

Water quality - Guidance on analysis of
mesozooplankton from marine and brackish waters

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Water quality - Guidance on analysis of mesozooplankton from marine and brackish waters

Qualité de l'eau - Document d'orientation sur l'analyse
du mésozooplancton dans les eaux marines et
saumâtres

Wasserbeschaffenheit - Anleitung zur Analyse von
Zooplankton aus marinen und brackigen Gewässern

This European Standard was approved by CEN on 11 February 2019.

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European foreword

This document (EN 17204:2019) 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of an identical text or by endorsement, at the latest by October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.

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Introduction

WARNING — Person using this European Standard should be familiar with normal laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate health and safety practices and to ensure compliance with any national and international regulatory conditions.

Mesozooplankton constitute an important part of zooplankton in the pelagic food webs, since these are the organisms representing the link between primary producers and higher trophic levels. Mesozooplankton community structure and productivity can be affected by changes in phytoplankton stocks, species/size composition and phenology. Further, alterations in mesozooplankton can influence prey availability for zooplanktivores and, thus, fish stock recruitment, as well as sedimentation of the primary production, which, in turn, may affect food supply to benthic animals and oxygen levels in the bottom water. [11].

Mesozooplankton comprise a large number of species within a range of total lengths of about 0,2 mm to 20 mm. The main groups are rotifers (Rotatoria), crustacean holozooplankton and merozooplanktonic larvae of other taxa such as echinoderms, bivalves and crustaceans. Small hydromedusae, ctenophores, chaetognaths, appendicularians, doliolids, fish eggs and larvae are also considered as part of the mesozooplanktonic fauna in marine waters. As most protozooplankton species are smaller than 0,2 mm these are not considered part of the mesozooplankton and hence procedures for sampling and enumeration of these species are not included in this standard.

For sampling, preservation and storage of mesozooplankton see EN 17218:2019

1 Scope

This document specifies a procedure for analysing mesozooplankton in marine and brackish waters. The procedure comprises how to identify and enumerate mesozooplankton to estimate quantitative information on diversity, abundance and biomass with regard to spatial distribution and long-term temporal trends for a given body of water.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 17218:2019, *Water quality — Guidance for the sampling of mesozooplankton from marine and brackish waters using mesh*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

biomass

total mass of living organic material in a given body of water

Note 1 to entry: Unit: g m^{-3} .

[SOURCE: ISO 6107-3:1993, definition 12, modified – Added note1 to entry]

3.2

metazoan

multicellular animal that develops from embryos

3.3

plankton

organisms drifting or suspended in water, consisting chiefly of minute plants or animals, but including larger forms having only weak powers of locomotion

[SOURCE: ISO 6107-5:2004, definition 41]

3.4

zooplankton

animals present in plankton

[SOURCE: ISO 6107-5:2004, definition 49]

3.5

merozooplankton

zooplankton that occurs in the plankton for only a part of their life cycle, usually the larvae stage