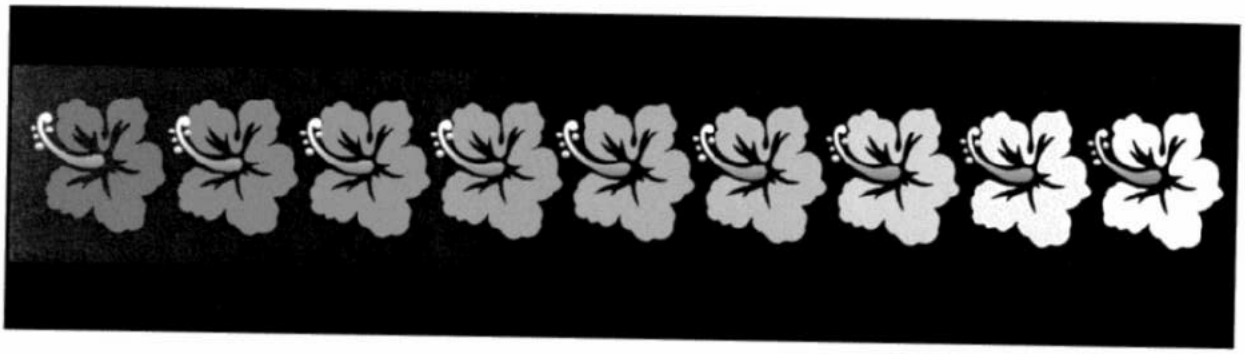
SCIENTIFIC PROGRAMME

evolution 2007



JOINT MEETING

Society for the Study of Evolution

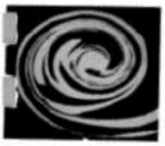
◆

American Society of Naturalists

◆

Society of Systematic Biologists

JUNE 16-20 CHRISTCHURCH CONVENTION CENTRE



ALLAN WILSON CENTRE

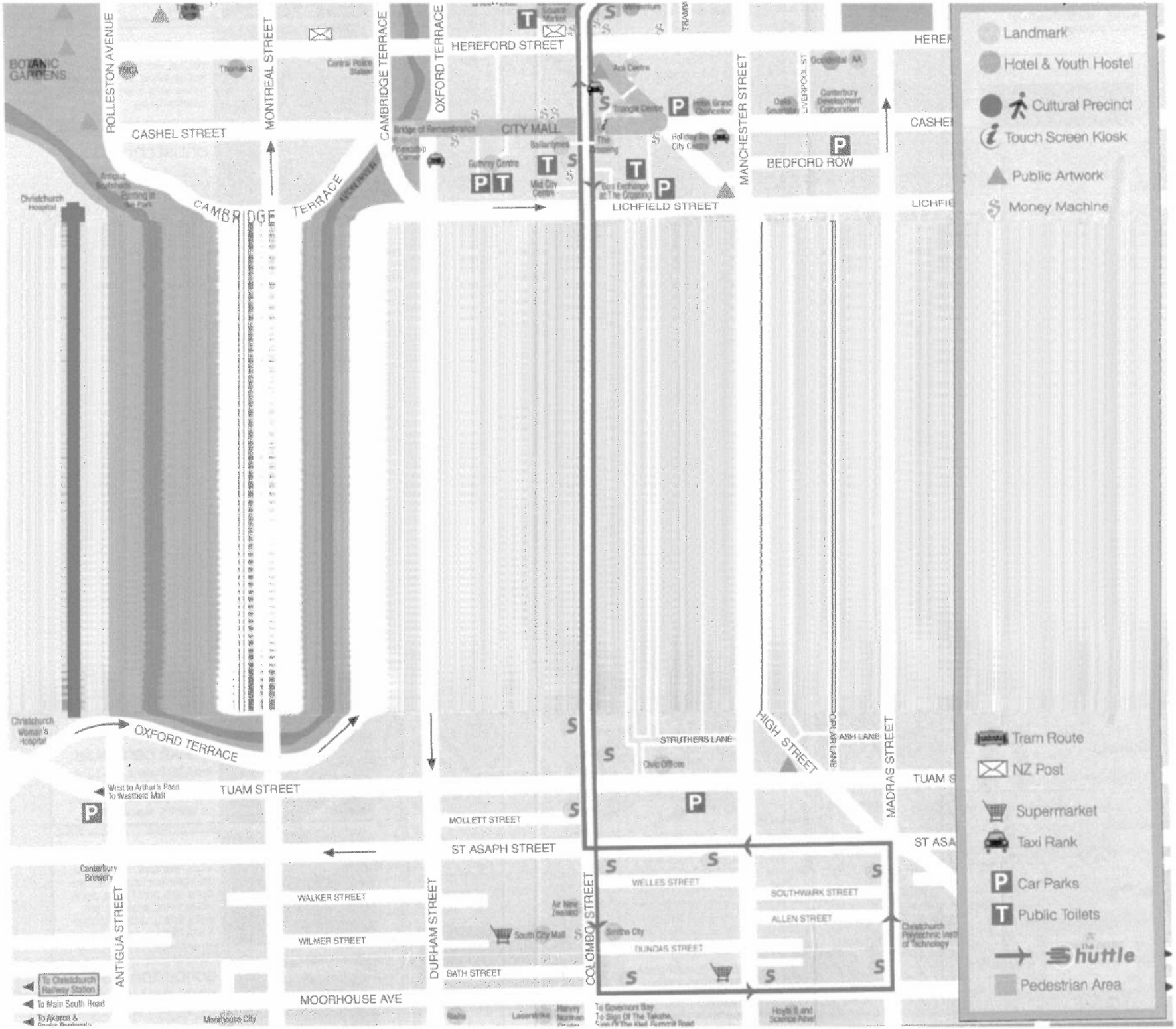
UC UNIVERSITY OF CANTERBURY Te Whare Wānanga o Waitaha CHRISTCHURCH NEW ZEALAND

Massey University

UNIVERSITY OF OTAGO

Victoria UNIVERSITY OF WELLINGTON Te Whare Wānanga o te Ūpoko o te Ika a Māui

THE UNIVERSITY OF AUCKLAND NEW ZEALAND Te Whare Wānanga o Tāmaki Makaurau


Landmark
Hotel & Youth Hostel
Cultural Precinct
Touch Screen Kiosk
Public Artwork
Money Machine
Tram Route
NZ Post
Supermarket
Taxi Rank
Car Parks
Public Toilets
the shuttle
Pedestrian Area
BOTANIC GARDENS
ROLLESTON AVENUE
MONTREAL STREET
CAMBRIDGE TERRACE
OXFORD TERRACE
HEREFORD STREET
CASHEL STREET
CITY MALL
LICHFIELD STREET
MANCHESTER STREET
BEDFORD ROW
LIVERPOOL ST
HIGH STREET
MADRAS STREET
STRUTHERS LANE
ASH LANE
TUAM STREET
MOLLETT STREET
ST ASAPH STREET
WELLES STREET
SOUTHWARK STREET
ALLEN STREET
DUNDAS STREET
WALKER STREET
WILMER STREET
BATH STREET
MOORHOUSE AVE
ANTIGUA STREET
DURHAM STREET
COLOMBO STREET
Christchurch Hospital
Christchurch Women's Hospital
Central Police Station
Bridge of Remembrance
Guthrey Centre
Mid City Centre
Bus Exchange at The Crossing
Triangle Centre
Ace Centre
Canterbury Development Corporation
Civic Offices
Canterbury Brewery
South City Mall
Smithe City
Air New Zealand
Christchurch Polytechnic Institute of Technology
West to Arthur's Pass
To Westfield Mall
To Christchurch Railway Station
To Main South Road
To Akaroa &

evolution 2007

PROGRAMME

Annual Meetings
June 16-20, 2007

American Society of Naturalists

Society for the Study of Evolution

Society of Systematic Biologists

Christchurch Convention Centre
Christchurch, New Zealand

Welcome to Evolution 2007

Kia ora – Welcome to New Zealand, Aotearoa and to the Christchurch Convention Centre.

The Allan Wilson Centre for Molecular Ecology and Evolution is delighted that so many of you have been able to join us. The 'AWC' is pleased to be able to coordinate this meeting on behalf of the Society for the Study of Evolution, the American Society of Naturalists and the Society of Systematic Biologists. This meeting is not only an important event for the AWC, but also for New Zealand. It is the first time that this important meeting has been held outside the US and Canada. We hope that this will be an interesting and stimulating meeting for all. We have attracted approximately 900 visitors, the majority from overseas, and many of you have traveled very great distances to be here. We appreciate your efforts in doing so.

The AWC was formed in 2002 as part of the New Zealand Government's initiative to establish centres of research excellence and named in memory of New Zealander Allan Wilson. The AWC comprises investigators from five New Zealand Universities and we currently have 58 postgraduate students and 38 postdoctoral fellows. The AWC is located at six sites around the country and comprises biologists and mathematicians. Our goal is to develop world-class research programmes in molecular ecology and evolution and to attract international visitors to New Zealand. You are a vital part of this latter goal.

Not surprisingly, the conference will comprise many talks from researchers in New Zealand and Australia. We hope that our Northern Hemisphere colleagues will find these interesting. The work of the late David Lloyd, a New Zealander based at University of Canterbury, here in Christchurch, will be featured in an SSE symposium on plant reproductive strategies.

We hope that you will have an enjoyable and productive time here in Christchurch.

David Lambert and **Craig Millar**
On Behalf of the Organising Committee and the Allan Wilson Centre for Molecular Ecology and Evolution

Acknowledgements

It would not have been possible to organize this meeting without the efforts of many people. Most notably Ian Anderson took on the role of conference secretary at an early stage. He has worked tirelessly to make sure that the conference is well organised and runs smoothly. He has spent many hours gathering information, contributing to the website, consulting with the conference venue staff and corresponding with many of you in relation to a myriad of problems and issues. It has been a pleasure working with him and we cannot thank him enough.

Vivian Ward from the School of Biological Sciences at the University of Auckland created the conference logo and the conference posters. The web graphics were designed and implemented by Rob Anderson and we thank Conference Online for assistance with registration software and data capture. Andrew Clarke was responsible for the production of the conference programme and assisted with timetabling. We thank him for his efforts. Hamish Spencer and Mike Steel also provided advice with regards to the timetabling of talks and sessions.

In anticipation, we thank the session chairs for their help with the smooth running of the programme. Massey University's printery provided all the copies of posters and copies of the conference programme. We thank them for their help. On your behalf we also thank the staff of the convention centre, for their help in the planning stages and over the five days of the meeting.

Many companies, both national and international, have kindly sponsored the programme. We have 30+ sponsors and exhibitors. We thank them for their financial assistance and for their participation in the conference. We also thank Mike Hendy and the staff of the AWC, notably Susan Adams, Karen Sinclair and Joy Wood for help with conference administration. We appreciate the assistance of the 20 graduate student volunteers, mostly from Canterbury University, for their help. You will see them about the conference centre. They are there to help you, please feel free to talk with them if you need assistance.

We thank the officers of all three societies for their advice and help during the build up to this event. From SSE we are particularly grateful to Jessica Gurevitch, Don Waller and Dale Clayton. We are also grateful for help received from Lynda Delph. From ASN we have appreciated helpful comments from Trevor Price and from SSB, George Weiblen and Chris Simon were of great assistance to us. We wish to thank also the symposium organizers who recruited speakers and coordinated the presentations. The AWC and the societies are thanked for providing travel grants for students. Thanks too, to Mike Steel and Neil Gemmell for the T-shirt initiative.

This conference would not have been possible without the support of the New Zealand Government's Centres of Research Excellence Fund, via its support for the AWC. The Royal Society of New Zealand also helped with a major grant to the organizing committee, as did the Canterbury Events Fund. The very supportive team at the Christchurch Convention Bureau, Annette Pendergast, Metka Conlan and Debbie Roxby provided invaluable advice, assistance and encouragement that has enabled us to stage this event in Christchurch. We thank them all.

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Registration and General Information

Registration and Information

Registration and general help will be available in the ground floor foyer area of the convention centre at the following times:

Saturday, 16 June	12.00 midday to 6.30pm
Sunday, 17 June	8.00am to 5.00pm
Monday, 18 June	8.00am to 5.00pm
Tuesday, 19 June	8.00am to 5.00pm
Wednesday, 20 June	8.00am to 5.00pm

Volunteer student helpers and conference administrative staff will be identifiable by their distinctive bone coloured conference T-shirts with BROWN motifs. Please feel free to seek advice and assistance from this team at any time.

To ensure admission to all scientific sessions, coffee/tea breaks and lunches, please ensure you wear your lanyard and name tag — your name tag is your "admission ticket" to all conference sessions

Message Board

A message board is located near the **Registration/Information** desk in the convention centre foyer.

Presentations

Oral presentations are limited to 30 minutes for invited symposia speakers, and 15 minutes for concurrent session speakers. We suggest that invited speakers talk for 25 minutes, with 5 minutes for questions. All other presentations should be 12 minutes, with 3 minutes for questions (15 minutes, total). Please consult the program ahead of time to confirm the time and location of your talk and make yourself known to the session chair well before the session starts. In other than symposia and special sessions, **unless otherwise noted, the session chair will be the first speaker listed for that session.**

There will be a PC and data projector available for presentations in each room. A student helper or a technician from the audio–visual (AV) service provider will be present at each scientific session to assist Chairs of sessions and speakers and to liaise with the AV control centre. All talks MUST be loaded onto a central server in the AV control centre which will be networked to the PCs in each of the presentation rooms. All speakers must deliver their talks on a CD or USB flash drive to the AV control centre at least one session before they are due to be presented. **Speakers** scheduled for the **first morning sessions** (8.30–10.00am) **MUST** deliver their talks to the AV control centre on the previous afternoon between 1.00 and 5.00pm. Speakers scheduled for the **first afternoon sessions** (1.30–3.00pm) **MUST** deliver their talks to the AV Control Centre before lunchtime the day of their presentation.

DO NOT TAKE YOUR TALKS TO THE ROOM IN WHICH YOU ARE PRESENTING.

ALL TALKS MUST BE PRE LOADED ONTO THE CENTRAL SERVER IN THE AV CONTROL CENTRE.

YOU WILL NOT BE ABLE TO USE YOUR OWN LAPTOP TO PRESENT YOUR TALK.

The AV control centre room will be open 8.00am–5.00pm each day where there will be 4 computers available for speakers to check their presentations and check software compatibility. Please be sure to do this before you deliver your talk to one of the AV control centre technicians. Apple (Macintosh) users should verify that their files are compatible with PowerPoint or Adobe Acrobat for PC Windows. Both PCs and Macs will be available in the AV control centre, but only PCs will be available in each room.

Session Chairs

If you are chairing a session, please arrive approximately 10 minutes early to ensure that all presentations are ready, and that all presenters are accounted for. The Chair should alert speakers when 3 minutes remain, and, if necessary, when 1 minute remains. If time runs out, the speaker will be asked to leave the podium without taking questions. If a speaker finishes early or there is a cancellation, the Chair should not introduce the next speaker until their designated time to speak.

Internet Access during the Conference

An internet café comprising 8 PCs with high speed broadband internet access is located in the upper foyer area of the conference centre adjacent to the meeting break out rooms. This facility is designed for delegates to quickly check emails — it is not designed or suitable for lengthy internet browsing and the downloading of large files. Those delegates who have brought their own wireless enabled laptops will be able to connect to the Internet from a number of wireless hubs throughout the conference centre and Town Hall complex. Details on this wireless access are provided in your registration pack.

Transportation

There is no local transport organized specifically for this meeting – hotel accommodation has been selected within reasonably easy walking distance from the conference venue. Some hotels are right on (Millennium, Quest, Base Backpackers) or within a few minutes walk (Oaks, Stonehurst) of the route of a free shuttle bus service operated by the Christchurch City Council – the routes for this "Free Yellow Shuttle" bus are clearly marked in the foldout map of the Christchurch CBD included in your conference pack. This service operates as follows:

Saturday	every 10 minutes, 8.00am to 10.30pm
Sunday	every 10 minutes, 10.00am to 5.00pm every 15 minutes, 5.00pm to 8.00pm
Monday to Thursday	every 10 minutes, 7.30am to 7.00pm every 15 minutes, 7.00pm to 10.30pm
Friday	every 10 minutes, 7.30am to 10.30pm

Delegates in the Oaks on Cashel and Stonehurst wanting to catch this bus can do so by walking down Cashel St to Colombo St — cross Colombo St and use the closest clearly marked **Yellow Bus** stop. Make sure the bus you catch to get to the Convention Centre is heading towards Cathedral Square.

The stops for the Convention Centre are the corner of Colombo and Kilmore St and in Peterborough St. within close proximity to the rear Peterborough St entrance to the Convention Centre.

For delegates staying at the Holiday Inn on Avon, the hotel will operate its free shuttle bus to the Convention Centre each morning. If the weather is unsettled and walking is not a pleasant prospect, there may be too many delegates for the limited capacity of the hotel shuttle bus – we recommend mini van taxis be shared by delegates at a very low cost per person. All taxis can be ordered through the hotel concierge desk.

No transportation has been arranged for delegates returning from the conference centre to their hotels.

When walking, please remember vehicles in New Zealand travel on the left hand side of the road – and in Christchurch there are several one way streets including Kilmore Street
BE VERY CAUTIOUS WHEN CROSSING STREETS
where possible cross at traffic lights

Refreshment Breaks

Morning and afternoon refreshment breaks will be available each day Sunday, 17 June through Wednesday, 20 June. Morning breaks will be 10.00–10.30am and afternoon breaks 3.00–3.30pm. All delegates are entitled to lunch as part of their registration, each day Sunday through Wednesday. Lunch breaks will be 12.00–1.30pm.

All refreshments and lunches will be served in Halls A and B and in the ground floor foyer area in the Conference Centre.

Scientific Sessions

Scientific sessions will be held in break-out rooms 1-7 located on the upper level of the Conference Centre and in the James Hay Theatre, Limes Room, Cambridge Room, and Conference Rooms 1 & 2 located in the Town Hall complex located immediately across Kilmore Street from the Conference Centre. There is a connecting airbridge between the upper level of the Conference Centre and the Town Hall complex.

For your safety, please use the airbridge when crossing between the Town Hall and the Conference Centre.

Poster Display

The single organised poster session is scheduled for 8.30–11.30pm on Sunday, 17 June and will be held in Halls A, B and C in the Conference Centre (see map in your Conference Program). Each poster display panel is 1200 mm wide x 2300mm high. Panels for displaying posters are velcro hook receptive. Posters may be attached to the panels using velcro hook spots or by pins. A limited supply of velcro hook spots and pins will be available at the registration desk.

Posters can be displayed from 8.00am Sunday, 17 June and will remain on display for the duration of the conference. Please check the number assigned to your poster in the conference programme, and display it in the appropriately numbered display panel. Posters will need to be removed before 1.00pm on Wednesday, 20 June.

During the poster session, the presenting author should be standing by his/her poster

Coat Check Service

A coat check service provided by the venue will operate throughout the conference. Please ask at the registration/information desk for directions to this service.

Social Functions

All registered delegates plus spouse/partner/family members that have purchased tickets are entitled to attend the opening reception and ceremony. This will take place Saturday, 16 June in the ground floor foyer and Halls A and B in the Conference Centre commencing at 6.30pm. We encourage all to attend this important function which will feature a Maori challenge and welcome. Finger food plus a selection of New Zealand wines, beers and non-alcoholic beverages will be served. The function will close at 9.30pm. Dress: smart casual

The opening function has been generously co-sponsored by Blackwell Publishing (US) and Taylor & Francis Group. Their contibutions are gratefully acknowledged.

On Monday evening a carvery/salad meal is available to all registered delegates and spouse/partner/family members that have purchased tickets. This meal will be served at 7.00pm in Halls A and B in the conference centre. A cash bar will operate from 6.00pm and throughout the evening. Light musical entertainment will be provided at this informal get together. Dress: casual

The awards banquet is to be held in Halls A, B and C of the Conference Centre on Wednesday evening June 20 commencing 6.30pm for 7.30pm. This function is limited to those that have purchased tickets at the time of their registration. A limited number of additional tickets for this event will be available at the registration desk for those wishing to attend (and who have not previously purchased tickets). These additional tickets will be issued on a first come basis and will only be available until midday on Monday. This event is planned to be one of the highlights of this conference and will include a cocktail period, the awards ceremony, a seated banquet and light musical and other entertainment. Dress: smart casual

Dining and Nightlife

There are no formal arrangements for breakfasts at this conference. Breakfast is NOT included in the hotel tariffs – there are numerous early opening coffee shops in the CBD that offer light breakfasts for delegates not wanting to use hotel dining services.

Lunches are provided each day for all delegates (see above).

A comprehensive list of restaurants in the CBD is available at the registration desk and also listed in the free visitor guide to Christchurch and Canterbury included in your satchel. We have deliberately scheduled Tuesday evening "free" to enable delegates to experience some of New Zealand's finest eating establishments – please do so!!

Christchurch has a very active night life – there are many clubs and bars catering for all age groups and tastes scattered throughout the central city area – with a concentration of these along the Avon river in Oxford Street, known locally as "The Strip".

Banking

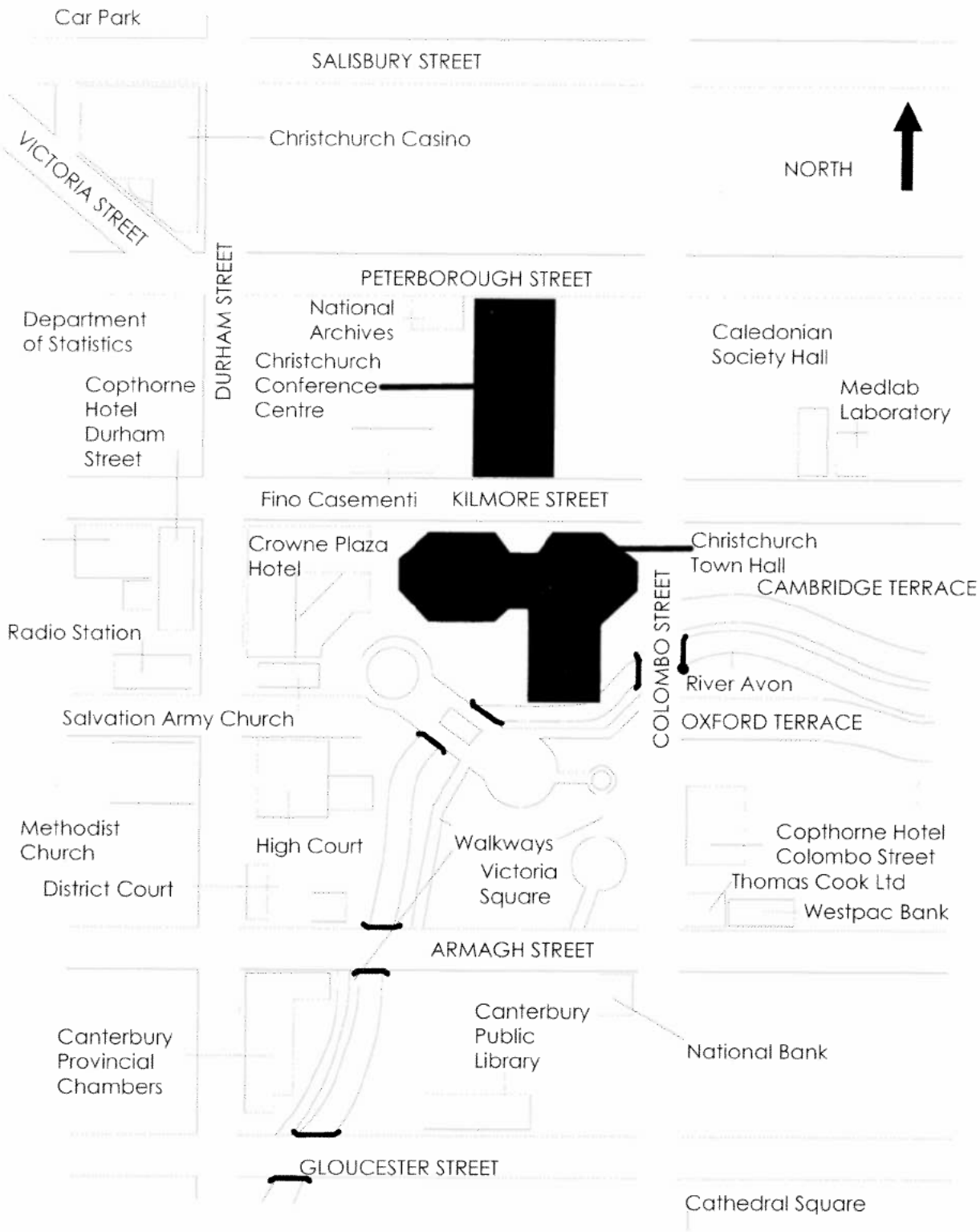
There is an automated teller machine located on the ground floor in the Town Hall complex and other ATMs are scattered throughout the CBD usually located as part of a major bank. Banks in the CBD are open 9.00am to 4.30pm each week days. There is a bank open at the international airport for all international arrivals and departures. Currency exchange is available 7 days a week at the Christchurch i-SITE visitor centre in Cathedral Square which opens at 8.30am each day.

