



# MACROINVERTEBRATE TAXONOMY PROFICIENCY TEST LTEST INVERTAXON 2023

## Introduction

Laboratories and organizations determining macroinvertebrate quality indexes must conduct proficiency tests (PT) to implement quality management systems according to ISO/IEC 17025. Since 2009, LABORATORIOS TECNOLOGICOS DE LEVANTE has regularly organized this proficiency test to help your organization meet these requirements. The PT supports the implementation of the Water Framework Directive 2000/60/EC (WFD), which aims at achieving a high-level long-term protection of the aquatic environment, covering lakes, groundwater and coastal waters. The WFD requires biological indexes for the assessment of the status of water bodies in addition to chemical status indexes. The scope of this PT is to assess the performance of laboratories worldwide in the determination of macroinvertebrate taxonomic determination.

## The company

Laboratorios Tecnológicos de Levante, SL (LTL) was established in 2010 as a subsidiary of Red Control, SL, established in 1992. LTL comprises the environmental testing activities of the group. Our modern facilities are located in the Valencia Parc Tecnologic (Paterna-Spain).

With over 20 years of experience in analytical tests on food, water, sludge, waste and soil, as well as everything related to water treatment, LTL works with all the accreditations and certifications required in each field. This ensures the accuracy and reliability of the results obtained and the highest standard of work carried out for our customers.

Throughout the years, LTL has always been committed to employing the best technical experts in each field and providing them with the latest technology.

We are the first company in Spain to be accredited for a biological quality index according to ISO/IEC 17025. Our company is one of the leading accredited organizations in Spain (for diatoms, fish, phytoplankton and benthic macroinvertebrates). Since 1999, we have been carrying out the assessment of the biological status of different water masses in Spain.







#### References

ISO/IEC 17025:2017. General requirements for the competence of testing and calibration laboratories.

ISO/IEC 17043:2010. Conformity assessment. General requirements for proficiency testing.

ISO 8689-1:200. Water quality. Biological classification of rivers. Part 2: Guidance on the interpretation of biological quality data form surveys of benthic macroinvertebrates.

ISO 8689-2:200. Water quality. Biological classification of rivers. Part 2: Guidance on the presentation of biological quality data form surveys of benthic macroinvertebrates.

ISO 10870:2012. Water quality. Guidelines for the selection of sampling methods and devices for benthic macroinvertebrates in fresh waters.

EN 16150:2012. Water quality. Guidance on pro-rata multi-Habitat sampling of benthic macro-invertebrates from wadable rivers.

# THE PROFICIENCY TEST

# Presentation

The proficiency test is organized in two independent phases to assess the main stages of the determination:

- 1. In the first phase, a homogenous prepared sample is sent to each participant, together with some images of individuals. The test material consists of representative individuals of macroinvertebrate taxa typically found in freshwaters of the Mediterranean/Central Europe region. Participants must perform the taxonomic classification of the individuals and submit the results on the form provided with the sample. Additionally, images of individuals of different taxa will be provided with the sample for identification of some less common taxa. Optionally, identifications can be made at the genus level.
- 2. In the second phase, an on-site sampling and identification activity will be organized. During the on-site activity, participants will be proposed to sample macroinvertebrates in a homogeneous section of a river. Each participant will be assigned a sampling area, distributed so as not to interfere with neighbouring areas. Participants will be required to carry out the taxonomic classification of the individuals collected and submit the results using the form provided to participants.

Statistical and reporting treatment: After receiving the results from the participants, the organization will carry out a statistical study of the results and an individual assessment according to the criteria described in the final report. Reports and certificates of participation will be sent to each participant. The identity of participants will be coded in the report to ensure confidentiality. All documents will be in English.





Schedule: In both phases, results must be returned to the organization within 21 days of receipt of the sample by the participant. Reports will be produced within one month of the result reporting deadline. Please be advised that results received after the deadline may not be included in the final report. On receipt of your entry form, you will receive confirmation of your entry. The organization reserves the right to cancel the proficiency test if the number of participants is insufficient. This confirmation implies acceptance by the participant of all its terms and conditions. Invoices will be sent to each participant at the end of the registration period.

- Scheduled date Exercise phase 1: March-April 2023
- Scheduled date Exercise phase 2: May-June 2023
- Scheduled area: Mijares river near Montanejos (Castellón, Spain)

Please note that samples will not be sent until the full participation fee has been received. Any bank charges are not included in the participation fee and are the responsibility of the participant. International shipping costs (outside of Spain) and/or any applicable taxes are not included in the participation fee.

Please send this fulfilled form to:

LABORATORIOS TECNOLOGICOS DE LEVANTE, SL

Av. Benjamin Franklin, 16 Valencia Parc Tecnologic 46980-Paterna (Valencia). SPAIN aguas@ltlevante.com

> www.ltlevante.com Phone.: +34.96.356.12.16 Fax:+34. 96.371.15.58





# **REGISTRATION FORM INVERTAXON 2023**

Organization:						
Address:						
Postcode:	•	City:				
Region/State:		Cour	ntry:			
Phone:			Fax:			
E-mail:						
VAT Nr:		1				
Contact person:						
and the second						
Invoicing data (only if different):						
Organization:						
Address:						
Postcode:		City:				
Region/State:		Cour	ntry:			
Phone:			Fax:			
E-mail:			1			
VAT Nr:						
Contact person:						
Please mark the phases of the exercise you wish to participate:						
Exercise phase 1	Identification of macroinvertebrate taxa on a prepared sample.			625 €*		
Exercise phase 2	Sampling and macroinvertebrate identification of taxa in a river.				525 €*	
Both exercises phase 1 &	Identification of macroinvertebrate taxa on a prepared sample.				. 695 €*	
phase 2	Sampling and macroinvertebrate identification of taxa in a river.					

<sup>\*</sup>Excluded shipping costs and/or applicable taxes