

SELECTION OF PROJECTS

Chondrichthyans

- Early Jurassic (Pliensbachian) elasmobranchs from South Germany.
- Late Jurassic (Kimmeridgian) chimeroids from northern Germany.
- The Late Jurassic heterodontiform, *Paracestracion falcifer*, revisited
- Early Cretaceous (Barremian) hybodontiform sharks from Iberia.
- Revision of Late Cretaceous orectolobiform sharks.
- Palaeogene elasmobranchs from Patagonia (Argentina).
- Eocene lamniform (mackerel) sharks from Antarctica.
- Revision of Neogene odontaspimid sharks.
- Labial cartilages in extinct elasmobranchs: Functional and phylogenetic signals.
- Development of dermal latero-sensory components in chondrichthyans.
- Macroevolutionary patterns of elasmobranchs.
- Lyellian percentages and mean taxon duration of elasmobranchs.
- Skeletal morphology of *Sphyrna*.
- Ontogeny of the skeletal labyrinth in sharks.
- Implications of human-shark interactions for conservation considerations.

Actinopterygii

- Late Jurassic (Kimmeridgian) actinopterygians from northern Germany.
- Late Jurassic (Oxfordian) actinopterygians of China.
- Early Cretaceous (Aptian) teleosts from northern Germany.
- Early Cretaceous actinopterygians from India.
- Late Cretaceous (Maastrichtian) freshwater fishes from Kislapur (India).
- Eocene bony fishes (Actinopterygii) from Antarctica.
- Miocene killifishes (Cyprinodontiformes) from Ecuador.
- Late Miocene marine fishes from Karpathos (Greece).
- Pliocene fishes (Elasmobranchii and Actinopterygii) from Greece.
- Comparative skeletal morphology of Antarctic icefishes (Notothenioidei).
- Importance of microdenticles in the swordfish, *Xiphias gladius*.
- Ecomorphological disparity and evolution of opercular and hyomandibular shapes in gadiform fishes.

- Evolutionary and ontogenetic changes of the anatomical organization and modularity in the skull of pycnodontiform fishes.
- The caudal fin skeleton of pycnodontiform fishes.
- Significance of preopercle and hyomandibular shapes in the evolution of pycnodontiform fishes.
- Early Cretaceous (Cenomanian) pycnodontiform fishes from Israel.
- Revision of the pycnodontid fish *Coelodus*.

Amphibians

- Inner and middle ear morphology in anurans.

Reptiles

- Earliest Jurassic (Hettangian) ichthyosaur remains from Austria.
- Late Cretaceous turtles and crocodiles from Austria.
- Macroevolutionary patterns of rhychocephalian.
- Inner and middle ear of chamaeleons.

Birds

- Analyzing the bony labyrinth of birds to reconstruct ecological patterns: swarm vs. solitary; flying vs. ratite; migratory vs. resident bird
- Middle ear ossicles of birds and their phylogenetic importance
- Bony labyrinth of hummingbirds

Mammals

- The bony labyrinth of selected jumping mammals and its functional-morphological signal
- The septal compass of selected rodents
- The septal compass of carnivorans