

Steroid biomarkers: from discovery to efficient geochemical tool

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The history of faecal steroids as biomarkers goes back for more than half a century. Initial application of faecal sterols was mostly related to sewage pollution monitoring [1], but soon these molecules became palaeoenvironmental tools for investigation of marine mammals habitats of the past [2], archaeological sites etc.

However, real roots of these studies are much deeper, linking geochemistry with biology, chemistry and medicine. E.g., current progress in application of bile acids in palaeoenvironmental study is based on about 90-years history of biochemical research [3]. Leading groups of steroid geochemical tracers are 5b-stanols and bile acids, and although bile acids usually play minor role due to complex analytical process, during the last 30 years interest to these molecules has increased significantly.

In this study, we would like to show how fecal steroids became a link between biomedical and palaeoenvironmental sciences, following the long path from just a molecule to efficient organic geochemical tool.

[1] Murtaugh & Bunch (1967), *J Water Pollut Control* 39: 404–9.

[2] Venkatesan & Santiago (1989), *Marine Biology* 102, 431-437.

[3] Shimizu T (1935) *Über die Chemie und Physiologie der Gallensäuren*. Okayama Verlag M. Muramoto, UAT 145/6,29