



Predators and preys Among marine Triassic fishes

Andrea
Tintori

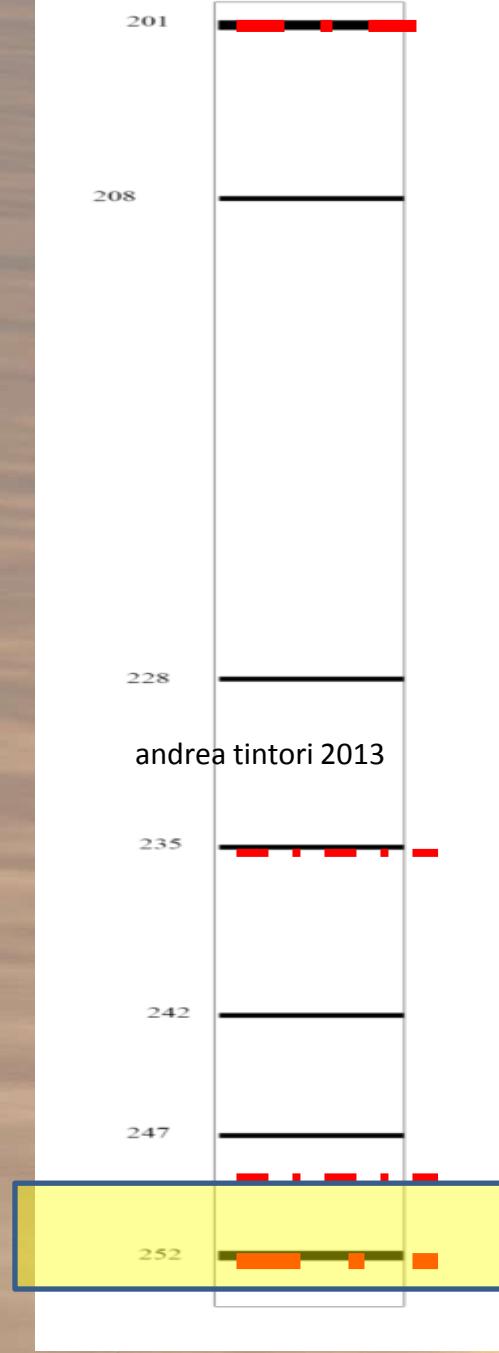
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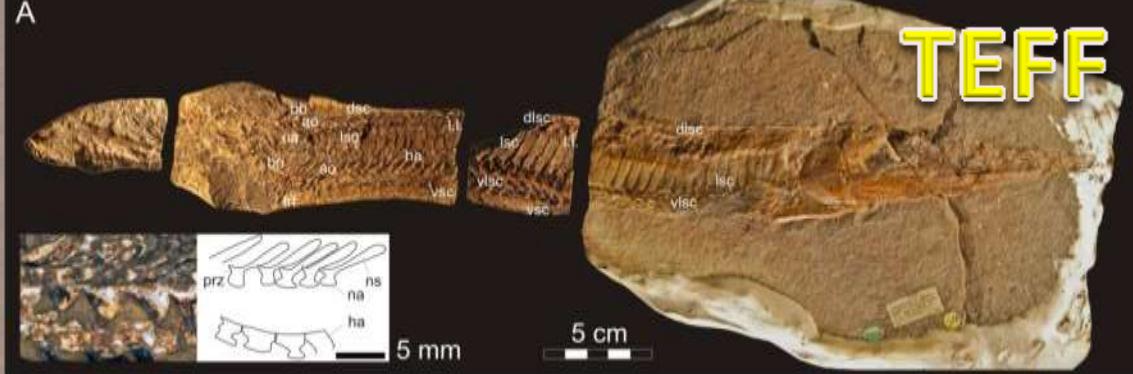


Tr/J
Nor/Rha
Car/Nor
Lad/Car
An/Lad
Ol/An
Sm/Sp
P/Tr

TEFF

Saurichthys aff. dayi,

Griesbachian
East Greenland



S. "madagascariensis"

?Induan
SW Madagascar



S. madagascariensis

Dienerian–Smithian
Northwest Madagascar



Saurichthys wimani

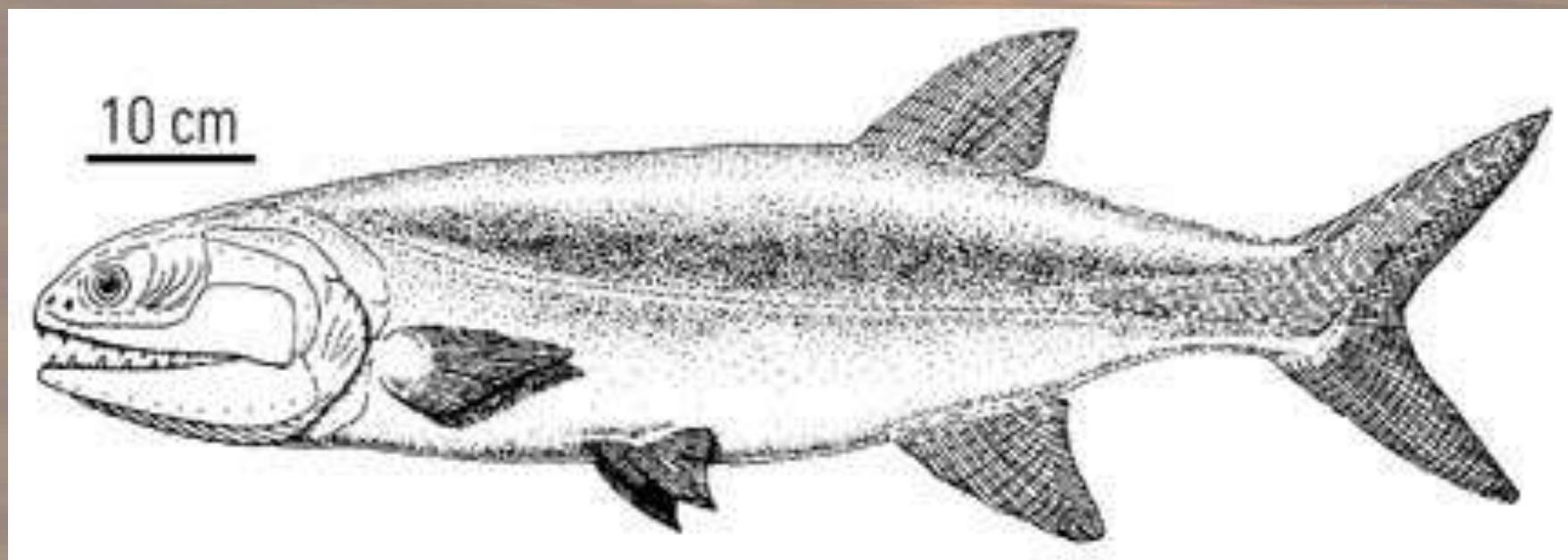
Smithian
Spitsbergen

(after Kogan & Romano, 2013)