Medical Services and Emergency Numbers

The closest emergency medical service to the Convention Centre open 24/7 is The 24 Hour Medical Centre located on the corner of Colombo Street and Bealey Avenue – contact details are available at the Registration/Information desk. There are numerous pharmacies located throughout the CBD – again ask at the registration desk for details. Hotels can also advise on the closest pharmacies and emergency medical services.

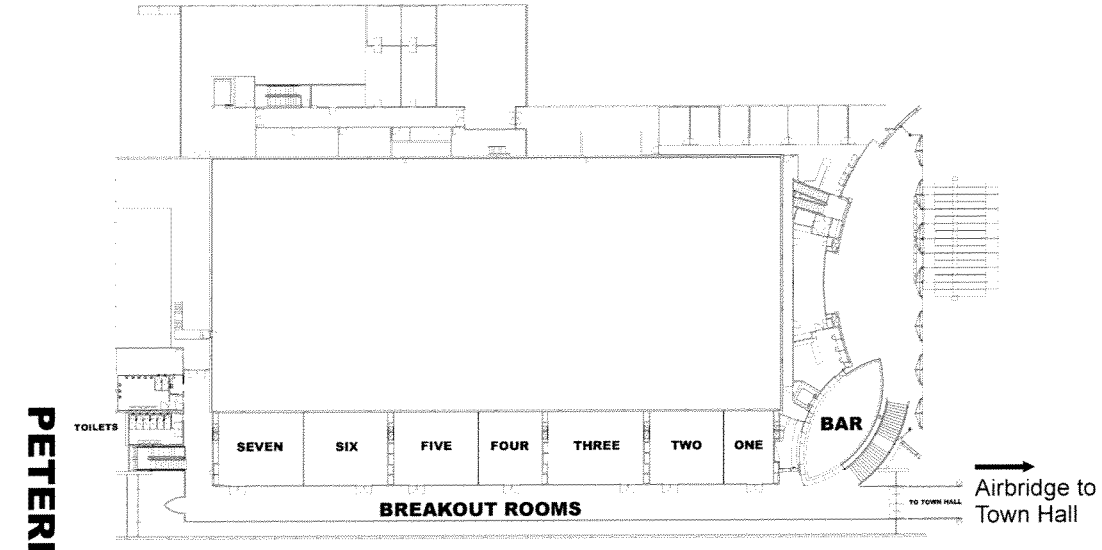
For Police, Fire and Ambulance dial **111** and ask for the service

Christchurch Convention Centre Precinct Plan

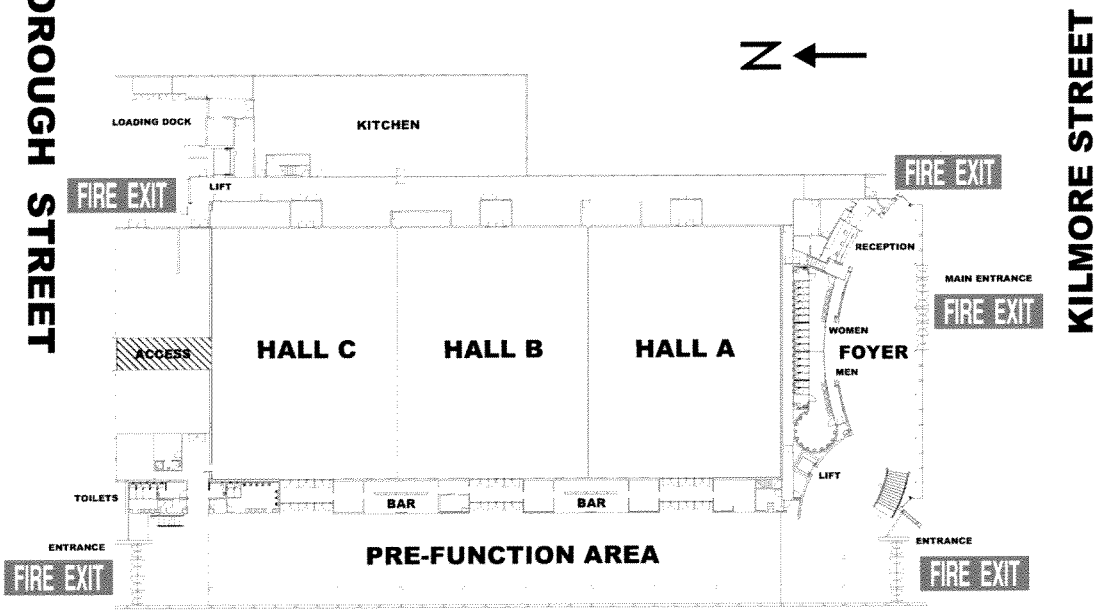


Christchurch Convention Centre Floor Plan

Conference Centre



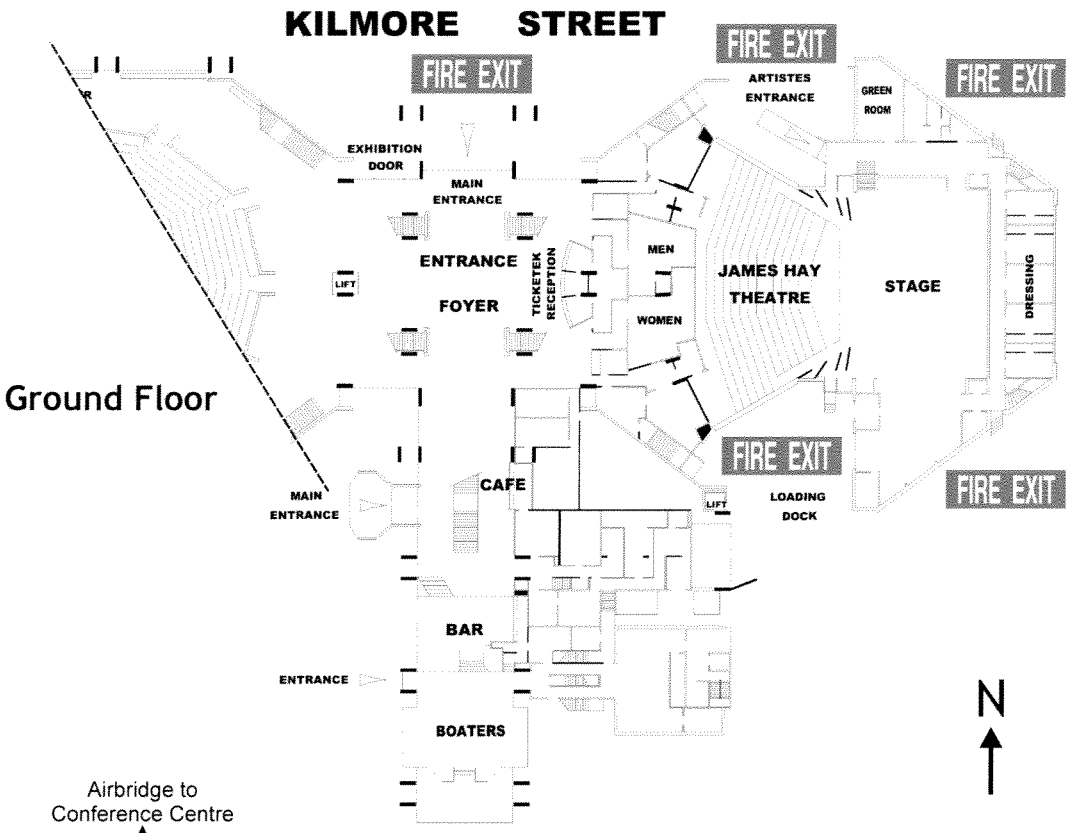
First Floor

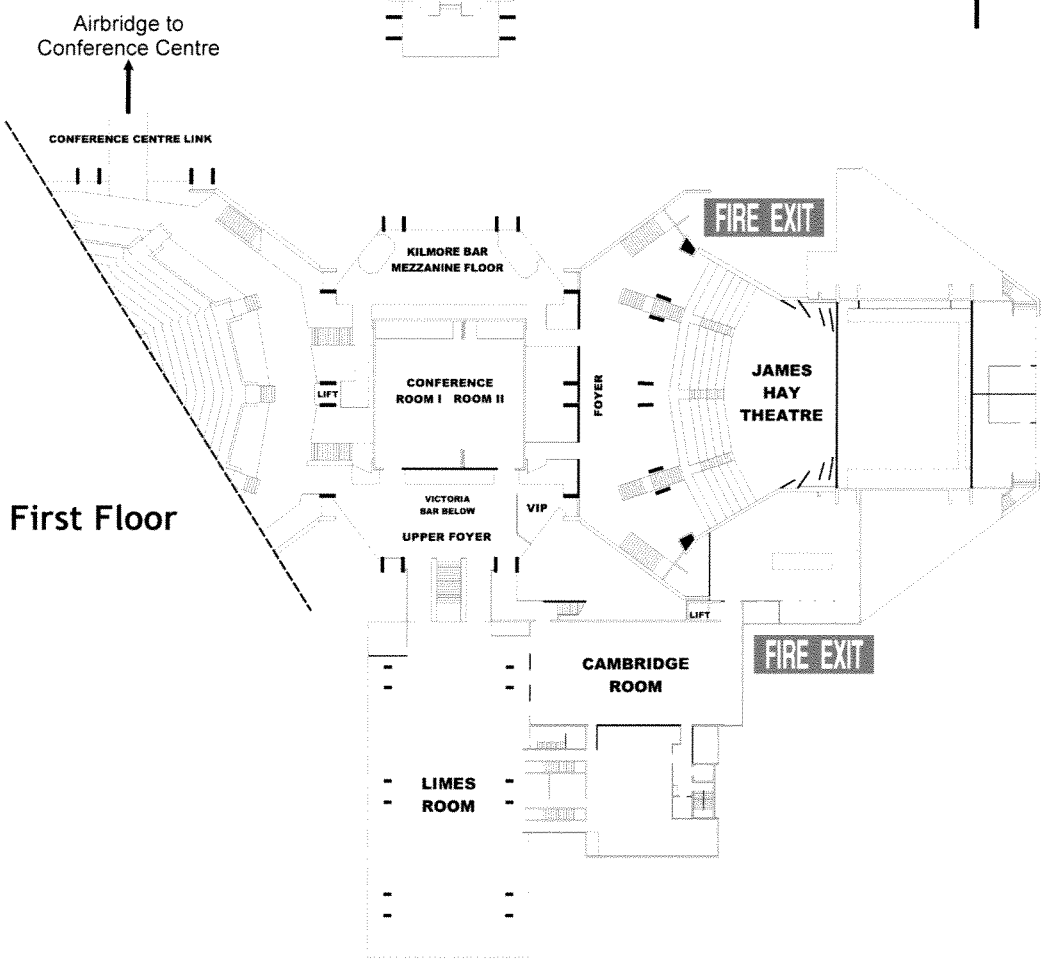


Ground Floor

Christchurch Convention Centre Floor Plan

Town Hall





Sponsors, Exhibitors and Publishers

The organising committee is extremely grateful to the following sponsors and exhibitors that have supported Evolution 2007. Delegates are urged to take time to visit the exhibition booths and discuss with the company representatives, the range of products and services available from these exhibitors.

Saturday	5.00pm – 9.30pm
Sunday	8.30am – 5.00pm, 8.30 – 10.30pm
Monday	8.30am – 5.00pm
Tuesday	8.30am – 5.00pm
Wednesday	8.30am – 12.30pm

Major Sponsors

Canterbury Events Fund

New Zealand Ministry of Research Science and Technology

Allan Wilson Centre for Molecular Ecology and Evolution
Booth 8

Sponsors

HortResearch
Booths 15-16

Roche Diagnostics NZ Ltd
Booths 10-11

Blackwell Publishing
Booths 13-14

CodonCode Corporation
Booth 25

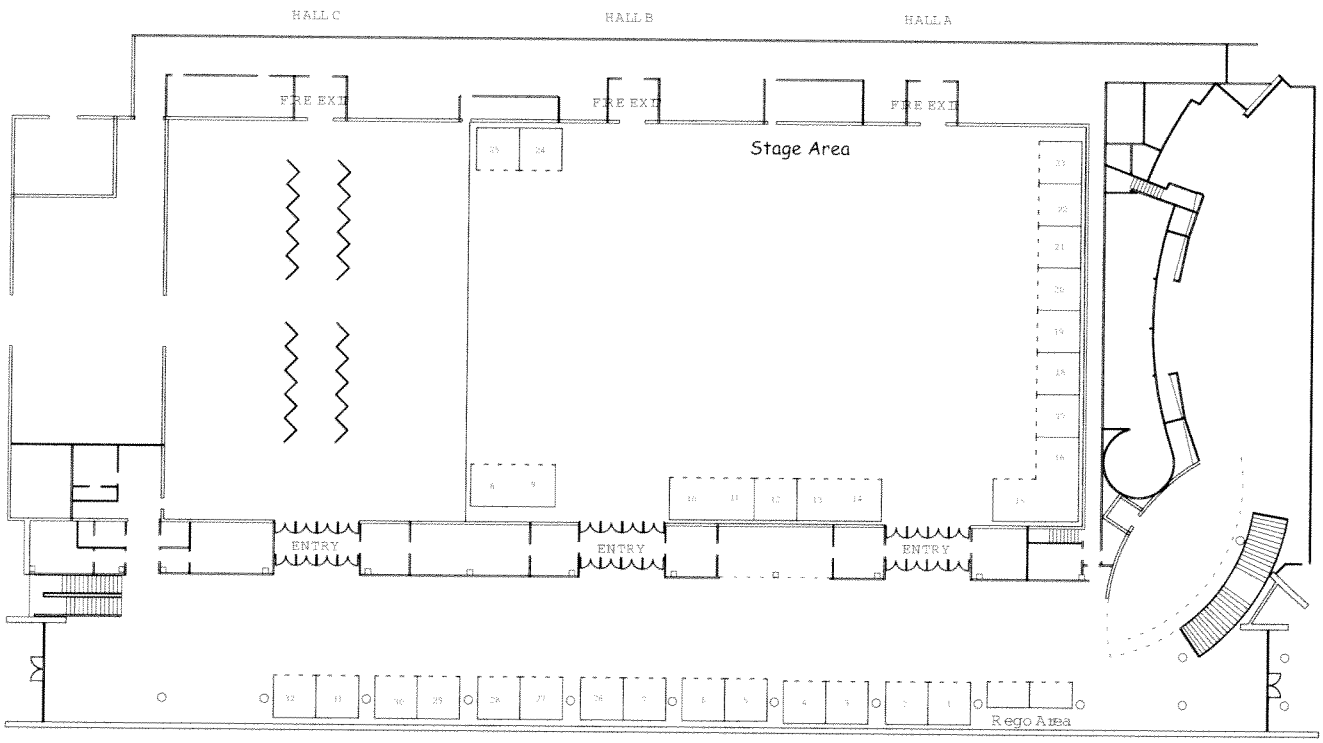
Exhibitors

Booth #	Exhibitor
27	Airpro Scientific Ltd
24	Applied Biosystems
19	Biolab Ltd
20	Biomatters Ltd
17	Bio-Strategy
12	Cambridge University Press
3	CSIRO Publishing
26	DKSH New Zealand Ltd
9	Gene Works Pty Ltd
30	Global Science & Technology Ltd
4	LandCare Research
29	Medica Pacifica Ltd
5	National Evolutionary Synthesis Center (NESCENT)

Booth #	Exhibitor
22	Ngaio Diagnostics Ltd
31	NZ Scientific Ltd
23	Pacific Laboratory Products
28	Princeton University Press
1	Roberts and Company Publishing
21	Royal Society Publications
28	Springer
7	Taylor and Francis Publishers
18	Total Lab Systems Limited
28	University of California Press
28	University of Chicago Press
2	University of Minnesota Evolution 2008

Christchurch Convention Centre Floor Plan

Halls A, B and C



EVOLUTION

Books and journals *from* **CSIRO** PUBLISHING

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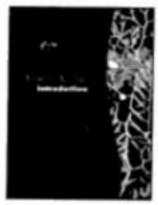
Algae of Australia: Introduction

ABRS



This introductory volume includes essays on the history of research on Australian algae, their classification, fossil record, systematic relationships, ecology, biogeography and economic significance. Keys to the identification of the orders of algae are accompanied by an extensive bibliography and 29 synoptic chapters.

2007 - CSIRO PUBLISHING/ABRS - 744 pages
Hardback - 9780643093775 - $180.00

A Guide to Australian Moths

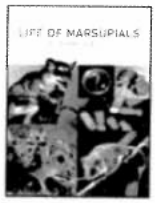
Paul Zborowski & Ted Edwards

With striking colour photographs of live moths in their natural habitat, this guide illustrates all the major moth families in Australia, including some rarely seen species. *A Guide to Australian Moths* highlights the environmental role of moths, their relationships with other animals and plants, and their importance to humans.

May 2007 - CSIRO PUBLISHING - 224 pages
Paperback - 9780643091597 - $39.95

Life of Marsupials

Hugh Tyndale-Biscoe

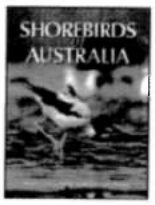


Over the past 50 years research has revealed that marsupials have adaptations for particular ways of life quite equal to their placental counterparts. In *Life of Marsupials*, one of the world's leading experts explores the biology and evolution of this unusual group – with their extraordinary diversity of forms – in Australia, New Guinea and South America.

2005 - CSIRO PUBLISHING - 464 pages
Hardback - 0643062572 - $99.95

Shorebirds of Australia

Andrew Geering, Lindsay Agnew & Sandra Harding



Shorebirds of Australia brings together the latest information about the evolution, ecology and behaviour of shorebirds and how they are distributed in Australia. Complete with colour photographs and up-to-date distribution maps, it provides descriptions and tips to assist with the identification of all species of shorebird in Australia, which comprise about 10 per cent of Australia's total avifauna.

June 2007 - CSIRO PUBLISHING - 256 pages
Paperback - 9780643092266 - $49.95

Why Does the World Stay Green?

Nutrition and Survival of Plant-eaters

TCR White

The concept explored in this book contends that animals are not controlled through predation but because plants have outwitted them, they cannot obtain enough of the food they must have to reproduce and grow. It is fascinating and easy-reading for anyone interested in natural history.

2005 - CSIRO PUBLISHING - 128 pages
Paperback - 0643091580 - $29.95

Australian Journal of Botany

An international journal for plant science

The *Australian Journal of Botany* publishes in the areas of ecology and ecophysiology; conservation biology and biodiversity; forest biology and management; cell and molecular biology; paleobotany; reproductive biology and genetics; mycology and pathology; and structure and development.

Volume 55, 2007 - 8 issues
ISSN: 0067-1924 - Impact Factor: 1.207
www.publish.csiro.au/journals/ajb

Australian Journal of Zoology

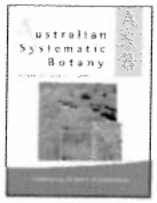
Evolutionary, molecular and comparative zoology

Australian Journal of Zoology has a 50-year history of publishing seminal papers across a wide range of the animal sciences. The scope includes genetics and evolution to physiology, ecology and behaviour.

Volume 55, 2007 - 6 issues
ISSN: 0004-959X - Impact Factor: 0.902
www.publish.csiro.au/journals/ajz

Australian Systematic Botany

Taxonomy, biogeography and evolution of all plant groups



Australian Systematic Botany publishes papers of high-quality original research, including critical reviews. The journal aims to advance systematic botany and related aspects of biogeography and evolution of all plant groups, including fossils.

Volume 20, 2007 - 6 issues
ISSN: 1030-1887 - Impact Factor: 1.162
www.publish.csiro.au/journals/asb

Emu – Austral Ornithology

Publication of the Royal Australasian Ornithologists Union

Emu – Austral Ornithology is a major journal for the publication of research articles and reviews in all branches of ornithology in the Southern Hemisphere.

Volume 107, 2007 - 4 issues
ISSN: 0158-4197 - Impact Factor: 0.489
www.publish.csiro.au/journals/emu

Invertebrate Systematics

Systematics and phylogeny of invertebrate faunas

Invertebrate Systematics is an international journal publishing significant contributions and reviews on the systematics and phylogeny of invertebrate faunas worldwide. The focus is on multidisciplinary and comprehensive papers that include phylogenetic and biogeographic analyses.

Volume 21, 2007 - 6 issues
ISSN: 1445-5226 - Impact Factor: 1.217
www.publish.csiro.au/journals/is

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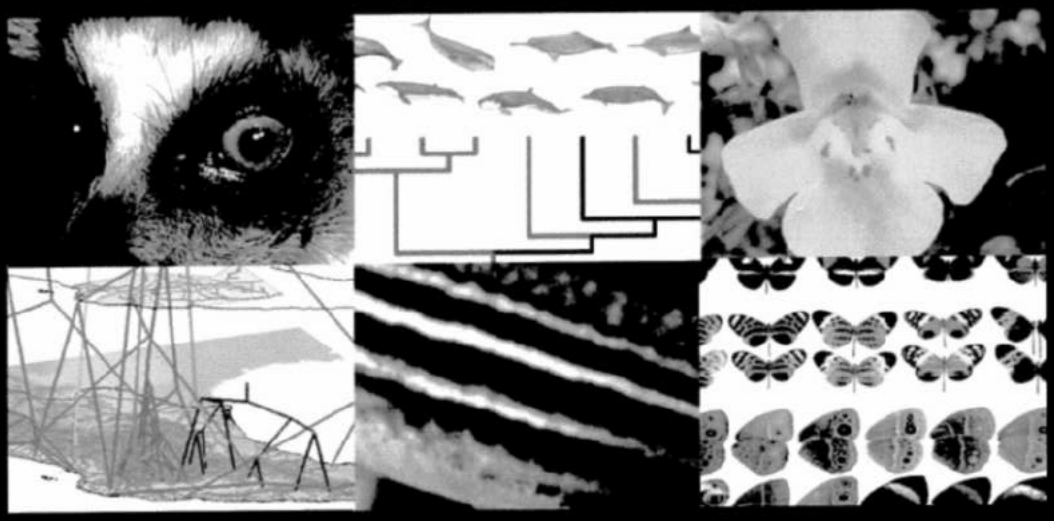

National Evolutionary Synthesis Center

NESCent sponsors activities leading to cross-disciplinary synthesis in evolutionary biology. Our major programs include:

- Support of in-house postdoctoral fellowships and faculty sabbaticals.
- Informatics programs that provide hands-on support for scientists seeking to develop or use databases and software for evolutionary synthesis and analysis. The center also works to develop and disseminate the next generation of tools for data sharing and software integration in evolutionary biology.
- Sponsorship of a variety of meetings that address major questions in evolutionary biology. Working groups collaborate to construct and analyze databases or synthesize models. Cross-disciplinary catalysis meetings bring together scientists for synthesis across fields.
- Education and outreach activities that promote the teaching, learning, and research of evolution by working with the education and scientific communities, as well as the general public.

www.nescent.org
2024 West Main Street
Durham, NC 27705
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NESCent

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NSF

Programme Overview

Saturday, 16 June

Pre-conference tours will run all day. Exhibitor pack-in/set up is from 12.00–5.30pm.

