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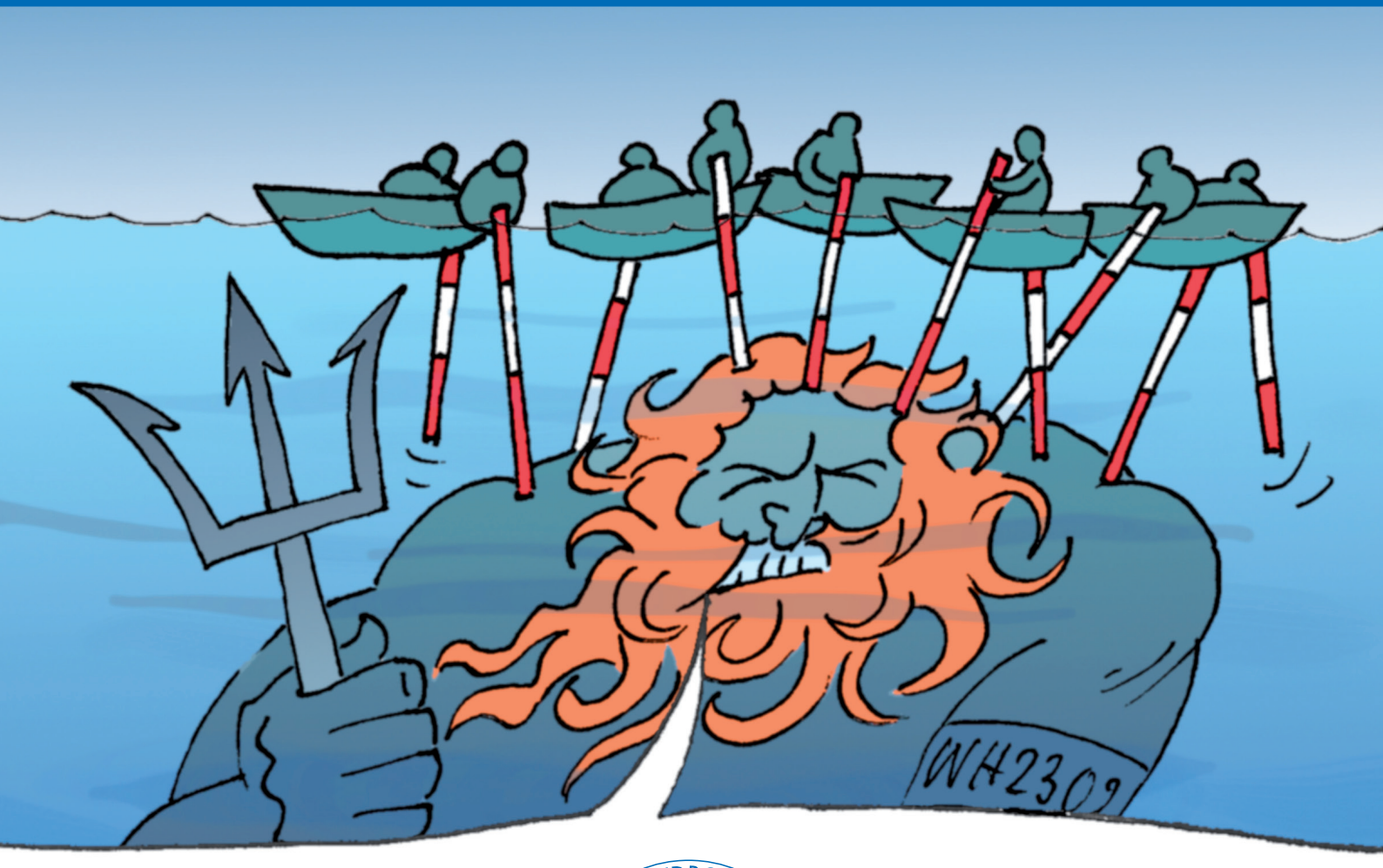

Depth measurement per **crowdsourcing**. Damn it!

DEUTSCHE HYDROGRAPHISCHE GESELLSCHAFT e.V. DHyG

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Crowdsourcing for hydrography

Provision of water depths by pleasure boating

An article by HEINER LAMMERS

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crowdsourcing | navigable waters | Wadden Sea
Crowdsourcing | Fahrwasser | Wattenmeer

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During a chance encounter between private pleasure boating and professional hydrography on a scheduled flight from Bremen to Frankfurt, the following question suddenly came up: With digital applications becoming increasingly networked, the flood of information available appears at first glance to be more than enough for the common man. In specific terms, why would general recreational navigation still need hydrographic specialist knowledge in the future, when the crowd solution using depth sounders and chart plotters with charting functions and GPS means the display of water depths on rivers, lakes and seas can be continually updated?

Admittedly, the water depth measured individually by the water sportsman is to be taken with a pinch of salt due to the presence of ebb and flow, especially in the North Sea (here: the German Wadden Sea) as a result of the tidal range. However, the current state of technology supposedly allows recreational captains a sufficient amount and quality of information to pursue their hobby in a reasonably safe way.

Perhaps a good example in this context is the navigable water passages between the Weser River, the mainland and the East Frisian islands. In this area, the autumn storms alone cause major shifting every year, which leads to changes in the respective passages and the re-setting of the routes every spring. Especially when it comes to the first navigations of the newly set passages in spring, many water sports enthusiasts initially like to »follow behind« and let the boat in front check the existing water depth in a very practical way. But this also means that data is repeatedly made available to the »water sports community« via the depth sounder with GPS device on board and navigation in the Wadden Sea is possible – admittedly in connection with the data material prepared by the professionals.

The number of vehicles on the water alone and the associated constant depth measurement and description of the topography should, with networks becoming much larger, guarantee a level of reliability that might not replace some scientific research, but could be a useful addition, at least.

It might be a thought-provoking argument, but hasn't digitalisation long since offered far-reaching possibilities in this area as well, which, due to the quantity and networking of devices in the field of water sports alone, resulted in such considerable added value in the area of crowdsourcing that their benefits are currently still being unjustly underestimated and therefore not used as much as they could be?

At the latest when the scientific collection of necessary data is not possible due to time constraints, crowdsourcing could also become at least a temporary alternative on the water and provide indications for existing or no longer existing water depths. Moreover, aside from the timesaving factor alone, it is also the cost efficiency of these kinds of methods that make them all the more attractive.

In conclusion, the question posed at the beginning probably cannot be answered, but perhaps even more can be achieved through an even stronger interaction between science and »private measurement of water depths in the field of crowdsourcing« than what professional hydrography already offers us anyway (and thankfully so). //