### SAPEC-2020 PROGRAM

#### Pre-workshop

Time	Activity	Lead	Venue	
	Saturday, Jan 4 — Sampling			
08:00	Taxis from DLI to Dat Thinh	ICTHER		
08:45	Bus departs from Dat Thinh to Cong Troi (Heaven's Gate)	ICTHER		
10:15	Soil sampling & demonstration (lunch in the field)	Gretchen ICTHER	Cong Troi	
16:30	Head back to Bidoup Nui Ba National Park (we can have discussions / bus games along the way)	ICTHER		
18:15	Check in, rest			
19:15	Dinner		Cafeteria	
	Sunday, Jan 5 — Workshop			
07:00	Breakfast		Cafeteria	
	Climate data analysis		Conference Rm	
08:00	Hands-on practice	Jacob	Comerence Kin	
	Data stewardship			
11:45	Reproducible research with R Markdown	Hung	Conference Room	
12:00	Lunch			
14:30	Introduction to R	Hưng	Conference Rm	
	Hands-on practice		Conference Kin	
17:00	Thien Thai trail hike	Nam	Thien Thai trail	
19:00	Dinner		Cafeteria	
20:00	Instructor planning		Auditorium	

## Main Program - Overview

Date	Activities
Monday, Jan 6	Arrival and welcome Introduction to proxies
Tuesday, Jan 7	Field work
Wednesday,Jan 8	Field work
Thursday, Jan 9	Measurement & chronology building
Friday, Jan 10	Chronology and climate
Saturday, Jan 11	Climate reconstruction
Sunday, Jan 12	Group presentation Closing discussion Departure

#### Groups

Group 1: dendroclimatology with ring-width (Justin / Grant)

Group 2: dendroclimatology with blue intensity (Justin / Grant)

Group 3: dendroecology (Gretchen, Holger, Paolo)

Group 4: biomarkers and organic geochemistry (Simon, Bridget, Kelsey, Xin)

Sign up: http://bit.ly/36qG68k

# Detailed program

Time	Activity	Lead	Venue
	Monday, Jan 6 — Orientation & Introduction to pro-		
07:00	Breakfast (pre-workshop group)		Cafeteria
	Main workshop group	ICTHER	
	Bus picks up participants from Dalat Airport and then hotel,		
	then heads to BDNP		
08:00	Check-in and rest		
00.00	Pre-workshop group		
	Plotting with ggplot2	Hung	Auditorium
	Soil data analysis	Gretchen	
	Pinus krempfii as an important ecological indicator	Brendan	
11:15	Ice breaking game	Hung	Cafeteria
12:00	Group photos Lunch	-	
12:00	Introduction to BDNP	Mr. Cara	
		Mr. Son	
13:00	Forest fire and preventing solutions proposed for <i>pinus kesiya</i> forest at Bidoup Nui Ba National Park	Dr. Hương	Conference Rm
	Introduction to workshop: goals, program, inspiration	Brendan	
13:45	Introduction to dendrochronology	Justin	Conference Rm
14:00	Tree ring oxygen isotope: a proxy for Asian summer monsoon	Chenxi	Conference Rm
14.00	Stable isotopes help defining and understanding	CHEIXI	Conference Kin
14:30	Mediterranean tree rings	Paolo	Conference Rm
15:15	Break		
15:30	Introduction to blue intensity	Grant	Conference Rm
16:00	Introduction to blue intensity  Introduction to wood anatomy	Holger	Conference Rm
16:30	Introduction to leaf wax	Bridget	Conference Rm
17:00	Introduction to speleothems	Ashish	Conference Rm
17:30	Isotope-enabled GCMs, proxy system models, and others	Ashish	Conference Rm
18:00	Group formation	ASHISH	Conference Kin
18:30	Dinner		Cafeteria
	Dendrochemical analyses of tree rings to reconstruct past air		
19:30	pollution episodes and trends	Paolo	Auditorium
	Demographic Shifts in Eastern US Forests Increase the		
20:00	Impact of Late-season Drought on Forest Growth	Tom	Auditorium
	Wood anatomical response of the Vietnamese conifer		
20:15	Fokienia hodginsii to different climatic parameters	Silvia	Auditorium
	Tuesday, Jan 7 — Field day 1 at Giang Ly plot		
07:00	Breakfast		Cafeteria
	Bus departs for Giang Ly Station	ICTHER	
	Walk to Giang Ly plot	1011121	
	Field demonstration:		
	<ul> <li>Group 1 + 2: Dendroclimatology</li> </ul>	Justin, Grant	
08:00	<ul> <li>Tree coring</li> </ul>	Namren	Ciana I v plat
08:00	• Group 3: Biomarkers	Bridget	Giang Ly plot
	Leaf wax sampling	Bridget	
	• Group 4: Dendroecology	Gretchen	
	Wood anatomy sampling	Paolo, Holger	
	Sample collection in groups	Group leaders	
	Lunch in the field or at station with rangers	ICTHER	
4= 0-	Sample collection in groups	Group leaders	
15:00	Hike out and depart for BDNP	ICTHER	

