



East Midlands Geological Society

Spring Lectures 2025



Saturday 11 January 2025, 6.00 - 7.00pm

Atlantic Volcanoes

[Dr Tony Waltham](#)

Atlantic volcanoes in action

Tony Waltham

Abstract: During 2021, the Atlantic Ocean experienced an unusual peak of volcanic activity, with significant and spectacular eruptions of three island volcanoes, on St. Vincent, Iceland and La Palma.

With attention and publicity so often focussed on the numerous volcanoes around the Pacific Ocean's "Ring of Fire", the Atlantic Ocean can be almost forgotten as a volcanic environment. But every ocean has its great line of submarine volcanoes where plates diverge and new ocean floor is created. The Pacific has its East Pacific Rise, between the Pacific and Nazca plates. Far longer is the Mid-Atlantic Ridge, down the centre of its own ocean, along the line of divergence between the two American plates on the west and the Eurasian and African plates on the east; and this includes its emergence above sea level to form Iceland.

Volcanoes in the Atlantic, though far fewer than those in the Pacific, do include examples of each of the three main types: on a divergent plate boundary, on a convergent boundary, and over an intra-plate hot-spot. Eruptions are numerous, though hardly frequent, but 2021 was unusual in that it saw significant eruptions of three Atlantic volcanoes, which happened to be one of each type.



Figure 1. A rising column from an explosion in the Soufrière volcano on St Vincent (photo: Navin Patterson)

Venue: School of Geography, Sir Clive Granger Building,
University of Nottingham, University Park, Nottingham,
NG7 2RD [Google Maps](#)

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ABSTRACT:

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