	Administration	Society Meetings	Special Events	Symposia	Concurrent Sessions
8.00am					
8.30am					
9.00am					
9.30am					
10.00am					
10.30am					
11.00am		JOINT COUNCIL MEETING (Breakout Room 1)			
11.30am					
12.00pm	REGISTRATION (Convention Centre, Ground Floor Foyer)				
12.30pm					
1.00pm					
1.30pm					
2.00pm		SSE COUNCIL MEETING (Breakout Room 1) ASN COUNCIL MEETING (Breakout Room 2) SSB COUNCIL MEETING (Breakout Room 3)			
2.30pm					
3.00pm					
3.30pm					
4.00pm					
4.30pm					
5.00pm					
5.30pm					
6.00pm					
6.30pm			OPENING RECEPTION (Halls A, B and C, then James Hay Theatre) *Co-sponsored by Blackwell Publishing (US) and Taylor & Francis Group*		
7.00pm					
7.30pm					
8.00pm					
8.30pm					
9.00pm					

Sunday, 17 June

	Administration	Society Meetings	Special Events	Symposia	Concurrent Sessions
8.00am	Registration and Information (Convention Centre, Ground Floor Foyer)				
8.30am				SSB Symposium: Cultural Phylogenetics (James Hay Theatre)	See p. 45
9.00am					
9.30am					
10.00am				***Coffee Break***	
10.30am				SSB Symposium: Cultural Phylogenetics (James Hay Theatre)	See p. 45
11.00am					
11.30am					
12.00pm		Meeting for *Systematic Biology* Associate Editors (Board Room)	Workshop "How to get an academic job in biology for postdocs and graduate students" (Limes Room)	***Lunch***	
12.30pm					
1.00pm					
1.30pm				SSE Symposium: Tribute to David Lloyd's Research (James Hay Theatre)	See p. 45
2.00pm					
2.30pm					
3.00pm				***Coffee Break***	
3.30pm				SSE Symposium: Tribute to David Lloyd's Research (James Hay Theatre)	See p. 45
4.00pm					
4.30pm					
5.00pm			SSB Presidential Address (James Hay Theatre)		
5.30pm					
6.00pm		SSB Business Meeting (James Hay Theatre)			
6.30pm					
7.00pm					
7.30pm					
8.00pm					
8.30pm			Poster Session (Halls A, B and C)		
9.00pm					
9.30pm					
10.00pm					
10.30pm					

Monday, 18 June

	Administration	Society Meetings	Special Events	Symposia	Concurrent Sessions
8.00am					
8.30am				SSE Symposium: Ecological Genomics (James Hay Theatre)	See p. 45
9.00am					
9.30am					
10.00am				***Coffee Break***	
10.30am				SSE Symposium: Ecological Genomics (James Hay Theatre)	See p. 45
11.00am					
11.30am					
12.00pm	Registration and Information (Convention Centre, Ground Floor Foyer)	*American Naturalist* Editorial Board Meeting (Board Room)		***Lunch***	
12.30pm			NSF Funding Opportunities Seminar (Limes Room)		
1.00pm					
1.30pm				SSE Symposium: Ecological Genomics (James Hay Theatre)	See p. 45
2.00pm					
2.30pm					
3.00pm				***Coffee Break***	
3.30pm					See p. 45
4.00pm					
4.30pm			Fisher Prize Lecture (JHT)		
5.00pm			ASN Presidential Address (James Hay Theatre)		
5.30pm					
6.00pm		ASN Business Meeting (James Hay Theatre)			
6.30pm					
7.00pm			Carvery and Salads; Informal Gathering (Halls A, B and C)		
7.30pm					
8.00pm					
8.30pm					
9.00pm					
9.30pm					
10.00pm					
10.30pm					

Tuesday, 19 June

	Administration	Society Meetings	Special Events	Symposia	Concurrent Sessions
8.00am	REGISTRATION AND INFORMATION (Convention Centre, Ground Floor Foyer)				
8.30am				ASN VP SYMPOSIUM: GENETICS OF COLONIZING SPECIES (James Hay Theatre)	*See p. 46*
9.00am					
9.30am					
10.00am				***Coffee Break***	
10.30am				ASN VP SYMPOSIUM: GENETICS OF COLONIZING SPECIES (James Hay Theatre)	*See p. 46*
11.00am					
11.30am					
12.00pm		*EVOLUTION* EDITORIAL BOARD MEETING (Board Room)		***Lunch***	
12.30pm					
1.00pm					
1.30pm				SSE EDUCATION SYMPOSIUM: TEACHING EVOLUTION (James Hay Theatre)	*See p. 46*
2.00pm					
2.30pm					
3.00pm				***Coffee Break***	
3.30pm				SSE EDUCATION SYMPOSIUM: TEACHING EVOLUTION (James Hay Theatre)	*See p. 46*
4.00pm					
4.30pm					
5.00pm			SSE PUBLIC OUTREACH LECTURE (James Hay Theatre)		
5.30pm					
6.00pm			SSE PRESIDENTIAL ADDRESS (James Hay Theatre)		
6.30pm					
7.00pm		SSE BUSINESS MEETING (James Hay Theatre)			
7.30pm					
8.00pm					
8.30pm					
9.00pm					
9.30pm					
10.00pm					
10.30pm					
11.00pm					

Wednesday, 20 June

	Administration	Society Meetings	Special Events	Symposia	Concurrent Sessions
8.00am	Registration and Information (Convention Centre, Ground Floor Foyer)				
8.30am				SSB Symposium: Phylogenetics and Biodiversity Conservation (James Hay Theatre)	See p. 46
9.00am					
9.30am					
10.00am				*Coffee Break*	
10.30am				SSB Symposium: Phylogenetics and Biodiversity Conservation (James Hay Theatre)	See p. 46
11.00am					
11.30am					
12.00pm		Joint Council Meeting — Exit Meeting (Board Room)		*Lunch*	
12.30pm					
1.00pm					
1.30pm			Dobzhansky Prize Winner Lecture (James Hay Theatre)		
2.00pm					
2.30pm				Young Investigators (JHT)	
3.00pm				*Coffee Break*	
3.30pm				ASN Symposium: Young Investigators (James Hay Theatre)	
4.00pm					
4.30pm					
5.00pm		SSE Council Meeting*; ASN Council Meeting*; SSB Council Meeting*	Allan Wilson DVD (JHT)		
5.30pm					
6.00pm					
6.30pm			Conference Banquet and Awards Presentation (Halls A, B and C)		
7.00pm					
7.30pm					
8.00pm					
8.30pm					
9.00pm					
9.30pm					
10.00pm					
10.30pm					
11.00pm					

*The SSE Council Meeting will be in the Board Room. The venues for the ASN and SSB Council Meetings will be advised.

Special Events

Sunday, 17 June

12.00-1.30pm HOW TO GET AN ACADEMIC JOB IN BIOLOGY FOR POSTDOCS AND GRADUATE STUDENTS
Venue: Limes Room

Coordinators: Lorne Wolfe, Georgia Southern University
Daniel Promislow, University of Georgia

5.00-6.00pm SSB PRESIDENTIAL ADDRESS
Venue: James Hay Theatre

Phylogenomics: what is the contribution of the SSB?
SCOTT V. EDWARDS
Harvard University

Monday, 18 June

12.30-1.30pm NSF FUNDING OPPORTUNITIES
Venue: Limes Room

^amuel M. Scheiner

4.30-5.00pm FISHER PRIZE LECTURE
Venue: James Hay Theatre

Predicting long term adaptation in model organisms
GUILLAUME MARTIN AND THOMAS LENORMAND
CNRS, France

5.00-6.00pm ASN PRESIDENTIAL ADDRESS
Venue: James Hay Theatre

Reflections on the unification of ecology and evolution: new dances on an old dance floor
ROBERT D. HOLT
University of Florida

Tuesday, 19 June

5.00-6.00pm **SSE PUBLIC OUTREACH LECTURE**
Venue: James Hay Theatre

Coordinators: Thomas R. Meagher, University of St Andrews
Robert T. Pennock, Michigan State University

Evolution, natural history and the web

CHARLES GODFRAY
University of Oxford

At the heart of evolutionary biology lies the description of biodiversity and the working out of the relationships between living organisms. The way we classify plants, animals and other living things dates back to Linnaeus, whose 300th birthday we celebrate this year. This is a good time to take stock of the field, especially as the need to study and understand biodiversity is greater now than ever before. I will explore how molecular biology and modern information technology (such as the web) can help this endeavour. I will also argue that the study of biodiversity needs to recruit many more non-professional biologists, and that the web offers a way of empowering these "citizen scientists".

6.00-7.00pm **SSE PRESIDENTIAL ADDRESS**
Venue: James Hay Theatre

Trading twigs on the Tree of Life

DONALD M. WALLER
University of Wisconsin

Wednesday, 20 June

1.30-2.30pm **DOBZHANSKY PRIZE WINNER LECTURE**
Venue: James Hay Theatre

Somatic evolution of cancer

FRANZISKA MICHOR
Harvard University

5.00-5.30pm **DOCUMENTARY PREVIEW: ALLAN WILSON: INNOVATOR OF SCIENCE**
Venue: James Hay Theatre

Producer: George Andrews

The Allan Wilson Centre is proud to present a preview of the documentary now nearing completion on the career and extraordinary contribution to molecular evolution of the late Allan Wilson, which has been commissioned by the University of California, Berkeley. David Penny of the Allan Wilson Centre will introduce this work-in-progress, which features tributes from Vince Sarich, Mary-Clare King, Rebecca Cann, and Svante Pääbo, among other former students and colleagues of Allan.

ASN, SSB and SSE Meetings

Saturday, 16 June

11.00am-2.00pm JOINT COUNCIL MEETING
Venue: Breakout Room 1

2.00-5.30pm SSE COUNCIL MEETING
Venue: Breakout Room 1

2.00-5.30pm ASN COUNCIL MEETING
Venue: Breakout Room 2

2.00-5.30pm SSB COUNCIL MEETING
Venue: Breakout Room 3

Sunday, 17 June

12.00-1.30pm MEETING FOR *SYSTEMATIC BIOLOGY* ASSOCIATE EDITORS
Venue: Board Room

6.00-7.00pm SSB BUSINESS MEETING
Venue: James Hay Theatre

Monday, 18 June

12.00-1.30pm MEETING FOR *AMERICAN NATURALIST* EDITORIAL BOARD
Venue: Board Room

6.00-7.00pm ASN BUSINESS MEETING
Venue: James Hay Theatre

Tuesday, 19 June

12.00-1.30pm	MEETING FOR *EVOLUTION* EDITORIAL BOARD *Venue: Board Room*
7.00-8.00pm	SSE BUSINESS MEETING *Venue: James Hay Theatre*

Wednesday, 20 June

12.00-1.30pm	JOINT COUNCIL MEETING – EXIT MEETING *Venue: Board Room*
5.00-6.00pm	SSE COUNCIL MEETING *Venue: Board Room*
5.00-6.00pm	ASN COUNCIL MEETING *Venue: TBA*
5.00-6.00pm	SSB COUNCIL MEETING *Venue: TBA*

Symposia

Please refer to the detailed programme (pp. 48–76) for individual speaking times.

Sunday, 17 June

SSB Symposium
Cultural Phylogenetics: Dispatches from the Frontier

Venue: *James Hay Theatre*
Time: *8.30–10.00am and 10.30am-12.00pm*

Coordinators: *Russell D. Gray, University of Auckland*
Fiona Jordan, University College London

Introduction: Cultural phylogenetics
Fiona Jordan
University College London

Spoken word frequency predicts rates of lexical evolution throughout Indo-European language history
Mark Pagel
University of Reading

Tongues and trees: phylogenetic tests of agricultural dispersals in the Americas
Russell D. Gray, Quentin D. Atkinson and Lyle Campbell
University of Auckland

Pacific settlement and the evolution of Austronesian languages
Simon J. Greenhill
University of Auckland

Coevolution of structural features of language
Michael Dunn
Max Planck Institut Psycholinguistics, Nijmegen

Matriliny and male absence: natural selection or nice story?
Fiona Jordan and Ruth Mace
University College London

The mode and tempo of linguistic evolution
Quentin D. Atkinson and Mark Pagel
University of Reading

Sunday, 17 June

SSE Symposium

Tribute to David Lloyd's Research on Reproductive Strategies: His Insights and their Ongoing Impact

Venue: *James Hay Theatre*
Time: *1.30–3.00pm and 3.30–5.00pm*

Coordinators: *Lynda F. Delph, Indiana University*
Curtis M. Lively, Indiana University

Introduction: Tribute to David Lloyd's research on reproductive strategies
Lynda F. Delph
Indiana University

A Lloydian perspective on the evolution and function of heterostylous sexual systems
Spencer C.H. Barrett and Kathryn A. Hodgins
University of Toronto

David Lloyd and the ecological context of breeding-system evolution
Maia F. Bailey
Indiana University

Biological enemies, variation strategies, and the cost and persistence of sex
Curtis M. Lively
Indiana University

Special features of the New Zealand flora
Alastair W. Robertson
Massey University

David Lloyd and mating-system evolution in Leavenworthia
Daniel Schoen and Jeremiah W. Busch
McGill University

Quantitative plant gender — the insight of David Lloyd
Glenda Vaughton and Mike Ramsey
University of New England

Monday, 18 June

SSE Symposium
Ecological Genomics of Model Eukaryotes

Venue: *James Hay Theatre*
Time: *8.30–10.00am, 10.30am-12.00pm and 1.30–3.00pm*

Coordinators: *John McKay, Colorado State University*
John R. Stinchcombe, University of Toronto

Ecological genetics of drought adaptation in *Arabidopsis thaliana*
John McKay
Colorado State University

A genomic view of the evolution of host specialization and its consequences
Corbin D. Jones
University of North Carolina

Wild *C. elegans*: complex genetics in simple worms
Matt W. Rockman
Princeton University

Evolutionary genomics in an emerging model system: speciation and adaptation in Mimulus
Lila Fishman
University of Montana

Ecological genomics in natural populations of mice
Hopi Hoekstra
Harvard University

Evolutionary genetics of *Daphnia*
Brian Eads
Indiana University

Evolutionary analysis of genes underlying human variation
Matt Hahn
Indiana University

The genetic architecture of thermotolerance in *Drosophila*
Theodore J. Morgan, Mary Anna Carbone, Julien Ayroles and Trudy F.C. Mackay
Kansas State University

Ecological genetics of photoperiod sensitivity in *Arabidopsis thaliana*
John R. Stinchcombe
University of Toronto

Tuesday, 19 June

ASN Vice-Presidential Symposium
The Genetics of Colonizing Species

Venue: *James Hay Theatre*
Time: *8.30–10.00am and 10.30am–12.00pm*

Coordinator: *Trevor Price, University of Chicago*

Evolution of behavioral integration and colonization of a novel environment
Renee Duckworth
University of Edinburgh

The role of rapid adaptive evolution and plasticity during plant invasions: common garden experiments using St. John's Wort, *Hypericum perforatum*
John Maron and Montserrat Vila
University of Montana

The evolution of dispersal during range-expansion: cane toads and the conquest of northern Australia
Ben Phillips
University of Sydney

The role of phenotypic plasticity and natural selection in the successful establishment of a population in a novel environment
Trevor Price
University of Chicago

Does a big brain matter when invading novel environments?
Daniel Sol
Ctr. Ecological Research & Appl. Forestries, Spain

Behavioral mechanisms of invasion success in social species
Andrew V. Suarez, David Holway and Neil Tsutsui
University of Illinois at Urbana

SSE Education Symposium
An International Perspective on Teaching Evolution

Venue: *James Hay Theatre*
Time: *1.30–3.00pm and 3.30–5.00pm*

Coordinator: *Thomas R. Meagher, University of St Andrews*

Recent international surveys have shown that public acceptance of evolution varies dramatically across national boundaries, with potential impacts on how evolution is taught in different countries. This session will explore undergraduate teaching of evolution in different national contexts, concluding with an open panel discussion in which the audience can contribute to the comparative discussion.

Extreme evolution: contrasting the US and the UK

Thomas R. Meagher
University of St Andrews

What really happens in class - a survey of the US and Canada

Elizabeth Elle
Simon Fraser University

Comparative perspectives on teaching evolution

Paul B. Rainey
University of Auckland

How students are prepared for college: a comparative analysis of secondary teaching of evolution

Louise S. Mead
National Center for Science Education, USA

Teaching first-year biology: an evolutionary approach

Spencer C. H. Barrett
University of Toronto

Panel discussion

Chair: **Louise Mead**
National Center for Science Education, USA

Wednesday, 20 June

SSB Symposium
Phylogenetic Diversity: Towards a Synthesis of Concepts and Applications for Biodiversity Conservation

Venue: *James Hay Theatre*
Time: *8.30–10.00am and 10.30am–12.00pm*

Coordinators: *Dan Faith, Australian Museum*
Arne Mooers, Simon Fraser University

Phylogenetic diversity and conservation: problems and prospects
Dan Faith
Australian Museum

Links between phylogenetic diversity and evolutionary distinctiveness
Arne O. Mooers, David W. Redding, Klaas Hartmann, Mike Steel, Wayne P. Maddison
Simon Fraser University

Measuring phylogenetic diversity and originality with quadratic entropy
Sandrine Pavoine
Museum National d'Histoire Naturelle, Paris

Phylogenetic diversity theory and computational challenges
Mike Steel
Allan Wilson Centre, Biomathematics Research Centre, University of Canterbury

Towards practical phylogenetic diversity analyses for conservation biologists
Dan F. Rosauer and Shawn W. Laffan
University of New South Wales

Phylogenetic diversity at the mesoscale in South Africa
Vincent Savolainen, Felix Forest and Rich Grenyer
Jodrell Laboratory, Kew Gardens

Conservation prioritization and climate change impacts on the phylogenetic diversity of endemic rainforest flora and fauna
Susan E. Cameron
University of California, Davis

Phylogenetic diversity at the community level: some results and prospects
Michael J. Donoghue
Peabody Museum, Yale University

Wednesday, 20 June

ASN Symposium
Young Investigators

Venue: *James Hay Theatre*
Time: *2.30–3.00pm and 3.30–5.00pm*

Coordinator: *Robert D. Holt, University of Florida*

The evolution of spite
Andy Gardner
University of Edinburgh

Investigating the selective value of sex and recombination
Maurine Neiman
University of St. Thomas

Speciation by one allele, one ovule, and one environment
Daniel Ortiz-Barrientos
University of British Columbia

Turnover of sex chromosomes induced by sexual conflict
G. Sander van Doorn and Mark Kirkpatrick
Santa Fe Institute

Undergraduate Diversity at SSE/SSB

For the past five years, a grant from the US National Science Foundation has supported the travel of undergraduates from diverse backgrounds to the annual Evolution meetings. From 2002-2006, 15-20 US undergraduates experienced for the first time the thrill of presenting their data in posters at a national meeting, and being mentored by graduate students, postdocs and faculty in the nuances of evolutionary biology. These students also attended a undergraduate-wide 'peptalk' designed to expose them to the diversity of careers available to them with graduate training in evolutionary biology, as well as advice on how to navigate the myriad challenges and opportunities of graduate schools.

This year's program continues this tradition albeit on a much smaller scale, both because the grant period was winding down and because of the travel costs associated with attending the New Zealand meetings. The remaining funds on the grant allowed us to make awards to three undergraduates, although only two were able to accept. Their names are (* indicates attendance at this year's meeting): **Marjorie Linares*** (University of New Orleans), **Nancy Chen*** (Harvard University) and **Princess Gilbert** (University of California Los Angeles). The application consisted of an abstract of their poster to be presented, a statement of their reasons for wanting to attend the meetings, and a letter of recommendation from their advisors. We congratulate these three students and are excited to be promoting increased diversity at the undergraduate level at the annual Evolution meetings. Take a moment to seek out Marjorie and Nancy at the poster session!

Because of the small number of students in this year's program, we will not hold a formal Diversity Social Event (often a highlight of the meetings) or a Peptalk, nor have a mentoring program. Nonetheless Richard Kliman (Cedar Crest College) and I plan to apply for renewal of our grant that will continue bringing a talented and diverse pool of undergraduates to the meetings next year in Minnesota and beyond. In addition we plan to coordinate undergraduate recruitment and outreach efforts with the National Evolutionary Synthesis Center (NESCent) through Associate Director for Education and Outreach Greg Gibson. Keep an eye out for the program in upcoming years and please let us know if you would like to get involved as a mentor. This and other programs are a great way to sustain the field, diversify tomorrow's faculty and scientific workforce and encourage a diverse cohort of students to consider evolutionary biology in their careers.

Scott V. Edwards
Harvard University

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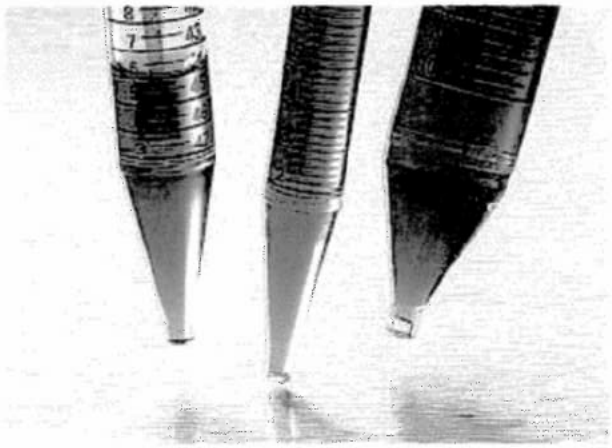

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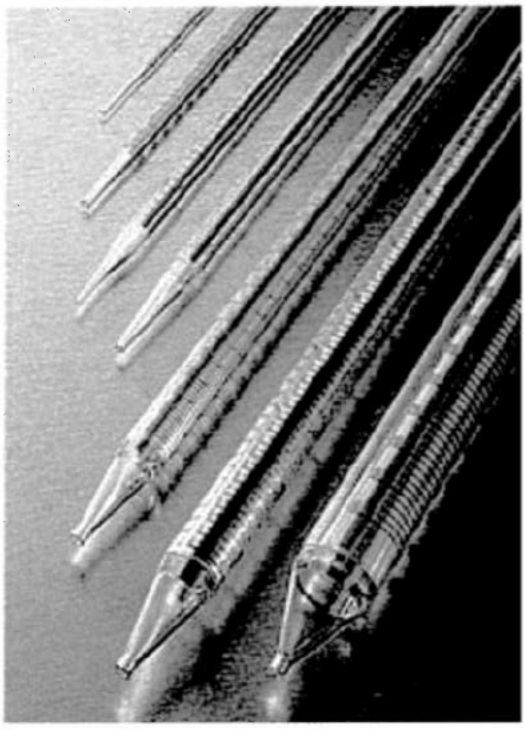

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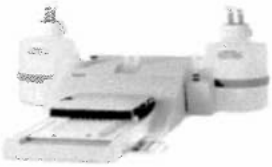

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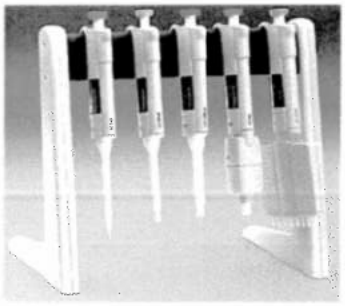

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- PCR plasticware consumables





For pricing, ordering and technical information please contact either Bhoo Gautam (bhoo@medica.co.nz) or Dennis Yep (dennisy@medica.co.nz) on FREEPHONE 0800 106 100.

Overview of Concurrent Sessions

Each 1.5 hour time block contains six 15-minute presentations.

Sunday, 17 June

	Limes Room	Cambridge Room	Conference Rooms 1 & 2	Breakout Rooms 6 & 7	Breakout Rooms 4 & 5	Breakout Rooms 1 & 2	Breakout Room 3
8.30-10.00am	Phylogeography	Molecular Evolution	Speciation	Ecological Genetics	Ecology and Evolution of Disease	Animal Mating/ Breeding Systems	Quantitative Genetics
10.30am-12.00pm	Phylogeography	Molecular Evolution	Speciation	Ecological Genetics	Ecology and Evolution of Disease	Animal Mating/ Breeding Systems	Experimental Evolution
1.30-3.00pm	Phylogeography	Systematics	Speciation	Bioinformatics/ Phyloinformatics	Ecological Genetics	Invasive Species	Life History Evolution
3.30-5.00pm	Phylogeography	Systematics	Speciation	Ecological Genetics	Bioinformatics/ Phyloinformatics	Invasive Species	Life History Evolution

Monday, 18 June

	Limes Room	Cambridge Room	Conference Rooms 1 & 2	Breakout Rooms 6 & 7	Breakout Rooms 4 & 5	Breakout Rooms 1 & 2	Breakout Room 3
8.30-10.00am	Phylogeography	Molecular Evolution	Phylogenetic Theory and Methods	Sexual Selection	Empirical Population Genetics	Species Interactions	Plant Mating Systems
10.30am-12.00pm	Phylogeography	Molecular Evolution	Phylogenetic Theory and Methods	Sexual Selection	Empirical Population Genetics	Species Interactions	Plant Mating Systems
1.30-3.00pm	Ernst Mayr Award Competition	Systematics	Conservation Biology	Biogeography	Inbreeding	Behaviour/Social Evolution	Plant Mating Systems
3.30-5.00pm	Ernst Mayr Award Competition	Systematics	Conservation Biology	Biogeography	Hybridisation	Behaviour/Social Evolution (3); Genomics/ Proteomics (3)	Natural Selection and Contemporary Evolution

Tuesday, 19 June

	Limes Room	Cambridge Room	Conference Rooms 1 & 2	Breakout Rooms 6 & 7	Breakout Rooms 4 & 5	Breakout Rooms 1 & 2	Breakout Room 3
8.30-10.00am	Phylogeography	Systematics	Conservation Biology	Sexual Selection	Hybridisation	Genomics/ Proteomics	Evolution of Sex
10.30am-12.00pm	Phylogeography	Systematics	Conservation Biology	Sexual Selection	Hybridisation (4); Education (2)	Theoretical Population Genetics	Evolution of Sex (1); Population Ecology (5)
1.30-3.00pm	Molecular Evolution	Conservation Biology	Phylogenetic Theory and Methods	Biogeography	Phenotypic Plasticity	Theoretical Population Genetics (3); Macroevolution (3)	Coevolution
3.30-5.00pm	Molecular Evolution	Speciation	Phylogenetic Theory and Methods	Biogeography	Adaptation	Macroevolution	Comparative Biology (5); Development and Evolution (1)

Wednesday, 20 June

	Limes Room	Cambridge Room	Conference Rooms 1 & 2	Breakout Rooms 6 & 7	Breakout Rooms 4 & 5	Breakout Rooms 1 & 2	Breakout Room 3
8.30-10.00am	Molecular Evolution	Speciation	Systematics	Biogeography	Adaptation	Evolution of Ecological Communities	Development and Evolution
10.30am-12.00pm	Molecular Evolution	Speciation	Evolutionary Theory	Molecular Anthropology	Adaptation	Evolution of Ecological Communities	Evolutionary Theory

Programme of Symposia and Concurrent Session Presentations

The following pages contain the complete timetables for concurrent session and symposium talks. Each pair of facing pages contains all talks for a 1.5 hour time block, with times arranged horizontally and session topics/rooms arranged vertically.

