

MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Aille River Cave - Pollatoomary
Other names used for site	Aille River; Aille Cliffs; Tuille Sidhe; The Fairy Tide; Pollflanagan; Polltoomary
IGH THEME	IGH1 Karst, IGH14 Fluvial and Lacustrine Geomorphology
TOWNLAND(S)	Aille\Bellaburke
NEAREST TOWN/VILLAGE	Killavally
SIX INCH MAP NUMBER	88, 89
ITM CO-ORDINATES	506800E 781060N (Aille River Cave) 509750E 781710N (Pollatoomary) 509570E 781727N (Pollatoomary overflow)
1:50,000 O.S. SHEET NO.38	GSI BEDROCK 1:100,000 SHEET NO. 11
GIS Code MO003	

Outline Site Description

Rising/resurgence of the Aille River at Bellaburke, about 3km ENE of Aille River sink at Aille Cave. Locally known as Pollflanagan, Pollatoomary is recorded on early OSI maps as being located at the often dry, flood-overflow rising ~200m to the west of the main resurgence.

Geological System/Age and Primary Rock Type

Aille River emerges in a pool on the surface. The area is underlain by Oakport Limestone Formation (Carboniferous). A well-developed underground phreatic cave system connects Aille River Cave and Pollatoomary. This karst feature is most probably Pleistocene.

Main Geological or Geomorphological Interest

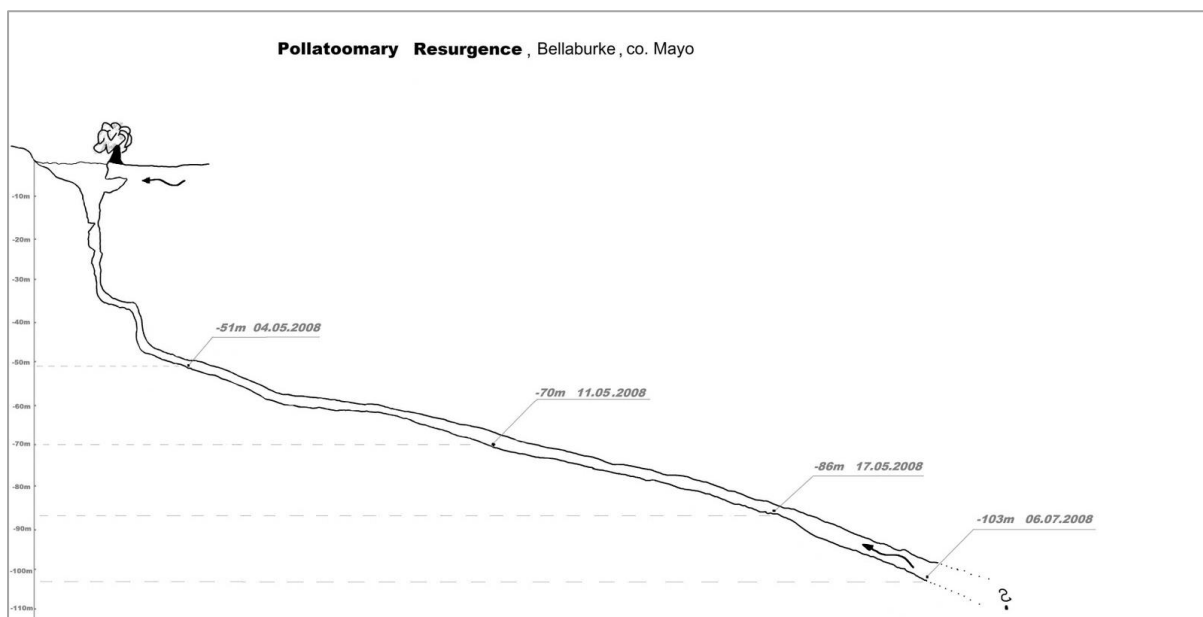
Situated 600m south of the Westport-Partry road, the NE flowing Aille River sinks underground beneath an 11m high limestone cliff. The Pollatoomary rising represents the site of resurgence of the Aille River, 2.8km ENE of Aille River Cave sink. The cave system into which the river sinks is an active phreatic maze system of subterranean passages that can flood entirely after rainfall. The cave has been studied since the late 1900s, with detailed surveys conducted since the 1950s. Cave diver Artur Kozlowski reported that the floor of the cave, 70m deep, is covered with sand. Because of its explored depth, Pollatoomary is considered to be the best example of a *vauculian* spring (where water ascends up a steeply inclined, water-filled passage into a small surface pool) in Ireland. (Other *vauculian* springs exist in Ireland, though they remain unexplored.) During heavy floods, the Aille River rises ~200m west of the permanent resurgence. During drier periods, accumulations of brown/orange silt and sand are seen at the mouth of this western overflow rising.

