



Bee Improvement and Bee Breeders Association (BIBBA)
in conjunction with The B4 Project

2nd Sustainable Beekeeping Conference: A future without Imports.

Saturday 16th February 2019

The First Floor, Core Building, Eden Project, Bodelva, Par, Cornwall. PL24 2SG

Sunday 17th-Sunday 24th February

BIBBA Groups Apiary Visits.

Saturday 16th February

8.30 - 9.15 Registration, coffee.

9.15. Introduction from Chair of Conference, Lt-Col Nick Bentham-Green.

**Opening Address by Sir Tim Smit, KBE, Co-founder of The Eden Project,
Executive Vice Chair of Eden Project Ltd and Executive Chairman of Eden
Project International Ltd.**

09.30-10.45. HONEYBEE GENETICS AND ADAPTATION

**9.30 Dr Mairi Knight, Dr Jon Ellis, University of Plymouth- *"Understanding honey
bee introgression and genetics: a layperson's overview. (Please send in advance any
questions you wish to be addressed to andrew@aglbrown.co.uk***

**9.50 Victoria Buswell, University of Plymouth – *Local adaptation in dark European
Honey Bees; preliminary results and a request for help.***

**10.15 Dr Mark Barnett, University of Edinburgh – *Using whole genome sequencing
to analyse the genetic diversity of the UK honey bee population.***

10.45 - 11.15 Coffee Break

11.15-13.00 HONEY BEE CONSERVATION AND SUSTAINABLE BEEKEEPING.

11.15 – 11.45 Norman Carreck - *The need to conserve the Dark European Honey Bee.*

11.45- 12.15 Dylan Elen, Bangor University – *Developing sustainable beekeeping in Wales.*

12.15 – 12.45 Professor Grace McCormack, National University of Ireland Galway
– *Feral bees and Irish proposals for rewilding native honey bees.*

12.45 Questions.

13.00 - 14.00 Lunch in the foyer.

Main lecture theatre – Blue Room.

14.00 Kathy Lovegrove – *Mount Edgcumbe, the first “black bee” reserve.*

14.15 Rodger Dewhurst – *Eden and Heligan “black bee” reserves.*

14.30 Questions

14.45 BREAK.

15.00 Bob Black– *Godolphin and Treluswell.*

15.15 Jo Widdicombe –*How I select my Queens.*

15.30 Questions.

16.00 Panel of scientists and Beekeepers – *Planning for the future. Topics such as Reserves, Havens, Circular Economy, Working together, Made in Devon and Cornwall, questions from the day.*

Yellow Room

14.00 Dave Ledger – *Breeding Black Bees, Instrumental Insemination and Getting Towards a Pedigree.*

14.45 BREAK

15.00 Gerry Stuart –*Asian Hornet Action Team.*

15.45 BREAK

Green Room

14.00 Adrian Wolfe – *The impact of Beekeeping on the Environment, Shebbear Black Bee Conservation Group*

14.45 - BREAK

15.00 Phil Chandler – *The merits of various techniques of keeping and breeding black bees – a discussion.*

Top Floor, The Core Building.

09.00-18.00 Exhibition Plan Bee, open to the public, with guided tours for attendees of the conference from Dr Jo Elworthy, Director of Interpretation, Eden, at 14.00, 14.30, 15.00 and 15.30 hrs.

10.00 -16.30 The Core Café open for drinks and snacks

17.00 Conference closes.

17.30 Exhibition and Core Building close.

18.00 Eden closes.

SPEAKER BIOGRAPHIES

Sir Tim Smit KBE



Sir Tim Smit is best known for his achievements in Cornwall. He ‘discovered’ and then restored ‘The Lost Gardens of Heligan’ with John Nelson, which is now one of the UK’s best loved gardens. Tim is Executive Vice-Chairman and Co-founder of the multi award-winning Eden Project in Cornwall. Since its opening in 2001, 20 million people have come to see a once sterile pit, turned into a cradle of life containing world-class horticulture and startling architecture symbolic of human endeavour. Tim is also Executive Chairman for Eden Project International which aims to have an Eden Project on every habited continent by 2025. <http://www.edenproject.com/eden-story/about-us/sir-tim-smit-kbe>

Dr. Mairi Knight



Mairi is the Head of School of Biological and Marine Sciences at the University of Plymouth. Mairi applies her genetic expertise to work on a range of biological systems. She has a particular focus on bees where she has estimated foraging range and nesting density in bumblebees, and examined the conservation genetics of both rare and declining species and recent colonisers. Mairi is the Director of Studies of Victoria's Ph.D examining the genetic and phenotypic basis of local adaptation in honey bees.

Dr. Jonathan Ellis



Jonathan is a lecturer in conservation genetics at the University of Plymouth. Jonathan's childhood interest in insects, especially Hymenoptera, led him to undertake a Ph.D investigating the conservation genetics of rare bumblebees in the UK. Since then he has continued to work on the genetics of natural populations, studying both salmonid fish and bees. He is now a co-supervisor of Victoria's Ph.D (see below).

Victoria Buswell



Victoria graduated with a B.Sc (Hons) in Bioscience from Canterbury Christ Church University, Kent, before embarking on her Ph.D in the School of Biological and Marine Sciences at the University of Plymouth. Victoria's Ph.D is examining the genomic and phenotypic basis of adaptation in honey bees. This uses a combination of 'citizen science' and next-generation DNA sequencing methods. Victoria's Ph.D is a NERC-CASE studentship and she works closely with her partner organisation 'B4: Bringing Back Black Bees'.

