workshop on genomics

Český Krumlov
5-18 January, 2020
objectives

- information about settings and logistics
- introductions
- workshop background and history
- establishing expectations
- miscellany
f.a.q.

• where are the restrooms?

• coffee breaks?
  • approx. 10:00 in the Theatre Cafe
    • functional coffee and tea only. No half-calf-decaf-double-mocha-pour-over
  • anytime in House of Prelate (Computer Lab)

• where and when to eat?
  • workshop map on the main schedule page
  • information from Daniel Kintzl
  • ask the team
  • times: 12-14, 17-19
  • late night dining options are limited
who
you
instructors: your new best friends

Madee
Joan
Karin
Nikos
Kalle
co-directors

Dag

Sophie

Josie

Sonya

Scott

Guy

Rayan
Previous Co-directors

Karin

Konrad
faculty: week 2

Brian Haas
Kelly Wrighton
Emiliano Trucci
Christa Schleper
Kirk Gosik
Chris Wheat
faculty lunches

- outstanding opportunity to network with faculty
- some faculty are only here for a short period of time, so take advantage of the lunch
partners
Graduate Research School in Genomic Ecology
LUND UNIVERSITY, SWEDEN
• Interdisciplinary graduate school for PhD students in Genomic Ecology
• Genomic Ecology - interface between ecology & evolution, molecular biology and genomics
• GENEKO was funded by the Swedish Research Council, from 2013 by the Faculty of Science, Lund University
GENECO program

**PhD students & content**
- Universities in Sweden, Norway, and Finland
- Activities: Annual Winter & Summer Meetings, PhD courses, Mentor programs, travel grants

**Courses**
- Understanding population genetics
- Using Phylogenetic Trees to Study Trait Evolution
- High-Dimensional Data Analysis in Ecology and Evolutionary Biology Using R
- Quantitative PCR

see [www.biology.lu.se/geneco](http://www.biology.lu.se/geneco)
National Bioinformatics Infrastructure Sweden

Short term support: (300+ projects)
Long term support: 500 hours (20+ projects)
Bioinformatics compute and storage (UPPNEX) specifically for NGS data

NBIS provides infrastructure and tools for:
- Bioinformatics analyses
- Bioinformatics training and workshops
- Advisory Programme for PhD students

Nodes at each of the 6 large Swedish university cities

see www.nbis.se
what

history

concepts
history
Woods Hole Workshop on Molecular Evolution

Michael Cummings
Director

1988

Scott (me!)

2000

Mitch Sogin
Director

2001

Walter Salzburger
Student

2002

2007

Michael & Scott have dinner in DC
CDC loves trees
why Český Krumlov?
what is a Cheskie Kroomlav?
why Český Krumlov?

- reasonably priced
- relatively close to major airports
- three I’s
  - Isolated
  - Idyllic
  - Infrastructure
- support from the local community
workshops go global

Michael & Scott have dinner in DC

2007

2008

2009

2011

Workshop on Molecular Evolution Český Krumlov

Workshop on Molecular Evolution Český Krumlov

Workshop on Genomics Český Krumlov

2016

2017

Workshop on Phylogenomics Český Krumlov

Workshop on Population and Speciation Genomics Český Krumlov
This year we will pass 2,000 students.
concept
Week 1: Fundamentals

- Study Design
- UNIX
- Assembly
- Alignment
- Structural Variation
- Data QA / QC
- Visualization
- R

Week 2: Subject Specific

- Transcriptomics
- Population Genomics
- Evolutionary Genomics
- Microbiome
- Phylogenomics
- Study Design
- Single-Cell Transcriptomics
schedule in detail

http://evomics.org/workshops/workshop-on-genomics/2020-workshop-on-genomics-cesky-krumlov//
social events

• Saturday
  • meet at 18:00 in the Town Square for a group tour of Český Krumlov
  • tour will finish at Depot for dinner

• Sunday
  • free day. More information from Daniel Kintzl shortly

• Friday
  • you plan end-of-workshop dinner / party
communication during the workshop

- website: http://evomics.org
- twitter: #evomics2020
- facebook: Workshop on Genomics
- slack: evomics2020.slack.com
key locations
expectations
phenomena

- exhaustion
  - watch your health
  - stay hydrated (ask a staff member about the magical powers of fizzy water)
  - let a staff member know if you are not feeling well

- frustrations
  - you will likely not finish every step of every exercise
  - application bugs, connectivity issues

- you will not become an expert in 2 weeks
approach and attitude

• patience!
  • we have 2 weeks together!

