

# GALWAY - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Lippa</b>
Other names used for site	<i>Liopa</i>
<b>IGH THEME</b>	<b>IGH11 Igneous intrusions</b>
<b>TOWNLAND(S)</b>	<b>Lippa</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Na Forbacha (Furbo)</b>
<b>SIX INCH MAP NUMBER</b>	<b>93</b>
<b>ITM CO-ORDINATES</b>	<b>516720E 722340N</b>
<b>1:50,000 O.S. SHEET No. 45</b>	<b>GS1 BEDROCK 1:100,000 SHEET NO. 14</b>

## **Outline Site Description**

This site consists of a rocky promontory at the southern end of a storm beach.

## **Geological System/Age and Primary Rock Type**

Magma mixing-mingling zone (MMZ) granite lithologies, part of the 405 million year old Galway Granite batholith. The granites occupy the Central Block of the granite batholith.

## **Main Geological or Geomorphological Interest**

The exposures at the rocky head of the storm beach exhibit typical examples of alternating pink coarse-grained granitic bands and dark grey medium-grained quartz diorite (mafic) bands. The granite bands tend to be thicker than the darker diorite bands. The transition from granite to diorite bands is sharp, although K-feldspars crystals lie across the contact. The banding fabric is traversed by K-feldspar pegmatite and granite dykes. The mafic bands exhibit an internal fabric (aligned hornblende crystals and stretched plagioclase crystals). Tight folds occur at the northern margin of the promontory, where relatively thick mafic bands alternate with thinner granitic bands.

## **Site Importance – County Geological Site**

This County Geological Site is an important location in terms of gaining an understanding of the origins of the Galway Granite Batholith and the complexities of a 25 km long, 4 km wide magma mixing-mingling zone (MMZ) that occurs in the Central Block of the 600 km<sup>2</sup> batholith.

## **Management/promotion issues**

The beach is accessed *via* a track from the N59 Bearna-An Spideal road. The granite outcrops are at an exposed headland that is not suitable for visiting in rough seas. Visiting at low tide is also advised, as some of the best exposures occur in the inter-tidal zone. Pink coarse-grained granite and dark grey quartz diorite banding is easily visible in rounded and freshly worn boulders deposited along the beach.



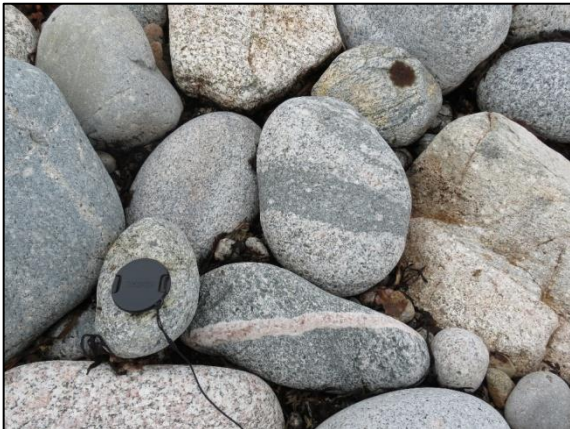
Storm-beach at Lippa. Granite headland at far-end of beach.



Light-coloured granitic bands and darker mafic bands visible on fresh outcrop.



Lichen-covered areally exposed outcrop (foreground) and wave-washed outcrop (rear).



Granite boulders exhibiting banding and mixed lithologies.



Light-coloured K-feldspar pegmatitic dyke traversing mixing-mingling zone (MMZ) outcrop.



