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STARBUGS (STAR Bioassessment Uncertainty Guidance Software)

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The WFD (Annex V Section 1.3.4) requires that “estimates of the confidence and precision attained by the monitoring system used shall be stated in the river basin monitoring plan”. Within the EC Fifth Framework STAR project, an extensive replicated sampling programme was used to derive and compare estimates of the sampling variability in a wide range of biological metrics for each of several ‘national’ sampling and analytical methods. This talk will describe how the STARBUGS simulation software, developed within the STAR project, provides a general framework for incorporating estimates of sampling variation and other uncertainty in metric values into assessments of the uncertainty in estimates of ecological status class for water bodies based on either single metrics or a combination of metrics, multi-metric indices and multi-metric rules. STARBUGS is applicable to all biological quality elements (BQEs) relevant to the WFD.