



Ny forskning om djurlivet i Sverige under dinosauriernas tidsålder

28 januari 2026

Benjamin Kear

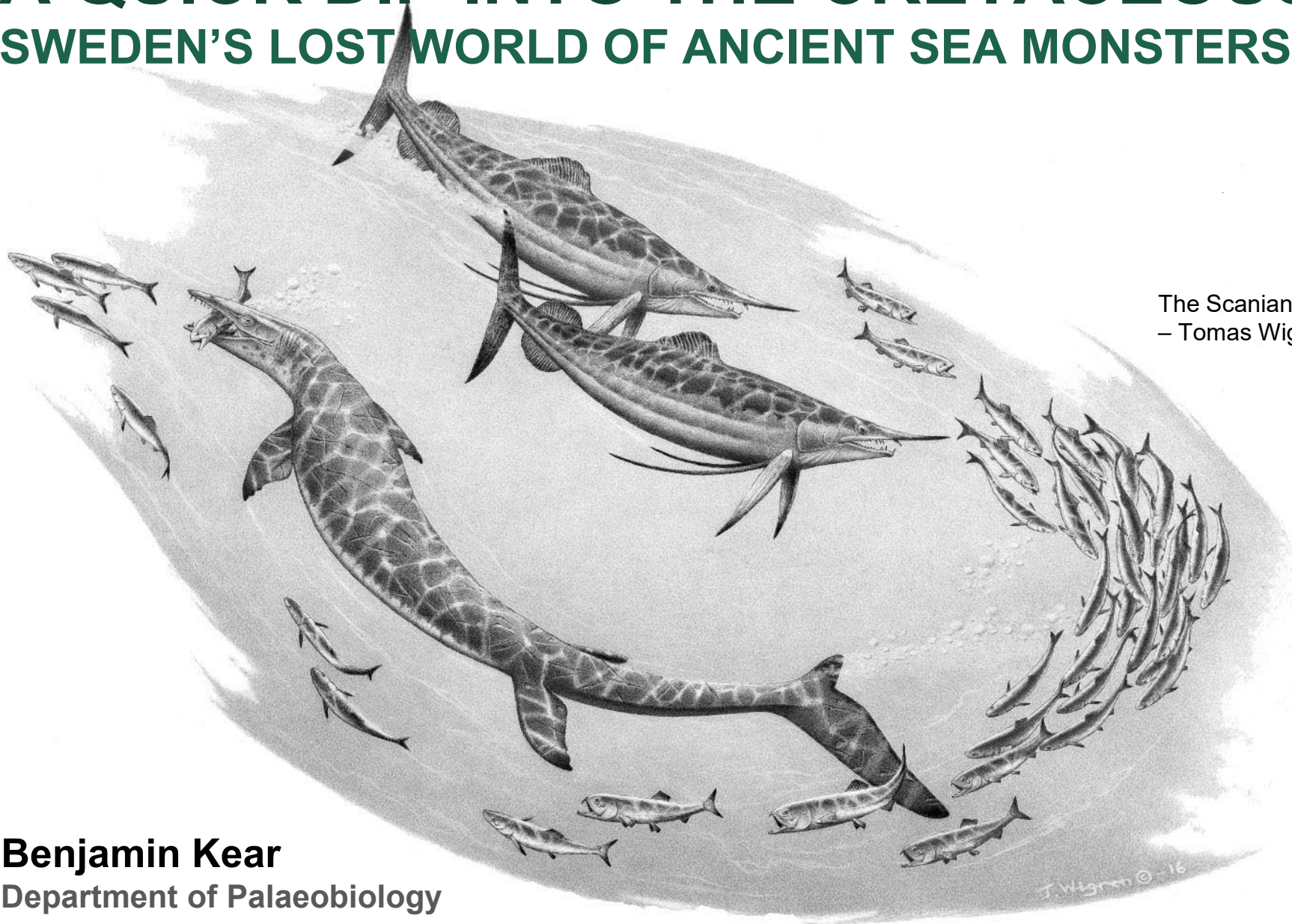
Museipedagogerna

Naturhistoriska riksmuseet

- Besöksmål
 - 500 000 besökare per år, varav
 - 50 000 elever med lärare
- Lektionsbank (Bi, Ke, Ge)
www.nrm.se/lektionsbank
- 11 miljoner föremål
- Forskning
- Natur- och miljöövervakning