Birgeria

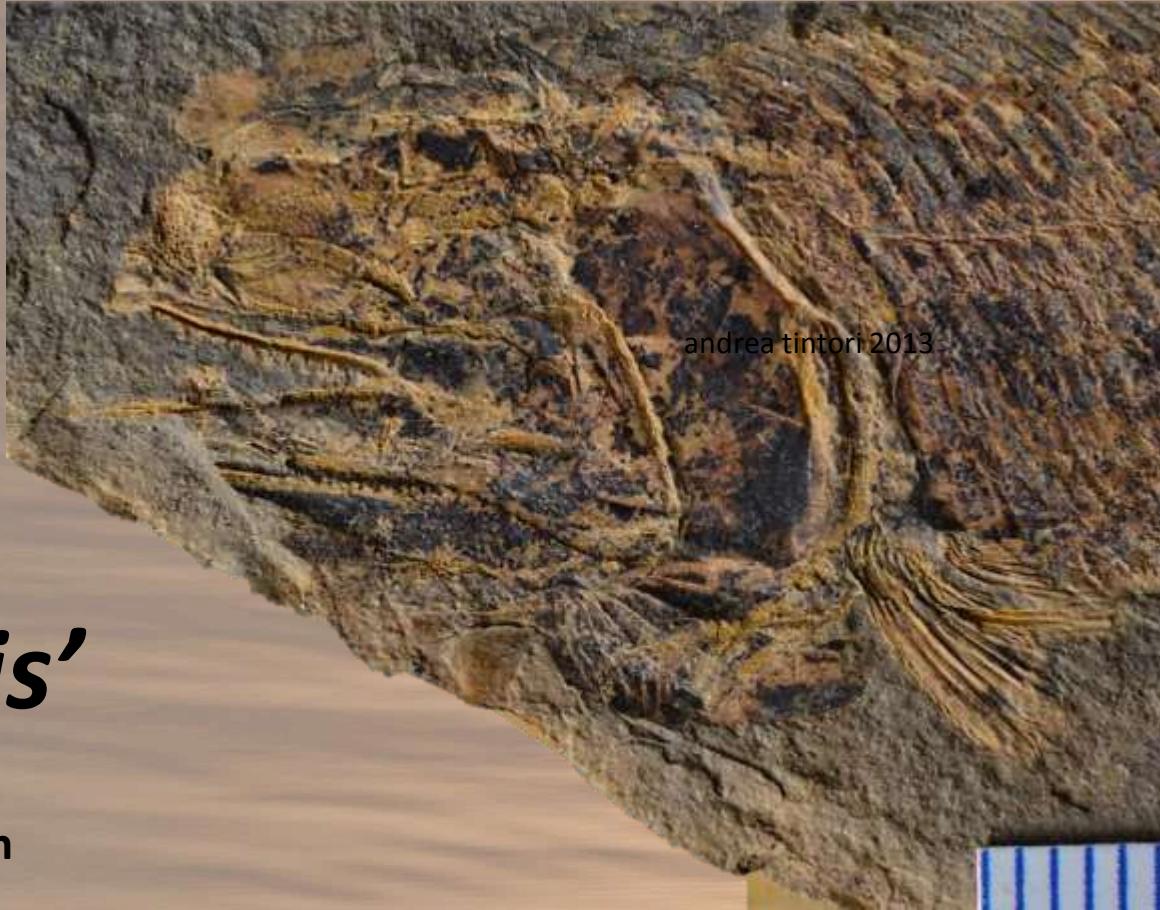
Cosmopolitan
Griensbachian-Rhaetian

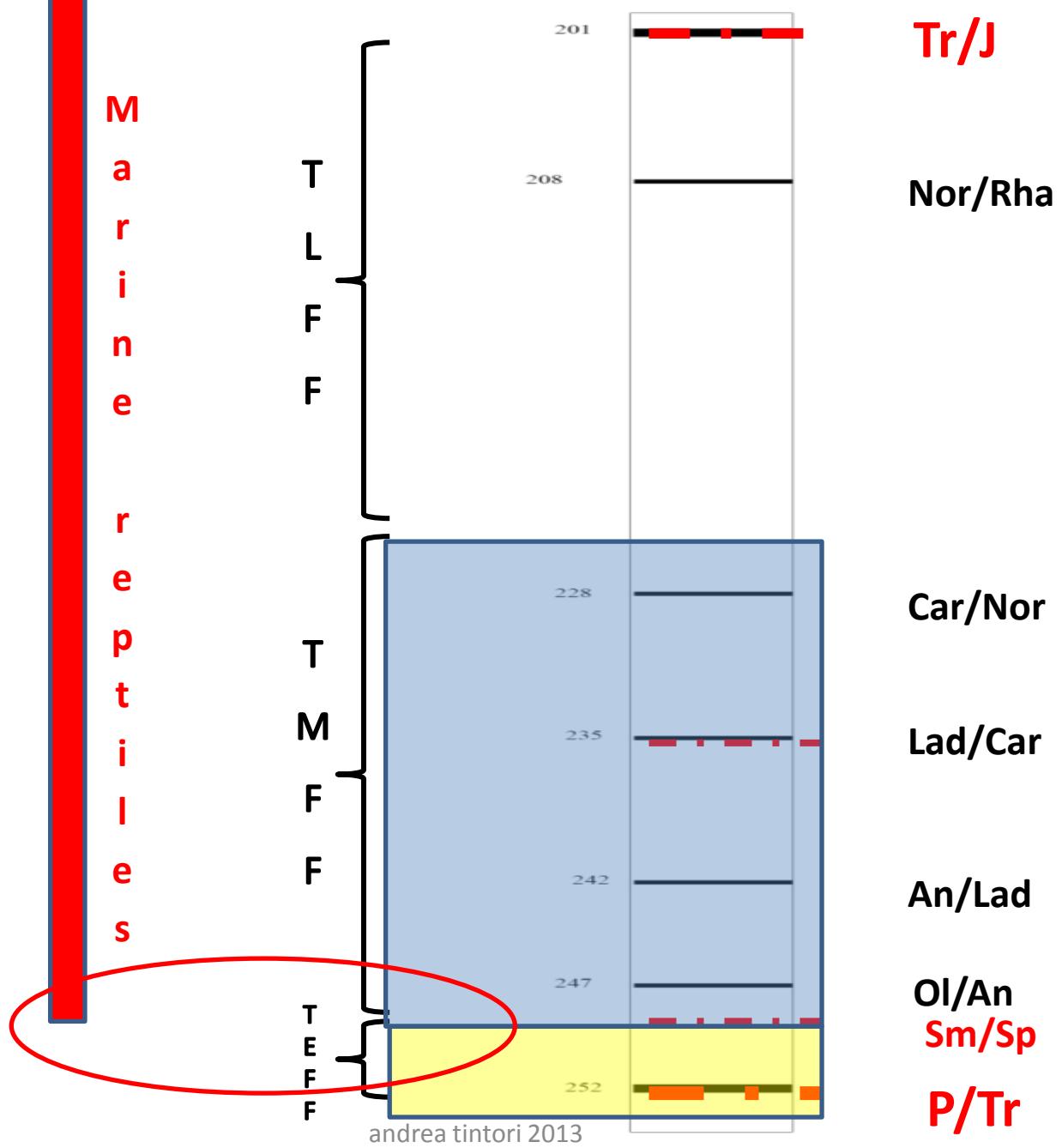


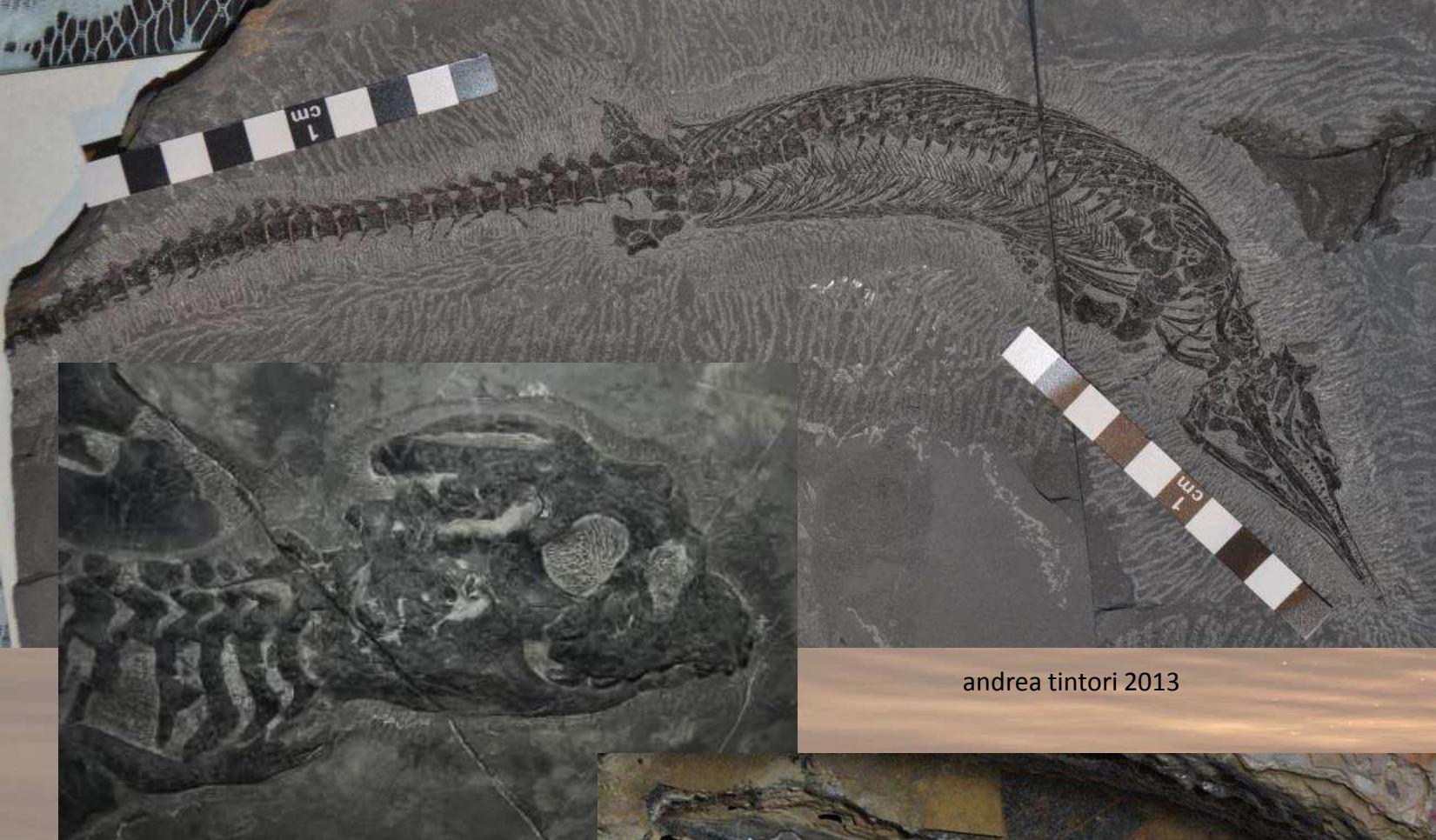
E. Stensiö. 1932. Triassic Fishes from East Greenland collected by the Danish expeditions in 1929-1931. *Meddelelser om Grønland* **83(3)**:1-305

'Helmolepis'

Cosmopolitan
Dienerian-Smithian
PKU collection







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PKU Collection





Mixosaurus panxianensis
PKU Collection

Macropredators vs top predators?

