Newsletter

April 14th 2026
Castricum, The Netherlands
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Dear readers,

With this newsletter we like to inform you about our day to day business, current projects, performance characteristics of our products and new product development. Enjoy reading!

Day to day business

It has been a while since the last newsletter was published. We have been very busy **scaling up production**. Sales of our soil Redox probes continues to grow. When we started in 2020 most customers were interested in our **analog probes**. Now, this is **shifting** more and more **towards** our **digital probes** (SDI-12).

Last year we launched a **data logger** for our **digital** (SDI-12) **soil Redox probes,** called **SWAPlog** (see below for further information). And recently we received the good news that this data logger **passed** the **FCC compliance tests**. This means that the SWAPlog is now also **available in the USA**.

The increase in products sales is also reflected in the number of **scientific studies** in which our products are and have been used. In this newsletter some of these publications are highlighted (see below).

Please contact us at info@swapinstruments.com, if you are interested in our products.

Let us help you to support and improve your ORP (Redox) research!

SWAPlog

Feel free to contact us at info@swapinstruments.com if you are interested in our SWAPlog.

Last year we have launched a 1-channel **data logger**, called **SWAPlog**. It is a **standalone Redox** and **temperature** data logger for digital (SDI-12) SWAP probes. It can be connected to the SWAP soil Redox probes **ORP-30-1-D**, **ORP-40-4-D** or **ORP-80-4-D**. **Plug and play. No programming.**

This **competitively** priced data logger with low energy consumption has an integrated **solar panel** with an internal battery, allowing it to operate for a very long time without maintenance. The **large memory capacity** is sufficient for a season of **unattended operation**. The housing is robust and water- and dust-resistant (IP67). The **field mounting kit** for installation is included. The SWAPlog can be used throughout the entire season for **research** and for **educational purposes**, both outdoors and in the laboratory.

Using the **free** SWAP instruments **Android app**, the measurements can be displayed on an Android cell phone. Communicates **wireless** using **Bluetooth**. The logged data can be stored in a cost-free back-office **cloud storage** and e-mailed to your e-mail address **or saved locally** on your cell phone.

FCC mark SWAPlog

We are **very proud** to announce that our data logger, **SWAPlog**, has **passed** the **FCC tests**. Our data logger is now also **available in the United States**.

The **FCC logo** or the **FCC mark** is a mark employed on electronic products manufactured or sold in the United States which **indicates** that the **electromagnetic radiation** from the device is **below the limits** specified by the Federal Communications Commission and the manufacturer has followed the requirements of the Supplier's Declaration of Conformity authorization procedures.

Feel free to contact us at info@swapinstruments.com if you are interested in our SWAPlog data logger.

Scientific publications

About 5 year ago we started with the sales of our **soil Redox probes** and **reference electrodes**. We are very proud that many **scientific articles**, in which our probes are mentioned, are appearing.

Sena *et al.* (2025)[1], for example, investigated the **variability** of **Redox potentials** (Eh) in **riparian soils** in Pensylvania and Delaware (USA) for multiple depths and across diel, event and seasonal time scales. They observed various **redox hot spots** and **hot moments** which were attributed to differences in site topography, hydrology and soil characteristics such as texture, moisture, organic matter content, and microbial biomass. Identifying and understanding these fine-scale spatial and temporal patterns of Eh is critical for improved characterisation and quantification of biogeochemical processes in redox-sensitive environments.

In addition, Herndon *et al.* (2025)[2] studied **temporal patterns in soil redox potential** across a **freshwater coastal delta** in Louisiana, USA. Redox responded rapidly to changing water tables, with fluctuations occurring primarily in shallow soils (< 20 cm) and at higher elevations. Deeper soils and those at lower elevation remained inundated and reduced. To predict how coastal ecosystems will change over time in response to projected changes in relative sea level and restoration, it is necessary to understand how subsurface biogeochemical processes respond to dynamic hydrologic forcings.

[1] https://doi.org/10.1002/hyp.70367
[2] https://doi.org/10.1002/hyp.70338

We are looking forward to all the **other scientific studies** that will be published about **redox dynamics** in the **environment**.

If you are interested in our products or if you would like to receive some additional information, please contact us at info@swapinstruments.com or visit our website www.swapinstruments.com.

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