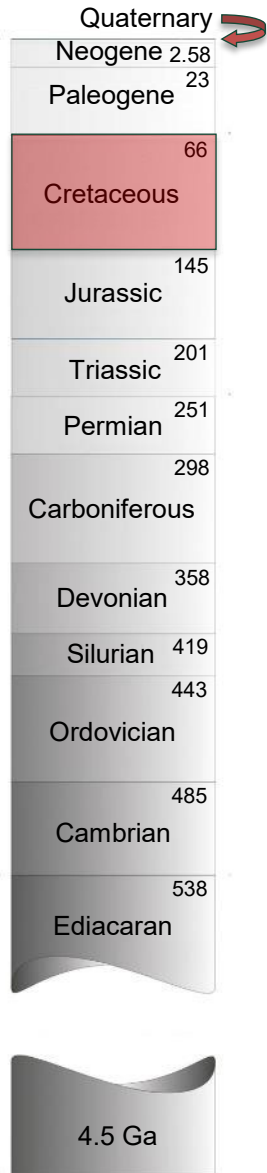
A QUICK DIP INTO THE CRETACEOUS: SWEDEN'S LOST WORLD OF ANCIENT SEA MONSTERS



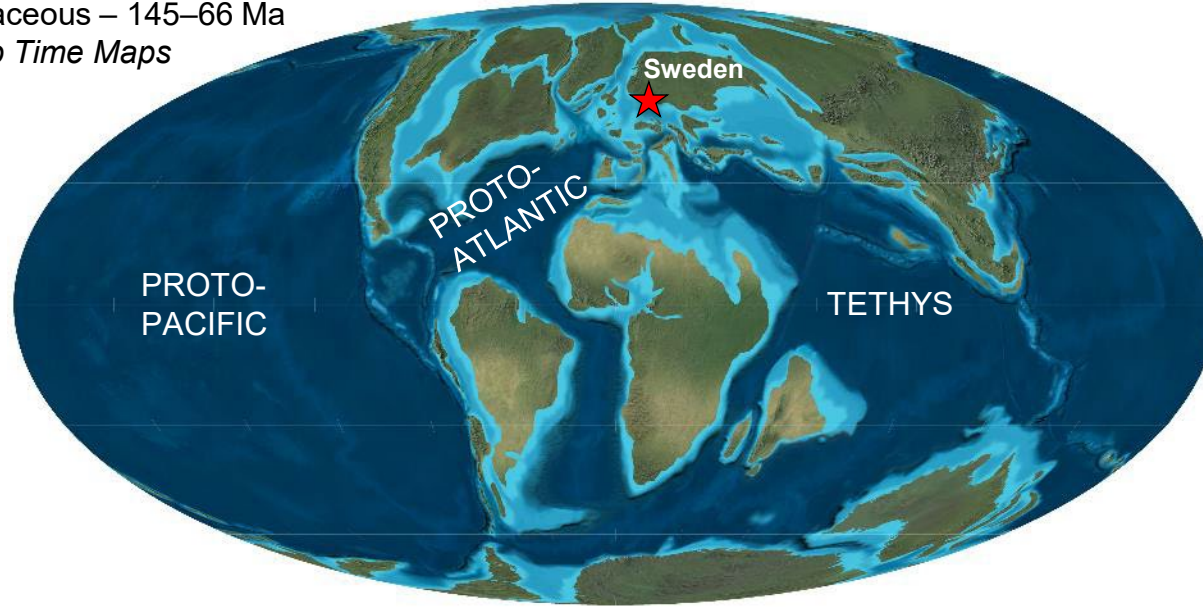
The Scanian Sea
– Tomas Wigren

Benjamin Kear
Department of Palaeobiology

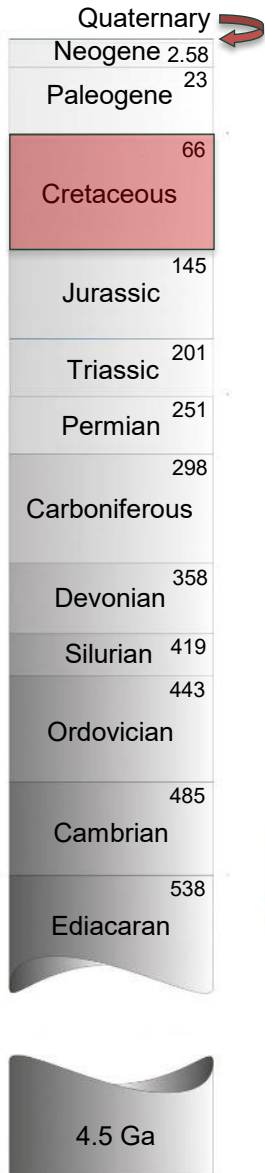
Setting Stages: Life in Late Cretaceous Swedish Seas



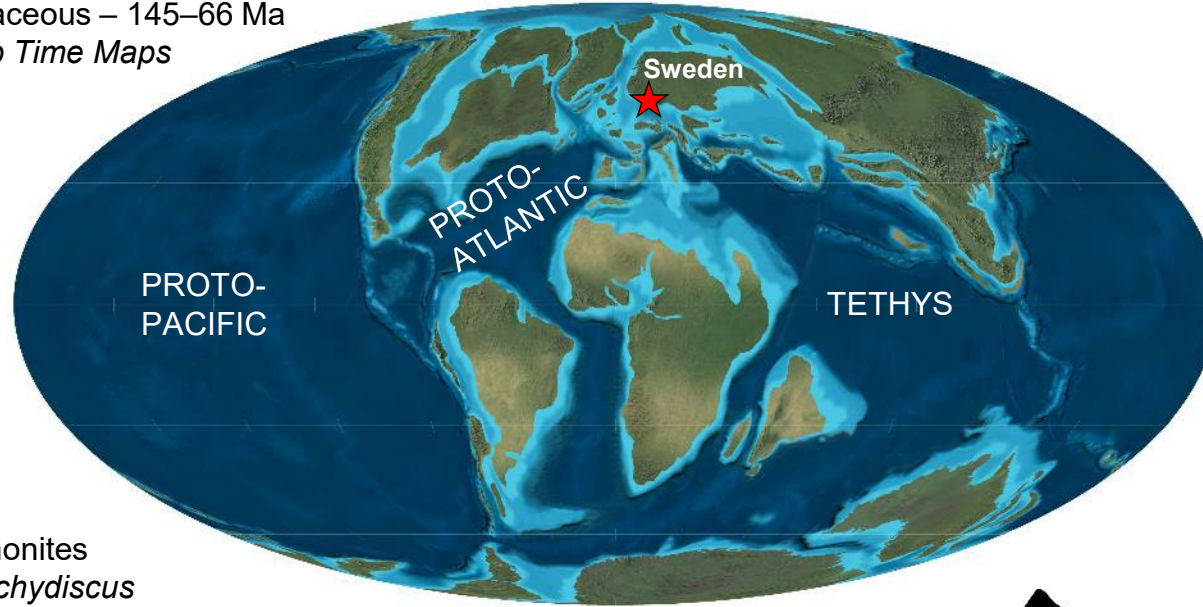
Cretaceous – 145–66 Ma
Deep Time Maps



Setting Stages: Life in Late Cretaceous Swedish Seas



Cretaceous – 145–66 Ma
Deep Time Maps



Lamniforms – *Cretoxyrhina*



Ammonites
– *Pachydiscus*



Bony fishes
– pycnodonts



Anomoeodus – Bazzi et al. (2016)