17.00	Deed		
17:00	Rest		Cafalania
18:00	Dinner	т 1: и	Cafeteria
19:30	Dendroarchaeology	Juliette	Cafeteria
19:45	Lake sediment case study in China	Xin	Cafeteria
20:00	Reconstructing Holocene relative sea levels: a case study of the Fiji islands	Fangyi	Cafeteria
20:15	Tracking moisture sources and contributions with an isotope-enabled GCM: An interpretive framework for Indian monsoon speleothem records	Gayatri	Cafeteria
	Wednesday, Jan 8 — Field day 2 at Hon Giao Dwarf F	orest	
07:00	Breakfast	<u> </u>	Cafeteria
07.00	Team A:		Hon Giao
08:00	Bus departs for Hon Giao Station Walk to dwarf forest Sample collection: Fokienia hodginsii and syzygium ODK field data collection protocols	Nam Karen	
	Team B:		
	Fire scar and ecological study	Gretchen	BDNP
	Lunch at Hon Giao ranger station		
12:00	Return to BDNP		
13:00	Rest		
14:30	Sample preparation	Group leaders	
17:00	The Monsoon Asia Drought Atlas (MADA) version 2	Ed Cook	Cafeteria
18:00	Dinner		Cafeteria
19:00	Human-wildlife interactions in a rapidly changing landscape: A case study of human encounters with the Sumatran tigers (Panthera Tigris Sondaica) in the Indragiri Hilir Regency, Riau, Sumatra	Weiting	Cafeteria
19:15	Publish or perish: How can a small fish survive in a pool of sharks?	Paolo	Cafeteria
20:00	Group project work	Group leaders	Cafeteria
	Thursday, Jan 9 — Methods day 1: Chronology Develo	pment	
07:00	Breakfast	•	Cafeteria
08:00	Introduction to lake sediments / paleolimnology	Kelsey	Cafeteria
08:30	Molecular & Isotopic Proxies in Lacustrine Systems: Principles & Applications	Simon	Cafeteria
09.00	Measurement Demonstration & hands-on practice with CDendro and CooRecorder: ring width & BI Wood anatomy analysis (with microtome, etc.)	Group leaders Grant Holger / Paolo	Cafeteria
12:00	Lunch	1101501 / 1 4010	Cafeteria
14.00	Chronology Building	Ed Coole	Carcicila
13:00	<ul> <li>Cross-dating</li> <li>Detrending &amp; standardization</li> <li>Demonstration: ARSTAN</li> <li>Demonstration: COFECHA</li> <li>Signal-free standardization</li> </ul>	Ed Cook  Justin	Conference Room
16:00	Hand-on practice + project work	Group leaders	Conference Rm
18:00	Dinner		Cafeteria
19.00	Using blue light intensity to reconstruct temperatures from the Intermountain West to Eastern North America	Karen	Cafeteria
19:15	Demonstration: dplR	Justin	Cafeteria
19:45	Data management with ODK and Tellervo	Karen	Cafeteria
20.00	Group project work	Group leaders	Cafeteria

Friday, Jan 10 — Methods day 2: Chronology and climate			
07:00	Breakfast		Cafeteria
08:30	<ul> <li>Climate-proxy relationship (using R)</li> <li>Which proxy correlates to which climate variable?</li> <li>Correlation analysis</li> <li>Bootstrapping, confidence intervals, statistical significance</li> </ul>	Hưng	Conference Rm
10:00	Hands-on practice + project work	Group leaders	Conference Rm
12:00	Lunch	•	Cafeteria
13:30	<ul><li>Extracting information from proxies</li><li>Principal component analysis</li><li>Input variable selection</li></ul>	Stefano	Conference Rm
15:30	Biogeochemistry exercise	Simon	Conference Rm
18:00	Dinner		Cafeteria
19.00	Ostracods as pollution indicators in Lap An Lagoon, central Vietnam	Christabel	Cafeteria
19:15	Effects of anthropogenic activities and climate change on lakes	Anna-Marie	Cafeteria
19:30	Biển Hồ maar sediment as a time capsule of past environmental and climate conditions in Vietnam's Central Highlands back to the last glacial maximum.	Hướng	Cafeteria
19:45	Organic geochemistry as a tracer for environmental change in Vietnamese maar lake records	Kelsey	Cafeteria
20.00	Dendrochronology: the future is the past	Ed Cook	Cafeteria
	Saturday, Jan 11 — Methods day 3: Reconstruction	n	
07:00	Breakfast		Cafeteria
08:00	Group project work	Group leaders	Cafeteria
12:30	Lunch		Cafeteria
14:00	Introduction to ICTHER	Son	Conference Rm
14:30	Climate reconstruction: Point-by-point regression	Ed Cook	Conference Rm
16:00	Break		
17:00	Streamflow reconstruction in Monsoon Asia - my meandering PhD journey	Hung	Cafeteria
17:30	Reflections on 20 years of Ping River Catchment research	Alan	Cafeteria
18:00	Effects of drought on the water-energy system of the Mekong–Chao Phraya region: opportunities for integrating paleoclimate into policy	Stefano	Cafeteria
18:30	Dinner		
19:30	K'Ho dance Fireside games	ICTHER Hưng	Performance area
Sunday, Jan 12 — Presentation & closing			
07:00	Breakfast		Cafeteria
08:00	Group preparations		Cafeteria
11:00	Group presentations (20 minutes per group)		Cafeteria
12:00	Lunch, closing, group photo		Cafeteria
13:00	Bus departs for Dalat	ICTHER	
14:00	Optional Dalat tour: Ve Chai Pagoda, Lam Dong Museum and others as time permits	ICTHER	