
EDC 6: Bardowie Loch, Bardowie

Grid reference: [NS 57893 73591]

Site type: Natural landform

Site ownership: Not known

Current use: Recreational land

Field surveyor: Sarah Arkley & Luis Albornoz-Parra

Current geological designations: None

Date visited: 5th March 2009

Site map

(Figure 6) Bardowie Loch Location Map

Summary description

Inter-drumlin hollow and adjacent drumlins.

During the Quaternary, the area was covered by ice sheets on several occasions which moulded the topography and laid down extensive glacial deposits. Much of the low ground in East Dunbartonshire is covered by glacial till, some of which has been moulded into elongate ridges parallel to the direction of ice flow (drumlins). On retreat of the ice, meltwater poured from the glaciers over the new glacial topography, hollows between some of the drumlins were flooded and formed lochs. Bardowie Loch is thought to have formed in this way, its dimensions are approximately 815 m x 350 m.

The size and depth of the loch has likely allowed a continuous sequence of fine-grained sediment to accumulate on the loch floor, along with organic matter and animal remains. A core through this sequence, and detailed analysis of the sediments and animal/plant remains could provide an unbroken record of environmental change since the formation of the loch. The site is unspoilt and clean. There are currently no public footpaths around the loch, but the loch is used regularly by a local sailing club. The glacial topography and meltwater flooding has created an excellent wetland habitat for wildlife. Northern margin of the pre-glacial channel of the Kelvin passes beneath here (evidence from boreholes).

EDC 6: Stratigraphy and rock types

Age: Pleistocene Formation: Wilderness Till Formation

Rock type: Glacial deposits: diamicton

Age: Quaternary Formation: Kelvin Formation

Rock type: Lacustrine deposits: clay, silt and sand

Assessment of site value

Access and safety

Aspect/Description

Road access and parking Appears to be surrounded by private land. A lay-by large enough for a few cars exists opposite the sailing club, but the only discovered access is along a 'private road' which exists along the north side of the loch. Views of the loch can be made from the public road to the south of the loch.

Safety of access Access along the 'private road' is good, take care at the waters edge. Safety of exposure Wet feet if you get too close to the water's edge

Permission to visit No permission sought

Current condition Good

Current conflicting activities None

Restricting conditions No footpaths around the loch shore

Nature of exposure Natural landform

Culture, heritage & economic

Historic, archaeological & literary associations None known. Rating: 0.

Aesthetic landscape Reasonably sized loch surrounded by rolling hills, mainly 4 farmland.

History of earth sciences None known. Rating: 0.

Economic geology None recorded. Rating: 0.

EDC6: Geoscientific merit

EDC 6: Bardowie Loch, Bardowie. Geoscientific merit.

Total Geoscientific merit score 12

Current site value

Community Sailing club at the eastern end of the loch. Rating: 9.

Education Good example of an inter-drumlin hollow and surrounding drumlins. A thick and continuous sequence of sediments has probably accumulated on the loch floor which could reveal, with research, information about how the local environment has developed since the loch's formation when the ice retreated. Rating: 5.

Fragility and potential use of the site

Fragility None

Potential use: School, On-site Interpretation, Multidisciplinary

Geodiversity value

Although neither lochs nor drumlins are rare features in the area, Bardowie Loch is a very good example of a flooded inter-drumlin hollow. However the main value of the site lies below the water, where the likely presence a continuous sequence of sediment on the loch floor could provide an important insight into how the local environment has changed from the last glaciation to the present day. Its geodiversity value is enhanced as it is a good example of a flooded

inter-drumlin hollow and its potential for future research. Rating: 3.