Chimaera

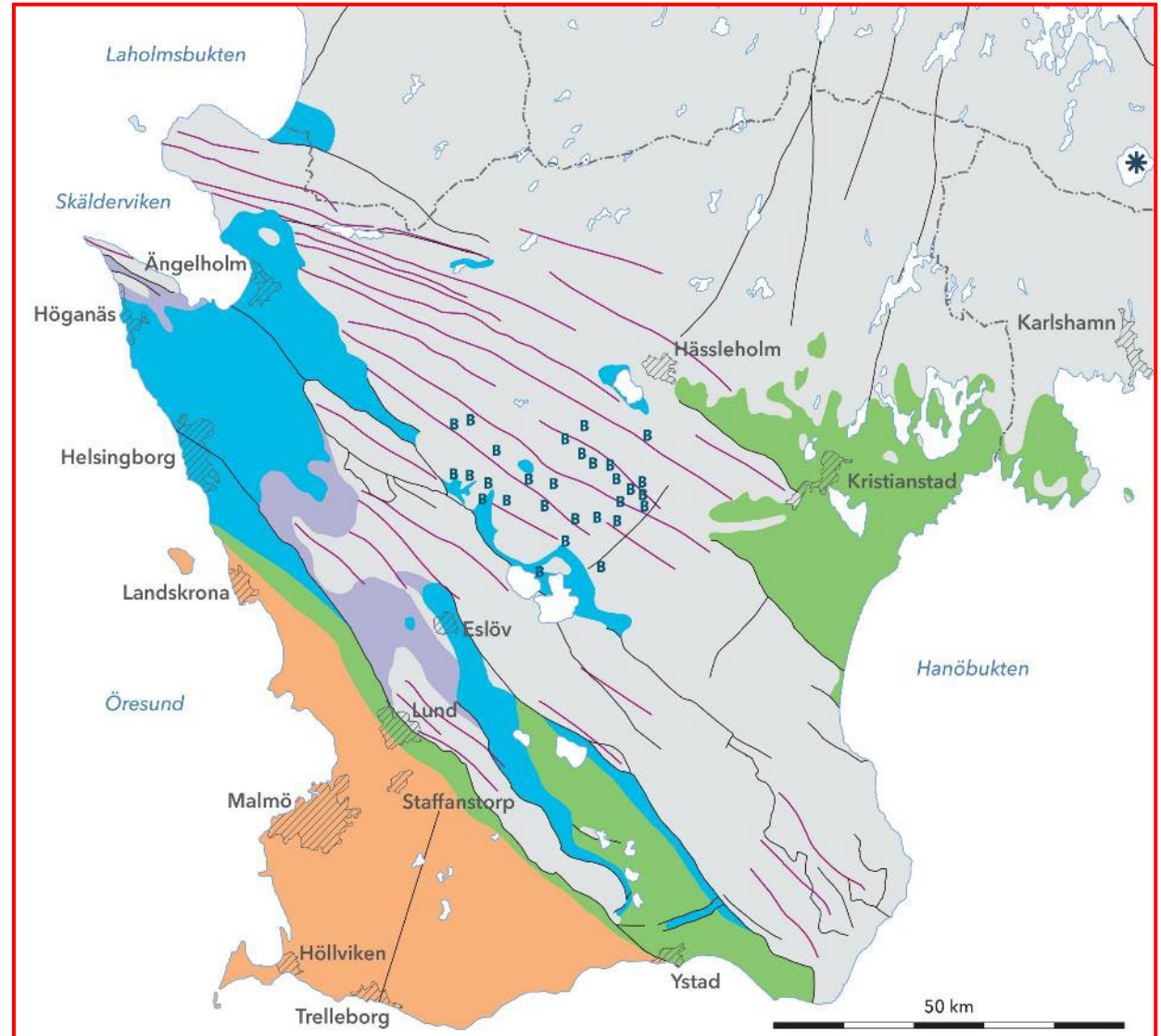
iNaturalist
Sweden



Cartilaginous fishes – sharks & chimaeras

Digging Up Deep Time: Finding Swedish Cretaceous Fossils

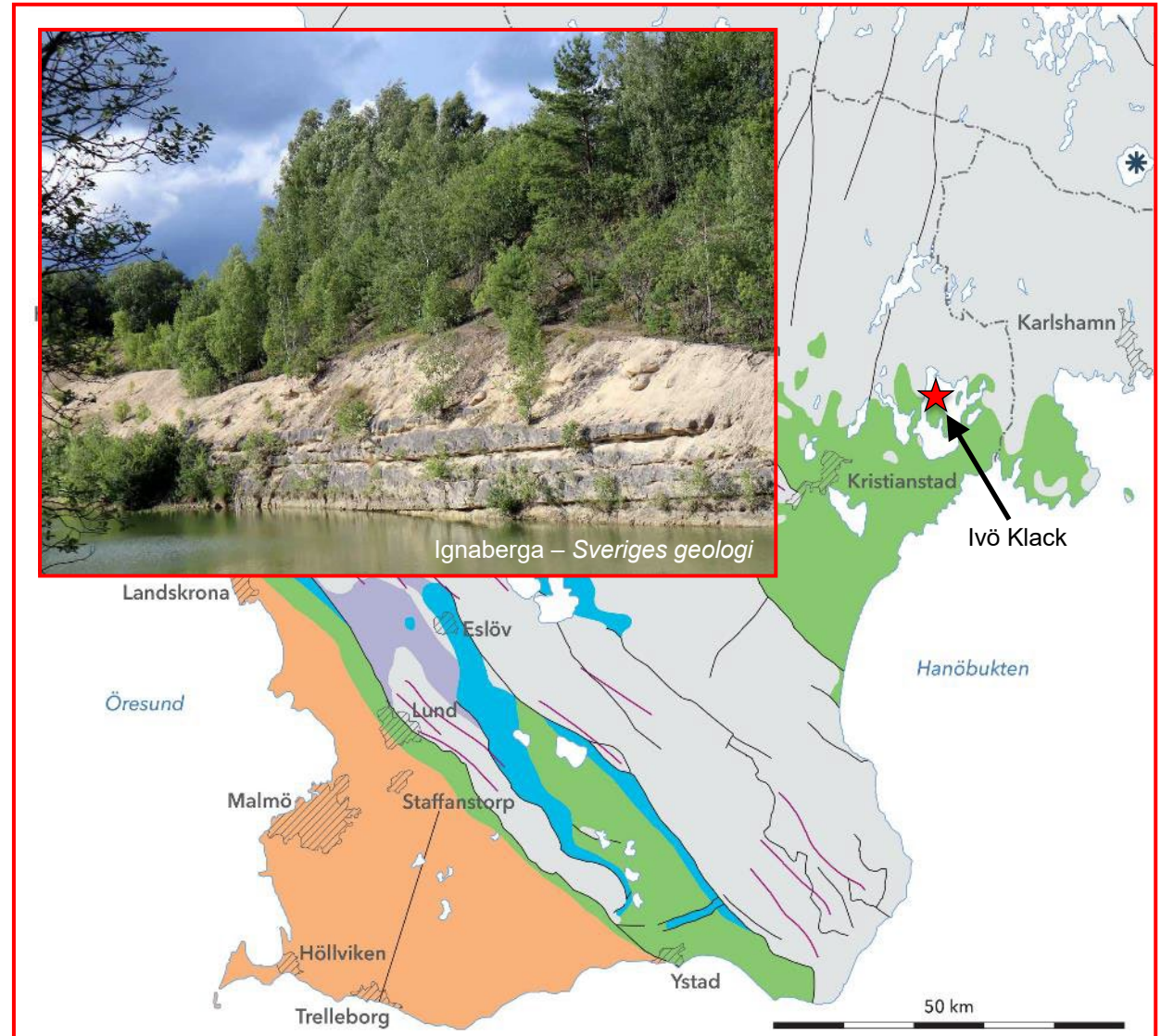
- **Where:** disused limestone & clay quarries in the Kristianstad Basin.