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Saurichthys sp.
Middle Anisian
Paxian Fauna
PKU collection

Macropredators vs top predators?

'TOP' PREDATORS

Saurichthys grignae Tintori, 2013

Early Ladinian - Grigna Mountain - Italy

UNIMI collection

50 MM



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Macropredators vs top predators?



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Saurichthys grignae Tintori, 2013
Early Ladinian - Grigna Mountain - Italy
UNIMI collection

'TOP' PREDATORS

TMFF

'TOP' PREDATORS

TMFF



'TOP' PREY!

Saurichthys grignae Tintori, 2013

UNIMI collection

Mx

Mn

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'TOP' PREDATORS

TMFF

Saurichthys grignae Tintori, 2013

Early Ladinian -Grigna Mountain - Italy

UNIMI collection

grid structure, improving swimming....
but not enough!

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'TOP' PREDATORS

TMFF



Saurichthys costasquamosus

Early Ladinian
Grigna Mountain – Italy
UNIMI collection

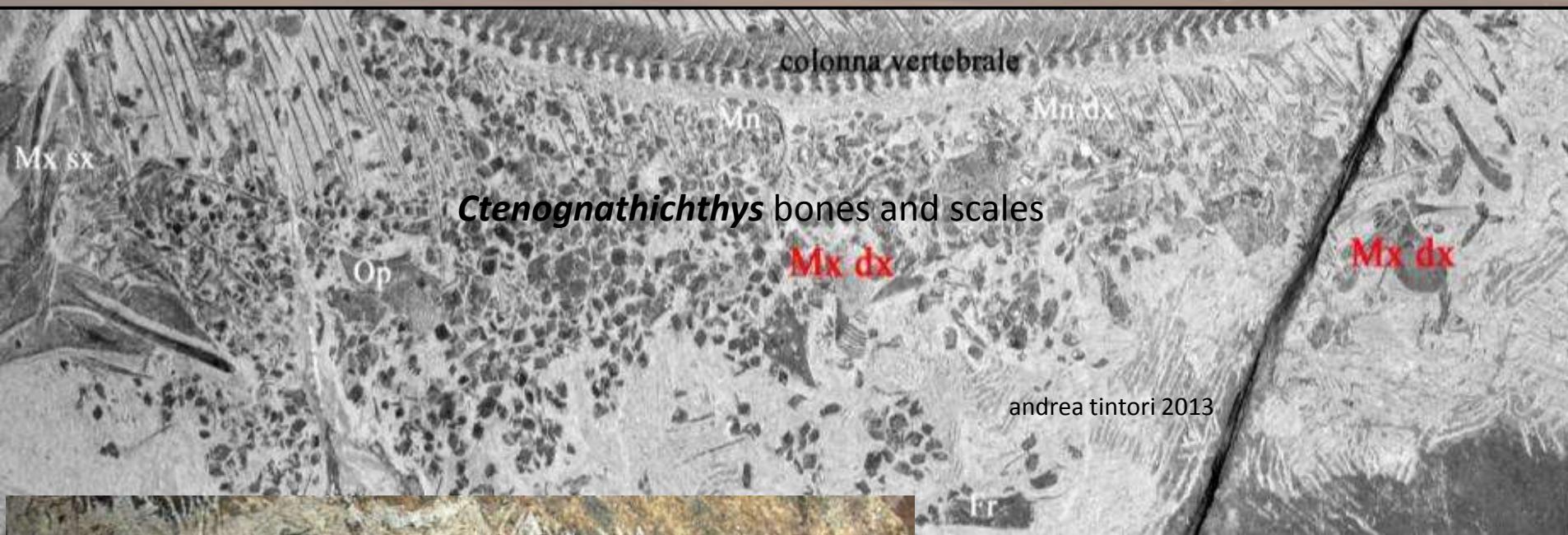


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CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

'TOP' PREDATORS

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*Saurichthys
costasquamatus*

'TOP' PREY!

Is this the *Saurichthys* KILLER?



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<http://walkingwith.wikia.com/wiki/Cymbospondylus>

Is this the *Saurichthys* KILLER?

CYMBOSPONDYLUS
Early Ladinian
Val Gardena, Italy





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How to avoid to be eaten?