Photographs

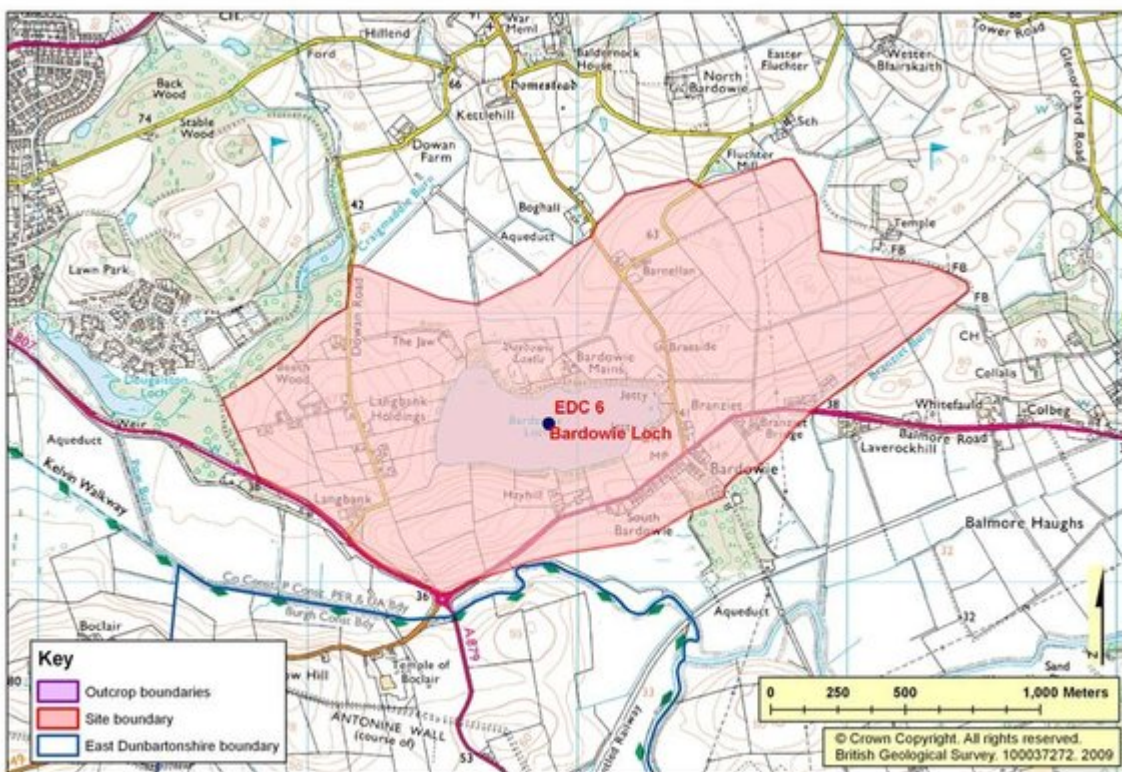
(Photo 27) View looking NNW across Bardowie Loch from the village located to the southeast. The loch is surrounded by large rounded drumlins which were sculpted as glacial ice advanced across the area from the west to the east.

(Photo 28) Looking ESE from the north shore of Bardowie Loch towards the sailing club.

(Photo 29) Shallow water along the northern edge of the loch has formed a wetland habitat for a variety of flora and fauna. Looking WSW.

(Photo 30) Swans on the loch. Looking S.

Bibliography



(Figure 6) Bardowie Loch location map.

GeoScientific Merit	Rarity	Quality	Literature/ Collections	1st
Litho Stratigraphy	0	0	0	<input type="checkbox"/>
Sedimentology	0	0	0	<input type="checkbox"/>
Igneous/Mineral/ Metamorphic Geology	0	0	0	<input type="checkbox"/>
Structural Geology	0	0	0	<input type="checkbox"/>
Palaeontology	0	0	0	<input type="checkbox"/>
Geomorphology	4	6	2	<input checked="" type="checkbox"/>

EDC 6: Bardowie Loch, Bardowie. Geoscientific merit.



(Photo 27) View looking NNW across Bardowie Loch from the village located to the southeast. The loch is surrounded by large rounded drumlins which were sculpted as glacial ice advanced across the area from the west to the east.



(Photo 28) Looking ESE from the north shore of Bardowie Loch towards the sailing club.



(Photo 29) Shallow water along the northern edge of the loch has formed a wetland habitat for a variety of flora and fauna. Looking WSW.



(Photo 30) Swans on the loch. Looking S.