Cretaceous deposits in Skåne – *Sveriges geologi*

Digging Up Deep Time: Finding Swedish Cretaceous Fossils

- **Where:** disused limestone & clay quarries in the Kristianstad Basin.
- **When:** mid-Campanian subage of the Late Cretaceous, ~80–77 Ma.
- **What:** rich marine & terrestrial faunas from shallow seas & rocky islands.
- **Who:** first vertebrate fossils scientifically documented in 1827.
- **How:** historical museum collections, fieldwork & citizen scientists.
- **Why:** record mid-palaeolatitude (~48° N) ecosystem change over ~2–3 Ma.

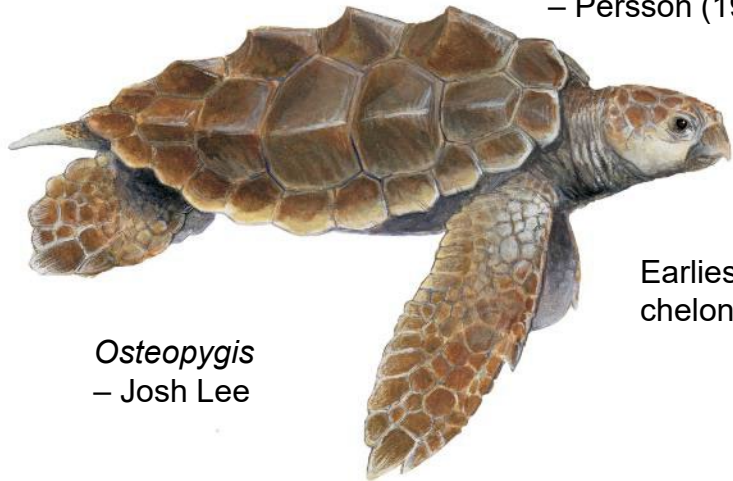


Cretaceous deposits in Skåne – *Sveriges geologi*

Denizens of the (not so) Deep: Sea Creatures Great & Small



Maltesholm sea turtle
– Persson (1959)



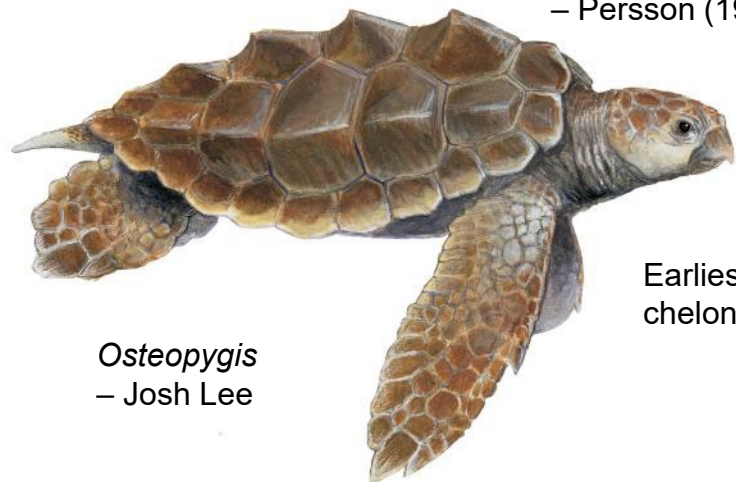
Osteopygis
– Josh Lee

Earliest modern
chelonoids

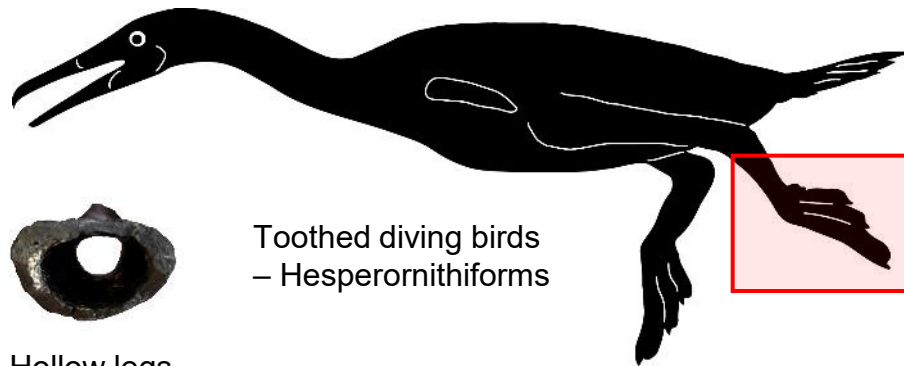
Denizens of the (not so) Deep: Sea Creatures Great & Small