Please refer to the floor plans on pp. 14–15 for room locations.

Presenting authors are displayed in **bold and underline**.

Author affiliations and e-mail addresses for all authors can be found in the index (p. 93).

Many special events will be running during the lunch breaks and from 5pm each day (e.g., workshops, presidential addresses, society meetings). For details of these events please refer to the programme overview on pp. 22–26, the list of special events on pp. 28–29, and the list of ASN, SSE and SSE meetings on pp. 30–31.

Sunday, 17 June — 8.30-10.00am

	SSB Symposium Cultural Phylogenetics: Dispatches from the Frontier *Coordinators: Russell D. Gray & Fiona Jordan*	Phylogeography	Molecular Evolution
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
8.30am	Introduction: Cultural phylogenetics **FIONA JORDAN**	Comparative phylogeography of the New Zealand skink fauna: a synthesis **DAVID G. CHAPPLE**, CHARLES H. DAUGHERTY AND PETER A. RITCHIE	The RNA infrastructure of the eukaryotic cell **LESLEY J. COLLINS** AND DAVID PENNY
8.45am	Spoken word frequency predicts rates of lexical evolution throughout Indo-European language history **MARK PAGEL** University of Reading	Variation in gene expression profiles among bacterial symbionts from Thailand squids of the families Loliginidae and Sepiolidae (Mollusca: Cephalopoda) **RICARDO GUERRERO-FERREIRA** AND MICHELE K. NISHIGUCHI	Inheritance of mtDNA in New Zealand chinook salmon: a closer look **JONCI WOLFF**
9.00am	Tongues and trees: phylogenetic tests of agricultural dispersals in the Americas **RUSSELL D. GRAY**, QUENTIN D. ATKINSON AND LYLE CAMPBELL University of Auckland	East African *Hyperolius* frogs in a mosaic landscape **LUCINDA LAWSON**	C4 photosynthesis evolution in the grass family (Poaceae) **PASCAL-ANTOINE CHRISTIN**, NICOLAS SALAMIN AND GUILLAUME BESNARD
9.15am		Phylogeography of invertebrate taxa across the sub-Antarctic Marion Island **BETTINE J. VAN VUUREN**, ELIZABETH MORTIMER AND STEVEN L. CHOWN	Mitochondrial recombination: an assessment of the effectiveness of current indirect analyses **DANIEL J. WHITE**, MELANIE J. PIERSON AND NEIL J. GEMMELL
9.30am	Pacific settlement and the evolution of Austronesian languages **SIMON J. GREENHILL** University of Auckland	Advances in comparative phylogeography: issues and a case study **PAUL SUNNUCKS**, RYAN C. GARRICK AND DAVID M. ROWELL	Adaptive evolution and computational modeling of neurotoxin-resistant sodium channels **MANDA CLAIR JOST**, HAROLD ZAKON, CHANDRARIJ BAJAJ AND DAVID M. HILLIS
9.45am		Fire and ice: volcanic and glacial impacts on the phylogeography of the New Zealand forest fern *Asplenium hookerianum* **LEON R. PERRIE**, LARA D. SHEPHERD AND PATRICK J. BROWNSEY	The evolution of SINEs in lizards and snakes uncover a lateral transfer event of a SINE from a highly poisonous snake to a smallpox-related virus **OLIVER PISKUREK** AND NORIHIRO OKADA

Speciation	Ecological Genetics	Ecology and Evolution of Disease	Animal Mating/ Breeding Systems	Quantitative Genetics
CONF. ROOMS 1 & 2	BREAKOUT ROOMS 6 & 7	BREAKOUT ROOMS 4 & 5	BREAKOUT ROOMS 1 & 2	BREAKOUT ROOM 3
Speciation in sticklebacks: investigation of reproductive isolating barriers **FELICITY C. JONES**	Barcoding the birds of New Zealand **JOHN WAUGH**	Molecular analysis of sex ratio modulation in rodent malaria **DAMIEN R. DREW**, SARAH REECE AND ANDREW READ	Mitochondrial mutations influence key male fertility parameters **NEIL J. GEMMELL**, PATRICE C. ROSENGRAVE, VICTORIA J. METCALF, FELICITY C. JONES, KATHERINE P. MCBRIDE, FRED W. ALLENDORF AND ROBERT MONTGOMERIE	Interacting nestmates and the genetic basis of honey bee phenotypes **TIMOTHY A. LINKSVAYER**
Niche dimensionality and ecological speciation **PATRIK NOSIL** AND LUKE HARMON	Ecological genetics of adaptation from standing variation in threespine stickleback **ROWAN D. H. BARRETT**, SEAN M. ROGERS AND DOLPH SCHLUTER	The role of microbial pathogens in the evolution of sociality **ANDREW J. BEATTIE**, ADAM STOW, DAVID BRISCOE, MICHAEL GILLINGS, SHANNON SMITH, MARITA HOLLEY, TISH SILBERBAUER, CHRISTINE TURNBULL AND REMKO LEYS	Does personality drive the evolution of individual mating strategies? A study in the great tit **SAMANTHA C. PATRICK**, JOHN QUINN AND BEN C. SHELDON	Signaling and indirect genetic effects in *Drosophila serrata* **DONNA PETFIELD**
Karyotype evolution of cichlid fishes in East African lakes **KOUTA YOSHIDA**, ASATO KUROIWA, NAOKI KOBAYASHI AND NORIHIRO OKADA	Heterozygosity-fitness correlations in the great tit: analyses at different levels **JOANNE R. CHAPMAN** AND BEN C. SHELDON	The coupled response of aphids and their symbionts to bacterial invaders **NICOLE M. GERARDO** AND NANCY A. MORAN	Multiple paternity in an ancient reptile, the tuatara **JENNIFER A. MOORE**, NICOLA J. NELSON AND CHARLES H. DAUGHERTY	Standing genetic variance reflects mutational variance for fitness in two species of *Caenorhabditis* **MATTHEW P. SALOMON**, DEJERIANNE G. OSTROW, DUSTIN BLANTON, WHITNEY BOUR, MYRNELLE DAMAS, NAOMI PHILIPS, JEFF ROSENBLOOM AND CHARLES F. BAER
Mismatch between ecological and genetic factors promotes sympatric speciation **NICLAS T. NORRSTRÖM**, NOËL M. A. HOLMGREN AND WAYNE M. GETZ	Phylogeography and population genetic structure of native and invasive fireweed (*Senecio madagascariensis* Poir.) populations **JOHANNES J. LE ROUX** AND ANIA M. WIECZOREK	Some properties of negative frequency-dependent selection at MHC loci **RICK J. STOFFELS** AND HAMISH G. SPENCER	Polyandry facilitates post-copulatory inbreeding avoidance in house mice **RENEE C. FIRMAN** AND LEIGH W. SIMMONS	Bringing phylogenetic comparative approaches to the study of quantitative genetic constraint **LIAM J. REVELL**
Ecological speciation in mosquitofish **R. BRIAN LANGERHANS**, MATTHEW E. GIFFORD AND EVERTON O. JOSEPH	Island population differentiation associated with a host shift in a purposefully introduced biological control agent (*Diachasmimorpha tryoni*) **ADAM E. VORSINO**, ANNA M. WEICZOREK, MARK G. WRIGHT AND RUSSL H. MESSING	Major histocompatibility complex based susceptibility and resistance to a bacterial pathogen in African clawed frog tadpoles (*Xenopus laevis*) **SETH M. BARRIBEAU**, JANDOUWE VILLINGER AND BRUCE WALDMAN	Detection of female sexual promiscuity using cuticular pheromones **MELISSA L. THOMAS** AND LEIGH W. SIMMONS	Evolutionary consequences of bottlenecks in a restricted *Drosophila* species **BELINDA VAN HEERWAARDEN**, TORSTEN N. KRISTENSEN, YVONNE WILLI AND ARY A. HOFFMANN
Screening for the species' specific loci in cichlid genome **NAOKI KOBAYSHI**, MASAKATSU WATANABE, JUN-ICHI ASAKAWA AND NORIHIRO OKADA	Patterns of pollen dispersal amongst paddock trees with insect vs bird pollination **KYM M. OTTEWELL**, STEVE C. DONNELLAN AND DAVID C. PATON	Avian blood parasites in European hosts: patterns of diversity and prevalence in a malaria-related group **TANIA JENKINS** AND IAN P. F. OWENS	Examination of pheromone use in a praying mantid, *Stagmomantis limbata* **KATHERINE L. BARRY** AND MICHAEL MAXWELL	Evolutionary potential in restricted *Drosophila* **VANESSA M. KELLERMANN**, CARLA M. SGRO AND ARY A. HOFFMANN

Sunday, 17 June — 10.30am-12.00pm

	SSB Symposium Cultural Phylogenetics: Dispatches from the Frontier *Coordinators: Russell D. Gray & Fiona Jordan*	Phylogeography	Molecular Evolution
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
10.30am	Coevolution of structural features of language **MICHAEL DUNN** Max Planck Institut Psycholinguistics, Nijmegen	Pleistocene glacial cycles result in contrasting, superimposed phylogeographic patterns in the New Zealand speckled skink, *Oligosoma infrapunctatum* **STEPHANIE N. J. GREAVES**, DAVID G. CHAPPLE, DIANNE M. GLEESON, CHARLES H. DAUGHERTY AND PETER A. RITCHIE	Evidence a negative correlation between human polymorphism and flanking sequence G+C% is not unique to mutations affecting CpGs **GAVIN HUTTLEY**, HELEN LINDSAY AND PETER MAXWELL
10.45am		The phylogeography of the *Niveaphasma* species complex **SHAY B. O'NEILL**, THOMAS R. BUCKLEY, TONY JEWELL AND PETER A. RITCHIE	Frequency of gene conversions between human paralogues **YUICHIRO HARA**, KANAKO O. KOYANAGI AND HIDEMI WATANABE
11.00am	Matriliny and male absence: natural selection or nice story? **FIONA JORDAN** AND RUTH MACE University College London	Cryptic speciation in the tropical savannahs of northern Australia: phylogeography of the agamid lizards, *Diporiphora bilineata* and *D. magna* **KATIE L. SMITH**, DANIELLE L. EDWARDS, LUKE P. SHOO, JANE E. MELVILLE AND ROSS A. SADLIER	Evolution of segmented mitochondrial genomes in the lice of humans and other primates **RENFU SHAO**, EWEN F. KIRKNESS AND STEPHEN C. BARKER
11.15am		Postglacial colonization of the Sierra Nevada alpine zone **SEAN D. SCHOVILLE** AND GEORGE K. RODERICK	Microsatellite diversity is reduced on a marsupial y chromsome **ANNA J. MACDONALD**
11.30am	The mode and tempo of linguistic evolution **QUENTIN D. ATKINSON** AND MARK PAGEL University of Reading	Lineage diversification in web-toed salamanders: a multilocus and morphological perspective **SEAN M. ROVITO**	Molecular evolution of V1R-type odorant receptor of cichlid fishes from east African great lakes **MASATO NIKAIDO** AND NORIHIRO OKADA
11.45am		Differential gene flow of mitochondrial and nuclear DNA among hybridising chromosomal races of Australian morabine grasshoppers (*Vandiemenella, viatica* species group) on Kangaroo Island **TAKESHI KAWAKAMI**, ROGER K. BUTLIN, MARK ADAMS AND STEVEN J. B. COOPER	Estimating the mutation rate in mitochondrial genome of Tuatara (*Sphenedon punctatus*) **ELMIRA MOHANDESAN**, DAVID LAMBERT AND CRAIG MILLAR

Speciation	Ecological Genetics	Ecology and Evolution of Disease	Animal Mating/ Breeding Systems	Experimental Evolution
CONF. ROOMS 1 & 2	BREAKOUT ROOMS 6 & 7	BREAKOUT ROOMS 4 & 5	BREAKOUT ROOMS 1 & 2	BREAKOUT ROOM 3
Proximate signal perception can maintain a stable hybrid zone **ANDERS BRODIN** AND FREDRIK HAAS	Increased weapon size and reduced visual displays: evidence for a glacial ecotype of sockeye salmon **KRISTINA M. RAMSTAD**, CAROL A. WOODY AND FRED W. ALLENDORF	Incorporating cellular immune responses into models of viral life-history evolution **MICHAEL A. GILCHRIST** AND DAN COOMBS	Measuring sexual selection: a comparison of competing indices with mating system data from a terrestrially breeding salamander **DEAN A. CROSHAW**	Evolving the setpoint of prophage induction **DOMINIK REFARDT** AND PAUL B. RAINEY
Premating isolation in relation to genetic divergence and body size **JOSEPH BERNARDO**, LUKE O'STEEN AND MARTH YOKE	Patterns of gene flow in two species of estuarine perchlets (*Ambassis marianus* and *Ambassis jacksoniensis*) in eastern Australia **COURTENAY E. MILLS**, WADE HADWEN AND JANE M. HUGHES	Why are all pathogens not molecular mimics? **AMY L. HURFORD**, TROY DAY AND PETER TAYLOR	Vigilance may drive mating system variation and morph fluctuations in a polymorphic lizard **MO HEALEY**	The rate of song evolution in New Zealand saddlebacks **LOUIS M. J. RANJARD**, KEVIN PARKER, DIANNE H. BRUNTON AND HOWARD A. ROSS
Parallel evolution, sexual isolation and phenotype-dependent dispersal in a freshwater isopod **FABRICE EROUKHMANOFF** AND ERIK I. SVENSSON	Aquatic islands in an arid sea: population dynamics of an endangered mound spring snail in central Australia **JESSICA M. WORTHINGTON WILMER**, CHE ELKIN AND CHRIS WILCOX	*Wolbachia* effects on host activity **ELIZABETH MCGRAW**	Ovarian fluid as a potential mechanism for cryptic female choice in New Zealand chinook salmon (*Oncorhynchus tshawytscha*)? **PATRICE C. ROSENGRAVE**, NEIL GEMMELL AND VICTORIA METCALF	Genetic architecture of *Pseudomonas fluorescens* facilitates repeated re-evolution of a complex phenotype **CHRISTIAN KOST**, HUBERTUS J. E. BEAUMONT AND PAUL B. RAINEY
Adaptation of opsins causes the species diversity of Lake Victoria cichlid fishes **YOHEY TERAI**, SHINJI MIZOIRI, MITSUTO AIBARA AND NORIHIRO OKADA	Genetic diversity in New Zealand rhodolith beds **JUDY E. BROOM**, DARREN R. HART, WENDY A. NELSON, TRACY J. FARR AND KATE NEILL	Source-sink dynamics shape the evolution of antibiotic resistance and its pleiotropic fitness cost **GABRIEL G. PERRON**, ANDREW GONZALEZ AND ANGUS BUCKLING	Algal blooms alter reproductive behavior in the sand goby **MARJA H. JÄRVENPÄÄ** AND KAI B. LINDSTRÖM	Epistatic and pleiotropic effects of adaptive mutations **TIM F. COOPER** AND DOMINIQUE SCHNEIDER
The diversity of opsins in sympatric Lake Victoria cichlid species **RYUTARO MIYAGI**, YOHEY TERAI, MITSUTO AIBARA AND NORIHIRO OKADA	Is sea snake population genetic structure dictated by habitat fragmentation? **AMANDA M. LANE** AND RICHARD SHINE	Full genome comparisons of mycobcteria: insights into the origin of tuberculosis **MICHAEL S. ROSENBERG**, LUZ-ANDREA PFISTER AND ANNE C. STONE	Careless mothers and parental fathers: genetic parentage of North Island brown kiwi **KAREN J. NUTT**	The role of pathogens in adaptive radiations **REBECCA BENMAYOR**, MIKE BONSALL, ANGUS BUCKLING, DAVID J. HODGSON AND MICHAEL BROCKHURST
Intra-island differentiation in anole lizards: a test of the allopatric speciation model **YANN SURGET-GROBA**, HELENA JOHANSSON AND ROGER S. THORPE	Genetic discrimination among seasonal migratory runs: does CLOCK make chinook salmon tick? **KATHLEEN G. O'MALLEY** AND MICHAEL A. BANKS	Understanding tuberculosis transmission by using molecular epidemiological data **MARK M. TANAKA**, ANDREW R. FRANCIS, FABIO LUCIANI AND SCOTT A. SISSON	Comparative study of multiple paternity rates in sharks **TOBY S. DALY-ENGEL**, R. DEAN GRUBBS, BRIAN W. BOWEN AND ROBERT J. TOONEN	Transcription divergence and the loss of plasticity in *Bacillus subtilis* **HEATHER MAUGHAN**, C. WILLIAM BIRKY, JR, WAYNE L. NICHOLSON AND JOANNA MASEL

Sunday, 17 June — 1.30-3.00pm

	SSE Symposium Tribute to David Lloyd's Research on Reproductive Strategies: His insights and their Ongoing Impact *Coordinators: Lynda F. Delph & Curtis M. Lively*	Phylogeography	Systematics
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
1.30pm	Introduction: Tribute to David Lloyd's research on reproductive strategies **LYNDA F. DELPH**	Speciation in Australian wet tropics skinks: perspectives from multiple nuclear loci and mate choice trials **GAYNOR DOLMAN**	Evolution and systematic significance of plant secondary metabolites **RILKA M. TASKOVA**
1.45pm	A Lloydian perspective on the evolution and function of heterostylous sexual systems **SPENCER C. H. BARRETT** AND KATHRYN A. HODGINS University of Toronto	Phylogeography of the little penguin, *Eudyptula minor* **AMANDA J. PEUCKER**, PETER DANN AND CHRISTOPHER P. BURRIDGE	Molecular phylogenetics of a freshwater crayfish genus in southeastern Australia **MARK B. SCHULTZ**, SARAH A. SMITH AND CHRISTOPHER M. AUSTIN
2.00pm	David Lloyd and the ecological context of breeding-system evolution **MAIA F. BAILEY** Indiana University	Molecular systematics and the historical biogeography of the African *Platypleurin* cicadas (Hemiptera: Cicadidae) **BENJAMIN W. PRICE**, NIGEL P. BARKER AND MARTIN H. VILLET	A multilocus nuclear perspective on the systematics of North American fence lizards **ADAM D. LEACHE**
2.15pm		The origins of tropical diversity: phylogeography of leafcutter ants (*Atta* spp.) **SCOTT E. SOLOMON**, MAURICIO BACCI, JR AND ULRICH G. MUELLER	A subtidal to intertidal radiation of Sculpins (Family: Cottidae) of the Northeastern Pacific **MATTHEW L. KNOPE** AND MARINA L. RAMON
2.30pm	Biological enemies, variation strategies, and the cost and persistence of sex **CURTIS M. LIVELY** Indiana University	Comparative phylogeography of New Zealand terrestrial invertebrates **THOMAS R. BUCKLEY**, RICHARD A. B. LESCHEN, CHRIS SIMON, KATHARINE MARSKE, KATHRYN GANNON, DAVID MARSHALL, KATHY HILL AND COLLEEN CHAMBERS	Diversification of the Palau diplommatinid land snails **REBECCA J. RUNDELL**
2.45pm		The evolution and genetic diversity of the extinct Tremarctine Bears **SARAH C. BRAY**, JEREMY J. AUSTIN AND **ALAN COOPER**	DNA sequencing and SINE insertions support *Laonastes* as a "living fossil" **DOROTHEE HUCHON**, PASCALE CHEVRET, URSULA JORDAN, C. WILLIAM KILPATRICK, VINCENT RANWEZ, JUERGEN BROSIUS AND JUERGEN SCHMITZ

Speciation	Bioinformatics/ Phyloinformatics	Ecological Genetics	Invasive Species	Life History Evolution
Conf. Rooms 1 & 2	**Breakout Rooms 6 & 7**	**Breakout Rooms 4 & 5**	**Breakout Rooms 1 & 2**	**Breakout Room 3**
Regulating speciation: desaturase genes control sex pheromone specificity in New Zealand tortricid moths **Tamara M. Sirey**, David R. Greenwood and Richard D. Newcomb	Glimpses into the strange world of phylogenetic mixtures **Frederick A. Matsen** and Mike Steel	Island Model Test v2: accounting for inheritance mode when comparing genetic population structure among loci **Adam H. Porter**	A trans-continental experimental analysis of life history evolution in *Silene latifolia*, an invasive plant **Lorne M. Wolfe**, Dexter R. Sowell, Maurine B. Neiman and Douglas R. Taylor	Nutrient- and gender-specific effects of dietary restriction on lifespan and reproductive performance in a cricket **Alexei A. Maklakov**, Josephine Dessmann, Fiona Clissold, David Raubenheimer, Stephen J. Simpson and Robert Brooks
A re-examination of the reinforcement hypothesis in sea urchins **Laura B. Geyer**, Kirk Zigler and Harilaos Lessios	Testing the reliability of genetic methods of species identification **Howard A. Ross**	Genetic variation of MHC Class IIB and mate choice in the red-billed gull **Nicola L. Chong**, James A. Mills and Allan J. Baker	Biological invasions: do genetic bottlenecks matter? **David M. Rosenthal** and Mitchell B. Cruzan	Phenotypic plasticity and genetic variability of life history traits in *Saccharomyces cerevisiae* **Aymé Spor**, Shaoxiao Wang, Christine Dillmann, Dominique de Vienne and Delphine Sicard
Microsatellite markers reveal a genetic sieve to the multiple origins of *Tragopogon* allopolyploids **V. Vaughan Symonds**, Douglas E. Soltis and Pamela S. Soltis	Biodiversity Synthesis Center: a new venue for accelerating the pace of discovery in biodiversity informatics **Mark W. Westneat**	An experimental and genetic assessment of the frequency of occurence of hybridization between yellowfin and black bream **David G. Roberts**, David J. Ayre, Ron West and Charles Gray	Differential admixture shapes morphological and genetic differences among invasive populations of the brown anole, *Anolis sagrei* **Jason J. Kolbe**	The variation in seed dormancy among *Beta vulgaris* subsp. *maritima* populations along a latitudinal gradient: impact of environmental factors **Kristen Wagmann**, Nina Hautekeete, Yves Piquot and Henk van Dijk
Limitation of Dobzhansky–Muller incompatibility by variational constraint in gene networks **Michael E. Palmer** and Marcus W. Feldman	A novel method of gene process involvement identification using profiles of evolution **Wai Lok Sibon Li** and Alexei J. Drummond	Survival under the ozone hole: Antarctic moss shows no evidence of UV-induced mutation **Laurence J. Clarke**, David J. Ayre and Sharon A. Robinson	Weeds: the headache, not the brain tumour **Angela T. Moles**	Are feeding larvae always primitive? What calcareous tube worm phylogeny can tell us about invertebrate life history evolution **Elena K. Kupriyanova** and Greg W. Rouse
Genetic differentiation at a small geographic scale in the perch (*Perca fluviatilis*) **Sara M. Bergek**	YAPR — yet another phyloinformatics rant **Roderic D. M. Page**	Genetic basis of susceptibility to a keystone herbivore, *Pemphigus betae*, in a foundation tree species (*Populus angustifolia*) **Matthew S. Zinkgraf**, Scott A. Woolbright, Thomas G. Whitham and Gery J. Allan	Separating stochastic events from adaptive evolution during the process of species invasion **Stephen R. Keller** and Douglas R. Taylor	What microsatellites can tell us about the evolutionary genetics of wild populations: a cautionary tale **Erik Postma** and Christa Mateman
Sympatric speciation in subdivided populations **Vincent Calcagno** and Francois Rousset	The evolution of the antenna of the photosystems **Yinan Zhang**	Plant population structure after repeated wildfires: the effects of pollen and seed dispersal **David J. Ayre**, Siegy L. Krauss, Kym M. Ottewell and Robert J. Whelan III	Invasive melastome dispsersal and recruitment in tropical Queensland **Britta D. Hardesty** and Helen T. Murphy	The comparative context of clutch size manipulation studies: variation along the slow–fast continuum **Cameron K. Ghalambor**, Meribeth Huizinga, Helen R. Sofaer, Jongmin Yoon and Julian Torres Dowdall