But subholosteans tried successfully

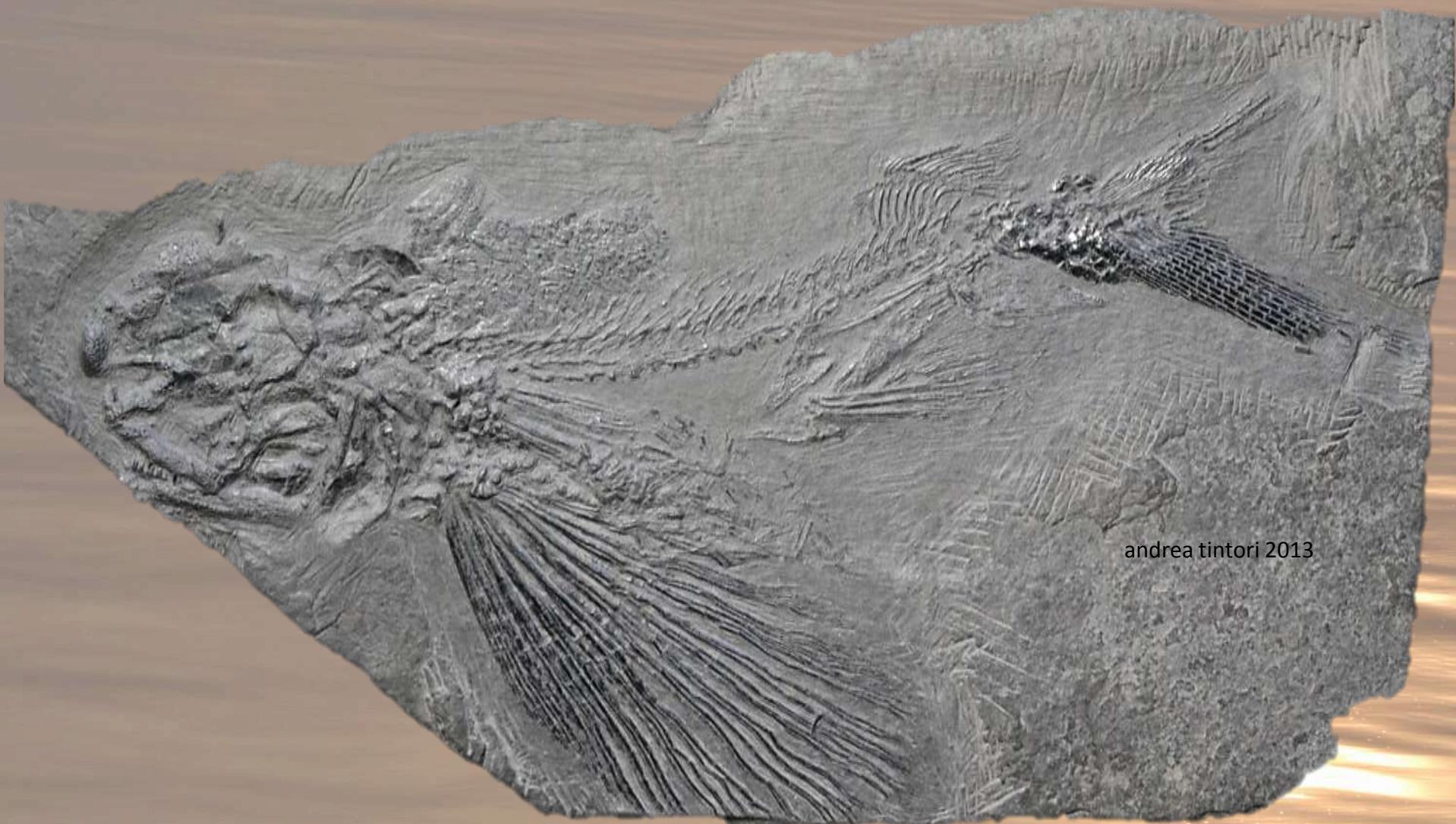
Flying seems not the best way, at least today



Thoracopterus wushaensis - Early Late Ladinian

Tintori et al., 2012

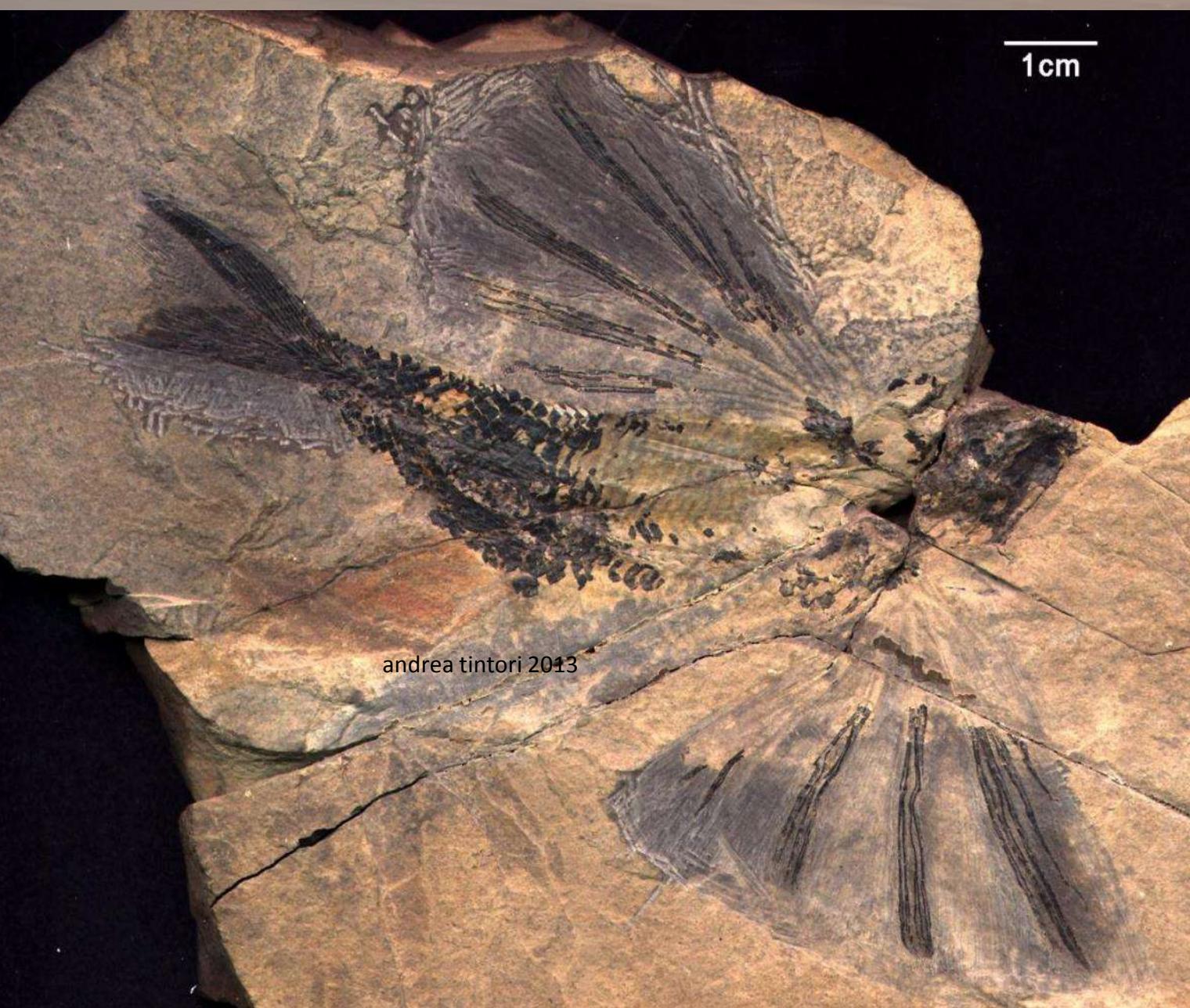
TMFF/TLFF



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Thoracopterus niederristi Bronn, 1858
Early Carnian