Maltesholm sea turtle
– Persson (1959)



Osteopygis
– Josh Lee



Toothed diving birds
– Hesperornithiforms



Hollow legs

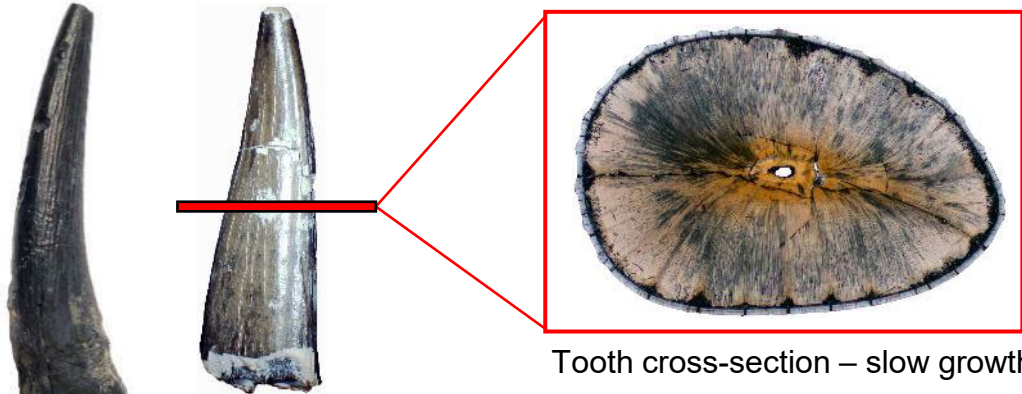


Toe & leg bones
– *Hesperornis*



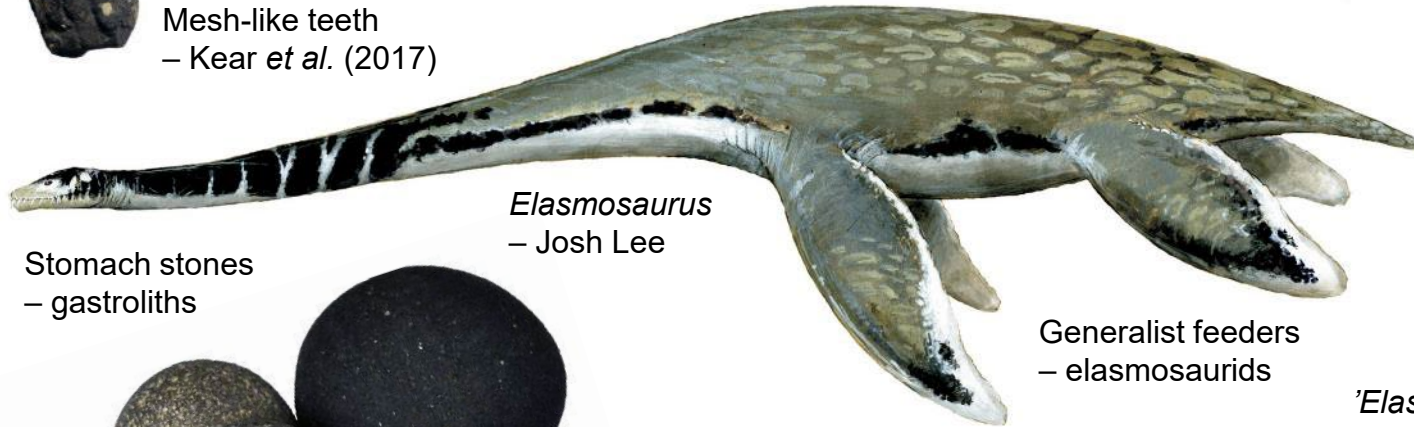
Hesperornis rossicus
– Naturhistoriska riksmuseet

Longest Necks in the Sea: Plesiosaurs – ‘Near Lizards’



Mesh-like teeth
– Kear *et al.* (2017)

Tooth cross-section – slow growth

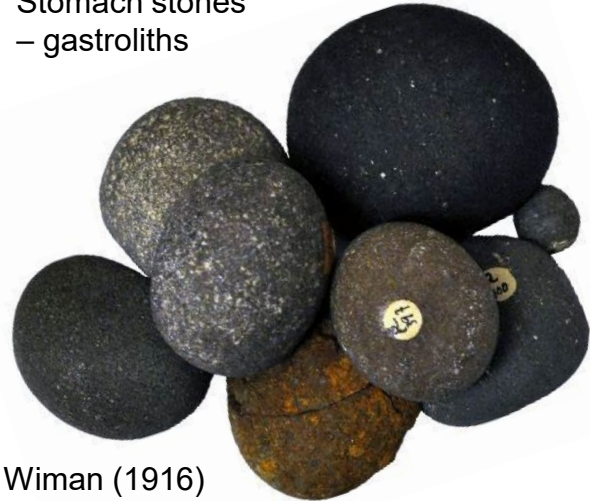


Elasmosaurus
– Josh Lee

Stomach stones
– gastroliths

Generalist feeders
– elasmosaurids

'Elasmosaurus'



Wiman (1916)

