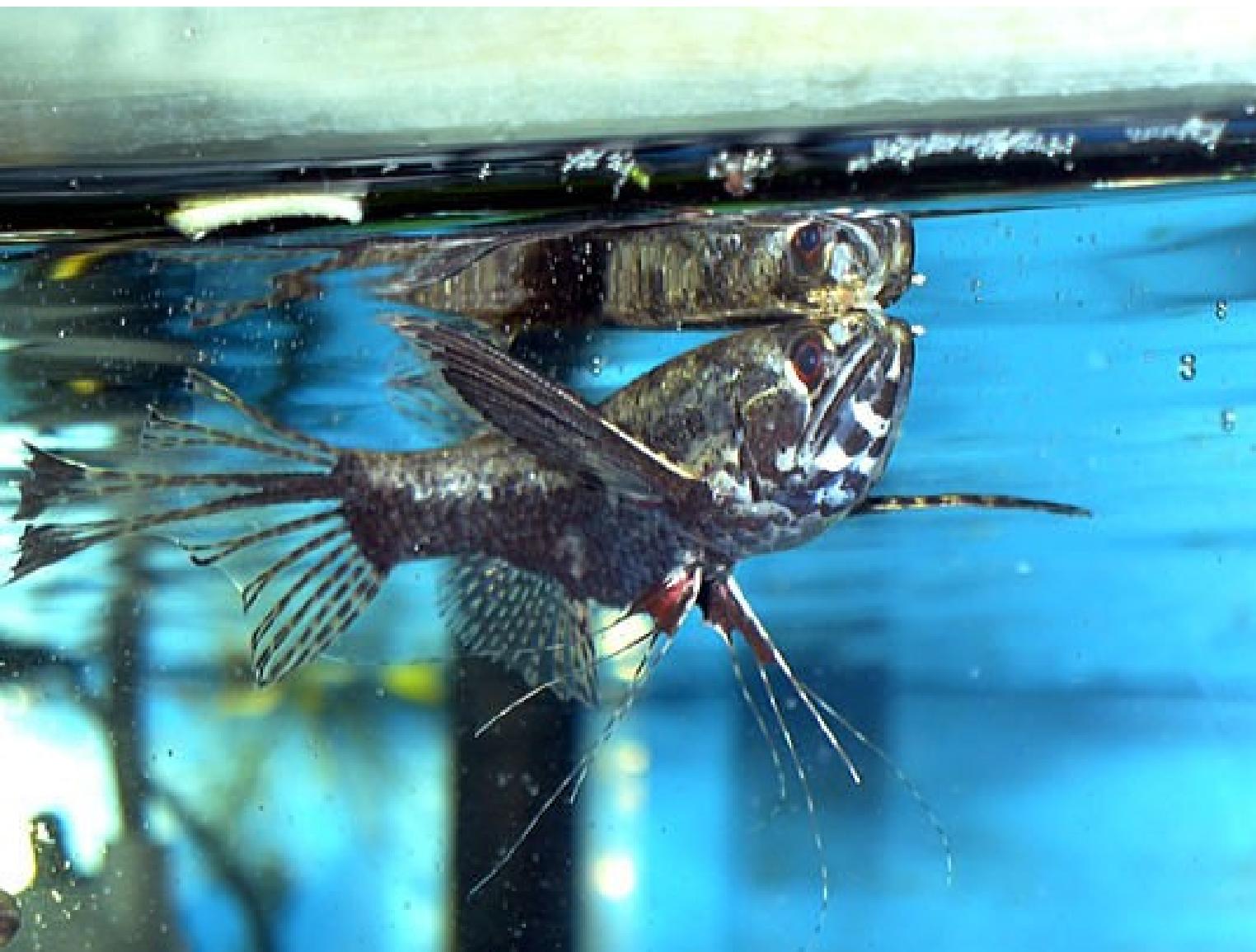


curso de acuariofilia  
Módulo 2: Organismos

Osteoglossiformes

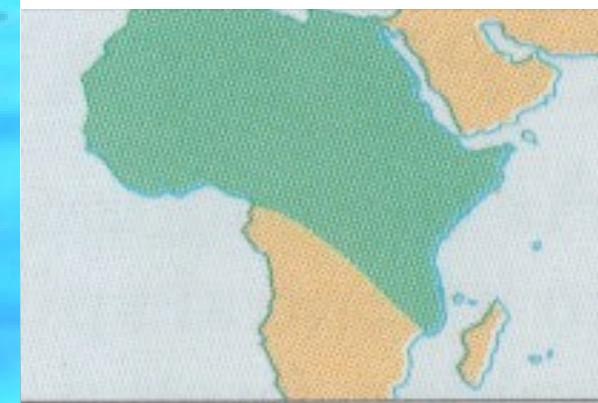
## Pantodontidae

*Pantodon buchholzi*



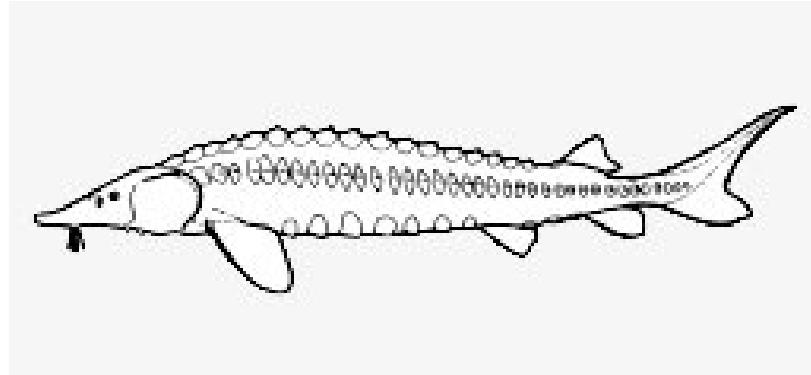
Pantodontidae  
1 sp

10 cm

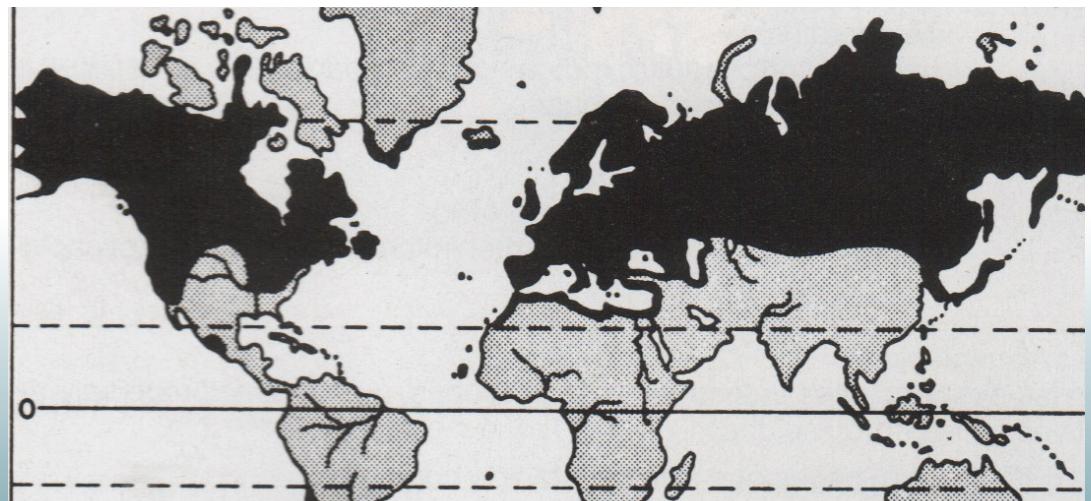


curso de acuariofilia  
Módulo 2: Organismos

