

This event has been organised with support from the SYNTHESYS Project (312253) financed by European Community Research Infrastructure Action

DNA Sequencing Natural History Specimens Using New Sequencing Platforms and Protocols

One day meeting

*The Royal Botanic Garden Edinburgh UK
Tuesday 11th July 2017*

*Held in the lecture theatre and conference room in the science building
20a Inverleith Row, Edinburgh, EH3 5LR*

Rapid developments in high-throughput sequencing platforms are providing a step change in the recoverability of DNA sequence data from natural history collections. Short-read massively parallel sequencers are intrinsically well suited to recovery of sequence data from the degraded DNAs typically present in natural history collections.

However, this field has been moving rapidly, and various groups have developed different approaches for how best to use these new technical advances.

This one day meeting will focus on two main questions:

- What types of data can be routinely recovered from what type of material? (what can be done)
- What protocols and platforms are proving most efficient? (how to do it)

9.15 - 9.45	The view from the cabinet – bringing the brave new world to natural history collections?	Dr Sandy Knapp, UK
9.45 - 10.15	Sanger to SMRT: Liberating sequences from museum specimens	Prof Paul Hebert, Canada
10.15 - 10.45	Plant archaeogenomes: what is preserved and what is possible	Prof Robin Allaby, UK
10.45 - 11.15	BREAK	
11.15 - 11.45	Capturing genes from herbaria	Dr Michelle Hart, UK
11.45 - 12.15	Assembling full-length COI barcodes from degraded DNA using high-throughput sequencing	Sean Prosser, Canada
12.15 - 12.45	Genome skimming as an extension of standard barcodes	Dr Pierre Taberlet, France
12.45 - 14.00	LUNCH	
14.00 - 14.30	DNA sequences from museum specimens as reference library for taxonomy and ecology	Prof Alfried Vogler, UK Co-author: Martijn Timmermans (Middlesex University)
14.30 - 15.00	Phylogenomics of museum collections to illuminate the biogeographical history of rare and extinct lineages	Dr Guillaume Besnard, France
15.00 - 15.30	Herbarium DNA, fragmentation and plastomics: getting archival plant DNA to work.	Dr Freek Bakker, Netherlands
15.30 - 16.00	BREAK	
16.00 - 16.30	No sample left behind!	Mikkel Holger Strander Sinding, Denmark
16.30 - 16.45	Discussion / Concluding remarks	Prof Pete Hollingsworth, UK
17:00	DRINKS RECEPTION	

Any further questions, please contact Rachael Brewer R.Brewer@rbge.org.uk

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Directions to the Royal Botanic Garden Edinburgh

Finding the Science Building

The Royal Botanic Garden is situated at Inverleith, one mile north of the city centre. There are entrances on Inverleith Row (East Gate and the Science Building) and Arboretum Place (West Gate and John Hope Gateway).

When arriving for the one day meeting, please make your way to the Science Building, 20a Inverleith Row which is 300 yards up from the East Gate.

The Gardens are open daily from 10am to 6pm which is when the gates open and close, so it is wise to arrive at the correct entrance.

From the airport to the city centre

The airport is 8 miles from RBGE and there are several options to get from the airport into the city. The most economical route is by Edinburgh Tram which can be joined just outside the Airport terminal building and stops at York Place, the cost for a single ticket is £5.50 and return ticket is £8.50. From there it is a 20min walk to the Gardens/ 10min bus ride on the number 8.

There is also a taxi rank at the airport which will take approx. 25mins and you can expect to pay around £20 for the journey. A taxi to the RBGE from the city centre will cost around £8.

Arriving by train

Edinburgh's main railway station is Waverley Station next to Princes Street.

From the city centre to the Royal Botanic Garden (RBGE)

From Waverley train station and the Bus station – it is a 20-25 minute walk (downhill) to the Royal Botanic Garden (the return journey is steep!). There are also frequent buses (exact fare needed, single £1.60, day ticket £4) to the Royal Botanic Garden from the city centre. Lothian Buses 23 and 27 run from Hanover St (just off Princes Street) to the Royal Botanic Garden. The number 8 bus stops near Waverly station on Leith Street. The Lothian bus web page gives information and maps:

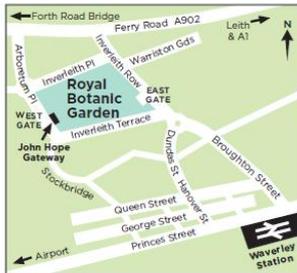
<http://lothianbuses.com/>.

Coming by car

Parking is available around the perimeter of the Garden and on adjacent side streets, but is metered Mondays to Fridays between 8.30am and 5.30pm and expensive at around £2 per hour Parking is free at weekends and evenings.