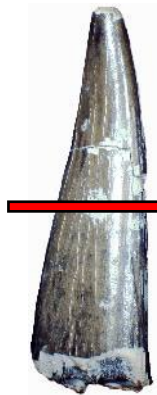


Scanisaurus

Different necks
– vertebrae



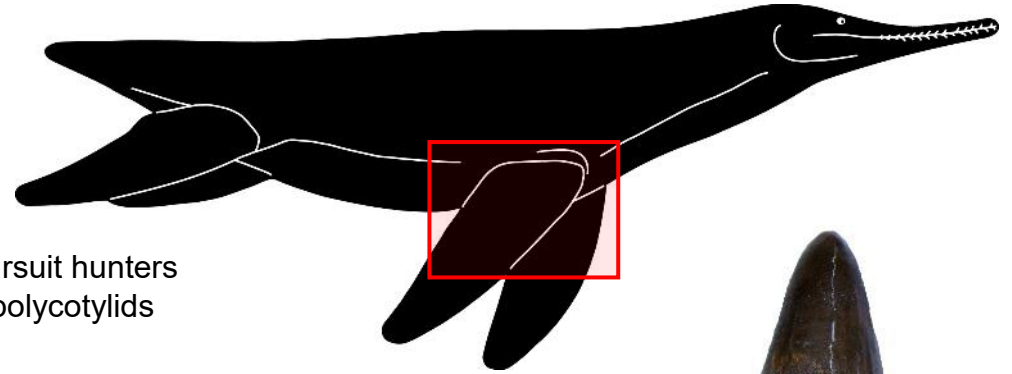
Longest Necks in the Sea: Plesiosaurs – ‘Near Lizards’



Mesh-like teeth
– Kear *et al.* (2017)



Tooth cross-section – slow growth

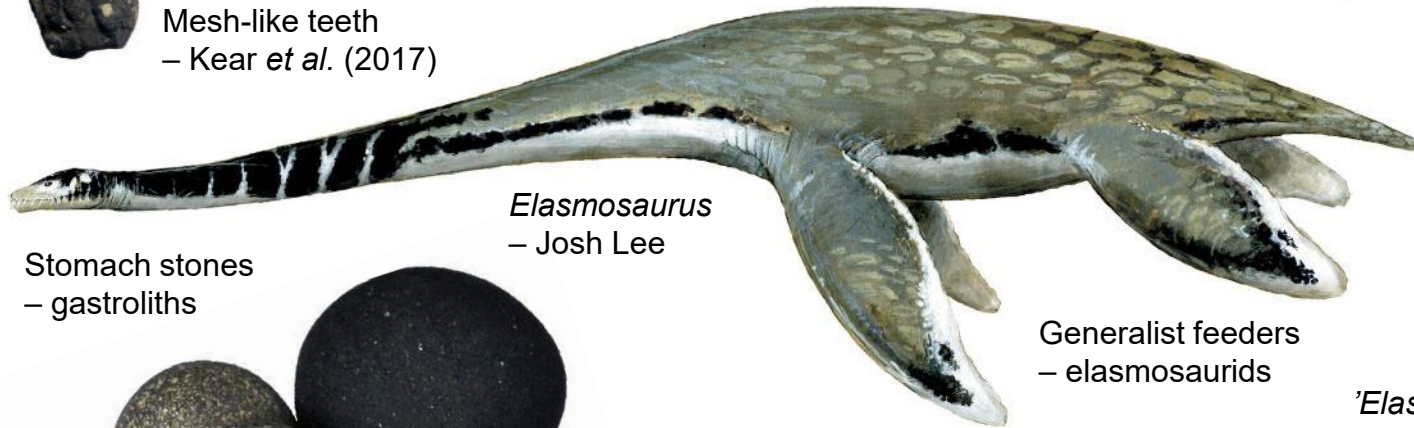


Pursuit hunters
– polycotyliids

Fleshy flippers
– underwater flight



Piercing teeth



Elasmosaurus
– Josh Lee

Stomach stones
– gastroliths

Generalist feeders
– elasmosaurids



Wiman (1916)



Scanisaurus

Different necks
– vertebrae

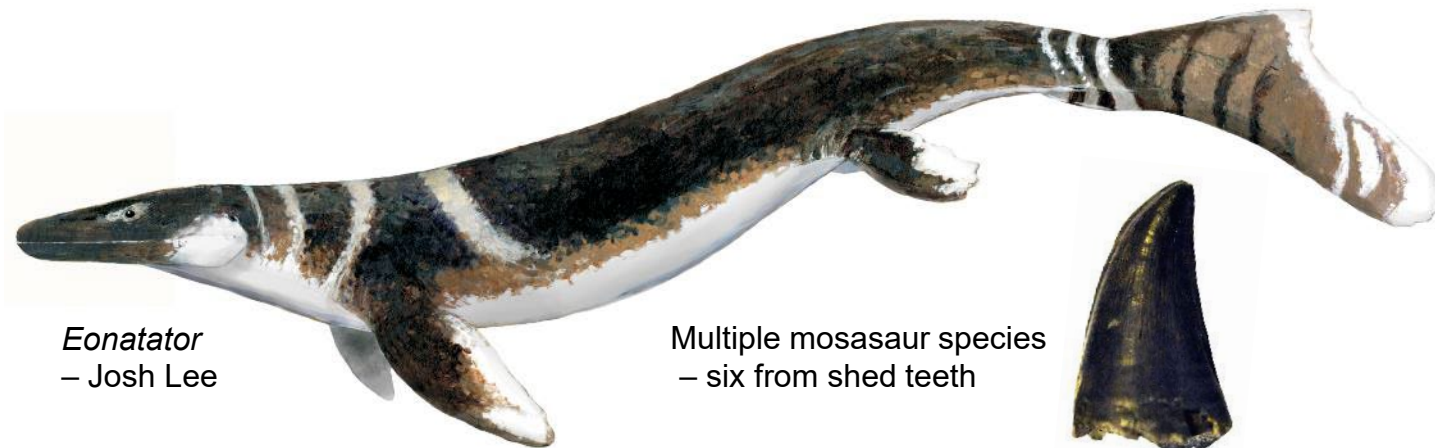
'Elasmosaurus'



