

SLOVENSKI STANDARD

SIST EN ISO 23611-1:2011

01-december-2011

**Kakovost tal - Vzorčenje nevretenčarjev v tleh - 1. del: Ročno razvrščanje
deževnikov in njihova ekstrakcija s formalinom (ISO 23611-1:2006)**

Soil quality - Sampling of soil invertebrates - Part 1: Hand-sorting and formalin extraction
of earthworms (ISO 23611-1:2006)

Bodenbeschaffenheit - Probenahme von Wirbellosen im Boden - Teil 1: Handauslese
und Formalinextraktion von Regenwürmern (ISO 23611-1:2006)

Qualité du sol - Prélèvement des invertébrés du sol - Partie 1 : Tri manuel et extraction
au formol des vers de terre (ISO 23611-1:2006)

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ICS:

13.080.30

Biološke lastnosti tal

Biological properties of soils

SIST EN ISO 23611-1:2011

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 23611-1

July 2011

ICS 13.080.30; 13.080.05

English Version

Soil quality - Sampling of soil invertebrates - Part 1: Hand-sorting and formalin extraction of earthworms (ISO 23611-1:2006)

Qualité du sol - Prélèvement des invertébrés du sol - Partie 1 : Tri manuel et extraction au formol des vers de terre (ISO 23611-1:2006)

Bodenbeschaffenheit - Probenahme von Wirbellosen im Boden - Teil 1: Handauslese und Formalinextraktion von Regenwürmern (ISO 23611-1:2006)

This European Standard was approved by CEN on 17 June 2011.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

The text of ISO 23611-1:2006 has been prepared by Technical Committee ISO/TC 190 “Soil quality” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 23611-1:2011 by Technical Committee CEN/TC 345 “Characterization of soils” the secretariat of which is held by NEN.

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 January 2012, and conflicting national standards shall be withdrawn at the latest by January 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 23611-1:2006 has been approved by CEN as a EN ISO 23611-1:2011 without any modification.

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INTERNATIONAL STANDARD

ISO
23611-1

First edition
2006-02-01

Soil quality — Sampling of soil invertebrates —

Part 1: Hand-sorting and formalin extraction of earthworms

iTeh STANDARD PREVIEW
(standards.iteh.ai)
*Qualité du sol — Prélèvement des invertébrés du sol —
Partie 1: Tri manuel et extraction au formol des vers de terre*

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 23611-1 was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 4, *Biological methods*.

ISO 23611 consists of the following parts, under the general title *Soil quality — Sampling of soil invertebrates*:

- *Part 1: Hand-sorting and formalin extraction of earthworms*
- *Part 2: Sampling and extraction of micro-arthropods (Collembola and Acarina)*
- *Part 3: Sampling and soil extraction of enchytraeids*
- *Part 4: Sampling, extraction and identification of free-living stages of terrestrial nematodes*

Introduction

This part of ISO 23611 has been drawn up since there is a growing need for the standardisation of terrestrial zoological field methods. Such methods, mainly covering the sampling, extraction and handling of soil invertebrates, are necessary for the following purposes:

- biological classification of soils including soil quality assessment [21], [26], [34];
- terrestrial bioindication and long-term monitoring [9], [12], [28];
- evaluation of the effects of chemicals on soil animals (ISO 11268-3).

Data for these purposes are gained by standardized methods since they can form the basis for far-reaching decisions (e.g. whether a given site should be remediated or not). In fact, the lack of such standardised methods is one of the most important reasons why bio-classification and bio-assessment in terrestrial (i.e. soil) habitats has so far relatively rarely been used in comparison to aquatic sites.

Originally, the methods described here were developed for taxonomical and ecological studies, investigating the role of earthworms in various soil ecosystems. These animals are without doubt the most important soil invertebrates in temperate regions and, to a lesser extent, in tropical soils [25], [13], [15]. Since Darwin (1881), their influence on soil structure (e.g. aeration, water holding capacity) and soil functions like litter decomposition and nutrient cycling is well-known [8]. Due to their often very high biomass they are also important in many terrestrial food-webs.

Since it is neither possible nor useful to standardize methods for all soil organisms, the most important ones have been selected.

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