Workshop Schedule

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Week 1

Day 1, Jan 3

Time	Activity	Speaker	Topic
9:00 – 10:30	Lecture	ERD/DPS	Introductions and Goals
10:30 – 10:45	Morning Break		
10:45 – 12:00	Livecode	DPS	Basics in R (R Studio; importing, exporting, cleaning data; data classes)
12:00 – 13:30	Lunch		
13:30 – 14:45	Livecode	DPS	Slightly more advanced R (custom functions, flexible arguments, loops)
14:45 – 15:00	Afternoon Break		
15:00 – 16:30	Hands on	—	Practice manipulating raw data

Day 2, Jan 4

Time	Activity	Speaker	Topic
9:00 – 10:00	Lecture	ERD/DPS	Overview of Movement Ecology and Analyses
10:30 – 10:45	Morning Break		
10:45 – 12:00	Livecode	DPS	Introduction to spatial data in R
12:00 – 13:30	Lunch		
13:30 – 14:45	Livecode	DPS	Movement data in R (movebank, ltraj objects, path metrics)
14:45 – 15:00	Afternoon Break		
15:00 – 16:30	Hands on	—	Practice plotting tracks and extracting path metrics

Day 3, Jan 5

Time	Activity	Speaker	Topic
9:00 – 10:30	Lecture	ERD	Selection methods; Home ranges and utilization distributions
10:30 – 10:45	Morning Break		
10:45 – 11:15	Livecode	DPS	MCP, UD - home range estimation in R
11:15 – 12:00	Livecode	DPS	Creating Available Points for RSFs
11:30 – 13:00	Lunch		
13:00 – 14:15	Livecode	DPS	Habitat Selection Analysis in R
14:15 – 14:30	Afternoon Break		
14:30 – 16:30	Hands on	—	From path to presence: transforming tracks into knowledge

Week 2

Day 4, Jan 8

Time	Activity	Speaker	Topic
9:00 – 10:30	Hands on	—	Selection projects: Our intention is to spend the day expanding from RSF to SSF to PathSF
10:30 – 10:45	Morning Break		
10:45 – 12:00	Hands on	—	RSF/SSF projects
12:00 – 13:30	Lunch	—	
13:30 – 14:45	Hands on	—	RSF/SSF projects
14:45 – 15:00	Afternoon Break		
15:00 – 16:30	Wrap Up	—	RSF/SSF projects

Day 5, Jan 9

Time	Activity	Speaker	Topic
9:00 – 10:30	Lecture	WMG	Space-time considerations
10:30 – 10:45	Morning Break		
10:45 – 12:00	Livecode	ERD	From LoCoH to T-LoCoH (and a-LoCoH)
12:00 – 13:30	Lunch		
13:30 – 14:45	Livecode	ERD	T-LoCoH derived metrics; alternative methods (Brownian bridges, AKDE)
14:45 – 15:00	Afternoon Break		
15:00 – 16:30	Hands on	—	Personal projects

Day 6, Jan 10

Time	Activity	Speaker	Topic
9:00 – 10:30	Lecture	WMG	Behavioral analysis; FME, CAM, and movement syndromes
10:30 – 10:45	Morning Break		
10:45 – 12:00	Livecode	ERD	Extracting behavioral state from movement tracks (BCPA, HMM)
12:00 – 13:30	Lunch		
13:30 – 14:45	Livecode	DPS	Identifying movement syndromes; metrics for classification
14:45 – 15:00	Afternoon Break		
15:00 – 16:30	Hands on	—	Personal projects

Day 7, Jan 11

Time	Activity	Speaker	Topic
9:00 – 10:30	Lecture	DPS	Simulating movement; why, when?

Time	Activity	Speaker	Topic
10:30 – 10:45	Morning Break		
10:45 – 12:00	Livecode	ERD	Coding principles of random walks, Levy flights, other movement types
12:00 – 13:30	Lunch		
13:30 – 14:45	Livecode	ERD	Implementing agent-based movement models
14:45 – 15:00	Afternoon Break		
15:00 – 16:30	Hands on	—	Personal projects

Day 8, Jan 12

Time	Activity	Speaker	Topic
9:00 – 10:30	Hands on	—	More simulations
10:30 – 10:45	Morning Break		
10:45 – 12:00	Livecode	ERD	Adding disease transmission to agent-based movement models
12:00 – 13:30	Lunch		
13:30 – 14:45	Lecture	WMG	Epidemiological models
14:45 – 15:00	Afternoon Break		
15:00 – 16:30	LiveCode	WMG	Modeling Epidemics in Nova and fitting parameters