Sunday, 17 June — 3.30-5.00pm

	SSE Symposium Tribute to David Lloyd's Research on Reproductive Strategies: His insights and their Ongoing Impact *Coordinators: Lynda F. Delph & Curtis M. Lively*	Phylogeography	Systematics
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
3.30pm	Special features of the New Zealand flora **ALASTAIR W. ROBERTSON** Massey University	Comparative phylogeographic patterns of Australian *Eustacus* crayfish and their turbellarian ectosymbionts in Queensland mesic rainforest **GIOVANNELLA CARINI**, MARK PONNIAH, DANIEL J. SCHMIDT AND JANE M. HUGHES	Do extreme environments promote morphological convergence? The case study of groundwater crustaceans **CHRISTOPHE J. DOUADY**, FLORIAN MALARD AND JANINE GIBERT
3.45pm		Past patterns of connectivity between populations of freshwater fauna from the Lake Eyre and Gulf of Carpentaria basins, Australia **KATE D. MASCI**, MARK PONNIAH AND JANE M. HUGHES	Climbing the tree of frogs **DAVID C. CANNATELLA**
4.00pm	David Lloyd and mating-system evolution in *Leavenworthia* **DANIEL J. SCHOEN** AND JEREMIAH W. BUSCH McGill University	Discordance between phylogeography and development mode in a poecilogonous Caribbean sea slug, *Costasiella ocellifera* (Opisthobranchia: Sacoglossa) **RYAN A. ELLINGSON** AND PATRICK J. KRUG	The evolution of the mitochondrial genomes of 5 *Rattus* species **JUDITH H. ROBINS**, PATRICIA A. MCLENACHAN, LAUREN CRAIG, ELIZABETH MATISOO SMITH AND MATTHEW J. PHILLIPS
4.15pm		Landforms predict phylogeographic structure on one of the world's most ancient surfaces **MITZY PEPPER**, PAUL E. DOUGHTY AND J. SCOTT KEOGH	Molecular insights indicate that the bathybenthic genus *Pachycara* (Perciformes: Zoarcidae) is represented by a single species in the North Atlantic hydrothermal vent fields **SERGIO STEFANNI**, FILIPE M. PORTEIRO, RAUL BETTENCOURT, PAULO J. GAVAIA AND RICARDO S. SANTOS
4.30pm	Quantitative plant gender — the insight of David Lloyd **GLENDA VAUGHTON** AND MIKE RAMSEY University of New England	Do mussels move? Freshwater mussel connectivity within and between drainage basins in Northern Australia **JAMES H. FAWCETT**, ANDREW M. BAKER AND JANE H. HUGHES	Morphological convergence in two groups of cormorants **MARTYN KENNEDY**
4.45pm		The impact of hydrology, riverine architecture, and organismal biology upon connectivity in northern Australian freshwater fish **JOEL A. HUEY**, ANDREW M. BAKER AND JANE M. HUGHES	The importance of color pattern in determining species boundaries in marine fishes **MATTHEW T. CRAIG**

Speciation	Ecological Genetics	Bioinformatics/ Phyloinformatics	Invasive Species	Life History Evolution
Conf. Rooms 1 & 2	**Breakout Rooms 6 & 7**	**Breakout Rooms 4 & 5**	**Breakout Rooms 1 & 2**	**Breakout Room 3**
Species delimitation in a New Zealand plant species radiation **Carlos A. Lehnebach**, Simon Joly, David Havell, Phil Garnock-Jones and Peter J. Lockhart	Conservation genetics of the world's rarest seabird; Whakapapa o te Taiko; Hokopapa o tch Tchaik **Hayley A. Lawrence**, Graeme A. Taylor, Craig D. Millar and David M. Lambert	Mapping microbial diversity **Rob Knight**	Global connectivity of the invasive sea squirt *Styela clava* **Sharyn J. Goldstien**, L. Dupont, F. Viard, N. J. Gemmell, D. Schiel and J. D. D. Bishop	Linking changes in life history parameters to fitness: translating new tools from population ecology **Dave Hodgson** and Stuart Townley
Diversification of a tree lineage (Cunoniaceae) in New Caledonia **Yohan Pillon**, Jerome Munzinger, Hamid Amir, Helen C. F. Hopkins and Mark W. Chase	Is mitochondrial DNA diversity and indicator of population size in Adélie penguins? **Gabrielle A. Beans** and David M. Lambert	Orthomam: a database of candidate coding markers for mammalian phylogenomics **Vincent Ranwez**, Frédéric Delsuc, Marie-ka Tilak, Sylvie Ranwez and Emmanuel J. P. Douzery	A test of Dawin's 'naturalization hypothesis' using invasive insects in the Hawaii archipelago **Mark G. Wright**, Leyla V. Kaufman and Adam E. Vorsino	Alternative life history strategies in parasites: the role of environmental perception **Clément Lagrue** and Robert Poulin
New islands, new species? A case study of *Plantago* (Plantaginaceae) in the Hawaiian Islands **Stephanie F. Dunbar**, Ania M. Wieczorek and Clifford W. Morden	Association between behavioural traits and immune genes of the wet tropics avifauna of North Queensland, Australia **Itzel Zamora-Vilchis**, Ross H. Crozier, John A. Endler and Christopher Johnson	Mind the gap: the informativity of indels for phylogenetics **Vincent Daubin**, Bastien Boussau and Yves Clément	Genetic diversity of differentially invading *Miconia calvescens* throughout its introduced Pacific range **Ania M. Wieczorek** and Johannes J. L. Roux	A general model for the scaling of offspring size and adult size **Daniel Stein Falster**, Angela Tina Moles and Mark Westoby
Endemic radiation of *Paramysis* (Crustacea: Mysida) in the Ponto-Caspian region: ancient lakes as evolutionary reservoirs or diversification hotspots? **Asta Audzijonyte**, Mikhail Daneliya, Nikolai Mugue and Risto Väinölä	Landscape coalescent ABC of the cane toad bioinvasion Arnaud Estoup and **Stuart J. E. Baird**	***No talk currently scheduled in this time slot. Please check addendum.***	Estimating the propagule size of a recent fruit fly outbreak **Emilie C. Cameron**, Stuart Gilchrist and John Sved	Environmental effects on ageing: extreme differences between wild and captive flies **Noriyoshi Kawasaki**, Russell Bonduriansky, Chad Brassil and Robert Brooks
Did one of the lineages of the *Pediculus* (lice) of humans evolve on *Homo neanderthalensis*? Are the head lice and body lice of humans the same or different species? Natalie P. Leo, Kageyama, Takashi and **Stephen C. Barker**	***No talk currently scheduled in this time slot. Please check addendum.***	***No talk currently scheduled in this time slot. Please check addendum.***	Forecast: weeds. Local, regional, and national outlooks for the plant invasion of New Zealand **Jon J. Sullivan**, Hazel A. W. Gatehouse and Richard P. Duncan	Predation by bears drives senescence in natural populations of salmon **Stephanie M. Carlson**, Ray Hilborn, Andrew P. Hendry and Thomas P. Quinn
Quantifying cis- and trans-regulation of transcription in *Drosophila* **Hurng-Yi Wang**	***No talk currently scheduled in this time slot. Please check addendum.***	***No talk currently scheduled in this time slot. Please check addendum.***	***No talk currently scheduled in this time slot. Please check addendum.***	Social inhibition of egg production in a haremic reef fish: implications for lifetime fecundity & sex-change models **Stefan P. W. Walker** and Mark I. McCormick

Monday, 18 June – 8.30-10.00am

	SSE Symposium Ecological Genomics of Model Eukaryotes *Coordinators: John McKay & John R. Stinchcombe*	Phylogeography	Molecular Evolution
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
8.30am	Ecological genetics of drought adaptation in *Arabidopsis thaliana* **JOHN MCKAY** Colorado State University	Reconstructing species radiations in the New Zealand alpine flora **HEIDI M. MEUDT**, PETER J. LOCKHART AND PHIL GARNOCK-JONES	Was Kimura correct — are rates of neutral mutation and evolution equal? CRAIG D. MILLAR, ANDREW DODD, JENNIFER ANDERSON, GILLIAN C. GIBB, PETER A. RITCHIE, CARLO BARONI, MICHAEL D. WOODHAMS, MICHAEL D. HENDY AND **DAVID M. LAMBERT**
8.45am		Biogeographic patterns in Southern Hemisphere *Plantago* (Plantaginaceae) **MEI LIN TAY**	Geological dates and molecular rates: rapid divergence of rivers and their biotas **JONATHAN M. WATERS**, CHRISTOPHER P. BURRIDGE, DAVE CRAW, DIANE L. ROWE, GRAHAM P. WALLIS, SMITA APTE, TANIA M. KING, LEIGH ANDERSON AND RICHARD J. NORRIS
9.00am	A genomic view of the evolution of host specialization and its consequences **CORBIN D. JONES** University of North Carolina	Phylogeographic population structure of three Southern African endemic elephant-shrews (Afrotheria, Macroscelidea) **HANNELINE A. SMIT**, TERRY J. ROBINSON AND BETTINE J. VAN VUUREN	Visualising variation in *Mycobacterium tuberculosis* by modelling the evolution of spoligotype patterns **JOSEPHINE F. REYES**, ANDREW R. FRANCIS AND MARK M. TANAKA
9.15am		Witness to the sinking ark or victims of the Pacific flypaper? Phylogenetic relationships of Anostostomatid crickets **RENAE C. PRATT**, MARY MORGAN-RICHARDS AND STEVE TREWICK	Is the adaptiveness of the genetic code a by-product of evolutionary constraints? **LEV Y. YAMPOLSKY**
9.30am	Wild *C. elegans*: complex genetics in simple worms **MATTHEW ROCKMAN** Princeton University	Isthmus of Kra; a Bayesian phylogeographic approach **GUINEVERE O. U. WOGAN**	River evolution reveals dynamic molecular rates **CHRISTOPHER P. BURRIDGE**, DAVE CRAW AND JONATHAN M. WATERS
9.45am		Molecular phylogenetic discord between mitochondrial DNA and Amplified Fragment Length Polymorphisms in New Caledonian insular gecko species (Reptilia: Diplodactylidae) **ANTHONY J. GENEVA**, AARON M. BAUER AND TODD JACKMAN	Frequency of gene conversions between human paralogues **YUICHIRO HARA**, KANAKO O. KOYANAGI AND HIDEMI WATANABE

Phylogenetic Theory and Methods	Sexual Selection	Empirical Population Genetics	Species Interactions	Plant Mating Systems
Conf. Rooms 1 & 2	**Breakout Rooms 6 & 7**	**Breakout Rooms 4 & 5**	**Breakout Rooms 1 & 2**	**Breakout Room 3**
Parsimonay and likelihood under a range of models and datatypes **David Penny**	Evolution of sexual dichromatism through convergent losses of elaborate female coloration in New World orioles **Christopher M. Hofmann**, Thomas W. Cronin and Kevin E. Omland	The evolution of species' borders: patterns of gene flow and genetic diversities on range margins **Line K. Bay**, Ross H. Crozier and M Julian Caley	Effects of plant ploidy variation on herbivorous insect attack and herbivore community structure **Stephen B. Heard**, Kristy Halverson, John D. Nason and John O. Stireman III	The evolution of ovule number: a phylogenetic test of the bet-hedging hypothesis **Martin Burd**, Tia-Lynn Ashman, Diane R. Campbell, Michele R. Dudash, Mark O. Johnston, Tiffany M. Knight, Susan J. Mazer, Randall J. Mitchell, Janette A. Steets and Jana C. Vamosi
Extracting and visualizing recurrent signals from incongruent gene trees using filtered supernetworks **James B. Whitfield**, Daniel H. Huson and Mike A. Steel	Ecological causation of intersexual mimicry in Hawaiian damselflies **Idelle A. Cooper**	Sex specific geneflow in frillneck lizards (*Chlamydosaurus kingii*) **Beata Ujvari**, Mark Dowton and Thomas Madsen	Genetic correlations in a phytophagous insect, and the problem of host shifts Matthew Forister, Adam Ehmer and **Douglas J. Futuyma**	When beauty is the beast: orchids induce pollinator ejaculation **Anne C. Gaskett** and Marie E. Herberstein
Identifiability of phylogenetic models Elizabeth S. Allman, Cecile Ane and **John A. Rhodes**	The diversification of mate preferences by natural and sexual selection **Howard Rundle**, Steve Chenoweth and Mark Blows	The genetic structure of a collared pika (*Ochotona collaris*) population from the southwest Yukon revealed using eighteen microsatellite markers **Jessie M. Zgurski** and David S. Hik	Trophic cascades alter patterns of natural selection on *Mimulus guttatus* plants **Jon R. Haloin**	Gametic disequilibrium among organellar genes reflects consequences of paternal leakage in *Silene vulgaris* **Jennifer R. Ellis** and David E. McCauley
A Markov-modulated Markov model of RNA secondary structure evolution **Steven H. Wu**, Stephane Guindon and Allen G. Rodrigo	Gametic isolation in stalk-eyed flies **Emily G. Amitin** and Gerald S. Wilkinson	Geographic variation in the within-host genetic diversity of a coastal trematode and its evolutionary implications **Devon B. Keeney** and Robert Poulin	Interspecific competition drives generalization in a genus of host specific lice (Phthiraptera: Ischnocera: Columbicola) **Jael R. Malenke**, Kevin P. Johnson and Dale H. Clayton	Is seed set in *Stylidium armeria* at the Haig and Westoby equilibrium? A test of simultaneous resource and pollen limitation **Rowan H. Brookes**, Linley K. Jesson and Martin Burd
Testing a new discrete mathematical method for phylogenetic reconstruction **Eszter Ari** and Eena Jako	Fitness consequences of genetic incompatibility in an Australian frog **Martin A. Dziminski**, J. Dale Roberts and Leigh W. Simmons	Fine-scale genetic structure and dispersal distance in the harvester ant *Pogonomyrmex barbatus* **Sevan S. Suni** and Deborah M. Gordon	Generalists are not generalists: host relatedness constrains parasite specificity **Marc J. Lajeunesse**	The evolution and maintenance of combined and separate sexes in moss gametophytes **Linley K. Jesson**, Phil Garnock-Jones and Monique Crawford
Accommodating fossil record hiatuses into molecular estimates of rodent divergence times **Diane L. Rowe**, Katherine A. Dunn, Rodney L. Honeycutt and Christopher P. Burridge	Seminal fluids modulate female remating behaviour in the Queensland fruit fly, *Bactrocera tryoni* **Preethi Radhakrishnan** and Phillip W. Taylor	Understanding and predicting population connectivity in the sea: a multispecies comparative study **Luciano B. Beheregaray**, Sam Banks, Luciana M. Moller, Maxine Piggott, Neil Holbrook and Joanna Wiszniewski	Infiltration behavior and fitness impacts: a one-year study of the social parasite *Megalomyrmex symmetochus* and its fungus-growing ant host **Rachelle M. M. Adams**	Estimating the frequency and distribution of *S* alleles in Australia in the self-incompatible annual weed *Raphanus raphanistrum* **Susan E. Hoebee**, Pip Griffin, Joshua Koh, Edward J. Newbigin, Freddie Loyman and Andrew G. Young

Monday, 18 June – 10.30am-12.00pm

	SSE Symposium Ecological Genomics of Model Eukaryotes *Coordinators: John McKay & John R. Stinchcombe*	Phylogeography	Molecular Evolution
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
10.30am	Evolutionary genomics in an emerging model system: speciation and adaptation in *Mimulus* **LILA FISHMAN** University of Montana	Phylogeography of common eiders **SARAH A. SONSTHAGEN**, SANDY L. TALBOT, RICHARD B. LANCTOT, KIM T. SCRIBNER AND KEVIN G. MCCRACKEN	Evolution makes scents **RICHARD NEWCOMB**
10.45am		Multi-locus phylogeography of the red-backed fairy-wren **JUNE Y. LEE** AND SCOTT V. EDWARDS	The influence of body size and net diversification rate on molecular evolution during the radiation of animal phyla **ERIC FONTANILLAS**
11.00am	Ecological genomics in natural populations of mice **HOPI E. HOEKSTRA** Harvard University	Comparison of feather lice and host population structure reveals incongruent phylogeographic patterns **ALICIA TOON**, PETER B. MATHER AND JANE M. HUGHES	Tar1 is a suppressor of mitochondrial genetic conflict in *Saccharomyces* yeasts: a hypothesis ANT POOLE, TAKEHIKO KOBAYASHI AND **AUSTEN R. D. GANLEY**
11.15am		How do atoll stepping stones affect gene flow in Neritid snails? **ERIC D. CRANDALL**, JON TAFFEL, ERIC A. TREML AND PAUL H. BARBER	Explaining the time dependancy of molecular rate estimates **JACK DA SILVA** AND ALAN COOPER
11.30am	Evolutionary genetics of *Daphnia* **BRIAN D. EADS**, JOHN K. COLBOURNE, JUSTEN ANDREWS AND MICHAEL LYNCH Indiana University	Historical climate modeling informs patterns of endemism and phylogeography in the Brazilian Atlantic rainforest **ANA CAROLINA Q. CARNAVAL** AND CRAIG MORITZ	Molecular evolution of odourant receptors in moths **COLM CARRAHER**, RICHARD NEWCOMB AND ASTRID AUTHIER
11.45am		A likelihood framework for estimating phylogeographic history using geographically continuous genetic data **ALAN R. LEMMON** AND EMILY C. MORIARTY LEMMON	Regulation of the expression of antimicrobial peptide genes by Relish in the western honey bee **HELGE SCHLÜNS** AND ROSS H. CROZIER

Monday
10.30am-12.00pm

Phylogenetic Theory and Methods	Sexual Selection	Empirical Population Genetics	Species Interactions	Plant Mating Systems
CONF. ROOMS 1 & 2	BREAKOUT ROOMS 6 & 7	BREAKOUT ROOMS 4 & 5	BREAKOUT ROOMS 1 & 2	BREAKOUT ROOM 3
Bayesian phylogenetic inference using random local molecular clocks **ALEXEI J. DRUMMOND** AND MARC A. SUCHARD	The peacock's train is an honest signal of genetic quality at the Major Histocompatibility Complex **MARIE L. HALE**, MARIJE H. VERDUIJN, KIRSTEN WOLFF AND MARION PETRIE	Polymorphism, recombination and divergence in wild zebra finch populations **CHRISTOPHER N. BALAKRISHNAN** AND SCOTT V. EDWARDS	Does microhabitat flexibility predict host specificity: experiments with feather lice **SARAH E. BUSH**	Synchronous protandry and the avoidance of inbreeding depression in *Trachymene incisa* (Apiaceae) **YVONNE C. DAVILA** AND GLENDA M. WARDLE
Efficient computation of gene tree probabilities under incomplete lineage sorting **DAVID J. BRYANT** AND NOAH A. ROSENBERG	Experimental evidence that sexual conflict influences the opportunity, form and intensity of sexual selection **MATTHEW D. HALL**, LUC F. BUSSIÈRE, JOHN HUNT AND ROBERT BROOKS	Temporal instability of weak genetic population structure in the endangered and endemic Hawaiian monk (*Monachus schauinslandi*) **JENNIFER K. SCHULTZ**, JASON BAKER, ROBERT J. TOONEN AND BRIAN W. BOWEN	Measuring the strength and nonlinear nature of species interactions in New Zealand's intertidal food webs **MARK NOVAK**	Does selfing provide reproductive assurance in the rock lily *Bulbine vagans* (Asphodelaceae)? **MIKE RAMSEY** AND GLENDA VAUGHTON
New approaches to maximum likelihood phylogenetic tree estimation **SIMON WHELAN**	Assortative pairing and divergent evolution in Darwin's small tree finch, *Camarhynchus parvulus* **REBEKAH A. CHRISTENSEN** AND SONIA M. KLEINDORFER	A wormy rendezvous: distribution of parasite genotypes across spatial scales **TOMMY L. F. LEUNG**, ROBERT POULIN AND DEVON B. KEENY	Using optimality models for analyzing the pollinator–prey conflict in carnivorous plants **ANDREAS JÜRGENS**, ASHRAF EL-SAYED, LINDA NEWSTROM-LLOYD AND DAVID MAX SUCKLING	Sex allocation in a metapopulation **JOHN R. PANNELL**
Missing data and gaps can positively mislead Bayesian and maximum likelihood phylogeny inference **JEREMY M. BROWN**, ALAN R. LEMMON, EMILY MORIARTY LEMMON AND KATHRIN STANGER-HALL	Bright utraviolet signals and sexual selection in butterflies **DARRELL J. KEMP**	Genomics and population genetics of cis-regulatory regions of house finch (*Carpodacus mexicanus*) immune system genes during an epizootic **NANCY CHEN** AND SCOTT V. EDWARDS	Is selfing more advantageous than sex in *Drosera* due to the pollinator–prey conflict? **AMBER R. SCILIGO**, JON J. SULLIVAN, LINLEY K. JESSON, ANDREAS JUERGENS, TAINA WITT, RODDY J. HALE AND LINDA NEWSTROM	*Amborella*, *Austrobaileya* and the water lilies — basal angiosperms and the devo–evo of pollen–carpel interactions **JOSEPH H. WILLIAMS**
Factors contributing to systematic biases in phylogenetic tree shape **TRACY A. HEATH** AND DAVID M. HILLIS	Back to the bush: sexual selection in wild zebra finches **SIMON C. GRIFFITH**, ALISON N. RUTSTEIN AND BARBARA TSCHIRREN	Clear genetic boundaries observed between Atlantic salmon (*Salmo salar*) populations in northern Europe **ANNI TONTERI**, JAAKKO LUMME, CRAIG R. PRIMMER, ALEXEI VESELOV AND SERGEY TITOV	***No talk currently scheduled in this time slot. Please check addendum.***	Combined vs separate sexes in the land plant clade **PHIL. J. GARNOCK-JONES** AND LINLEY K. JESSON
Phylogenetic applications of mixture models and networks **KLAUS P. SCHLIEP**, BARBARA R. HOLLAND, MIKE HENDY AND DAVID PENNY	Dissecting geographical divergence in multiple sexually-selected characters **STEVE CHENOWETH**, HOWARD RUNDLE AND MARK BLOWS	"Oh mother, when art thou?" Low mitochondrial DNA diversity in long-finned pilot whales **ALANA M. ALEXANDER**, C. SCOTT BAKER, SHANE D. LAVERY, HOWARD A. ROSS AND MARC OREMUS	***No talk currently scheduled in this time slot. Please check addendum.***	The influence of local adaptation on mating system evolution in plants **CRISPIN Y. JORDAN** AND SARAH P. OTTO

