


LGP Baseline Measurements 07/08 Season

General Site Description

Site Name: Darwin Glacier Surface - E of Lake Wilson		
		
Geographical coordinates	Latitude and Longitude S79 48.932 E159 41.589	From GPS
Elevation	62m above sea level	GPS
Slope	Degrees 0°	Estimated
Date(s) visited: 22 Dec & 24 Dec 2007		
Aspect: Flat glacial surface		
Samples taken: Yes		
Photos taken: Yes		
Aerial Photos available: Yes		
Notes taken by: Jenny Webster-Brown (University of Auckland)		

Surface Parameters

Geomorphological characteristics	Glacial ice surface	
Rock Lithology	N/A	
Soil Typology	N/A	
Surface Lithology	<input type="checkbox"/> Outcropping Rock <input type="checkbox"/> Loose Material <input type="checkbox"/> Glacial ICE <input type="checkbox"/> Fluvial <input type="checkbox"/> Eolic <input type="checkbox"/> Coastal <input type="checkbox"/> Scree Slope, Debris	
Surface Texture	Glassy ice	

Vegetation

Plants and Lichens	None
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Fauna



Mammals	None
Birds	None
Invertebrates	None

Glacial

Ablation/accumulation	unknown
Ice temperature	not measured
Snow pit measurements	

Aquatic Non-Marine Systems

The intention here is to document the distribution of melt pools, ephemeral streams, ponds and lakes, their melting characteristics and basic limnological features. Required observations combine both one-off and time series and are designed to characterise the pond and its biota as far as is possible without resorting to specialised techniques and equipment (beyond a temperature/conductivity meter).

Type of water body	Lakes, ponds, cryoconites and streams
	<p><i>Cryoconites in ice base of supraglacial lake</i></p> 
Size and depth: Cryoconites: 0.5-1m ² , 0.5-0.75m deep. Ponds & lakes: Up to 200,000m ² , depth unknown.	Measured
Inflows and outflows (for non running systems): Inflow streams: up to 1m wide and 1 deep. Duration of flow unknown. Discharge estimate: 1 - 10L/sec.	

Duration and spatial distribution of free water: Probably seasonal	
Evidence of water level variation: No evidence available	
Isolated habitat or part of a connected network: Some connected by surface flows	
Proximity to other aquatic systems: 1 to 1.5 km between major lakes	
Any sign of salt or vegetation accumulation around margins: No	
Range of levels over season (peg or otherwise reference the margin): Unknown	
Water sources	<ul style="list-style-type: none"> - <10% Snow, - >90% Glacier - 0 % Non-glacial Ice
Catchment:	<ul style="list-style-type: none"> - Size : Not possible to assess - Vegetation: None - Geology N/A - Geomorphology N/A - Animal influence - None - Ice and some snow drift
Ice cover: (to be recorded at intervals over the season)	<ul style="list-style-type: none"> - permanent ice likely on some features? - 0-100% of coverage (anchored on side & loose) - Thickness: 1cm – 750cm - Transparency: clear - opaque
Water properties. (to be recorded at intervals over the season)	<ul style="list-style-type: none"> - Clarity (estimated): 100% - Colour: None - Foams: None - Conductivity (measured): all < 10 uS.cm⁻¹ - Temperature (measured): all < 1°C
Bed characteristics	<ul style="list-style-type: none"> - Substrate (%): Seen in cryoconites & streams - up to; <ul style="list-style-type: none"> o 10% Gravel o 10% Sand - Vegetated (% cover) <ul style="list-style-type: none"> o cyanobacterial mats: None seen but evidence of photosynthesis in pH variation through day. o mosses: None o green algae: None recognised
Others	Animal observations: Unknown
Sample collection and preservation	Water samples collected from ponds for chemical and biological analysis

Aquatic Marine Systems

N/A

Environmental (AWS)

See short-term AWS data taken from AWS sites at Roadend Nunatak and on the Hatherton

Glacier. Go to: <http://www.lgp.aq/article/6341.html#8809>