
10th ICAM post-congress excursion, August 06-09, 2011: THE ROGALAND ANORTHOSSITE PROVINCE, SOUTHERN NORWAY

This 10th ICAM post-congress excursion gives an overview of the Rogaland Anorthosite Province that contains several Proterozoic massive anorthosite bodies, the largest layered intrusion in western Europe and granulite facies gneisses. Features to be seen include unique anorthosite landscapes, plagioclase and orthopyroxene megacrysts, plagioclase labradorescence, excellent rhythmic layering, evidence for magma replenishment, and sedimentary structures in layered igneous rocks. Evidence of the long history of the economic importance of iron-titanium deposits will be examined at Blåfjell, and we will visit the major ilmenite mine at Tellnes. Large quantities of “white anorthosite” are exported as aggregate. The layered intrusion is currently being investigated for a combination of ilmenite, magnetite and apatite ores. Magma Geopark is located in the area (www.magmageopark.com).

TENTATIVE TIME SCHEDULE

Briefing: afternoon August 05, 14h00, 10th ICAM venue Trondheim.

Excursion starts: 09h15 August 06, Stavanger SVG airport.

Excursion ends: ~18h30, August 09 at Stavanger SVG airport.

GEAR AND EQUIPMENT TO BRING

Excursion participants are strongly recommended to bring rugged fieldwork attire, including sturdy boots, rain gear and a warm sweater. Daytime temperatures may range 15-25 °C, but when the sun is down freezing temperatures are quite common especially at higher altitudes. Even while August tends to be comparatively dry and the Larvik-Kragerø area has been dubbed the Norwegian Riviera, Nordic weather may surprise you with the occasional splash of rain, *or* days of horizontal sleet. The Norwegian proverb “*det fins ikke dårlig vær, bare dårlige klær*” is veritable by experience, and hence very telling! Some localities provide opportunity to collect rocks and minerals, so participants may want to bring hammers, safety goggles and gloves, hand lenses, sample bags, etc, etc, as well.

Nota bene: participants are explicitly individually responsible for their safety and security, also as a result from sample collection. Organizers will not accept any liability for any sort of damage incurred to properties or persons during the excursion. Participants are recommended to check details with their travel insurance provider.

REGISTRATION

Included in the excursion registration fee are all of:

- 1 printed copy of the excursion guide, excursion transport by luxury coach, admission fees;
- 4× breakfast/lunch/supper, 4× overnight accommodation (1× at ICAM venue after briefing, 3× during excursion).

NOT included in the excursion registration fee are all of:

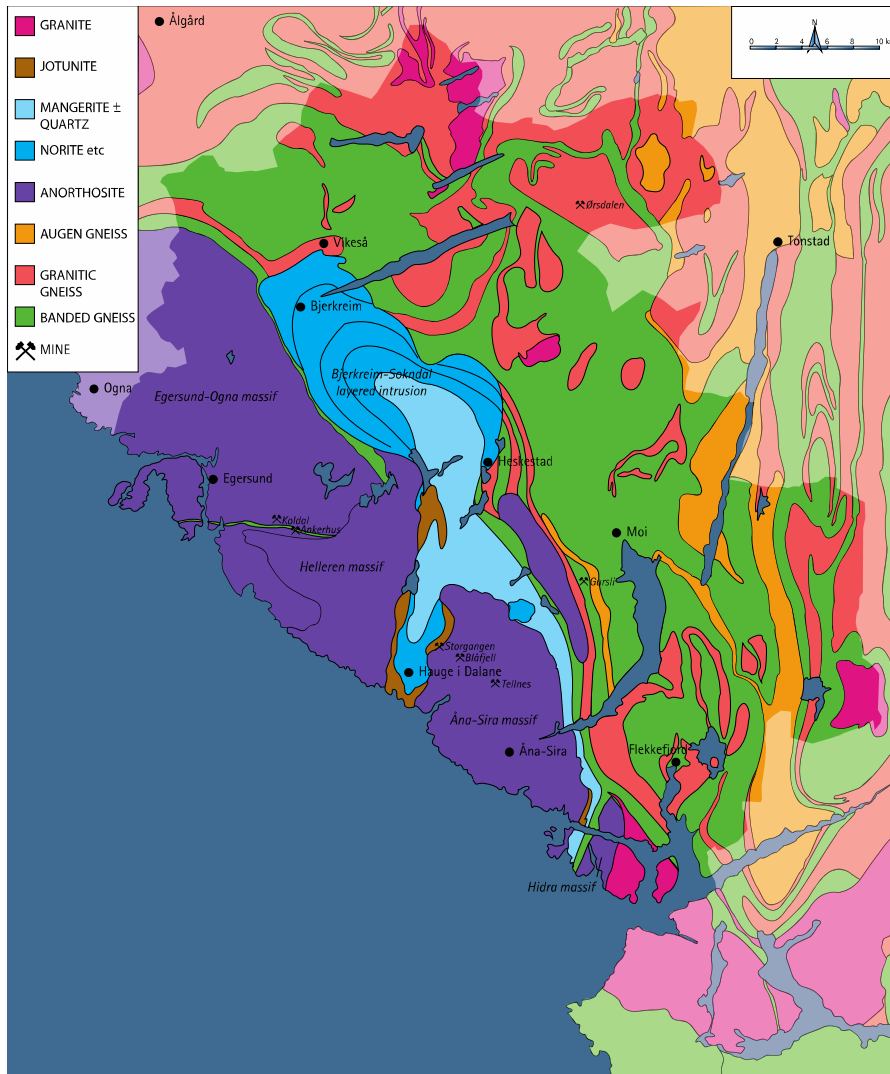
- drinks/snacks from mini-bar in the room at accommodation, additional drinks during/after supper, bar consumptions;
- travel insurance, additional overnight accommodation after excursion ended;
- safety gear for personal use during sample collecting;
- packaging and shipping of collected sample materials by mail (see www.posten.no/en for applicable rates, weight limits, etc)

