# Pensioner spots stunning sea colour contrast on Llyn Peninsula



Pensioner Judith Unsworth, aged 78, has captivated local residents with her recent discovery while walking the coastal paths of the Llyn Peninsula, an area she has explored for over six decades. Last Saturday, she observed what she described as a remarkable contrast in the sea’s colours, with one side featuring a clear light blue while the other displayed a darker shade, creating a distinct dividing line between St. Tudwal's West island and the mainland.

Postulating on social media, Unsworth shared an image of this striking phenomenon, questioning whether anyone else had noticed the difference in colour while either traversing the coastal path or from the water. Clarifying that the sky was clear at the time of her observation, she dispelled suggestions that the colour might have been influenced by cloud cover. Instead, she speculated about a potential cause related to sewage discharge; however, this theory was met with various alternative explanations from her online audience.

Paul Shepherd, commenting on the Abersoch Appreciation Page, theorised that recent easterly winds may have suspended sand and silt, leading to the visible colour differentiation. Meanwhile, local resident Nick Hine recalled that the river Soch flows between the island and mainland, suggesting that sediment carried by the river could be generating the visible effects, particularly under the current unseasonal weather conditions.

Other community members chimed in with their insights, including Ian Edmondson, who dismissed the notion that depth or seabed variations played a role, suggesting instead that currents and sediment outflow were likely responsible. Marvin Hall also noted that low tides and the subsequent disturbance of sand in shallower waters often create such visual phenomena.

Adding a touch of humour to the discussion, Alan Pierce Jones remarked, "Light blue is for the Chester people. Dark blue is Welsh water," prompting laughter among fellow commenters.

To provide a scientific perspective, Frankie Hobro from Anglesey Sea Zoo addressed the phenomenon. Hobro elaborated that the distinct colour difference is typically attributed to natural underwater boundaries between various substrates, such as sand or silt and rocky reefs. He explained, "This shows a clear natural but distinct underwater boundary between two different substrates on the sea floor, commonly also associated with a sudden change in depth."

He further clarified that under ideal conditions, such as calm seas and clear skies, these underwater landscapes become markedly distinct, offering a striking visual experience, as seen in Unsworth's photograph. "The clearer water sits over the fine sand substrate and the darker water with more nutrients and phytoplankton sits over the slightly deeper and darker rocky shore slightly further out," he detailed.

Hobro emphasised that while these visual boundaries are common along the North Welsh coastline, they can become obscured in rougher conditions. Nonetheless, when visibility is optimal, like during Unsworth's observation, the effects of these underwater topographies can be beautifully pronounced.

This sighting has piqued the curiosity of both locals and online viewers, showcasing the natural beauty and complexities of the coastal environment that defines the Llyn Peninsula.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://en.wikipedia.org/wiki/Ll%C3%BDn_Peninsula> - This URL provides information about the Llyn Peninsula, which is an area known for its natural beauty and diverse coastal environments, supporting the description of Judith Unsworth's observations.
* <https://www.britannica.com/science/sedimentation-geology> - This webpage explains sedimentation processes, which could support the idea that sediment carried by rivers or suspended by winds could cause visual colour differences in the sea, as suggested by some comments.
* <https://oceanservice.noaa.gov/facts/color.html> - This URL offers insights into how water color can be influenced by factors like depth, sediment, and nutrients, which aligns with Frankie Hobro's explanation about natural underwater boundaries.
* <https://www.seagrant.umn.edu/downloads/estuarine_outwelling> - This resource discusses estuarine outwelling and how it affects water color and nutrient distribution, which could support the theories about currents and sediment outflow affecting sea color.
* <https://www.nature.com/articles/s41598-019-38490-4> - This article provides a scientific perspective on how various substrates and underwater topographies can affect water appearance, supporting Frankie Hobro's explanation.