

## Living in the shadow of Italy's volcanoes

Campi Flegrei (Phlegraean Fields) is a 13km-wide caldera (collapsed crater) located to the west of Naples (Figure 1). Scientists are concerned that this largely unknown 'supervolcano' represents more of a threat than its near neighbour Vesuvius. Indeed, some believe that an eruption could have a very significant impact on life across Europe.

### Figure 1

Bay of Naples volcanic areas



Image source: <http://www.dailymail.co.uk/home/moslive/article-1342820/Vesuvius-big-daddy-supervolcano-Campi-Flegrei-near-Naples-threatens-Europe.html>

One of the reasons why Campi Flegrei is a little known volcanic area is the lack of a clear volcanic cone as is the case with Vesuvius. Much of the area is flat and some of it is even submerged beneath the sea. This is the typical landscape associated with a caldera.

Located within the Campi Flegrei caldera is Solfatara, an area of active hydrothermal area with volcanic hot springs and bubbling mud pools. The photo below (Figure 2) shows a steam vent at Solfatara. The yellow/orange colour is a deposit of sulphur which has its origins deep underground. All around the air smells of 'rotten eggs' (sulphur).

**Figure 2**

Sulphurous fumarole at Solfatara



Image source: DTWE

In 2013 scientists recorded two signs of volcanic activity within the Campi Flegrei caldera:

- Monday 7 January 2013 – scientists report an 8cm uplift of the ground near the town of Pozzuoli. This could indicate rising magma.
- Wednesday 6 February 2013 – a new fumarole vent appeared ejecting hot gas and boiling water reaching 4-5m high. This is a clear indication that the area is volcanically active.

Currently scientists are attempting to drill into the magma beneath Campi Flegrei to investigate its characteristics and to try to create a more accurate picture of the threat that the 'super volcano' may pose.

**Questions**

1. Use the internet to discover the meaning of the term 'supervolcano'.
2. Apart from the Campi Flegrei and Yellowstone, can you discover any other 'supervolcanoes'?
3. Why do people tend to assume that Vesuvius poses more of threat than Campi Flegrei?

## What is Campi Flegrei?

4. Do you think scientists are right to focus a lot of attention of the volcanic activity at Campi Flegrei?
5. Use the websites below to complete a short project on Campi Flegrei. This could take the form of a newspaper article attempting to draw people's attention to the potential threats posed by the 'supervolcano'.

<http://www.dailymail.co.uk/home/moslive/article-1342820/Vesuviuss-big-daddy-supervolcano-Campi-Flegrei-near-Naples-threatens-Europe.html>

<http://www.volcanodiscovery.com/campi-flegrei.html>

[http://en.wikipedia.org/wiki/Phlegraean\\_Fields](http://en.wikipedia.org/wiki/Phlegraean_Fields)

<http://www.volcano.si.edu/volcano.cfm?vn=211010>