

Scientists reveal identity of mystery marine pollutant

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Scientists at Plymouth University appear to have identified the 'mystery' waxy oil-like substance which has been polluting seabirds along the south coast of the UK.

"All of the analytical data we have points to the identification of the substance as a polyisobutene or PIB mixture", said Professor Steve Rowland of the University's Centre for [Chemical Sciences](#).

PIBs are a range of substances varying from low molecular weight oils to high weight solids, but Professor Rowland and Research Officer Dr Paul Sutton think the culprit waxy sticky substance is a mid-range material often used as lubricant additive.

The results show the particular mixture of hydrocarbons in the oil has an

average molecular weight of about 1,080 [carbon atoms](#). Manufacturers describe similar materials as colourless, odourless and sticky, all consistent with the appearance of the oil on the birds' feathers.

"With funding from the European Research Council, we have recently developed special methods for analysis of oils in this range, including [palm oil](#), which we were able to rule out at an early stage as a contaminant in this case" said Professor Rowland, "as the profiles did not match that of the mystery oil".

The researchers received an oiled [Guillemot](#) for analysis from the RSPCA, recovered from Chesil Beach in Dorset., and have been conducting laboratory tests upon it. They released their findings on Wednesday to the Maritime & Coastguard Agency and the RSPCA.

Provided by University of Plymouth

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