TMFF/TLFF



Thoracopterus magnificus Tintori & Sassi, 1987
Late Norian

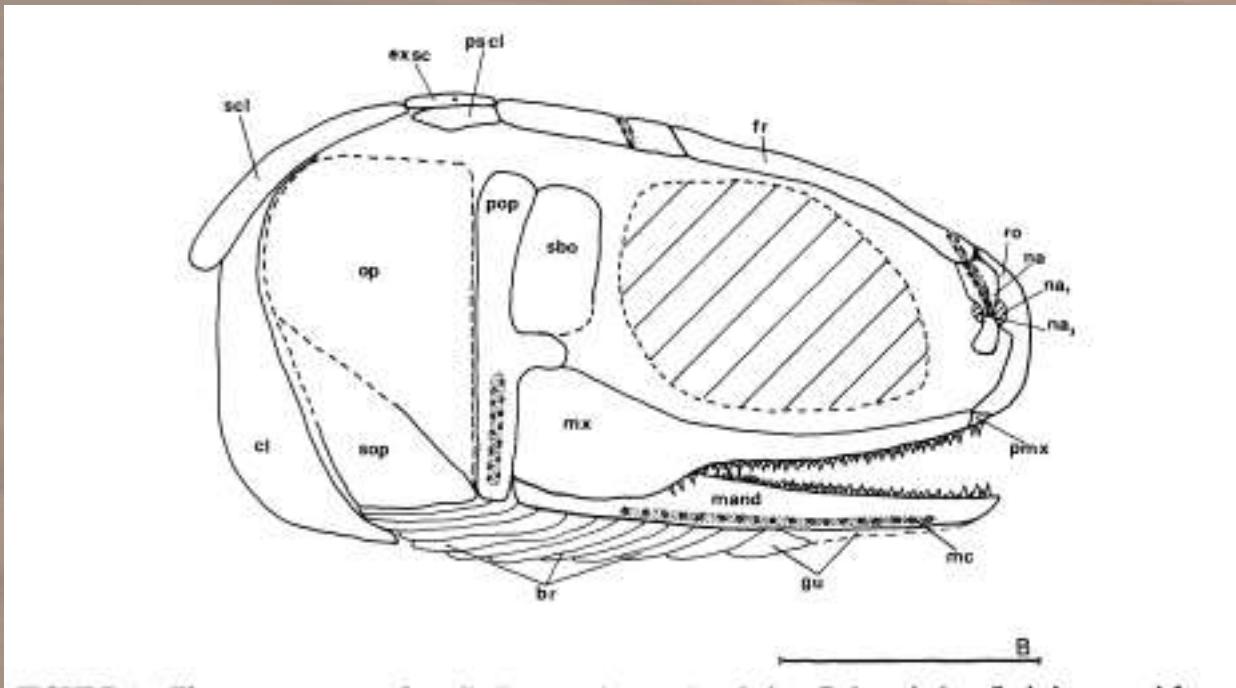
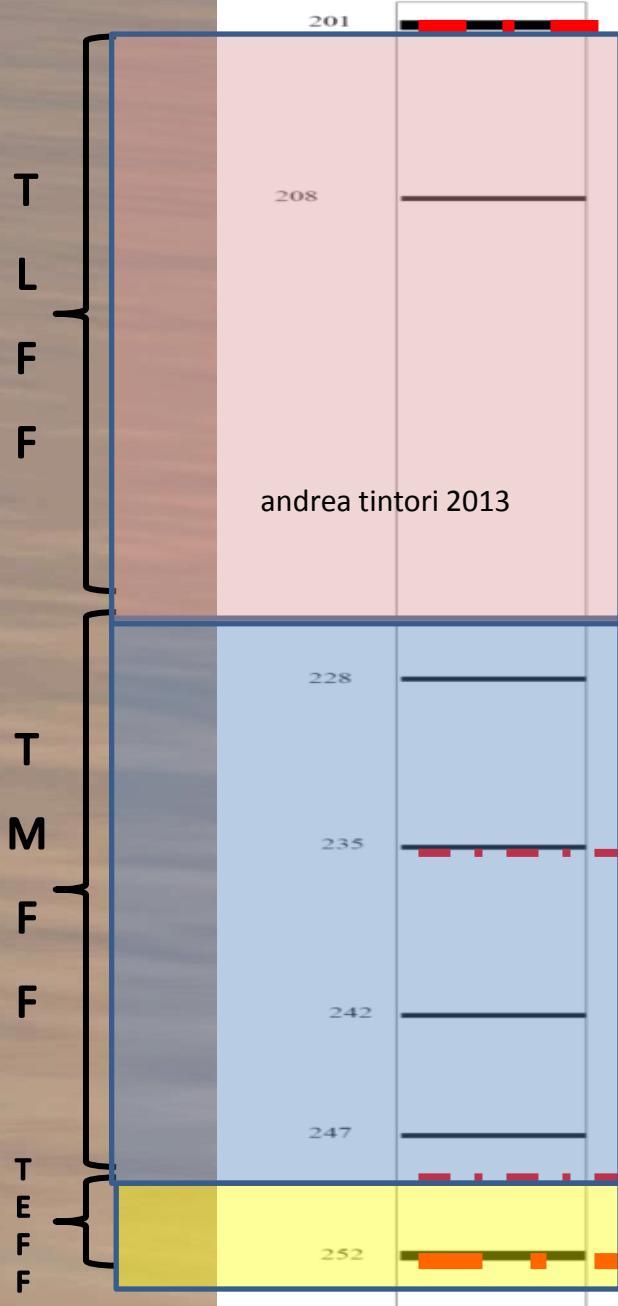


FIGURE 4. *Thoracopterus magnificus*. Skull restoration. A, dorsal view; B, lateral view. Scale bars equal 5 mm.

Flying fishes were fast swimmer small/medium size predators



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Saurichthys!!!!!!



TLFF

Birgeria!!!!!!