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May of the Royal Botanic Garden Edinburgh

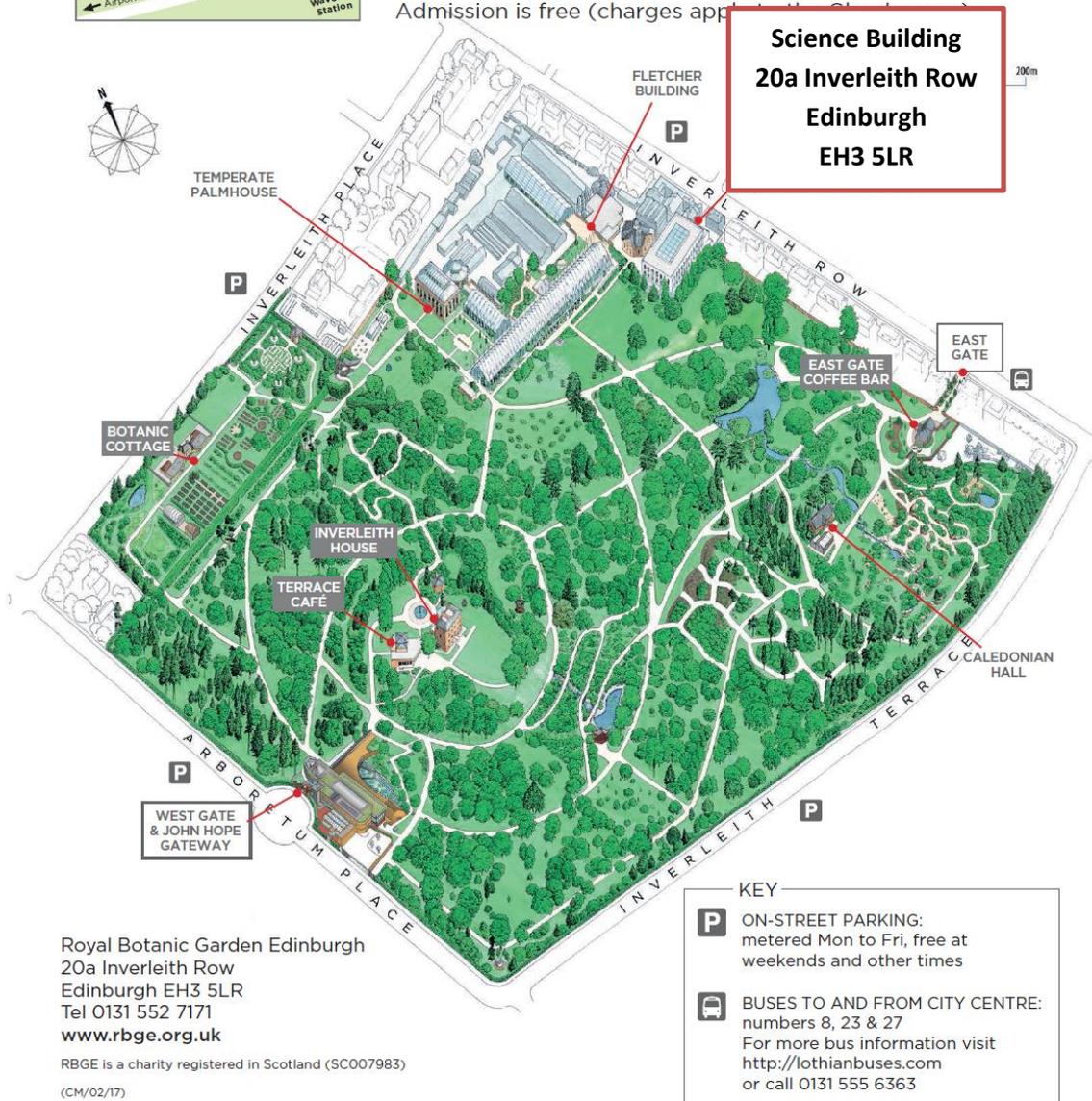


Directions and opening times

The Royal Botanic Garden Edinburgh is situated at Inverleith one mile north of the city centre, with entrances on Inverleith Row (East Gate) and Arbroath Place (West Gate and John Hope Gateway).

Garden open daily (except 1 January and 25 December) from 10am and closed November to January at 4pm; March to September at 6pm; February and October 5pm.

Admission is free (charges apply to some special events)



Royal Botanic Garden Edinburgh
20a Inverleith Row
Edinburgh EH3 5LR
Tel 0131 552 7171
www.rbge.org.uk

RBGE is a charity registered in Scotland (SC007983)

(CM/02/17)