# Acipenseriformes



Acipenseridae  
25 sp



Acipenseriformes

## Acipenseridae

*Acipenser ruthenus*

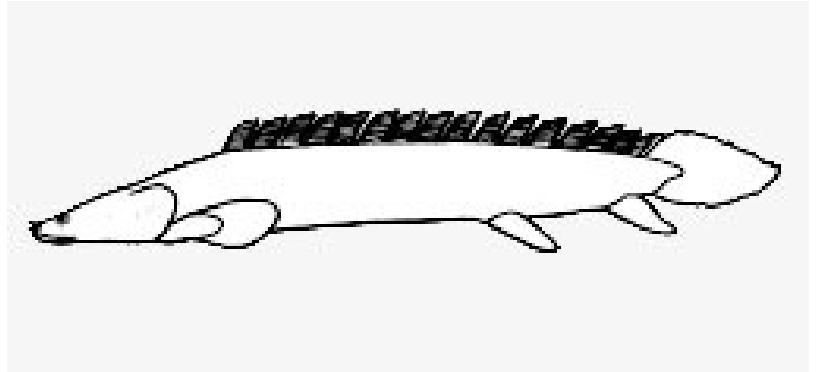


100 cm

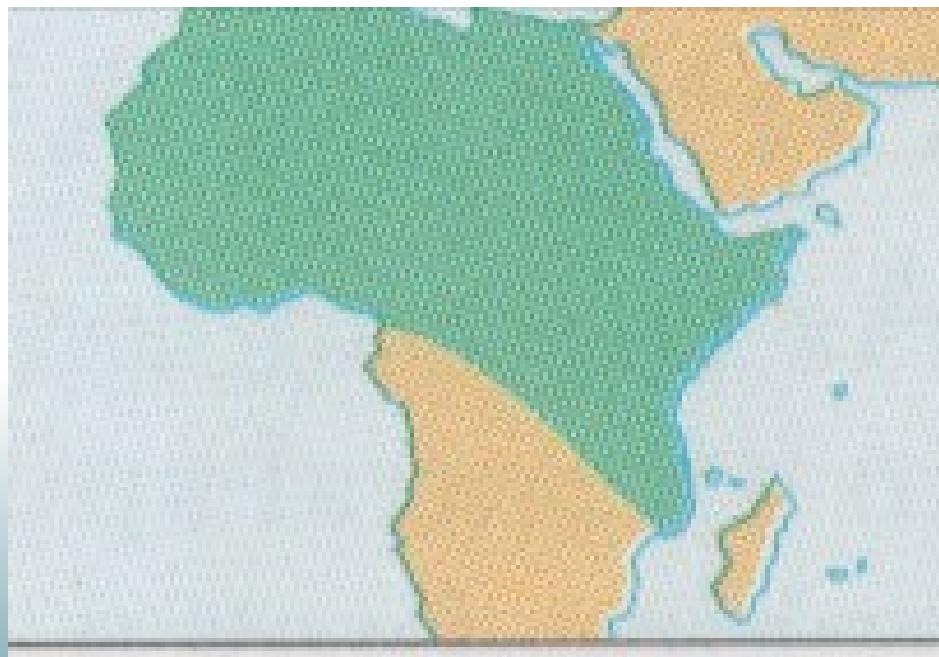


curso de acuariofilia  
Módulo 2: Organismos

# Polypteriformes



Polypteridae  
12 sp



curso de acuariofilia  
Módulo 2: Organismos

Polypteriformes