Serranidae



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TLFF

Birgeria

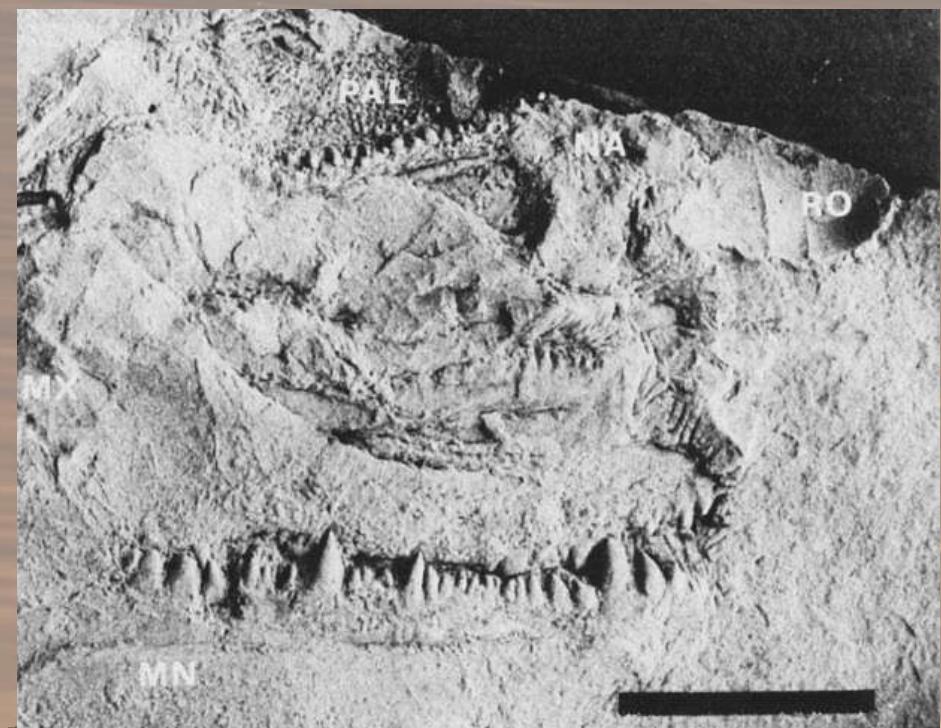


TLFF

Gabanellia



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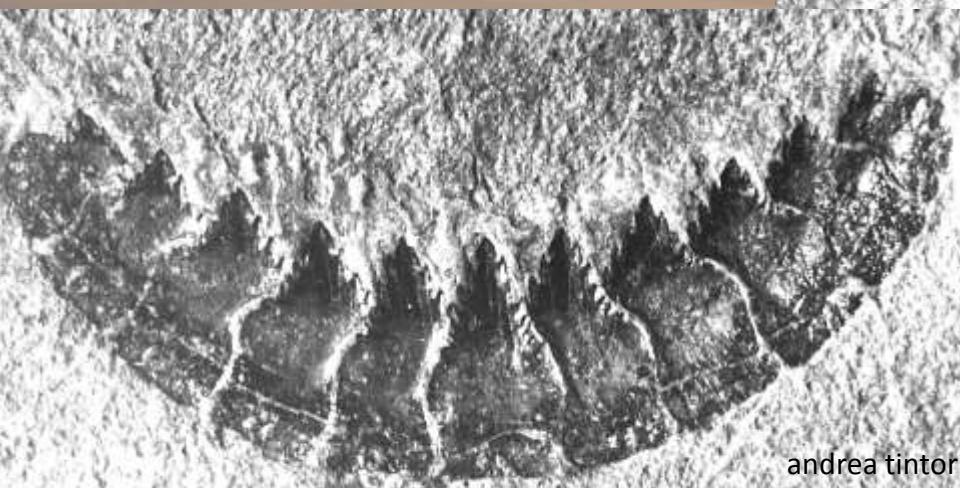
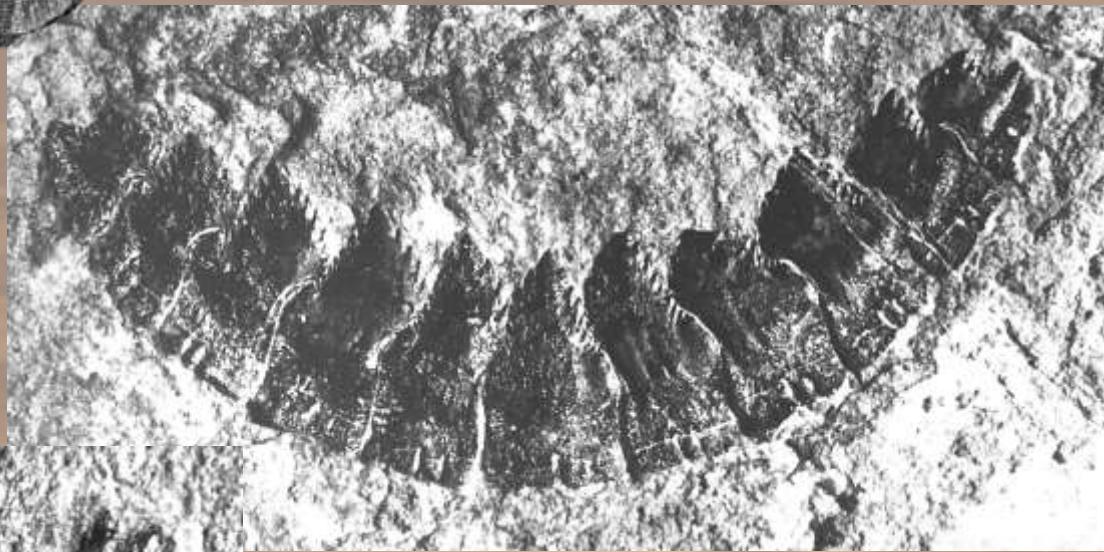