Monday, 18 June — 1.30-3.00pm

	SSE Symposium Ecological Genomics of Model Eukaryotes *Coordinators: John McKay & John R. Stinchcombe*	Ernst Mayr Award Competition	Systematics
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
1.30pm	Evolutionary analysis of genes underlying human variation **MATTHEW HAHN** Indiana University	Applications of phylogenetics in ancient DNA analysis SIMON Y. W. HO University of Oxford	Radiation of Australian Rattus: molecular systematics and pheromone receptors **KEVIN C. ROWE**, CRAIG MORITZ AND PETER R. BAVERSTOCK
1.45pm		Geological and climatic forces driving speciation in the continentally distributed trilling chorus frogs (*Pseudacris*) **EMILY C. MORIARTY LEMMON**, ALAN R. LEMMON AND DAVID C. CANNATELLA University of Texas at Austin	Revisiting the logical basis for the use of continuous characters **MATT A. M. RENNER**, ELIZABETH A. BROWN AND GLENDA M. WARDLE
2.00pm	The genetic architecture of thermotolerance in *Drosophila* **THEODORE J. MORGAN**, MARY ANNA CARBONE, JULIEN AYROLES AND TRUDY F. C. MACKAY Kansas State University	Parallel evolution of flightlessness in rails (Aves: Rallidae) from Oceania: systematics of *Gallirallus* JEREMY J. KIRCHMAN New York State Museum	Loss of parasitism in dermanyssoid mites **ROBERT H. CRUICKSHANK**, MATTHEW D. SHAW AND ADRIAN M. PATERSON
2.15pm		The origin and evolution of the treponematoses: a phylogenetic approach **KRISTIN N. HARPER**, HSI LIU, BRET M. STEINER, ROBERT W. GEORGE, MICHAEL S. SILVERMAN, SHELLY BOLOTIN, ALLAN PILLAY, NIGEL J. SAUNDERS, PAOLO S. OCAMPO AND GEORGE J. ARMELAGOS Emory University	Molecular phylogeny and evolution of river dolphins: integration of mitochondrial DNA and SINE flanking sequences **YING CAO**, HIDETOSHI SHIMODAIRA, DING WANG AND MASAMI HASEGAWA
2.30pm	Ecological genetics of photoperiod sensitivity in *Arabidopsis thaliana* **JOHN R. STINCHCOMBE** University of Toronto	Is the Pleistocene all there is... untangling the effects of past climate and current environment on the phylogeography of a funnel web spider **AMBER S. BEAVIS**, PAUL SUNNUCKS AND DAVE M. ROWELL The Australian National University	Resolving sciurognath rodent relationships with multiple nuclear genes **CONRAD A. MATTHEE** AND CLAUDINE MONTGELARD
2.45pm		Microevolution of the common skink species complex (*Oligosoma nigriplantare*) in relation to the New Zealand landscape **LIBBY LIGGINS**, DAVID G. CHAPPLE, CHARLES H. DAUGHERTY AND PETER A. RITCHIE Victoria University of Wellington	Taming the African shrews: concordance among independent data sets **SANDI WILLOWS-MUNRO** AND CONRAD MATTHEE

Conservation Biology	Biogeography	Inbreeding	Behaviour/ Social Evolution	Plant Mating Systems
Conf. Rooms 1 & 2	**Breakout Rooms 6 & 7**	**Breakout Rooms 4 & 5**	**Breakout Rooms 1 & 2**	**Breakout Room 3**
Innate variation in eye-parasite resistance and anti-predation behavior in juvenile Arctic charr **Raine Kortet**, Tiina Lautala, Jouni Taskinen, Heikki Hirvonen and Derek Roff	Downunder in Downunder: what do inundated islands tell us about long distance dispersal? **Adrian M. Paterson**, Karen Armstong, Stephen Trewick and Hamish Campbell	Purging vs fixation of the genetic load in *Brassica rapa* **Donald M. Waller** and Andrew Bersch	Bayesian approaches to complex systems: the evolution and loss of nest-weaving behaviour in ants **Simon K. Robson**, Andy T. Beckenbach, Rudy J. Kohout, Michael T. Henshaw and Ross H. Crozier	Mast flowering in prairie grasses and forbs **Mark J. McKone** and Alex J. Forde
Estimating population densities of the endemic sand dune lizard (*Sceloporus arenicolus*) **Nicole Smolensky** and Lee A. Fitzgerald	Splendid isolation: the great American biotic interchange in birds **Jason T. Weir** and Dolph Schluter	Reproduction and inbreeding in the red flour beetle (*Tribolium castaneum*) **Lukasz K. Michalczyk**, Matt Gage, Brent Emerson and Oliver Martin	Dynamics of Machiavellian intelligence **Sergey Gavrilets**	Why does New Zealand have so many dioecious plant species? A new hypothesis for the global distribution of dioecy **Summer A. Scobell** and Theodore H. Fleming
Major histocompatibility complex (MHC) patterns in salmonids: a phylogenetic and functional analysis **Wade D. Wilson** and Thomas F. Turner	Historical and contemporary population structure of the southern Australian intertidal barnacle *Catomerus polymerus* **Katherine L. York** and Belinda R. Appleton	No evidence of inbreeding avoidance in reintroduced island populations of New Zealand robins and saddlebacks **Ian G. Jamieson**, Lisa Tracy and Sabrina S. Taylor	Song evolution in Darwin's finches **Sarah K. Huber** and Jeffrey Podos	Correlated evolution of mating system in mosses **Monique A. Crawford**, Linley K. Jesson and Phil J. Garnock-Jones
Multilocus MHC and parasite diversity in an endangered non-model cyprinid **Megan J. Osborne** and Thomas F. Turner	Maximum-likelihood inference of geographic range evolution **Richard Ree** and Stephen Smith	The relationships between inbreeding, fitness and multilocus heterozygosity in a pedigreed population of the endangered takahe **Catherine E. Grueber** and Ian G. Jamieson	Fitness related consequences of behavioural phenotypes in a social lizard, *Egernia whitii* **Geoffrey M. While**, David L. Sinn and Erik Wapstra	Baker's law in metapopulation or when does selfing provide reproductive assurance **Antoine Dornier**, François Munoz and Pierre-Olivier Cheptou
Identifying ESUs from multiple genetic markers: a case study using Whitaker's skink **Kimberly A. Miller**, David G. Chapple and Peter A. Ritchie	The biogeography of agamid lizards in Central Asian deserts: a phylogenetic approach to testing hypotheses of diversification in association with aridification **Joshua M. Hale**, Jane Melville, Georgia Mantziou, Natalia Ananjeva and Nicholas Clemenn	Influence of genetic load on dynamics of dominance and frequency of self-incompatibility alleles: models and application to *Arabidopsis halleri* **Violaine C. Llaurens**, Sylvain Billiard, Vincent Castric and Xavier Vekemans	Kin recognition by MHC genotype matching in frog tadpoles Jandouwe Villinger and **Bruce Waldman**	***No talk currently scheduled in this time slot. Please check addendum.***
The SLOSS of the penguin: do yellow-eyed penguins exhibit single large or several small populations? **Sanne Boessenkool**, Jonathan M. Waters and Philip J. Seddon	A temporal and spatial history of the gekkotan lizards of the world **Aaron M. Bauer**, Todd R. Jackman, Eli Greenbaum and Tony Gamble	MUP not MHC genotype determines inbreeding avoidance in wild-derived mice in semi-natural populations **Amy L. Sherborne**, Michael D. Thom, Steve Paterson, Jane L. Hurst, Francine Jury, William E. R. Ollier, Paula Stockley and Robert J. Beynon	Mulltigene phylogeny reveals eusociality evolved twice in vespid wasps **Sydney A. Cameron**, James H. Hunt, Timothy K. O'Connor, Heather M. Hines and Joseph J. Gillespie	***No talk currently scheduled in this time slot. Please check addendum.***

Monday, 18 June — 3.30-5.00pm

		Ernst Mayr Award Competition	Systematics
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
3.30pm		Bayesian molecular dating using multi-locus data sets: problems and solutions MATTHEW C. BRANDLEY University of California, Berkeley	Improving phylogenetic resolution in AFLP fingerprinting studies by tuning automated scoring parameters **BARBARA R. HOLLAND**, ANDREW C. CLARKE AND HEIDI M. MEUDT
3.45pm		Hybridization and genotype of a foundation tree drive hierarchical population structure in the poplar bud gall mite, *Aceria parapopuli* **LUKE M. EVANS**, GERARD J. ALLAN, SCOTT A. WOOLBRIGHT AND THOMAS G. WHITHAM Northern Arizona University	Molecular phylogeny of Antarctic ameronothroids **ELIZABETH MORTIMER**, BETTINE JANSEN VAN VUUREN, SAVEL R. DANIELS, DAVID MARSHALL, PETER CONVEY AND STEVEN CHOWN
4.00pm	***No talks scheduled***	Ancient DNA from sediments: potential and pitfalls JAMES S. HAILE Oxford University	Phylogenetic analysis of sphenisciform birds based on retroposon insertion patterns **MAIKO WATANABE**, MASATO NIKAIDO, TOMI T. TSUDA, DAVID P. MINDELL, KOICHI MURATA AND NORIHIRO OKADA
4.15pm		Genetic evidence of song learning in the three-wattled bellbird *Procnias tricarunculata* (Cotingidae): an independent evolutionary origin of vocal learning in the suboscine passerines **VINODKUMAR SARANATHAN**, DEBORAH HAMILTON, GEORGE V. N. POWELL, DON E. KROODSMA AND RICHARD O. PRUM Yale University	From Africa to Papua New Guinea: geographic structure of the poison tree, *Antiaris toxicaria* (Moraceae), based on ITS sequence data **WENDY CLEMENT** AND GEORGE WEIBLEN
4.30pm	Fisher Prize Lecture Predicting long term adaptation in model organisms **GUILLAUME MARTIN** AND THOMAS LENORMAND CNRS, France	***No talks scheduled***	A species flock of *Eophreatoicus* (Crustacea; Isopoda) from Kakadu (Australia) **GEORGE D. F. WILSON**, CHRISTOPHER L. HUMPHREY, KAREN GRAY, DONALD COLGAN AND REBECCA JOHNSON
4.45pm			Genetic variation in the hymenopteran parasitoid *Microctonus aethiopoides* concurs with weevil host rather than geography CRAIG B. PHILLIPS AND **COR J. VINK**

Conservation Biology	Biogeography	Hybridisation	Behaviour/ Social Evolution	Natural Selection and Contemporary Evolution
Conf. Rooms 1 & 2	**Breakout Rooms 6 & 7**	**Breakout Rooms 4 & 5**	**Breakout Rooms 1 & 2**	**Breakout Room 3**
Phylogenetic diversity on split networks Minh Q. Bui, **Steffen Klaere** and Arndt von Haeseler	Age and origin of enigmatic megaherbs from the subantarctic islands **Steven J. Wagstaff**, Ilse Breitwieser, Chris Quinn and Motomi Ito	Hybridisation in the New Zealand *Pseudopanax* trees **Lara D. Shepherd** and Leon R. Perrie	A sociogenomic study of unselfish worker sterility **Graham J. Thompson**, Robert Kucharski, Ryszard Maleszka and Benjamin P. Oldroyd	Integrated selection in variable environments **Carol C. Horvitz**, Tim Coulson, Shripad Tuljapurkar and Douglas W. Schemske
Sex allocation theory aids species conservation **Bruce C. Robertson**, Graeme P. Elliott, Daryl K. Eason, Mick N. Clout and Neil J. Gemmell	The genic and genomic basis of range in North American angiosperms **Sara L. Martin** and Brian C. Husband	High levels of gene flow but low levels of hybrid progeny in genetically divergent taxa of the *Acacia saligna* species complex of southwestern Australia **Melissa A. Millar** and Margaret Byrne	Nest site selection and social interactions in wild zebra finch **Mylene Mariette** and Simon C. Griffith	Anthropogenic habitat alteration affects the strength and form of natural selection in the brown anole (*Anolis sagrei*) **Erin Marnocha**, Ryan Calsbeek and Thomas B. Smith
DNA registers for monitoring trade of turtles **Erika A. Alacs**, Arthur Georges and Nancy Fitzsimmons	Biogeography and radiation of the southern African–Australian disjunct subtribe Arctotidinae (Asteraceae) **Robert J. McKenzie** and Nigel P. Barker	The next generation: fitness of *Ipomopsis* (Polemoniaceae) hybrids in the wild **Diane R. Campbell**, Nickolas M. Waser, George Aldridge and Carrie A. Wu	Social inhibition of egg production and rates of change in a haremic reef fish: implications for social stability- & sex allocation-theory **Stefan P. W. Walker**, Mark. I. McCormick and Ashley Frisch	Natural selection on display coloration in chameleons **Devi Stuart-Fox**, Adnan Moussalli and Martin J. Whiting
Effect of *S* allele diversity on the population viability of the rare forb *R. leptorrhynchoides* **Andrew G. Young**, Peter H. Thrall, Susan E. Hoebee and Melinda Pickup	Rates of body size evolution in *Anolis* lizards **Gavin H. Thomas**	When the honeymoon ends: the fate of duplicated genes in allotetraploid *Tragopogon miscellus* (Asteraceae) **Jennifer A. Tate**, Alexandra R. Bigger, Kerry A. Soltis, Pamela S. Soltis and Douglas E. Soltis	**Genomics/ Proteomics** What can we learn from monkeys about human evolution? **Philipp Khaitovich**, Janet Kelso, Mehmet Somel and Svante Paabo	Silent night: adaptive disappearance of calling in a parasitized cricket population **Marlene Zuk** and Robin M. Tinghitella
Intraspecific hybridization, outbreeding depression and population differentiation in fragmented populations of *Rutidosis leptorrhynchoides* (Asteraceae) **Melinda Pickup**, Andrew Young and David Rowell	Out of Australia: dating the origin and diversification of the worldwide cicada tribe Cicadettini and its connection to the aridification of the Southern Hemisphere Dan Vanderpool, David C. Marshall, Kathy B. R. Hill, Max Moulds and **Chris Simon**	Distinguishing hybridisation and lineage sorting **Simon Joly** and Peter Lockhart	Origins of spliceosomal introns **Douglas G. Scofield** and Michael Lynch	Correlated variation of floral and physiological traits along a natural moisture availability gradient **Susan C. Lambrecht**
Is bigger better? Frugivores and the future of Afromontane forest fragments Ihuma Jerome, **Hazel Chapman** and Callistrus Akosim	Improving spatial prediction of phylogeographic and phenotypic diversity with surrogates of current environment and habitat history **Jason B. MacKenzie**, Susan Cameron, Simon Ferrier, Glenn Manion, Stephen Williams and Craig Moritz	Hybrid vigor in tiger salamanders **Benjamin M. Fitzpatrick**	Complete plastid genome sequence of the Cryptomonad **Hameed Khan**, Natalie Parks, Catherine Kozera, Bruce A. Curtis, Sharen Bowman and John M. Archibald	Evolution is based on improvements in features of organisms but overall capabilities / fitness remains within limits **Pankaj Vallabh**

Monday 3.30-5.00pm

Tuesday, 19 June — 8.30-10.00am

	ASN Vice-Presidential Symposium The Genetics of Colonizing Species *Coordinator: Trevor Price*	Phylogeography	Systematics
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
8.30am	Evolution of behavioral integration and colonization of a novel environment **RENEE A. DUCKWORTH** University of Edinburgh	Fast mtDNA rates inferred from intra-species data: possible causes and consequences for phylogeographic studies **ASTA AUDZIJONYTE**, PHILLIP R. ENGLAND AND RISTO VÄINÖLÄ	Phylogenetic analyses of retroposed elements and sequence data further resolve the evolutionary history of Xenarthran mammals **FREDERIC DELSUC**, MAREN KRULL, GENNADY CHURAKOV, MARIELLA SUPERINA, JUERGEN BROSIUS, JUERGEN SCHMITZ AND EMMANUEL J. P. DOUZERY
8.45am		Population structure and historical biogeography of the relictual marsupial *Dromiciops gliroides* ("monito del monte") in southern South America's temperate rainforest **CHRISTOPHER M. T. HIMES** AND G. J. KENAGY	An Anomuran tale continued: a phylogeny based on 18S rRNA **KAREEN E. SCHNABEL**, SHANE T. AHYONG, ELS W. MAAS AND PETER J. SMITH
9.00am	The role of rapid adaptive evolution and plasticity during plant invasions: common garden experiments using St. John's Wort, *Hypericum perforatum* **JOHN MARON** AND MONTSERRAT VILA University of Montana	Biogeographic history of the rare and relictual sunset frog **DANIELLE EDWARDS** AND DALE ROBERTS	Phylogeny and biogeography of the holarctic bee genus *Andrena* **LEAH L. LARKIN**, SEBASTIEN PATINY AND JOHN ASCHER
9.15am		Good dispersers or cryptic species: testing phylogeographic predictions using rocky intertidal invertebrates in south-east Australia **CECILE PERRIN**, TODD E. MINCHINTON AND DAVID J. AYRE	The phylogenetic utility of POMC in assessing frog evolution **KRISTIN A. HOOK** AND DAVID C. CANNATELLA
9.30am	The evolution of dispersal during range-expansion: cane toads and the conquest of northern Australia **BEN L. PHILLIPS** University of Sydney	Granite outcrops as ancient islands in old landscapes: evidence from the phylogeography and population genetics of *Eucalyptus caesia* (Myrtaceae) in Western Australia **MARGARET BYRNE** AND STEPHEN HOPPER	Molecular evidence suggest remarkable cryptic diversity among South African velvet worms: a conservation conundrum **SAVEL R. DANIELS**
9.45am		Range expansion and polyploidisation in New Zealand alpine *Ranunculus* **RICHARD J. CARTER**	Evolution of ploidy, perenniality, and (hummingbird) pollination in monkeyflowers and paintbrushes **RICHARD G. OLMSTEAD**, PAUL M. BEARDSLEY AND DAVID C. TANK

Conservation Biology	Sexual Selection	Hybridisation	Genomics/ Proteomics	Evolution of Sex
Conf. Rooms 1 & 2	**Breakout Rooms 6 & 7**	**Breakout Rooms 4 & 5**	**Breakout Rooms 1 & 2**	**Breakout Room 3**
Improving eradication strategies using genetic tools: the example of rats introduced on islands **Jawad Abdelkrim**, Michel Pascal and Sarah Samadi	Sexual selection and genetic variation **Katrina McGuigan**	Historical introgression and evidence for reproductive character displacement between sister species of Australian *Ogyris* butterflies at a biogeographic interface **Daniel J. Schmidt** and Jane M. Hughes	Bayesian genome arrangement phylogeny and replichore balance in pathogenic *Yersinia* **Aaron E. Darling**, Istvan Miklos and Mark A. Ragan	Both costs and benefits of sex increase with decreasing frequency of sex **Desiree E. Allen** and Mike Lynch
The precautionary principle in action: conservation of a critically endangered New Zealand endemic **Tammy E. Steeves**, Richard Maloney, Marie L. Hale and Neil J. Gemmell	Reinforcement and sexual selection: when evolutionary processes collide **Megan Higgie** and Mark W. Blows	The coexistence of hybrid and parental taxa — the role of parasites **Piet Spaak** and Justyna Wolinska	Microsatellites: evolutionary signatures within genomes **Iris M. Vargas Jentzsch** and Neil J. Gemmell	The adaptive significance of temperature-dependent sex determination in a short-lived lizard **Daniel A. Warner** and Richard Shine
Ancestral hunting practices and patterns of genetic diversity in the Malagasy radiated tortoise (*Geochelone radiata*) **Sebastien Rioux Paquette**, Edward E. Louis and Francois-Joseph Lapointe	Does the genetic basis of male sexually-selected traits change during display? **Emma Hine**	When species merge: hybridization between grey duck and mallard in New Zealand **Wiebke Muller**	Enormous impact of end-Permian ecological catastrophe on the genome structure and evolution of land vertebrates **Dusan Kordis**	Sex and growth **Phillip R. Smith**
Hidden population structure of Western North Pacific minke whales inferred from genetic analysis of Japanese and Korean market products **Shane Lavery**, C. S. Baker, M. L. Dalebout, N. Funahashi, Ma Yong-Un, K. M. Robertson, R. L. Brownell, Jr and F. Cipriano	A sexual signal becomes sexier under higher predation risk **Tae Won Kim**, John H. Christy and Jae C. Choe	A new reduction based algorithm to analyze the extent of hybridization Magnus Bordewich, **Simone Linz**, Katherine St. John and Charles Semple	Conservation of microsatellites in mammalian genomes **Emmanuel Buschiazzo** and Neil J. Gemmell	Sex in dragons: evolution of sex determining mechanisms in reptiles **Alexander E. Quinn**, Arthur Georges, Stephen D. Sarre, Tariq Ezaz and Jenny Graves
Maintaining genetic viability of threatened large skinks in New Zealand **Dianne M. Gleeson**, Grant Norbury, James Reardon and Oliver Berry	Quantifying the effects of sexual selection **Brian Hollis**, Janna Fierst and David Houle	Introgression in New Zealand flax (*Phormium* spp.), hybridisation and reproductive isolation **Gary J. Houliston**, Peter B. Heenan and Rob Smissen	Rapid evolution in male-biased proteins explained by rapid evolution of introns **Pierre Fontanillas**, Max Reuter and Daniel L. Hartl	Parthenogenesis vs. sexuality in a freshwater snail: do population data coincide with evolutionary theory? **Lisa T. Crummett** and Marta L. Wayne
Having our salmon, and eating it too? A test of the conservation outcomes of segregated hatchery populations of steelhead *Oncorhynchus mykiss* **Kerry Naish**, Lorenz Hauser, Todd Seamons, Michael Dauer and Tom Quinn	Sexual selection in the model yeast *Saccharomyces cerevisiae* **Duncan Greig**	Consequences of mixed populations: a multi-generation experiment of hybridization under both stressful and benign conditions **AnnMarie S. Hwang** and Suzanne Edmands	A lousy genome: the genome of the body louse of humans, *Pediculus humanus* Ewen F. Kirkness, Renfu Shao, **Stephen C. Barker** and Human Body Louse Genome Consortium	Why obligatory sex? **Lilach Hadany** and Tuvik Beker

Tuesday, 19 June — 10.30am-12.00pm

	ASN Vice-Presidential Symposium The Genetics of Colonizing Species *Coordinator: Trevor Price*	Phylogeography	Systematics
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
10.30am	The role of phenotypic plasticity and natural selection in the successful establishment of a population in a novel environment **TREVOR PRICE** University of Chicago	Phylogeography of the European common lizard (*Zootoca vivipara*): insights from mitochondrial DNA and AFLP data **YANN SURGET-GROBA**, BENOIT HEULIN AND CLAUDE P. GUILLAUME	Coral biodiversity is not as it appears; a phylogeny of *Porites* spp. **ZAC H. FORSMAN** AND CYTHIA L. HUNTER
10.45am		Phylogeography of a Hawaiian reef fish, the yellow tang (*Zebrasoma flavescens*) **JEFF A. EBLE** AND BRIAN W. BOWEN	Cranial morphometrics, genetics and taxonomy of the Circopithecini **JACK A. COATE**, HAYLEY GREEN AND DARREN CURNOE
11.00am	Does a big brain matter when invading novel environments? **DANIEL SOL** Ctr. Ecological Research & Appl. Forestries, Spain	Fine-scale phylogeographic structure in Amazonian flooded forest fishes: a multispecies comparative study **LUCIANO B. BEHEREGARAY** AND NING L. CHAO	Phylogeny and evolution of Juncaceae based on comparison of molecular data from three genomes with special emphasis to monophyletic groups **LENKA DRABKOVA** AND JAN KIRSCHNER
11.15am		Discordant biogeographical patterns in New Zealand landsnails **HAMISH G. SPENCER** AND MARTYN KENNEDY	Nephilid spider phylogeny provides the evidence for sexually antagonistic coevolution **MATJAZ KUNTNER**
11.30am	Behavioral mechanisms of invasion success in social species **ANDREW V. SUAREZ**, DAVID HOLWAY AND NEIL TSUTSUI University of Illinois at Urbana	***No talk currently scheduled in this time slot. Please check addendum.***	Molecular phylogeny and evolution of prosimians based on complete sequences of mitochondrial DNAs **ATSUSHI MATSUI**, FELIX RAKOTONDRAPARANY, ISAO MUNECHIKA, MASAMI HASEGAWA AND SATOSHI HORAI
11.45am		***No talk currently scheduled in this time slot. Please check addendum.***	Phylogenetic relationships of bubble-gum corals from New Zealand **JUAN A. SANCHEZ** AND LUISA DUENAS

