

## **Algae**

### **Aim of the Program**

The Algae program aims to assess laboratories' capability in the enumeration and identification of selected Phytoplankton; and to provide participants with external quality assurance to enhance accuracy and reliability.

### **Application of the Program to Accreditation**

Participation in this proficiency testing program satisfies the requirements of ISO/IEC 17025:2017 – *General Requirements for the Competence of Testing and Calibration Laboratories* for monitoring performance by comparing results with other laboratories.

### **Program Details**

The Algae program is scheduled every one to two years depending on the availability of suitable samples. Registration information will be sent to potential participants once samples have been obtained.

Participants receive a set of three to five water samples.

The samples are prepared from environmental water samples and/or occasionally algal cultures from different classification groups. These samples are designed to represent those that would normally be encountered by an analyst in routine work. Participants are asked to identify, enumerate and determine cell biovolume of genera and species from various nominated groups that are dominant in the test samples. These can include, but are not limited to, a selected number of the following: green non-motile algae, unicellular motile algae, centric diatoms, desmids, phytoflagellates, filamentous green algae and cyanobacteria. This requires knowledge of the major algal groups and their morphological characteristics and an ability to make a judgement of the relative abundance (by cell number) of all algae in the sample.

Participants are invited to choose their own method for enumeration, rather than adhere strictly to a prescribed method. Individual judgements could be made on suitable magnification, type of counting chamber, the proportion of chamber to be counted, the number of cells or filaments to count and the appropriate methods to estimate cells in colonies or trichomes. Participants are requested to report an estimate of their measurement uncertainty (MU).

Laboratories results are assessed for the number of identification outliers and the number of enumeration/cells biovolume outliers that are reported.

### **Reporting:**

At the conclusion of each round, each participant receives a confidential individual summary sheet, detailing its performance in the program, and a final program report summarising all participant data.

### **Confidentiality**

Each participant is assigned a unique code number, keeping all results anonymous in all PTA reports and publications.

### **Fees and Further Information**

For information on program fees or other enquiries, please contact PTA directly: Email: [ptaenquiry@pta.asn.au](mailto:ptaenquiry@pta.asn.au)