

Ten sterols/stanols analysed for faecal source tracking at ESR

Sterol/Stanol	Description	References
Coprostanol	Principal human biomarker, high relative amounts indicate fresh human faecal material. Constitutes up to 60% of the total sterols found in human faeces. Dogs and birds have either no coprostanol or only trace amounts, present in their faeces. Not found in unpolluted fresh or marine waters or in fully oxic sediments (only anaerobic bacteria can hydrogenate cholesterol to coprostanol). However, under conditions of anoxia, small amounts can be found in sediments not contaminated by faecal pollution.	Leeming et al. (1996)
Epicoprostanol	Found in trace amounts (relative to coprostanol) in human faeces. Increases in relative proportions in digested sewage sludges perhaps through epimerisation of coprostanol to epicoprostanol.	McCalley et al. (1981)
24-ethylcoprostanol	Principal herbivore indicator.	Leeming et al. (1996)
24-ethylepicoprostanol	Usually present in herbivore faeces, often at similar level to 24-ethylcoprostanol.	
Cholesterol	Precursor to coprostanol and epicoprostanol. Also comes from domestic waste, food scraps, algae etc.	
Cholestanol	Most stable isomer, ubiquitous and occurs in pristine environments.	Nishimura (1982)
24-methylcholesterol	Plant sterol (also known as campesterol).	Nash et al., (2005); Leeming et al. (1996)
24-ethylcholesterol	Plant sterol. Precursor to 24-ethylcoprostanol and 24-ethylepicoprostanol (24-ethylcholesterol also known as β -sitosterol)	
Stigmasterol	Plant sterol	
24-ethylcholestanol	Plant sterol and breakdown product of 24-ethylcholesterol	