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CORELIS

# COLEOPTERA

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# Subject

**Coleopteran**-any member of the insect order Coleoptera, consisting of the beetles and weevils. It is the largest order of insects.



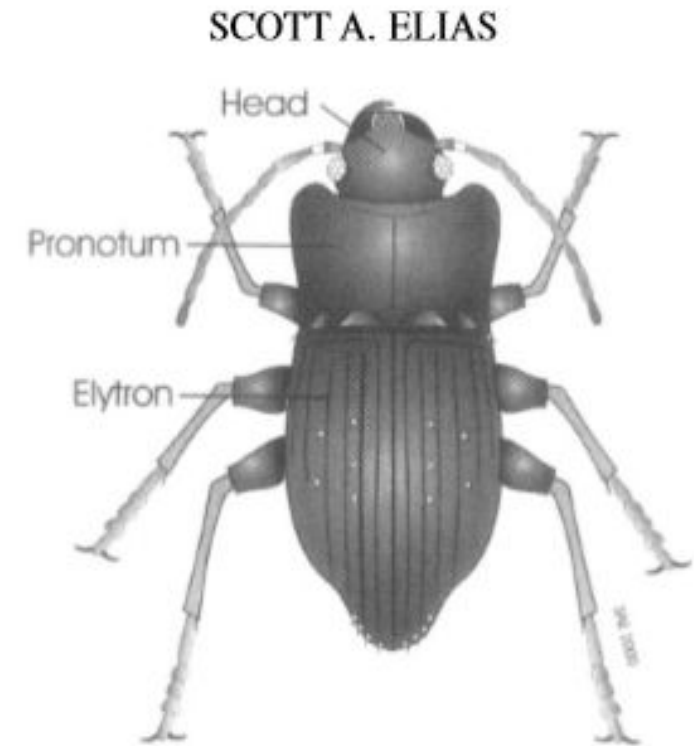
Assorted Coleoptera in the University of Texas Insect Collection

Arrangement by Julia Suits; Photograph by Alex Wild  
Public Domain image produced by the "Insects Unlocked" project at the University of Texas at Austin.



# Type of sediments

Generally coleopteras yield more **terrestrial** than aquatic specimens. This is probably due to a combination of factors, including greater species diversity in terrestrial habitats, and the concentration of wind-blown specimens in catchment basins.



The ground beetle, showing parts of exoskeleton commonly used for fossil indication



# Time period

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The remains of beetles are often abundant and well-preserved in **Quaternary** lacustrine sediments.



# What could be defined

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- ancient substrates
  - water temperature
  - air temperature
  - regional vegetation (both aquatic and terrestrial)
  - sensitive to the trophic status and pH of the water
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# Reconstructions

The principal method of paleotemperature estimation from fossil beetle MCR method (Atkinson et al., 1986).

Geographical overlap method (Atkinson et al., 1986).

Regional examples from Europe serve to illustrate the quality and kinds of paleoenvironmental reconstructions that have been drawn from fossil insect assemblages from lake sediments.



Thank you for attention!