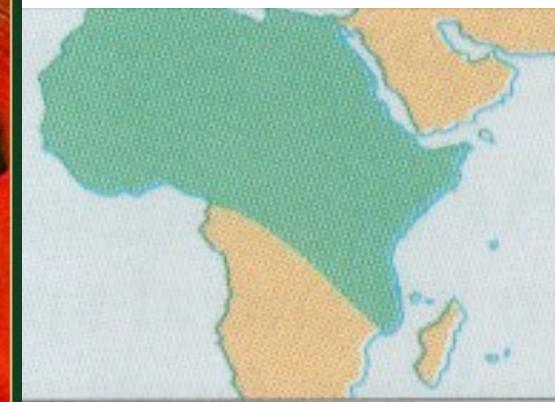
# Polypteridae

*Erpetoichthys calabaricus*



© Cristo Cristov

35 cm



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Módulo 2: Organismos

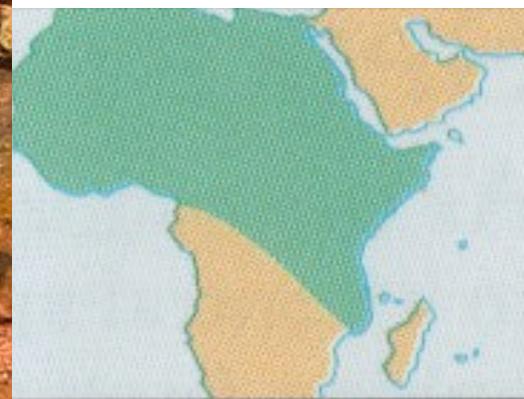
Polypteriformes

## Polypteridae

*Polypterus ornatipinnis*

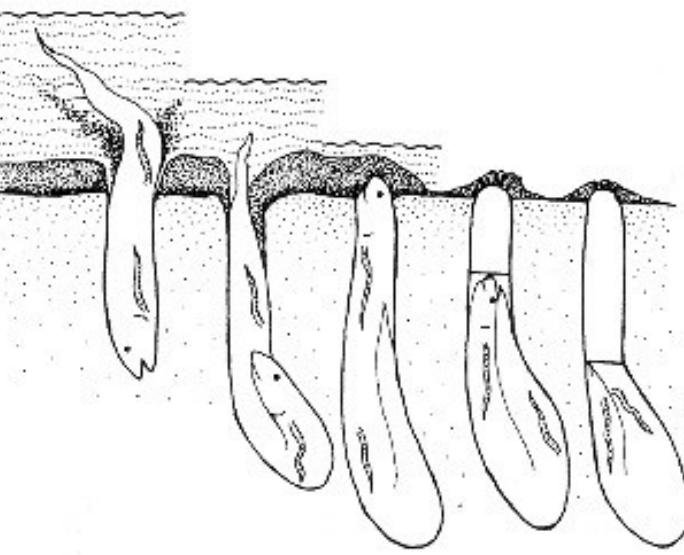


45 cm