Conservation Biology	Sexual Selection	Hybridisation	Theoretical Population Genetics	Evolution of Sex
Conf. Rooms 1 & 2	**Breakout Rooms 6 & 7**	**Breakout Rooms 4 & 5**	**Breakout Rooms 1 & 2**	**Breakout Room 3**
Phylogenetics and biodiversity conservation **Klaas Hartmann** and Mike Steel	Sperm competition and siring success in the Peron's tree frog **Craig D. H. Sherman**, Erik Wapstra and Mats Olsson	New Zealand stick insects **Mary Morgan-Richards** and Steve A. Trewick	Frequency-dependent selection with mutation **Meredith Trotter** and Hamish G. Spencer	Genomic insights into the advantage of sex **Matthew R. Goddard** and David Gresham
Microgeographic population structure in a subspecies of cutthroat trout **Victoria L. Pritchard**, Jessica L. Metcalf, Andrew P. Martin and David Cowley	Patterns of female paragenital evolution in the traumatically inseminating plant bug *Coridromius* **Nikolai J. Tatarnic**	Phylogeographic breaks and gene flow in the ring-species *Ensatina eschscholtzii* **Ricardo Pereira** and David B. Wake	Recurrent mutation in a spatial single-locus selection model **Bastiaan Star** and Hamish G. Spencer	**Population Ecology** The maintenance of floral-color variation **Frank M. Frey**
The value of an hybrid: lessons from giant Galapagos tortoises **Gisella Caccone**	Sex, flies and videotape: a study of morphology and mating behaviour in *Sepsidae* (Diptera) **Nalini Puniamoorthy** and Rudolf Meier	Candidate genes involved in plumage color variation in *Ficedula* flycatchers **Laura Buggiotti**, Gleen-Peter Saetre and Craig R. Primmer	Selection models for structured populations **Michael Whitlock**	Phylogeography and population genetics of the endangered broad-headed snake, *Hoplocephalus bungaroides* **Joanna Sumner**, J Scott Keogh, Jonno Webb and Rick Shine
Parental effects on early-life survival and antipredator behaviour in Arctic charr — implications for conservation **Tiina Lautala**, Derek A. Roff and Heikki Hirvonen	Female choice in the mouse — disentangling inbreeding from heterozygosity at MUP and MHC **Michael D. Thom**, Amy Sherborne, Stuart Armstrong, Paula Stockley, Bill Ollier, Francine Jury, Steve Paterson, Rob Beynon and Jane Hurst	Swamping out rare genes: habitat fragmentation promotes interspecific hybridization in a woodland Eucalypt **David L. Field**, Andrew G. Young, David J. Ayre and Rob J. Whelan	The "abandon ship" hypothesis for the evolution of sex **Sarah Otto** and Lilach Hadany	An exploration of the consequences of gene flow and dispersal for population persistence in the Misty Lake system threespine stickleback (*Gasterosteus aculeatus*) **Jean-Sébastien Moore** and Andrew P. Hendry
Ancient DNA reveals pre-exploitation demography in North Pacific megafauna: lessons from gray and humpback whales **S. Elizabeth Alter** and Stephen R. Palumbi	Maneaters: adaptive radiation of digestive proteases in *Drosophila* female reproductive tracts **Erin S. Kelleher** and Therese A. Markow	**Education** Evolution in the New Zealand school curriculum **Alison M. Campbell**	Inbreeding and the pruning of family trees **Joseph L. Lachance**	Using ancient DNA to reconstruct pre-exploitation population structure in the northern fur seal, *Callorhinus ursinus* **Malin L. Pinsky**, Marcel van Tuinen, Seth D. Newsome and Elizabeth A. Hadly
'Canaries in the undergrowth' — using phylogenetic diversity of 'giant' springtails (Collembola: Uchidanurinae) of New Zealand and Australia as a surrogate for biodiversity indication **Mark I. Stevens**	Sexual selection and the evolution of allometry: theory, evidence, and the irresistible allure of the Irish elk **Russell Bonduriansky**	A new LENS tool: learning evolution and nature of science using Avida-ED digital evolution software **Robert T. Pennock**	Avoiding bias from sequencing error in population genetic estimates **Philip L. F. Johnson** and Montgomery Slatkin	Trophic divergence in sympatric populations of the gold-breast splitfin *Ilyodon furcidens*: does movement away from the mean increase fitness? **Meribeth Huizinga** and Cameron K. Ghalambor

Tuesday, 19 June — 1.30-3.00pm

	SSE Education Symposium An International Perspective on Teaching Evolution *Coordinator: Thomas R. Meagher*	Molecular Evolution	Conservation Biology
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
1.30pm	Extreme evolution: contrasting the US and the UK **THOMAS R. MEAGHER** University of St Andrews	Modelling mitochondrial heteroplasmy **MICHAEL D. HENDY** AND MICHAEL D. WOODHAMS	Lessons from multigenerational genetic monitoring of an endangered species **THOMAS F. TURNER** AND MEGAN J. OSBORNE
1.45pm		Measuring pedigree evolution rates in Adelie penguins from mitochondrial heteroplasmy **MICHAEL D. WOODHAMS**, MICHAEL D. HENDY, ANDREW DODD AND DAVID LAMBERT	Genetic analysis of the endangered Asian yellow pond turtle (*Mauremys mutica*) and highly endangered Annam leaf turtle (Mauremys annamensis) **JONATHAN J. FONG**, JAMES F. PARHAM, HAITAO SHI, BRYAN L. STUART AND RONALD L. CARTER
2.00pm	What really happens in class — a survey of the US and Canada **ELIZABETH ELLE** Simon Fraser University	Origin and evolution of mitochondrial genome duplications in Australian geckos of the *Heteronotia binoei* complex **MATTHEW K. FUJITA**, JEFFREY L. BOORE AND CRAIG MORITZ	Taxon selection for maximising phylogenetic diversity **FABIO PARDI** AND NICK GOLDMAN
2.15pm		Dosage as an important mechanism of duplicate gene retention in the tetraploid frog *Xenopus laevis* **FREDERIC J. J. CHAIN** AND BEN J. EVANS	***No talk currently scheduled in this time slot. Please check addendum.***
2.30pm	Comparative perspectives on teaching evolution **PAUL B. RAINEY** University of Auckland	Occurrence, molecular diversity and putative role of *Wolbachia* in lac insect (*Kerria lacca*) **AMIT VASHISHTHA**, H. M. CHAWLA, K. K. SHARMA AND SUMAN LAKHANPAUL	***No talk currently scheduled in this time slot. Please check addendum.***
2.45pm		Evolution of MHC genes in tuatara (*Sphenodon*) **HILARY C. MILLER**	***No talk currently scheduled in this time slot. Please check addendum.***

Phylogenetic Theory and Methods	Biogeography		Phenotypic Plasticity	Theoretical Population Genetics	Coevolution
CONF. ROOMS 1 & 2	BREAKOUT ROOMS 6 & 7		BREAKOUT ROOMS 4 & 5	BREAKOUT ROOMS 1 & 2	BREAKOUT ROOM 3
On the nature of heterotachy **PETER J. LOCKHART**	→ SPECIAL SECTION ON EVOLUTION OF TROGLOBITIC AND GROUNDWATER FAUNA IN AUSTRALIA	Evolution and diversity of groundwater and troglobitic ecosystems in Australia: an overview **ANDREW D. AUSTIN**, STEVEN COOPER, WILLIAM F. HUMPHREYS AND WINSTON PONDER	Evolution of phenotypic plasticity in threespine stickleback **RICHARD SVANBÄCK** AND DOLPH SCHLUTER	Stressed? Do something for the common good! Stress and the evolution of altruism **TUVIK BEKER** AND LILACH HADANY	Souvenirs or heirlooms? The faecal flora of Adelie penguins **JONATHAN C. BANKS**, CRAIG CARY, IAN HOGG AND JOESEPH WAAS
Lineage specific evolution **LIAT SHAVIT**, BARBARA R. HOLLAND, DAVID PENNY AND MICHAEL D. HENDY		A tale of different erigins: pisolitic mesas in the Australian arid zone contain subterranean fauna with contrasting evolutionary histories **MARK S. HARVEY**, OLIVER F. BERRY, DAVID E. WALTER, KAREN EDWARD AND GARTH HUMPHREYS	Size and fecundity responses to competition in plants **STEPHEN P. BONSER** AND BRENTON M. LADD	Bayesian coalescent inference of population history with variable dimensions **JOSEPH HELED** AND ALEXEI DRUMMOND	Experimental coevolution of a sterilizing trematode and its New Zealand snail host: an examination of host population dynamics **BRITT KOSKELLA** AND CURT LIVELY
Supertree algorithms for phylogenies with nested taxa VINCENT BERRY, OLAF R. P. BININDA-EMONDS AND **CHARLES SEMPLE**		Molecular rates in subterranean diving beetles **REMKO LEIJS**	Proximate mechanisms driving sexual size dimorphism in protogynous reef fish **CHRISTOPHER A. RYEN**, PHILIP L. MUNDAY, STEFAN P. W. WALKER AND MARK I. MCCORMICK	Global and local parent selection for the Moran process **PETER A. WHIGHAM** AND GRANT DICK	Cophylogenetics of pollinating and non-pollinating fig wasps from the *Pharmacosycea* (free-standing) figs **WENDY A. MARUSSICH** AND CARLOS A. MACHADO
Multivariate phylogenetic comparative analysis using explicit models of selection AARON A. KING, DAIHAI HE AND **MARGUERITE A. BUTLER**		Phylogeography of the ancient Australian Parabathynellidae **MICHELLE T. GUZIK**, STEVEN J. B. COOPER, JOO-LAE CHO, WILLIAM F. HUMPHREYS AND ANDY D. AUSTIN	***No talk currently scheduled in this time slot. Please check addendum.***	Macroevolution Phylogenetics and adaptive radiation of Antarctic notothenioid fishes **THOMAS J. NEAR**	The genetic and pathogenic structure of *Melampsora lini* across geographic regions: implications for the evolution of host resistance **LUKE G. BARRETT**, PETER H. THRALL, JEREMY J. BURDON AND CELESTE C. LINDE
Estimating speciation rate using a Markov chain Monte Carlo approach **NICOLAS SALAMIN**		Hidden diversity in the mound springs of the Great Artesian Basin **NICHOLAS P. MURPHY**	***No talk currently scheduled in this time slot. Please check addendum.***	Relationship between frequency of co-occurrence and rate of morphological diversification in the darter genus *Percina* (Teleostei: Percidae) **ROSE L. CARLSON**, PETER C. WAINWRIGHT AND THOMAS J. NEAR	***No talk currently scheduled in this time slot. Please check addendum.***
Strange vertebrate phylogenies: dad data, lousy models, or the truth? **GAVIN J. NAYLOR** AND DAVID L. SWOFFORD		Subterranean biodiversity in Western Australia's arid zone: DNA barcoding identifies groundwater invertebrates and reveals cryptic diversity **TESSA M. BRADFORD**, ADAM ALLFORD, CHRIS H. S. WATTS, WILLIAM F. HUMPHREYS, ANDREW D. AUSTIN AND STEVEN J. B. COOPER	***No talk currently scheduled in this time slot. Please check addendum.***	Bringing together the living and the dead: integrating extant and fossil biodiversity in evolutionary studies of Proteaceae (Proteales) **HERVE SAUQUET**, PETER H. WESTON, DAVID J. CANTRILL AND VINCENT SAVOLAINEN	***No talk currently scheduled in this time slot. Please check addendum.***

Tuesday, 19 June — 3.30-5.00pm

	SSE Education Symposium An International Perspective on Teaching Evolution *Coordinator: Thomas R. Meagher*	Molecular Evolution	Speciation
	JAMES HAY THEATRE	LIMES ROOM	CAMBRIDGE ROOM
3.30pm	How students are prepared for college: a comparative analysis of secondary teaching of evolution **LOUISE S. MEAD** National Center for Science Education, USA	Linking Pgm allozyme and nucleotide variation in blue mussels **CYNTHIA RIGINOS**, ANTONINO S. CAVALLARO AND PAUL D. RAWSON	Origins and evolution of New Zealand *Pittosporum* (Pittosporaceae) **CHRISSEN E. C. GEMMILL**
3.45pm		Identification of Type II MADS Box Genes in *Helianthus annuus* **DAVID M. WILLS** AND JOHN M. BURKE	The stability and invasibility dynamics during and after competitive sympatric speciation **AYSEGUL BIRAND** AND ERNEST BARANY
4.00pm	Teaching first-year biology: an evolutionary approach **SPENCER C.H. BARRETT** University of Toronto	Patterns of vertebrate isochore evolution revealed by comparison of expressed genes **JENA L. CHOJNOWSKI** AND EDWARD L. BRAUN	Reproductive character displacement and reproductive isolation in praying mantids (Ciulfina: Liturgusidae) **GREG I. HOLWELL** AND MARIE E. HERBERSTEIN
4.15pm		Can molecular drive explain the accumulation of DNA uptake sequences in bacterial genomes? **HEATHER MAUGHAN**, LINDSAY WILSON AND ROSEMARY J. REDFIELD	Molecular evolution of seminal proteins in field crickets **LUANA MAROJA**, JOSE ANDRES AND RICHARD G. HARRISON
4.30pm	Panel discussion Chair: **LOUISE MEAD** National Center for Science Education, USA	Lineage specific accelerated sequence divergence in *Drosophila*: identifying the targets and determining the evolutionary mechanisms **ALISHA K. HOLLOWAY**, ADAM SIEPEL, DAVID J. BEGUN AND KATHERINE S. POLLARD	Specification and diversification in the Caribbean lizard *Anolis roquet* **HELENA JOHASSON**, YANN SURGET-GROBA AND ROGER S. THORPE
4.45pm		The effect of body size and covarying life history traits on rates of molecular evolution in invertebrates **JESSICA A. THOMAS**	Speciation in *Pachycladon* — a microarray approach **CLAUDIA VOELCKEL**, BART JANSEN, PETER HEENAN AND PETER LOCKHART

Phylogenetic Theory and Methods	Biogeography	Adaptation	Macroevolution	Comparative Biology
Conf. Rooms 1 & 2	**Breakout Rooms 6 & 7**	**Breakout Rooms 4 & 5**	**Breakout Rooms 1 & 2**	**Breakout Room 3**
Markov invariants: informative statistics for phylogenetics **Jeremy Sumner** and Peter D. Jarvis	Troglobitic Fauna Cont... Comparative phylogeography of amphipod and isopod stygofauna from calcrete aquifers of central Western Australia **Steven J. B. Cooper**, Kathleen M. Saint, Remko Leijs, John H. Bradbury, Stefano Taiti, Andrew D. Austin and William F. Humphreys	Information constraints on adaptation in the wild: sex allocation in the parasitic wasp *Nasonia vitripennis* **David M. Shuker**	Using ancient DNA to analyse evolutionary processes Alan Cooper	Evolution of the courtship phenotype in the bird of paradise genus *Parotia* (Aves: Paradisaeidae) **Edwin Scholes**
Rooting the eutherian tree — the power and pitfalls of phylogenomics **Hidenori Nishihara**, Norihiro Okada and Masami Hasegawa	Effects of environment, phylogeny and space on body sizes of terrestrial vertebrates **Walter Jetz** and Rob Freckleton	Significant responses to cell-lineage selection in the red seaweed, *Asparagopsis armata* **Keyne Monro** and A. G. B. Poore	The statistical inevitability of "Gradualism" in Morphologically Similar Species **Pincelli M. Hull** and Richard D. Norris	Evolution of wing shape for sound production in Pipridae **Kimberly S. Bostwick** and Shannon Hackett
Likelihood supertrees **Allen G. Rodrigo** and Michael A. Steel	Speciation rates: contrasts across the New Zealand archipelago **Steven A. Trewick**, Julia Goldberg, Adrian M. Paterson and Hamish J. Campbell	Evolution of pelagic isopods (Asellota, Munnopsidae): phylogenetics, natural history, and adaptation **Karen J. Osborn**	Morphological and molecular evidence for the stepwise transition from teeth to baleen in mysticete whales **Michael R. McGowen**, Thomas A. Demere, Annalisa Berta and John Gatesy	Phylogenetic comparative analysis of the functional benefits and ecological constraints of sleep in mammals **Isabella Capellini**, Robert A. Barton, Patrick McNamara, Brian Preston and Charles Nunn
Detecting asymmetric Markov processes in aligned sequence data **Lars S. Jermiin**, Faisal Ababneh, Chunseng Ma and John Robinson	Incipient speciation in glaciation refugia: genetic differentiation and hybridization between two subspecies of acorn barnacles in NW Pacific **Ling Ming Tsang**, Benny Kwok Kan Chan, Ka Yan Ma and Ka Hou Chu	Natural selection on phytochromes through their effects on germination timing **Kathleen Donohue**, Deepak Barua, Colleen Butler and Shane Heschel	Does ecology influence rates of phenotypic evolution on islands? **D. Luke Mahler**	The evolution of sexual size dimorphism and recent rapid morphological diversification in emydid turtles **Patrick R. Stephens** and John J. Wiens
Aquifex in the bacterial phylogeny **Bastien Boussau** and Manolo Gouy	Explaining the biogeography of South Pacific topshells **Kirsten M. Donald**, Martyn Kennedy and Hamish G. Spencer	Armor loss in fresh water threespine stickleback through predatory and correlated selection **Kerry B. Marchinko** and Dolph Schluter	Exploring diversification patterns of extant land plants **Harald Schneider**	The allometry of ratite eggs **Michael R. Dickison** and V. Louise Roth
No talk currently scheduled in this time slot. Please check addendum.	New Guinea reptiles and amphibians: patterns, processes, and megadiversity **Christopher C. Austin**, Steve Donnellan, Allen Allison and Christopher Hayden	Identification of colocating seed oil QTL and candidate genes in *Arabidopsis*: a step toward identifying selected genes for a quantitative trait Anushree Sanyal and **C. Randal Linder**	Evolution of optical microstructures on the wings of butterflies Shelley Wickham, **Julia C. Jones**, Tiziana Beninati, Maryanne C. J. Large, Leon Poladian and Lars Jermiin	**Development and Evolution** Evolution of herbivory in Beloniformes **Ryan D. Day** and Ian R. Tibbetts

Wednesday, 20 June — 8.30-10.00am

SSB Symposium — Phylogenetic Diversity: Towards a Synthesis of Concepts and Applications for Biodiversity Conservation
Coordinators: Dan Faith & Arne Mooers

	James Hay Theatre
8.30am	Phylogenetic diversity and conservation: problems and prospects **Daniel P. Faith** The Australian Museum
8.50am	Links between phylogenetic diversity and evolutionary distinctiveness **Arne O. Mooers**, David W. Redding, Klaas Hartmann, Mike Steel and Wayne P. Maddison Simon Fraser University
9.15am	Measuring phylogenetic diversity and originality with quadratic entropy **Sandrine Pavoine** Museum National d'Histoire Naturelle, Paris
9.35am	Phylogenetic diversity theory and computational challenges **Mike Steel** Allan Wilson Centre, Biomathematics Research Centre, University of Canterbury

	Molecular Evolution Limes Room	Speciation Cambridge Room
8.30am	Heteroplasmy and mutation rates: technical and theoretical considerations **Andrew Dodd**, Craig D. Millar, Michael D. Woodhams, Mike Hendy and David M. Lambert	Is hybrid seed failure among wild *Lycopersicon* associated with molecular divergence at reproducitve loci? **Leonie C. Moyle**
8.45am	Molecular epidemiology of feline immunodeficiency virus in domestic cats (*Felis catus*) of New Zealand **Jess J. Hayward**, John Taylor and Allen G. Rodrigo	Comparative analysis of land snail radiations on Crete **Jan Sauer** and Bernhard Hausdorf
9.00am	Do small DNA viruses evolve as quickly as RNA viruses? **Siobain Duffy** and Edward C. Holmes	An introgression approach to studying behavioral differences between *Drosophila simulans* and *D. sechellia* **Jennifer M. Gleason**
9.15am	Plant mitochondrial polymorphism, divergence and mutation rate variation within the genus *Silene* Daniel B. Sloan, Camille Barr, Matthew S. Olson and **Douglas R. Taylor**	microRNA profile changes associated with reproductive isolation in *Xenopus* **Pawel Michalak** and John H. Malone
9.30am	Architectural constraints on genome evolution **Sinead A. Collins**, Claudia Acquisti and Juliette de Meaux	Hybridization in the endemic New Zealand brown alga *Carpophyllum* **Joe Buchanan** and Joe Zuccarello
9.45am	Frame-preserving 3' extensions of yeast genes suggest a role for the [PSI+] prion in evolvability **Joanna Masel**, Mike G. Giacomelli and Adam S. Hancock	Should allopatric speciation be the null hypothesis? **Kendall D. Clements**

Systematics	Biogeography	Adaptation	Evolution of Ecological Communities	Development and Evolution
CONF. ROOMS 1 & 2	BREAKOUT ROOMS 6 & 7	BREAKOUT ROOMS 4 & 5	BREAKOUT ROOMS 1 & 2	BREAKOUT ROOM 3
Hotspot or flypaper — phylogeny of local non-marine algae **PHIL M. NOVIS**	Riddle of the New Zealand beech gaps **MICHAEL KNAPP**, KAREN STÖCKLER, PATRICK MARDULYN, DAVID HAVELL, MATT S. MCGLONE AND PETER J. LOCKHART	Adaptive radiation of photosynthetic physiology in the Hawaiian Campanulaceae **REBECCA A. MONTGOMERY** AND THOMAS J. GIVNISH	Diversity and niche coevolution in consumer–resource communities **JÖRGEN RIPA**, LENA STORLIND, PER LUNDBERG AND JOEL BROWN	Cyclin G and the control of fluctuating asymmetry and individual variation in *Drosophila* **VINCENT DEBAT**, SEBASTIEN BLOYER, NICOLAS NAVARRO, FREDERIQUE PERONNET AND JEAN DEUTSCH
Pigeon evolution: integrating barcoding to the tree of life **GILLIAN C. GIBB**, JULIA GOLDBERG, STEVE TREWICK AND DAVID PENNY	Latitudinal diversity gradients in marine herbivorous fishes: why history matters **KENDALL CLEMENTS** AND HOWARD CHOAT	Local adaptation and co-gradient selection in the alpine plant, *Poa hiemata*, along a narrow altitudinal gradient **SEAN G. BYARS**, WARWICK PAPST AND ARY A. HOFFMANN	Integrating coalescent and ecological niche modeling in comparative phylogeography **CORINNE L. RICHARDS** AND BRYAN C. CARSTENS	Mechanisms underlying *Shh* expression expansion in the blind cavefish, *Astyanax mexicanus* **XIAOYUN REN** AND YOSHIYUKI YAMAMOTO
Fossils, morphology and genetics: evolution in a group of marine molluscs **SIMON F. K. HILLS**	Reexamining ecological niche conservatism in Mexican fauna using new analytical methods **DAN. L. WARREN**, RICHARD E. GLOR AND MICHAEL TURELLI	Lizards as an example of adaptation in muscle fiber type composition in locomotor muscles **JEFFREY A. SCALES** AND MARGUERITE BUTLER	Evolutionary responses to environmental changes: how does competition affect adaptation? **JACOB JOHANSSON**	The evolution of segmentation **PETER K. DEARDEN** AND MEGAN WILSON
Molecular phylogeny of the raccoon family (Procyonidae: Carnivora) indicates pronounced morphological convergence **TARA L. FULTON** AND CURTIS STROBECK	Phylogeography of bull kelp (*Durvillaea*) and associated invertebrate fauna around the Southern Ocean: are kelp rafts effective vectors of marine dispersal? **CERIDWEN FRASER**, HAMISH G. SPENCER AND JONATHAN M. WATERS	Strength of natural selection along a cline of Scots pine TIMO KNÜRR, KATRI KÄRKKÄINEN AND **OUTI SAVOLAINEN**	Intra-specific competition drives multiple trophic polymorphism in fish communities **PETER EKLÖV** AND RICHARD SVANBÄCK	The NK homeobox gene cluster predates the origin of Hox genes **CLAIRE LARROUX**, BRYONY FAHEY AND BERNARD DEGNAN
Phylogeny of the microgastroid parasitic wasp subfamilies (Hymenoptera: Braconidae) based on sequence data from seven genes **NICHOLAS P. MURPHY**, JONATHON C. BANKS, JAMES B. WHITFIELD AND ANDREW D. AUSTIN	***No talk currently scheduled in this time slot. Please check addendum.***	Population structure and adaptive hemoglobin evolution in cinnamon teal (*Anas cyanoptera*) and puna teal (*A. puna*) **ROBERT E. WILSON**, CHRISTOPHER P. BARGER AND KEVIN G. MCCRACKEN	Why are there so many insect species in tropical rainforests? **GEORGE D. WEIBLEN**	The insulin receptor (InR) pathway may underlie the development and evolution of nutrition-dependent phenotypic plasticity and allometry in insects **DOUGLAS J. EMLEN**, BEN EWEN-CAMPEN, WENDY A. SMITH AND LAURA CORLEY-LAVINE
No talk currently scheduled in this time slot. Please check addendum.	***No talk currently scheduled in this time slot. Please check addendum.***	Fitness costs of circadian disorganization in natural populations **KEVIN J. EMERSON**, WILLIAM E. BRADSHAW AND CHRISTINA M. HOLZAPFEL	The theory of ecology or do ecologists have GUTs? **SAMUEL M. SCHEINER** AND MICHAEL R. WILLIG	Origin and evolution of metamorphosis and thyroid hormone receptors in chordates **MATHILDE PARIS**, HECTOR ESCRIVA, MICHAEL SCHUBERT, FREDERIC BRUNET, JULIUS BRTKO, VALÉRIE VIVAT, FABRICE CIESIELSKI, JEAN-PIERRE CRAVEDI, JEAN-PAUL RENAUD, NICHOLAS D. HOLLAND AND VINCENT LAUDET