Dr Mark Barnett



Mark is a research scientist and has worked in developmental biology and neuroscience at the University of Edinburgh. His current interests at the Roslin Institute include transcriptomics of the cell cycle and macrophage activation. Mark has been keeping honey bees since 2010 and holds the advanced certificate in beekeeping from the Scottish Beekeepers' Association. He currently manages 19 hives in the Scottish borders, is a tutor on two beginners' courses and is the vice president of Edinburgh and Midlothian Beekeepers' Association. Mark's interest in honey bees has led to a research project at the Roslin Institute that used whole genome sequencing to map the health and genetic diversity of colonies in Scotland and the UK

Norman Carreck



Norman has been a beekeeper for 38 years and a bee research scientist for 26 years. He is a Trustee of the C.B. Dennis British Beekeepers Research Trust, a member of the Examinations Board for the National Diploma in Beekeeping, a member of the "Bee Health Advisory Forum" for the Defra "Healthy Bees Plan, and a member of the Technical and Environmental Committee of the British Beekeepers Association. Until 2018 he was the UK member of the Executive Committee of the international honey bee research network "COLOSS", Senior Editor of the *Journal of Apicultural Research*, and Science Director of the International Bee Research Association. He is now a director of Carreck Consultancy Ltd and of Bee Publishing Lt and is based at the University of Sussex.

Dylan Elen



Since becoming a beekeeper in his early twenties, Dylan has become passionate about conservation of the endangered Dark bee (*Apis mellifera mellifera*). He is currently working on a PhD at Bangor University, focusing on the genetic pollution of the Welsh honey bee, and also *Varroa* resistance mechanisms in a treatment-free honey bee population in North-west Wales. He sees both topics as an important contribution to the development of sustainable beekeeping in Wales, and potentially elsewhere as well. His research interests on the other hand are much broader, including conservation genetics, feral colony ecology, rewilding, breeding, competition with other pollinators ...

Professor Grace McCormack



Grace McCormack is a Professor in Zoology at NUI Galway. Her interests lie in evolutionary biology and particularly in using molecular data to understand how organisms are related to each other, and the impacts this may have on conservation and on the evolution of organismal traits. The interaction between animals and their parasites/pathogens over evolutionary time is also of interest as is the use of this information in applied science such as biodiscovery (marine sponges) and apiculture (bees). Grace has published over 60 research papers and book chapters and currently has a team of six PhD students and a research assistant thanks to funding by the EU, the Irish Research Council, Department of Agriculture, Food and the Marine, and NUIG. Recent honeybee research by her team and collaborators (including NIHBS and FIBKA) indicate a healthy pure *A. m. mellifera* population in Ireland, including many apparently successful free-living colonies.

Apiary Visits Sunday 17th-Sunday 24th February 2019

Please note that beehives will not be opened up at this time of year, and so bee suits and protective clothing are not necessary. Good footwear and warm clothes are advised. More details including directions and how to contact can be found on the B4 Project website, <https://www.b4project.co.uk/upcoming-events>

Sunday 17th February.

Mount Edgcumbe Apiary. 10am-12.30pm.

Mount Edgcumbe House, Cremyll, Torpoint, PL10 1HZ

Find out how England's first Native Honey Bee Reserve was created and visit the unique apiary set up in the gardens of Mt Edgcumbe Country Park.

Monday 18th February.

West Devon Apiary. 10-12 am.

Blowiscombe Barton, Milton Combe, Yelverton PL20 6HR.

West Devon Bee Improvement Group 18th February 2019. This is a new group founded in 2018. Tea/coffee provided.

Shebbear Black Bee Conservation Project open apiary afternoon. 2-4pm

Newton Mill, Newton St Petrock, Holsworthy, EX22 7LP. The Shebbear Black Bee Conservation project welcomes you to visit their apiary in North Devon and will also show you their Instrumental Insemination Lab. Coffee and Tea provided.

Tuesday 19th February.

Cockington Manor 10am-1pm

Cockington Manor Café, Cockington Court Manor, Cockington Lane, Torquay, TQ2 6XA Gerry Stuart and members of the Asian Hornet Action Team will share their experiences and plans, as well as show you the apiary.

Treluswell Allotments. 10-12 am

Falmouth

Visit the new B4 apiary at Treluswell nr Falmouth. Bob Black will take a group on a short tour of the newly established native bee site and adjoining allotment

Godolphin House Apiary 2-4pm

National Trust - Godolphin, Godolphin Cross, Helston TR13 9RE

Bob Black will take a group on a short tour of the hives that are visible to the public here and give a short presentation and Q&A in the Apple House in the grounds. NT Café open.

Wednesday 20th February

Heligan Garden Apiary 10-12am

The Lost Gardens Heligan, B3273, Pentewan, Saint Austell PL26 6EN.

Rodger Dewhurst will give a tour of the apiary, and talk about our Native Cornish Honey Bee.

Thursday 21st February

Blackdown Hills 10-12a.m

Bolham Water, Clayhidon, Cullompton EX15 3QB

The Blackdown Hills Black Bee Conservation project welcomes you to visit their apiary on the Devon/Somerset border. They will show you their “bee lab” where they perform Instrumental Insemination.

Friday 22nd February

Marley Farm, South Brent. 2-4pm

South Brent TQ10.

Phil Chandler will give a talk and apiary tour

Sunday 24th February

Rosewarne Teaching Apiary 2-14pm

Duchy College Rosewarne, Camborne TR14 0AB, UK

Rodger Dewhurst gives an update on the status of our Cornish population of the European Dark Honey Bee.