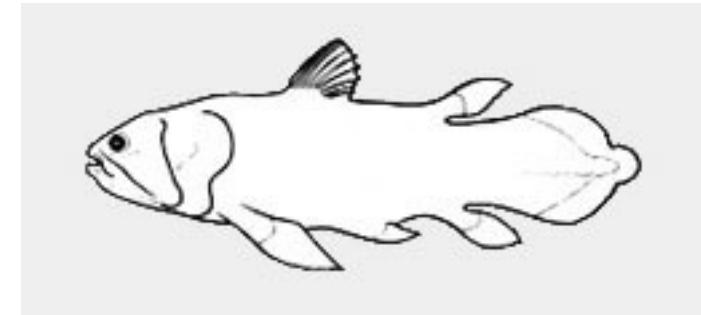


Curso de acuariofilia  
Módulo 2: Organismos

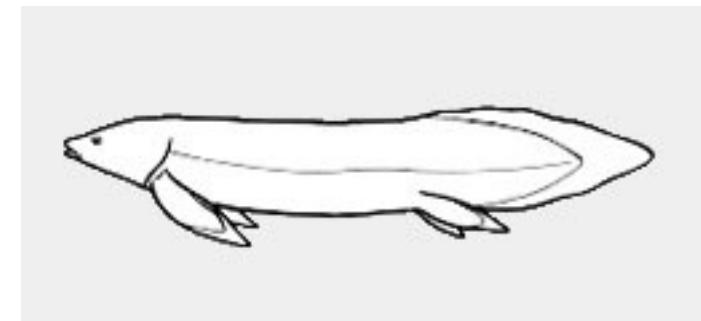
# Sarcopterigios



Coelacanthiforme  
s  
2 sp



Ceratodontiforme  
s  
1 sp



Lepidosireniforme  
s  
5 sp



Ceratodontiformes

# Ceratodontidae *Neoceratodus forsteri*



170 cm



curso de acuariofilia  
Módulo 2: Organismos