Site Importance – County Geological Site; recommended for Geological NHA

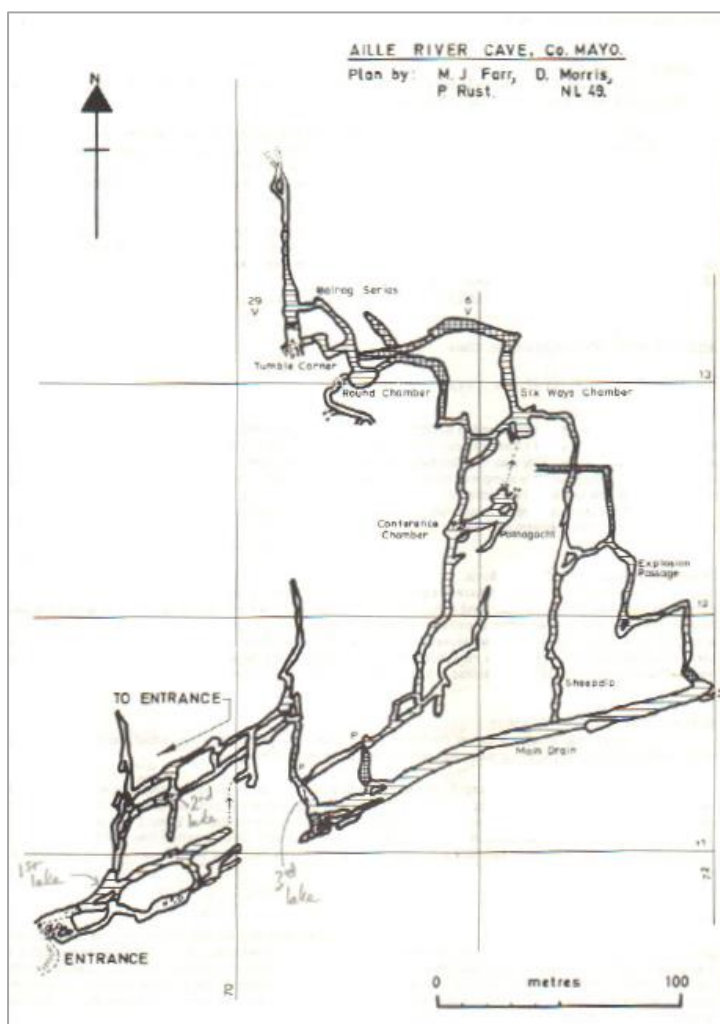
In addition to its significance as a karst sink and resurgence, Aille River Cave/Pollatoomary is renowned for being the site of the deepest underwater cave dive in Ireland and Britain. In 2008, Irish based Polish cave-diver Artur Kozlowski (1977-2011) surpassed the previous cave-diving record (90m depth, Wookie Hole, Somerset) to reach a depth of 103m. Kozlowski reported that this depth was not at the bottom of the cave, which continued down steeply at an angle of 35°. This site is recommended for designation as a geological NHA.

Management/promotion issues

The sink and limestone cliffs are very interesting karst landscape features. The rising is un-dramatic, apart from the fact that a river ‘appears out of the ground’. The significance of the site lies in its subterranean morphology. It is an important site for cave diving. As with any river/cave feature, safety is of primary concern. Access to the sink and rising is through private property. Public access is not encouraged, though promotion of the features in literature relating to the local and regional karst landscape is recommended, as this is a very important site.



Pollatoomary resurgence sketch (Artur Kozłowski; Irish Speleology No. 18 2009)



Plan of Pollatoomary Cave (Parr, Morris and Rust)



Aille River and Cave - view of the Aille River flowing to NE (left to right) into Aille Cave, area of trees.



Sink of the Aille River in Aille Cave.



Collapse depression 40m east of main cave. Viewed looking SE. Photo taken on Pilgrim's Path.



Location of Pollatoomary flood overflow rising 200m west of main rising at Bellaburke.



Pollatoomary (Pollflanagan) rising at Bellaburk viewed looking west, from bank where Aille River turns southwards after emerging.



Pollatoomary rising at Bellaburk viewed from the north river bank looking west to the rising pool.