Marine Mega-Predators: Mosasaurs – Giant Aquatic Lizards

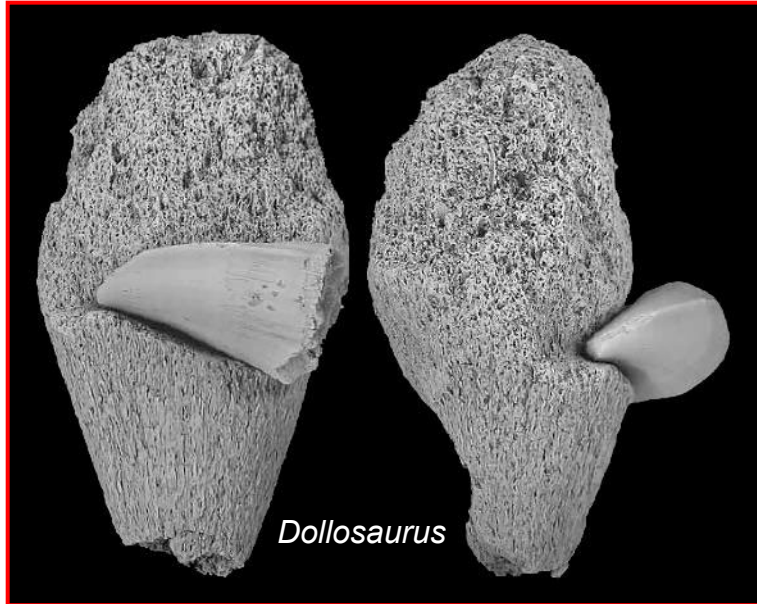


Sweden's own
15 m mosasaur!



Marine Mega-Predators: Mosasaurs – Giant Aquatic Lizards

Predation on plesiosaurs – bites on bones



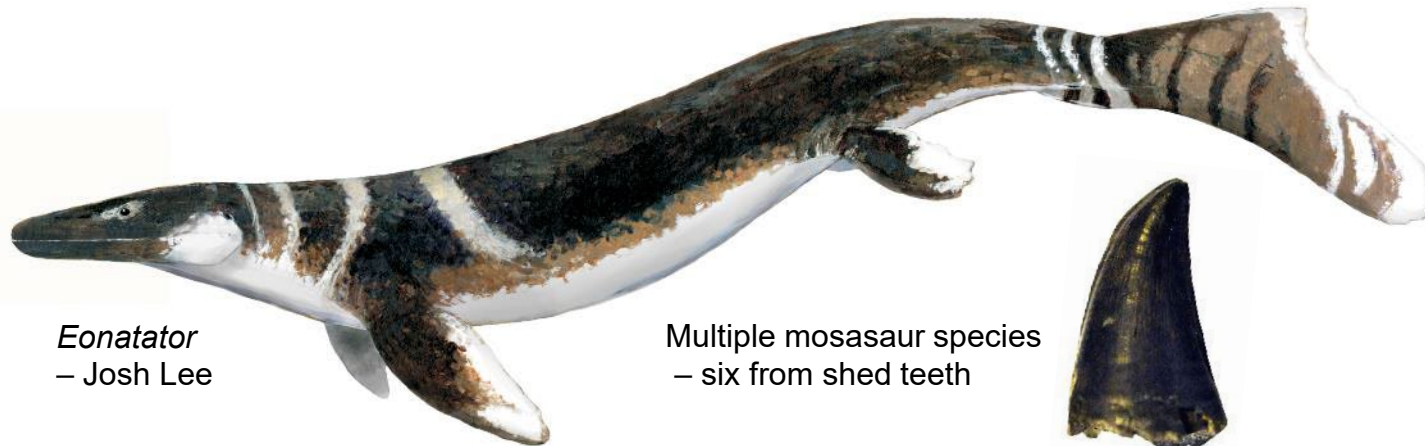
Dollosaurus

Einarsson et al. (2010)



Tylosaurus ivoensis
– Lindgren & Siversson (2002)

Sweden's own
15 m mosasaur!



Eonatator
– Josh Lee

Multiple mosasaur species
– six from shed teeth



Evolutionsmuseet

Eonatator sternbergi – trans-Atlantic migration

Island Inhabitants: Turtles & Dinosaurs Lost at Sea



Soft-shelled turtles – trionychids

Ornamented shells

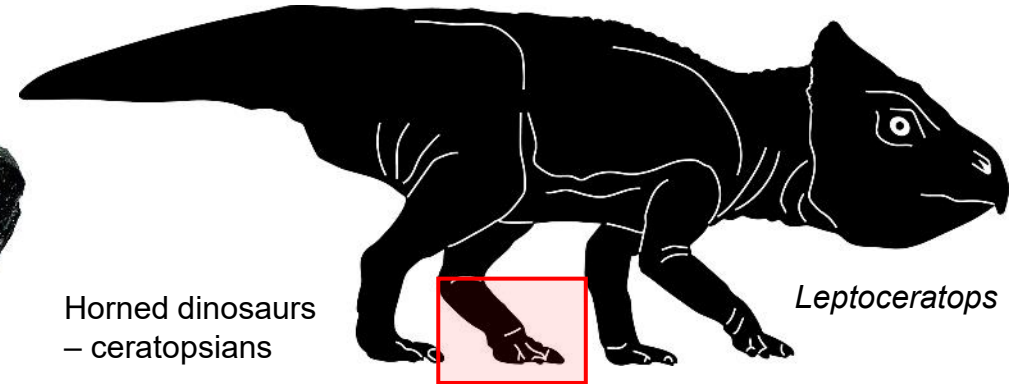


Island Inhabitants: Turtles & Dinosaurs Lost at Sea



Soft-shelled turtles – trionychids

Ornamented shells



Horned dinosaurs – ceratopsians

Ignaberga ankylosaur
– forgotten limb bone



Åsen toes & teeth
– Poropat *et al.* (2016)