TLFF



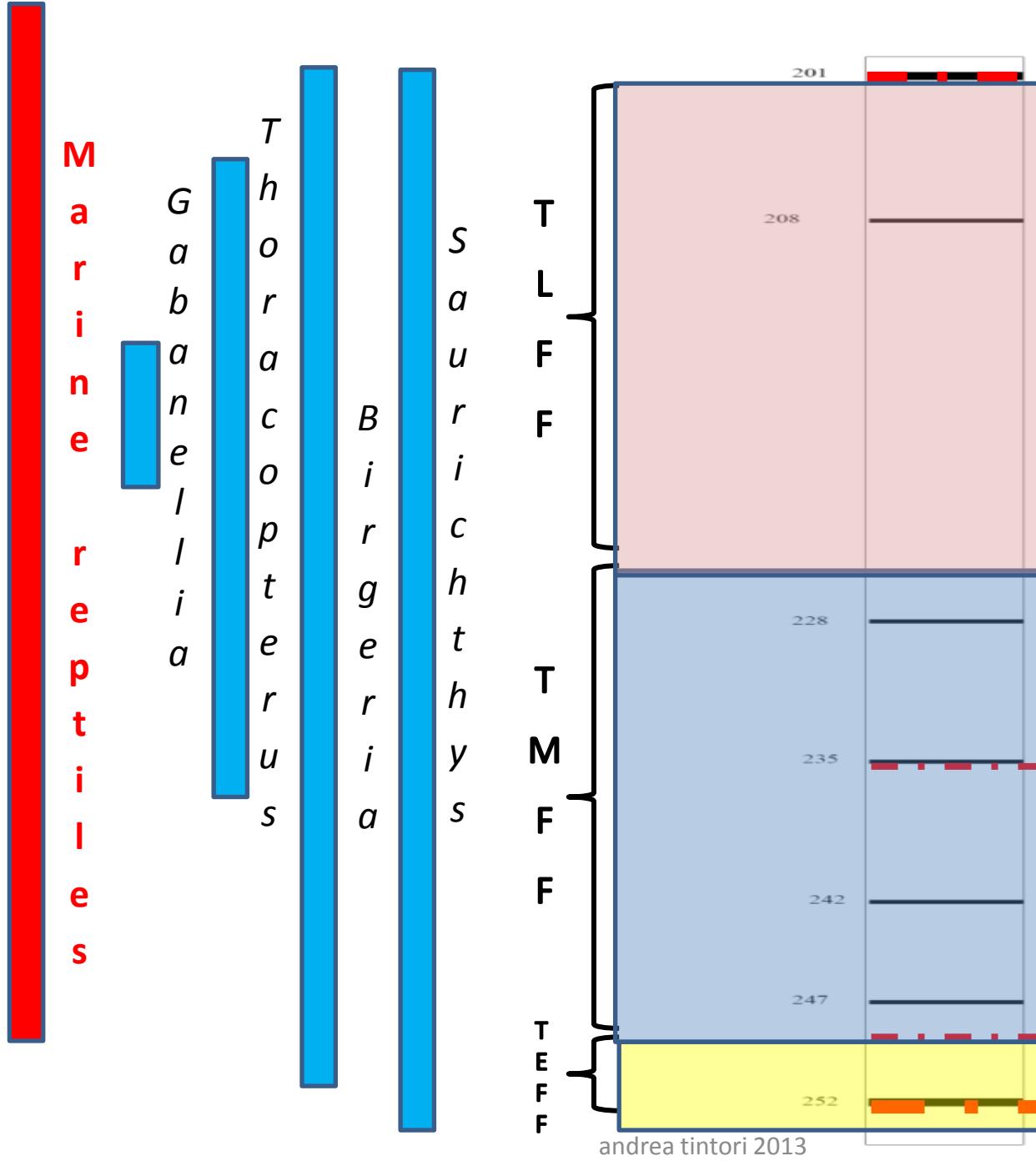
Pseudodalatias

Row length 10<>30 mm



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Tr/J

Nor/Rha

Car/Nor

Lad/Car

An/Lad

OI/An
Sm/Sp

P/Tr

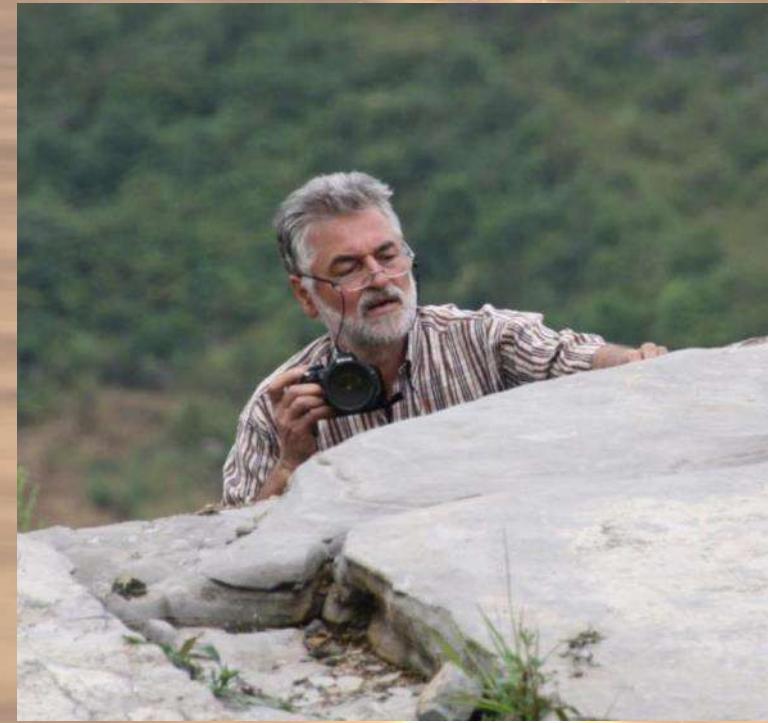
CONCLUSIONS

- MOST TOP-PREDATORS AMONG TRIASSIC FISHES ARE LONG-LASTING GENERA
- NONE OF THEM IS A NEOPTERYGIAN
- SAURICHTHYS SHOWS A VERY HIGH VARIABILITY ACROSS MOST TRIASSIC, WITH SHORT-LASTING SPECIES
- *BIRGERIA* IS MUCH MORE CONSERVATIVE AND RARE
- SUBHOLOSTEAN *THORACOPTERUS* AND *GABANELLIA* WERE POSSIBLY THE FASTEST IN CHASING THE PREYS

THANKS TO ALL THE PEOPLE WHO HELPED ME IN 40 YEARS OF COLLECTING IN MANY TRIASSIC PLACES AND TO THE SPONSOR WHICH ALLOWED EXCAVATIONS AND SPECIMEN PREPARATION



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**AND THANK TO ALL OF YOU
FOR ATTENDING THIS EARLY
MORNING TALK**