TENTATIVE ITINERARY 10TH ICAM POST-CONGRESS EXCURSION THE ROGALAND ANORTHOSITE PROVINCE

stop	locality	program item	duration
D-1-0	10 th ICAM venue, Trondheim	afternoon Friday 05 August: excursion briefing	1 hour
DAY 1: Saturday 06 August: Anorthosite and glacial features			
Stavanger SVG airport-Egersund lighthouse-Hellvik-Egersund			
D1-0	Stavanger airport SVG	coach transport to Egersund, light snacks and mineral water onboard	1 hour
D1-1	Egersund lighthouse	anorthosite features, landscape	2 hours
D1-2	Dimension stone quarry	plagioclase labradorescence	1.5 hours
D1-3	St. Olav´s serpent	superbly exposed moraine (esker)	1 hour
D1-4	Egersund	quartering in Grand Hotel, Egersund, for 3 nights	
DAY 2: Sunday 7 august: Bjerkreim-Sokndal layered intrusion and rock fall			
Egersund – Hågåsen – Storeknuten – Teksetjørne – Gloppedal - Egersund			
D2-0	Egersund	breakfast	
D2-1	Hågåsen	leuconorite, sulphide-bearing orthopyroxenite, magma influx	1.5 hours (+ 0.5 hours drive)
D2-2	Storeknuten	rhythmic layering, inclusions, magma replenishment, viewpoint	2 hours (+ 10 min. drive)
D2-3	Teksetjørni	deformed layering, sedimentary structures in layered norites	0.5 hours (+ 20 min. drive)
D2-4	Gloppedal	one of the largest rock falls in Europe	0.5 hours (+ 1.5 hours drive ending in Egersund)
	Egersund	quartering in Grand Hotel, Egersund	
DAY 3: Mandag 8 august: Iron-titanium and molybdenum mineralization			

stop	locality	program item	duration
Egersund – Sokndal – Tellnes – Gursli - Egersund			
D3-0	Egersund	breakfast	
D3-1	Blåfjell	excellently preserved old ilmenite mine	1.5 hours (+ 0.5 hour drive)
D3-2	Tellnes	active ilmenite mine and processing plant old houses at Helleren	3 hours (+ 10 min. drive)
D3-3	Gursli	old molybdenum mine	2 hours (+ 1 hour drive ending in Egersund)
	Egersund	quartering in Grand Hotel, Egersund	
DAY 4: Tirsdag 9 august. Cultural highlights			
D4-0	Egersund	Breakfast, check out	
D4-1	Dalane museum	visit to Dalane folkemuseum	2 hours (+ 0.75 hour drive)
D4-2	Stavanger	Sightseeing in Stavanger “old town”	2 hours (+ 30 min. drive)
	Stavanger post office	packaging and shipping collected samples	
	Stavanger airport SVG		

An excursion guide for an earlier field trip can be downloaded at: www.magmaopark.com/pdf/excursion-guide.pdf



Geological map of the Rogaland Anorthosite

Province Magma Geopark comprises the area with dark colours.