

BS EN 16150:2012



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Water quality — Guidance on pro-rata Multi-Habitat sampling of benthic macro- invertebrates from wadeable rivers

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The UK participation in its preparation was entrusted to Technical Committee EH/3/5, Biological Methods.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

**Water quality - Guidance on pro-rata Multi-Habitat sampling of
benthic macro-invertebrates from wadeable rivers**

Qualité de l'eau - Lignes directrices pour l'échantillonnage
des macroinvertébrés benthiques en cours d'eau peu
profonds au prorata des surfaces de recouvrement des
habitats présents

Wasserbeschaffenheit - Anleitung für die pro-rata Multi-
Habitat-Probenahme benthischer Makroinvertebraten in
Flüssen geringer Tiefe (watbar)

This European Standard was approved by CEN on 16 March 2012.

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Contents

Page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Description of the sampling approach	6
5 Field sampling procedures	7
5.1 Factors limiting effective Multi-Habitat-Sampling (MHS).....	7
5.2 Estimation of habitat composition.....	7
5.3 Allocation of sampling units.....	7
6 Detailed description of sampling procedures	8
6.1 General recommendations for sampling.....	8
6.2 Megalithal (bedrock and boulders)	9
6.3 Macrolithal and mesolithal (cobbles, stones, pebbles)	9
6.4 Microlithal and smaller mineral substrates.....	9
6.5 Xylal (woody debris).....	9
6.6 Roots.....	10
6.7 Coarse Particulate Organic Matter (CPOM/leaf litter)	10
6.8 Macrophytes (emergent and submerged)	10
6.9 Technolithal.....	10
7 Sample treatment.....	10
7.1 Removal of large material and sorting	10
7.2 Removal of large organisms.....	10
7.3 Storage.....	10
7.4 Labelling	10
7.5 Refining the site-protocol	11
Annex A (informative) Sampling protocols.....	12
Bibliography	14

Foreword

This document (EN 16150:2012) has been prepared by Technical Committee CEN/TC 230 "Water analysis", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2012, and conflicting national standards shall be withdrawn at the latest by October 2012.

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1 Scope

This European Standard gives guidance on procedures for the pro-rata Multi-Habitat-Sampling (MHS) of benthic macro-invertebrates in wadeable rivers and streams. The term "pro-rata" reflects the intention to sample adequate proportions of riverine habitats with reference to their percentage occurrence.

The pro-rata MHS technique does not replace other techniques, but is rather, alongside other applications, a fundamental requisite of some multi-metric assessment approaches used to evaluate the ecological status of running waters. The method described in this document is one of the possible techniques among the existing pro-rata MHS techniques.

The MHS methodology is based on Rapid Bioassessment Protocols [1], the procedures of the Environment Agency for England and Wales [2], the Austrian Guidelines for the Assessment of the Saprobiological Water Quality of Rivers and Streams [3], the AQEM sampling manual [4], the AQEM & STAR site protocol [5], EN 27828, the Austrian Standards M 6232 and M 6119-2 [6], [7], the German Standard DIN 38410-1 [8] and the French Standard XP T90-333 [9].

This European Standard also describes in a detailed manner how to sample different habitats that might be suitable for sampling approaches other than Multi-Habitat-Sampling.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 27828, *Water quality — Methods of biological sampling — Guidance on handnet sampling of aquatic benthic macro-invertebrates (ISO 7828)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

- 3.1**
akal
fine to medium-sized gravel; grain diameter > 0,2 cm to 2 cm
- 3.2**
argyllal
silt, loam, clay
- 3.3**
debris
organic and inorganic matter deposited within the splash zone area by wave-motion and changing water levels
- 3.4**
hygropetric sites
thin water layer on solid (rocky) substrates
- 3.5**
investigation site
specific area of an investigated river reach for sampling benthic organisms