Ber. Inst. Erdwiss. K.-F.-Univ. Graz	ISSN 1608-8166	Band 21	Graz 2015
STRATI 2015	Graz, 19 – 23 July 2015		

The Maar of Altenmarkt/Riegersburg – a type location to determine a lithostratigraphic unit for the volcaniclastic rocks in the Styrian monogenetic volcanic field

FRITZ, Ingomar

Geology & Palaeontology, Universalmuseum Joanneum, Weinzöttlstraße 16, 8010 Graz, Austria, email: ingomar.fritz@museum-joanneum.at

Alkali basaltic volcanism was widespread in the Carpathian-Pannonian region from the early late Miocene to the middle Pleistocene times. Within the Pliocene a basaltic phase of volcanism started in the Styrian Basin which lasted until the early Pleistocene. All of these volcanic remnants are interbedded in Miocene sediments and have an explosive initial phase with phreatomagmatic eruptions. Most of the volcanoes show all indications of maar volcanoes even if at some locations only the diatremes are preserved. Only a few volcanoes produced after the initial explosive phase greater magma intrusions or extrusions.In literature this volcanic phase in the Styrian Basin is called “the second volcanic phase”, “the basaltic phase”, “the young volcanic phase” or “the Pliocene-Pleistocene volcanic phase”. Up today a formal lithostratigraphic unit for these volcanic rocks is not yet defined. In the volcanic area of Altenmarkt near Riegersburg all different variations of volcanic rocks (tuff breccia, layered ash, ash/lapilli, lapill and block tuffs and basalt) and maar lake sediments occur. This location is eminently suitable to be a reference profile to define a lithostratigraphic unit for the basaltic volcaniclastic rocks in the Styrian monogenetic volcanic field.