# **TIPPERARY - COUNTY GEOLOGICAL SITE REPORT**

NAME OF SITE Other names used for site IGH THEME TOWNLAND(S) NEAREST TOWN/VILLAGE SIX INCH MAP NUMBER ITM CO-ORDINATES 1:50,000 O.S. SHEET NUMBER 74 Mitchelstown Caves Old Desmond Cave, Pollskeheenarinky IGH1 Karst Coolgarranroe, Skeheenarinky Mitchelstown, Caher 86 592400E 616845N (centre of site) GSI BEDROCK 1:100,000 SHEET NO.

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# **Outline Site Description**

Ancient complex cave systems developed in tectonically influenced, dipping limestones with a strong glacial modification and showing a wealth of dripstone formations. Also an important biospeleological site.

# Geological System/Age and Primary Rock Type

The caves are all in Carboniferous limestone in the valley south of the Galtee Mountains.

# Main Geological or Geomorphological Interest

The Mitchelstown Cave site actually includes three known caves. The original Mitchelstown show cave, or Desmond Cave, was long ago supplanted by the Mitchelstown New Cave, as the show cave. Pollskeheenarinky is a more recently discovered cave, longer than the Desmond Cave, but similar in appearance and interest. All three are characterised by the influence of the steeply dipping (35° to the south) limestones in the cave development. An initial pre-glacial phreatic development has since been modified by glacial meltwater streams and fluvio-glacial sediments. Whilst studied and described over many years, they maintain research potential and importance for speleological and geomorphological studies. The biospeleological records from Mitchelstown are an important part of a very limited national data set for cave fauna. One cave spider species is a true troglobite – it is fully adapted to its cave habitat, and is not also living in surface environments.

### Site Importance – County Geological Site; recommended for Geological NHA

The Mitchelstown Show Cave is an internationally renowned tourist attraction and an important opportunity for visitors to learn about the subterranean world, and it has already been recommended to NPWS for geological NHA status, combined in one site with an even older showcave (Old Desmond Cave) that was supplanted by the new discovery in the 1830s, and a more recent discovery (Pollskeheenarinky) that exhibits close relationships to the other two.

### Management/promotion issues

The Mitchelstown Show Cave is highly recommended to visitors, but is not accessible other than in the visitor tour sections. Old Desmond and Pollskeheenarinky are on private farmland and could only be accessed with the permission of the landowners, but both are only suitable for experienced and appropriately equipped cavers. Mitchelstown Show Cave is a proposed NHA (00651) already but the boundary is inadequate to address the geological and geomorphological importance.



The cave entrance for visitors.



Some straw and curtain formations in the Mitchelstown Show Cave.



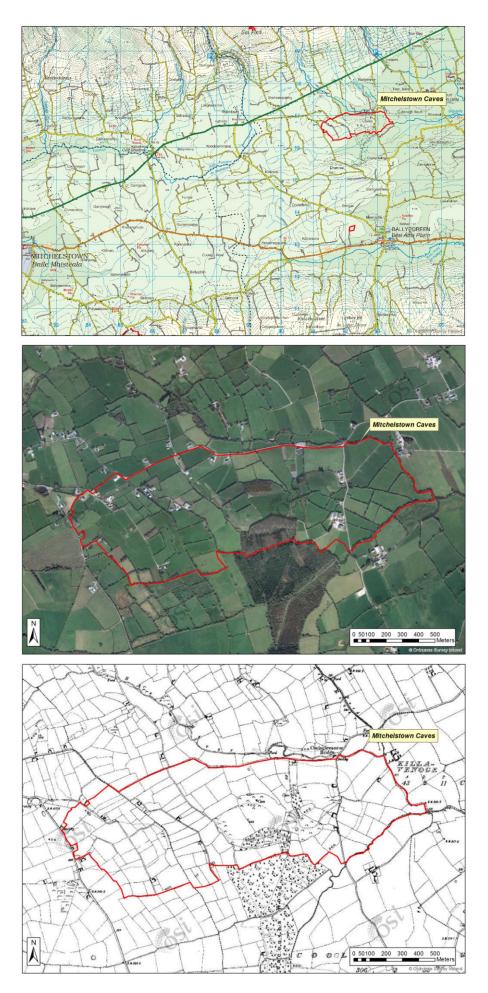
The entrance to Mitchelstown Show Cave – via the traditional family farmhouse.



The entrance to Pollskeheenarinky.



The entrance to Old Desmond Cave.



Gallagher et al. 2019. Geological Survey Ireland