• sleep

• ask questions (Slack)

• everything will be available on the web after the course is over

• have fun, make new friends and colleagues, enjoy Krumlov

• WORK WITH YOUR NEIGHBORS
Won’t you be my neighbor?
awk '{print $3 "/t" $4}' text.txt
Thanks neighbor
code of conduct

All attendees, instructors and faculty at our workshops are required to agree with the Evomics Workshops code of conduct. Organisers will enforce this code throughout the event. We expect cooperation from all participants to help ensure a safe environment for everybody. Those found to be in violation of this code of conduct will be subject to expulsion from all Workshop activities at the request of the workshop organisers.

**Our Code of Conduct**

Our workshops are dedicated to providing a supportive and harassment-free environment for everyone, regardless of gender, gender identity and expression, age, sexual orientation, disability, physical appearance, body size, race, ethnicity, religion (or lack thereof), or technology choices. We do not tolerate harassment of conference participants, instructors or faculty in any form.

Harassment includes offensive verbal comments, sexual images in public spaces, deliberate intimidation, stalking, following, harassing photography or recording, sustained disruption of talks or other events, inappropriate physical contact, deliberate behaviour to exclude, intimidate, or cause discomfort, and unwelcome sexual attention. This applies to any workshop venue, including talks, workshops, social events, parties, slack, Facebook, Twitter and other online media, and any other non-official events or activities taking place over the duration of the workshop.

If anyone engages in harassing behaviour, the organisers may take any action they deem appropriate, ranging from warning the offender or expulsion from the workshop without a refund. This includes the storage of personal information pertinent to the incident.

If you are being harassed, notice that someone else is being harassed, or have any other related concerns, please contact a member of the organising team immediately. A point of contact dedicated to dealing with these issues will be highlighted during the welcome talk, but please know that you can discuss issues with the Workshop directors.
computer lab

• dates back to the 2nd half of the 14th century

• one of the oldest buildings in Krumlov (Gothic period)

• has housed several breweries between the 1596 - 1865

• important for us:
  • fully wired and wireless internet
  • power distribution
lab policy

• no food or drink inside the computer hall

• wipe feet before entering

• coats in the coatroom

• do not touch the walls (frescoes) - painter died in 1791

• strict arrival and departure times

• wash your own coffee mugs
post lab discussions

- important feature of the Workshop

- Music bar (tonight), Festi Bar, Zappa Bar, Apotheka
miscellany
t-shirt competition

• top design will be awarded with a special gift from the town

• submit by THURSDAY, 9-January (this week!)

Workshop Information

Link to workshop slack

Instance Addresses

T-Shirt Competition

Speed Networking – Monday Night

Faculty Lunches
workshop BINGO

<table>
<thead>
<tr>
<th>Genomics 2020 bingo sheet 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gone to Festi bar</strong></td>
</tr>
<tr>
<td><strong>Asked a question after a lecture</strong></td>
</tr>
<tr>
<td><strong>Drank ginger tea</strong></td>
</tr>
<tr>
<td><strong>Tried Tredelnik</strong></td>
</tr>
<tr>
<td><strong>Seen the feet by the river</strong></td>
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</tbody>
</table>

**Workshop Information**

- Link to workshop slack
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- T-Shirt Competition
- Speed Networking – Monday Night
- Faculty Lunches

**Bingo Sheets**
scientific speed networking

• tonight: Monastery (19:30)

• goals:
  • get to know each other
  • identify shared interests
  • learn approaches and methods other participants work with
wear your name tag!

Charles Darwin
HMS Beagle
next

• information from Daniel Kintzl
• group photo
• walk to house of prelate
• Extended 1st day lunch break
• 14:00 (2pm) lecture from Sonya (here)
• 19:30 (7:30pm) speed networking (Monastery)
Prelate (computer lab)

Monastery (Speed networking)

Zlaty Andel & Music Bar

Infocentrum

Prelate (computer lab)

Theater
thank you and WELCOME!