

Determining water colour manually

Colour is one of the most often described physical characteristic for water next to transparency. Water colour is determined by the interaction of many factors including sky conditions, the amount and type of algae, fine particles suspended and organic compounds dissolved in water. The **Forel-Ule Scale** is a common method to determine the colour of lake water and has been used since the 1890s

Please read the entire protocol before starting! Normal health and safety precautions should be taken at all times, for more information see website: www.nioo.knaw.nl/en/Netlake-Citizen-Science

Preparations and materials

- Laminated Forel-Ule scale provided by NETLAKE or print this protocol in colour, laminate and use figure alongside.
- Secchi disk (see NETLAKE protocol 'Determining water transparency using a Secchi disk')

Method

- Find a suitable spot (dock, viewing point or boat) where you cannot see the lake bottom.
- Determine Secchi depth according to the NETLAKE Secchi disk protocol
- Calculate ½ Secchi depth and lower your Secchi disk to that depth.
- Determine the colour of the water with the Forel-Ule scale by comparing water colour over the white part of the Secchi disk to the colours on the scale.
- Write down:
 - the Forel Ule Scale (FU) number that comes closest to the actual water colour.
 - Date and time of measurement
 - Google maps location (GPS)
 - Is it clear, cloudy, rain lightly or heavily?
 - How much of the sky is covered with clouds? (%)
 - Is it windy enough to make waves? (This has influence on the Secchi reading and makes it harder to determine colour).
- Please send in your results via www.nioo.knaw.nl/en/Netlake-Citizen-Science

Comparing water colour with Forel-Ule scale (without Secchi disk is possible but not desirable). Photo by Axel Gunderson - Project Baseline Haarlemmermeer.