Wednesday, 20 June — 10.30am-12.00pm

SSB Symposium — Phylogenetic Diversity: Towards a Synthesis of Concepts and Applications for Biodiversity Conservation *Coordinators: Dan Faith & Arne Mooers*	
JAMES HAY THEATRE	
10.30am	Towards practical phylogenetic diversity analyses for conservation biologists **DAN F. ROSAUER** AND SHAWN W. LAFFAN University of New South Wales
10.50am	Phylogenetic diversity at the mesoscale in South Africa **VINCENT SAVOLAINEN**, FELIX FOREST AND RICH GRENYER Jodrell Laboratory, Kew Gardens
11.15am	Conservation prioritization and climate change impacts on the phylogenetic diversity of endemic rainforest flora and fauna **SUSAN E. CAMERON** University of California, Davis
11.35am	Phylogenetic diversity at the community level: some results and prospects **MICHAEL J. DONOGHUE** Peabody Museum, Yale University

	Molecular Evolution	Speciation
	LIMES ROOM	CAMBRIDGE ROOM
10.30am	Cartilaginous fishes and the evolution of corticosteroid receptors **SEAN M. CARROLL**, JAMIE T. BRIDGHAM, B. SCOTT NUNEZ AND JOSEPH W. THORNTON	Tempo and mode of diversification of Lake Tanganyika cichlids **JULIA J. DAY**, JAMES A. COTTON AND TIMOTHY G. BARRACLOUGH
10.45am	The rapid evolution of sperm storage proteins: analysis of *Drosophila* spermathecae genes **ADRIANNE M. PROKUPEK**, SEONG-IL EYUN, ETSUKO MORIYAMA AND LAWRENCE G. HARSHMAN	Dispersal and gene flow in endemic Indonesian sailfin silversides **RYAN P. WALTER**, G. DOUGLAS HAFFNER AND DANIEL D. HEATH
11.00am	Base compositional bias in mammalian mitochondrial genomes **SANKAR SUBRAMANIAN**	Multilocus studies of speciation modes in wild tomatoes (*Solanum* section *Lycopersicon*) **THOMAS STAEDLER**, URAIWAN ARUNYAWAT AND WOLFGANG STEPHAN
11.15am	Simulation models of prebiotic evolution of genetic coding **SIDNEY MARKOWITZ**, ALEXEI DRUMMOND AND PETER R. WILLS	Speciation or just local variation? Rapid morphological & ecological diversification in New Zealand *Craspedia* (Asteraceae: Gnaphalieae) **KERRY A. FORD**, ROB D. SMISSEN AND ILSE BREITWIESER
11.30am	The future of molecular clocks **LINDELL BROMHAM**	The evolution of the New Zealand Gnaphalieae: the more we know, the more we don't know **ILSE BREITWIESER**, JOSEPHINE M. WARD AND ROB D. SMISSEN
11.45am	The evolution of retroposon which are distributed in bovine genome **JUN-ICHI ONAMI**, MASATO NIKAIDO, HIDEYUKI MANNEN AND NORIHIRO OKADA	Another data set, another tree topology. Phylogenetic incongruence, the legacy of partial reproductive isolation in the *Raoulia* generic alliance? **ROB D. SMISSEN** AND ILSE BREITWIESER

Evolutionary Theory	Molecular Anthropology	Adaptation	Evolution of Ecological Communities	
CONF. ROOMS 1 & 2	**BREAKOUT ROOMS 6 & 7**	**BREAKOUT ROOMS 4 & 5**	**BREAKOUT ROOMS 1 & 2**	**BREAKOUT ROOM 3**
Is Darwinism an exhausted paradigm? **MICHAEL RUSE**	Maui's Ark — commensal models for the human settlement of the Pacific **ELIZABETH A. MATISOO-SMITH**, JUDITH ROBINS, ALICE STOREY AND MELANIE HINGSTON	Adaptive evolution of an insect introduced to New Zealand for biological control **CRAIG B. PHILLIPS**, COR J. VINK, ILIA ILINE, LOUISE WINDER, MARK R. MCNEILL, JOHN M. KEAN AND DAVID B. BAIRD	Ecological diversification and evolutionary patterns in desert lizard communities **JANE E. MELVILLE** AND LUKE HARMON	**No talks scheduled**
Quasispecies evolution in subdivided populations: survival of the steepest **BRENDAN D. O'FALLON**, FRED R. ADLER AND STEPHEN PROULX	Human mtDNA phylogenies and Pacific prehistory **MELANIE J. PIERSON**, BRAD FRIS, DAVID PENNY AND NEIL GEMMELL	Evolutionary divergence in a common ectoparasite of coral reef fishes **LAURA NAGEL**, ROBERT MONTGOMERIE AND STEPHEN LOUGHEED	Landscape genetics and the spread of chronic wasting disease in western Canadian ungulates **GREGORY A. WILSON**, STEPHANIE NAKADA, TRENT BOLLINGER AND DAVID W. COLTMAN	
Sex-specific selection, sex-linkage, and dominance in genomic imprinting **JEREMY VAN CLEVE** AND MARCUS W. FELDMAN	Prehistoric human contact between Polynesia and South America? DNA analysis of the sweet potato and bottle gourd **ANDREW C. CLARKE**, ROGER C. GREEN, BARBARA R. HOLLAND, PATRICIA A. MCLENACHAN AND DAVID PENNY	Food availability may explain adaptive shifts in island birds **BETH E. SCHLOTFELDT** AND SONIA KLEINDORFER	Measurement of biological information with applications from genes to landscapes **WILLIAM B. SHERWIN**, FRANCK JABOT, REBECCA RUSH AND MAURIZIO ROSETTO	
The evolution of evolvability in gene network models **JEREMY A. DRAGHI** AND GUNTER P. WAGNER	Kakahu: unravelling the history of Maori feather cloaks using ancient DNA **KATIE HARTNUP**, LARA SHEPHERD, LEON HUYNEN AND DAVID LAMBERT	I'll show you my fish gut if you show me yours! Evolution of herbivory in a carnivorous clade **DONOVAN P. GERMAN** AND DAVID H. EVANS	***No talk currently scheduled in this time slot. Please check addendum.***	
The evolution of epigenetic inheritance systems under competition with irreversible mimics **ALEX K. LANCASTER**, CHRISTINE LAMANNA AND JOANNA MASEL	Admixture between Archaic hominids and modern humans: structured coalescent analysis of RRM, a candidate locus on the X-chromosome **MURRAY P. COX** AND MICHAEL F. HAMMER	Bleaching resistance in corals **LAURA NAGEL**, ROBERT MONGOMERIE AND STEPHEN LOUGHEED	***No talk currently scheduled in this time slot. Please check addendum.***	
Expected anomalies in the fossil record **MAREIKE FISCHER** AND MIKE STEEL	Bayesian coalescent analysis of mtDNA diversity reveals a major Southern Asian chapter in human prehistory **QUENTIN D. ATKINSON**, RUSSELL D. GRAY AND ALEXEI J. DRUMMOND	Multiple selective gradients determine patterns of morphological and performance evolution in a clade of tropical lizards **BRETT A. GOODMAN**, DONALD B. MILES AND LIN SCHWARZKOPF	***No talk currently scheduled in this time slot. Please check addendum.***	

Wednesday, 20 June — 1.30-3.00pm and 3.30-5.00pm

	JAMES HAY THEATRE
1.30pm	Dobzhansky Prize Winner Lecture
	Somatic evolution of cancer **FRANZISKA MICHOR** Harvard University
2.30-3.00pm	**ASN Symposium** Young Investigators *Coordinator: Robert D. Holt*
	The evolution of spite **ANDY GARDNER** University of Edinburgh

Coffee Break

	ASN Symposium Young Investigators *Coordinator: Robert D. Holt*
	JAMES HAY THEATRE
3.30pm	Investigating the selective value of sex and recombination **MAURINE NEIMAN** University of St. Thomas
4.00pm	Speciation by one allele, one ovule, and one environment **DANIEL ORTIZ-BARRIENTOS** University of British Columbia
4.30-5.00pm	Turnover of sex chromosomes induced by sexual conflict **G. SANDER VAN DOORN** AND MARK KIRKPATRICK Sante Fe Institute

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ALLAN WILSON CENTRE

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Poster Session: Sunday, 17 June — 8.30-11.00pm

	Adaptation	
001	Genotype × stress interactions and adaptability in *Drosophila melanogaster*	JAMES N. THOMPSON, JR, CLAYTON N. HALLMAN, PATRICK W. RISCH, AARON F. BENHAM, JEFFREY CUMMINGS, ANDREW HILL, MICHAEL HOOD, HIRO MATSUMOTO, NOBU TAKEMORI AND RON C. WOODRUFF
002	Evolution toward asymmetrical gaits in neotropical spiny rats (Rodentia: Echimyidae): evidences favoring adaptation	PEDRO L. B. ROCHA, SABINE RENOUS, ANICK ABOURACHID AND ELIZABETH HOFLING
003	The evolution of bleaching resistance in corals	TROY DAY, LAURA NAGEL AND JULIAN CALEY
004	The Hitchhiker's Guide to the Genome: insecticide resistance in the sheep blowfly, *Lucilia cuprina*	CAROLINE J. ROSE, JOANNA CHAPMAN, SEAN MARSHALL, HOWARD ROSSAND RICHARD NEWCOMB
005	Modeling the rate of evolution in symbioses:bleaching resistance in corals	TROY DAY, LAURA NAGEL AND JULIAN CALEY
006	Local adaptation to soils in a ground-dwelling mygalomorph spider	AMBER S. BEAVIS AND SARA G. BEAVIS
007	Master of them all: performance specialization does not result in trade-offs in tropical lizards	BRETT A. GOODMAN, ANDREW K. KROCKENBERGER AND LIN SCHWARZKOPF
	Animal Mating/Breeding Systems	
008	Neurotropic stress modify the steroidal background of egg-laying in domestic turkey	PÉTER PÉCZELY, ZSUZSANNA SZOKE AND VÉGI BARBARA
009	Paternity analysis in the Mona iguana (*Cyclura cornuta stejnegeri*)	KEYSA G. ROSAS, JENNY P. ACEVEDO, STEPHAN M. FUNK, W. OWEN MCMILLANAND NESTOR PÉREZ-BUITRAGO
010	Mating system and sexual dimorphism in gannets and boobies	CLAIRE DANIEL, CRAIG D. MILLAR AND MARK E. HAUBER
	Behaviour/Social Evolution	
011	Experience changes pollinator responses to floral display size: from size-based to reward-based foraging	TAKASHI T. MAKINO AND SATOKI SAKAI
012	Trapline foraging by bumble bees: direct and indirect effects of foraging experience on competitive ability	KAZUHARU OHASHI, ALISON LESLIE, DANIEL D'SOUZA AND JAMES D. THOMSON
013	Fierce females: variation in intrasexual aggression among tuatara	KRISTINA M. RAMSTAD, JENNIFER A. MOORE AND JEANINE M. REFSNIDER

	Biogeography	
014	Dragons in the mist — origin and diversification of the austral genus *Dracophyllum* (Ericaceae)	STEVE J. WAGSTAFF, MURRAY I. DAWSON, STEPHANUS VENTER, JÉRÔME MUNZINGER, DARREN M. CRAYN, DOROTHY A. STEANE AND KRISTINA L. LEMSON
015	An ice worm cocktail: what can ice worms tell us about glacial history of the North American Pacific coastal ranges?	PETER H. WIMBERGER AND BEN D. LEE
016	All aboard the emergent ark: dipsersal from New Zealand to the Chatham Islands	NATHAN CURTIS, ADRIAN PATERSON AND PHIL SIRVID
017	*Talitropsis* and relative dimensions in space: phylogeography of a New Zealand cave cricket (Orthoptera: Raphidophoridae)	JULIA GOLDBERG AND STEVE TREWICK
	Bioinformatics/Phyloinformatics	
018	Mapping microbial communities with UniFrac	MICAH HAMADY, CATHERINE LOZUPONE AND ROB KNIGHT
019	Inferring Lapita colonisation of the Pacific by phylogenetic analysis of commensal rats (*Rattus exulans*)	MELANIE HINGSTON, JUDITH H. ROBINS, ELISABETH MATISOO-SMITH AND HOWARD A. ROSS
020	SeqStatus, a database template for the integrated management of molecular phylogenetic labs	KEVIN C. ROWE, SCOTT J. STEPPAN AND MICHAEL L. RENO
	Coevolution	
021	A synthesis of experimental work on parasite local adaptation	MEGAN A. GREISCHAR AND BRITT KOSKELLA
022	A fungal endophyte (*Epichloe typhina*) changes palatability of its host grass *Puccinellia distans*	PAWEL OLEJNICZAK, MARCIN CZARNOLESKI, PAULINA MIKOLAJCZYK, JAN KOZLOWSKI, KATARZYNA TURNAU, DOBROSLAWA BIALONSKA AND MARLENA LEMBICZ
023	Cospeciation of pollinating fig wasps and their parasitic nematodes	ELLEN O. SUURMEYER AND CARLOS A. MACHADO
024	Spacial scales of geographically-structured coevolution	HIROKAZU TOJU
	Comparative Biology	
025	Complementary morphological adaptation of the male and female reproductive tracts in the old endemic rodent genus *Notomys* — an association with divergent copulatory behaviour	WILLIAM G. BREED, CHRISTOPHER M. LEIGH AND NATASHA SPEIGHT
026	Evolution of activity responses and tolerance of cool temperature in New Zealand reptiles: do nocturnal species perform better?	ANNE A. BESSON AND ALISON CREE

027	Are the Australasian and Philippine old endemic rodents closely related? Evidence from sperm morphology	BILL BREED AND CHRIS LEIGH
	Conservation Biology	
028	Telomeres — a happy end for kakapo ?	THORSTEN HORN, BRUCE C. ROBERTSON AND NEIL J. GEMMELL
029	Development of microsatellite markers in a rare New Zealand plant (*Ranunculus crithmifolius* var. *paucifolius*)	MORORE M. PIRIPI
030	Tests of phenotypic and genetic concordance and their application to the conservation of Panamanian golden frogs	CORINNE L. RICHARDS AND L. LACEY KNOWLES
	Development and Evolution	
031	Rotifer: a new model genetic system for the Lophotrochozoa	JAMES SMITH, ANDREW CRIDGE AND PETER DEARDEN
032	Characterisation of even-skipped in *Apis mellifera*	MELANIE J. HAVLER AND PETER DEARDEN
033	The molecular basis of insect terminal patterning	ELIZABETH DUNCAN, ROSEMARY MANHIRE-HEATH AND PETER DEARDEN
034	Evolution of the Runt gene family in insects	JOHN ALCOCK, MEGAN WILSON AND PETER DEARDEN
035	The molecular basis of royalty	JOHANNA MCCHORD AND PETER DEARDEN
	Ecological Genetics	
036	Connectivity amongst New Zealand estuaries: using the common cockle (*Austrovenus stutchburyi*) as a model to examine inter-estuary dispersal and predict larval transport	PHIL ROSS, IAN HOGG, CONRAD PILDITCH AND CAROLYN LUNDQUIST
037	Diversity of two class II genes, DQA and DQB, in the New Zealand endemic Hector's and Maui's dolphin	DOROTHEA HEIMEIER, FRANZ B. PICHLER, KIRSTY G. RUSSELL AND C. SCOTT BAKER
038	Evolutionary impacts of climate change on an Australian alpine ecosystem — a preliminary investigation	PHILIPPA C. GRIFFIN AND ARY A. HOFFMANN
039	Population genetics, landscape genetics and phylogeography of the Fiji frogs (Genus: *Platymantis*)	TAMARA OSBORNE, PETER J. LOCKHART AND LINTON WINDER
040	The genetic diversity of *Lobelia villosa* (Campanulaceae), an endemic species to the Hawaiian Islands	CAROL T. TRAN, ANIA M. WIECZOREK AND CLIFFORD W. MORDEN
041	Evolution of energy metabolism in threespine sticklebacks (*Gasterosteus aculeatus*)	ANNE C. DALZIEL, TIM H. VINES, DOLPH SCHLUTER AND PATRICIA M. SCHULTE

	Ecology and Evolution of Disease	
042	Morphologically defined subgenera of *Plasmodium* from avian hosts: a test of monophyly by phylogenetic analysis of two mitochondrial genes	JESSICA L. WAITE, ELLEN S. MARTINSEN AND JOSEPH J. SCHALL
043	Fitness cost of pyrethroid insecticide resistance in *Anopheles gambiae*	LYNN Y. HUYNH, SIMEN R. SANDVE AND JOHN GIMNIG
044	Altered linkage in the MHC in dogs with type 1 diabetes	JENNIFER M. SEDDON, LINDA FLEEMAN AND KARIN BERGGREN
	Education	
045	Brazilian high school biology textbooks: main conceptual problems in evolution	PEDRO L. B. ROCHA, CHARBEL N. EL-HANI, NADIA ROQUE, ANDRÉ L. L. VANZELA, ÂNGELA F. L. SOUZA, ANTONIO C. MARQUES, BLANDINA F. VIANA, CLARICE R. KAWAZAKI, CLAUDIA L. D. LEME, DEBORAH FARIA, DIOGO MEYER, ELIANNE OMENA, ELISABETH R. OLIVEIRA, JOSE G. A. ASSIS, JOSMARA FREGONEZE, LUCIANO P. QUEIROZ, LUIZ M. CARVALHO, MARCELO NAPOLI, MÁRCIO Z. CARDOSO, NUSA A. SILVEIRA, PAULO A. HORTA, PAULO T. SANO, RODRIGO B. ZUCOLOTO, ROSANA TIDON, SUELI A. H. SILVA AND VIVIAN L. ROSA
046	The Laboratory for Molecular Systematics and Ecology at the Academy of Natural Sciences of Philadelphia	ANTHONY J. GENEVA
	Empirical Population Genetics	
047	The effect of migratory behaviour on genetic diversity and population divergence: a comparison of anadromous and non-anadromous Atlantic salmon (*Salmon salar*)	ANNI TONTERI, JAAKKO LUMME AND CRAIG R. PRIMMER
048	Lichen the deep south	TRACEY C. JONES
049	Are head lice and body lice genetically distinct? A coalescent analysis using MDIV and IM	MELISSA A. TOUPS, JESSICA E. LIGHT AND DAVID L. REED
	Evolution of Ecological Communities	
050	Separation of native and exotic plant–pollinator mutualisms in New Zealand?	LINDA E. NEWSTROM-LLOYD, TAINA C. WITT AND RICHARD G. FITZJOHN
051	PASSaGE: Pattern Analysis, Spatial Statistics and Geographic Exegesis. Version 2	MICHAEL S. ROSENBERG AND COREY D. ANDERSON

	Evolution of Sex	
052	Testing the all-else-equal assumption for the maintenance of sex from the perspective of ecological stoichiometry: do asexual snails require more of a limiting nutrient than sexual snails?	MAURINE NEIMAN, KATHERINE THEISEN AND ADAM KAY
053	Cooption of neo-X and neo-Y chromosomes in *D. albomicans*	SUNG-HAN LIN AND HWEI-YU CHANG
	Evolutionary Theory	
054	An *Arabidopsis*-inspired model of non-Mendelian inheritance	ALEXEY YANCHUKOV AND HAMISH SPENCER
055	Model of evolution based on natural selection	PANKAJ VALLABH
056	Model of evolution based on ecological fitness	PANKAJ VALLABH
	Experimental Evolution	
057	Evolution and characterisation of a heritable, bistable switch in in *Pseudomonas fluorescens* SBW25	JENNA GALLIE, HUBERTUS J. E. BEAUMONT AND PAUL B. RAINEY
058	Evolution of bacteriocin production	ROBERT F. INGLIS AND ANGUS BUCKLING
059	The nature of wrinkly spreader cooperation	PETER L. MEINTJES, TIM F. COOPER AND PAUL B. RAINEY
	Genomics/Proteomics	
060	Genetics of male sterility in *Drosophila simulans* × *D. mauritiana* hybrids	DAINA MA, PAWEL MICHALAK AND DAIJU HOSHINO
061	Microarray analysis of gene expression in *Drosophila melanogaster* sperm storage organs	ADRIANNE M. PROKUPEK, STEVE KACHMAN AND LAWRENCE G. HARSHMAN
062	Variation within genomes: microsatellites and copy number variations (CNVs)	LISHA NADUVILEZHATH, IRIS M. VARGAS-JENTZSCH, NEIL J. GEMMELL, DIRK METZLERAND ANNETTE KLUSSMANN-KOLB
063	Local adaptation in Hawaiian picture-winged *Drosophila*	MARLA A. FISHER, YVONNE CHAN, DURRELL KAPAN AND CAM MUIR
	Hybridisation	
064	*Arabidopsis thaliana* × *Pachycladon cheesemanii* (Brassicaceae), an artificial intergeneric hybrid	PETER B. HEENAN, MURRAY I. DAWSON AND ROSS BICKNELL
065	The *Leptynia hispanica* species complex (Insecta Phasmida): polyploidy, parthenogenesis, hybridization and more	FABRIZIO GHISELLI, LILIANA MILANI, VALERIO SCALI AND MARCO PASSAMONTI
066	Changes in fitness and morphology in hybrid swarms of *Tigriopus californicus*	VICTORIA L. PRITCHARD AND SUZANNE EDMANDS

067	Opportunistic hybridisation between two congeneric reef fish: a novel scenario	STEFAN P. W. WALKER AND CHRISTOPHER RYEN
Inbreeding		
068	The causes of nest failure and effects of inbreeding depression in a historically small population of New Zealand robins	REBECCA J. LAWS AND IAN JAMIESON
Invasive Species		
069	Interlopers' legacy: hybrid-derived California wild radish evolves to outperform its immigrant parents	CAROLINE E. RIDLEY AND NORMAN C. ELLSTRAND
Life History Evolution		
070	Life histories and the evolution of aging in bacteria and other single-celled organisms	LEAH R. JOHNSON AND MARC S. MANGEL
071	Evolutionary game theory as a tool for studying reproductive traits in the natural systems	DYLAN Z. CHILDS
072	Disruptive body patterning of cuttlefish: an ontogenetic analysis of visual perception and pattern scaling	ALEXANDRA BARBOSA, CHRISTOPHER FLORIO, CHUAN-CHIN CIAO AND ROGER T. HANLON
073	Phylogenetic analysis of reproductive strategies in neotropical spiny rats indicates that pseudoseasonal strategy in *Trinomys yonenagae* (Echimyidae) is result of inertia	JOSE W. SANTOS AND PEDRO L. B. ROCHA
074	Why do female lizards lay their eggs in communal nests?	RAJKUMAR S. RADDER AND RICHARD SHINE
Macroevolution		
075	Patterns of diversification in modern ray-finned fishes: a mitogenomic overview	MASAKI MIYA, JUN G. INOUE, KOHJI MABUCHI AND MUTSUMI NISHIDA
076	Strong mitochondrial DNA support for an ancient origin of modern avian lineages	JOSEPH W. BROWN, JOSHUA S. REST, JAIME GARCIA-MORENO, MICHAEL D. SORENSONAND DAVID P. MINDELL
Molecular Evolution		
077	Natural selection and DNA sequence variation at an esterase locus in house mice	LISA M. KENT AND MICHAEL W. NACHMAN
078	Accumulation of deleterious mutations in small abiotic populations of RNA	CAROLINA DIAZARENAS AND NILES LEHMAN
079	SINEs validate *Parahucho* (Salmoniformes, Salmonidae) as a monotypic genus and resolve complete phylogeny of whitefishes (Salmoniformes, Coregonidae: Prosopium)	VITALIY A. MATVEEV, HIDENORI NISHIHARA AND NORIHIRO OKADA

080	Evolution of male and female-transmitted mtDNA genomes of *Pyganodon* (Bivalvia:Unionidae): do they walk hand in hand?	HELENE DOUCET BEAUPRE, SOPHIE BRETON, WALTER RANDOLPH HOEH, FRANCE DUFRESNEAND PIERRE U. BLIER
081	Repeated duplication of the mitochondrial control region in parrots	ERIN E. SCHIRTZINGER, LAUREN GONZALES, JESSICA EBERHARD, GARY GRAVESAND TIMOTHY F. WRIGHT
082	Slow molecular evolution in mosses compared to higher plants	HANS K. STENØIEN
083	Evolution of the Florideophyceae based on plastid amino acid data	EUN CHAN YANG, HWAN SU YOON, DEBASHISH BHATTACHARYA AND SUNG MIN BOO
084	Microsatellite evolution in a genomic context	ANGELIKA MERKEL AND NEIL J. GEMMELL
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