Armoured dinosaurs – ankylosaurids

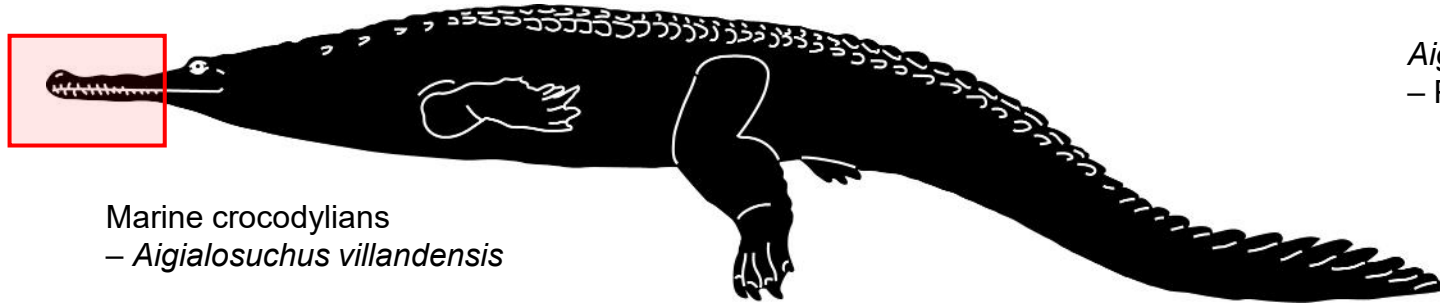
Extinction survivors: Marine Crocodiles



Broad snout & crushing teeth
– *Aigialosuchus*



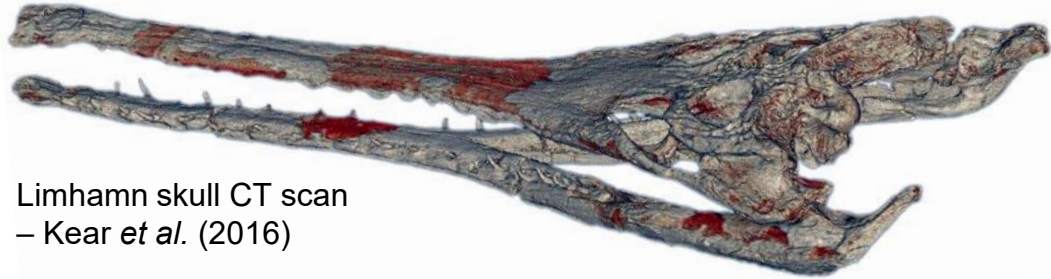
Aigialosuchus skull
– Persson (1959)



Marine crocodylians
– *Aigialosuchus villandensis*

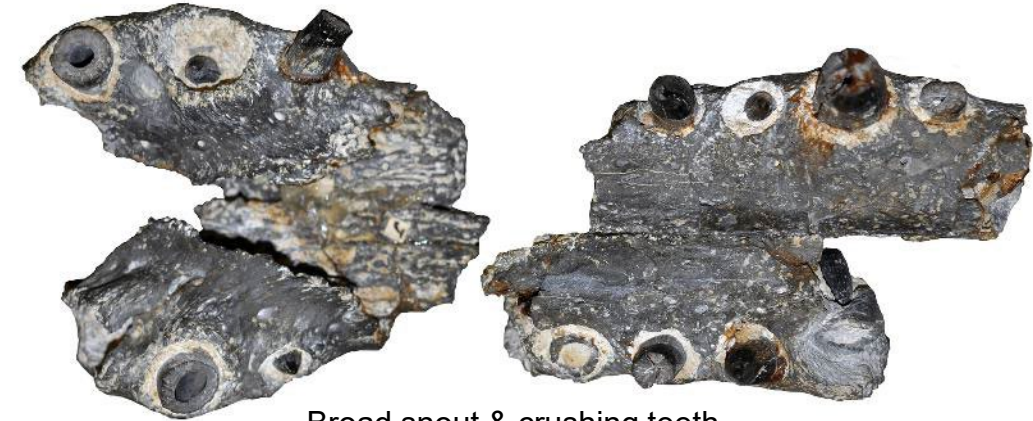


Extinction survivors: Marine Crocodiles



Limhamn skull CT scan
– *Kear et al. (2016)*

After the dinosaurs
– Eusuchians



Broad snout & crushing teeth
– *Aigialosuchus*



Thoracosaurus macrorhynchus
– Geomuseum Faxe

Thin snout & piercing teeth
– *Thoracosaurus*



Aigialosuchus skull
– *Persson (1959)*




Marine crocodylians
– *Aigialosuchus villandensis*



Conclusions & Questions

Environments: southern Sweden was covered by a warm shallow sea dotted with dry rocky islands during the Late Cretaceous (~80 Ma).



Sweden's own mosasaur – *Tylosaurus ivoensis*



Sweden's own mosasaur – *Tylosaurus ivoensis*

Conclusions & Questions

Environments: southern Sweden was covered by a warm shallow sea dotted with dry rocky islands during the Late Cretaceous (~80 Ma).

Ecosystems: diverse marine faunas include sharks, bony fishes, aquatic reptiles & birds. Dinosaurs, turtles & other animals lived on land.



Sweden's own mosasaur – *Tylosaurus ivoensis*

Conclusions & Questions

Environments: southern Sweden was covered by a warm shallow sea dotted with dry rocky islands during the Late Cretaceous (~80 Ma).

Ecosystems: diverse marine faunas include sharks, bony fishes, aquatic reptiles & birds. Dinosaurs, turtles & other animals lived on land.

Fossils: geoheritage treasure trove of ancient ecosystem change & Swedish scientific history spanning nearly 200 years of research!

Mänsklighetens vagga

- Ett escaperoom om upptäckten av en ny människoart.
- Information på flera sätt, film, text och bild.
- Interaktiva övningar, leta fossil, pussla ihop ett skelett.
- Placera den nya arten i människans släkträd.
- Framtaget tillsammans med Benjamins kollega



<https://www.nrm.se/skola/lektionsmaterial/mansklighetens-vagga>

Håll kontakten!

Lärarybrev

Få materialen först

www.nrm.se/lararbrev



Facebook

Testa material under utveckling

Naturhistoriska riksmuseet för pedagoger

