NEAR-TERM ECOLOGICAL FORECASTING INITIATIVE SUMMER COURSE

Kilachand Center, Boston University, July 28-Aug 2, 2019
WELCOME TO BOSTON!
Near-term Ecological Forecasting Initiative

Dietze & Wheeler: Fluxes & Phenology

Weathers: Aquatic Productivity

LaDeau & Foster: Ticks & Small Mammals

Talbot, Averill, Werbin: Microbial diversity
Zoey Werbin

B.A. in Biology, Swarthmore College, PA

1st-year PhD student in the Bhatnagar/Dietze Labs at BU

I work on spatial and temporal forecasts of the soil microbiome.
Abscission

Senescence

Green-up

Abscission

GOES Diurnal Statistical Model and Phenology

Leaf Phenology Forecasting

GOES Diurnal NDVI

Time of Day

Harvard Forest Forecast

Percent Canopy

Day of Year
John Foster
Colorado State - Wildlife Biology

Colorado Parks and Wildlife

Colorado State - Microbiology

Boston University - Ecology

@fosfate_
Katie Zarada
Research Fellow

BS Ecology
BS Biochemistry and Molecular Biology
MS Fisheries and Aquatic Sciences
VECTOR BiTE

Environmental driven vector traits

New models:

Predict

Validate

Quantify uncertainty

EG: Changes in area suitable for transmission as climate changes

priority new data collection

Uncertainty in Ro

Temperature
INTRODUCTIONS
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<tr>
<th>Time</th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
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<tbody>
<tr>
<td>8:30</td>
<td>Arrivals</td>
<td>Introductions</td>
<td>Hierarchical Bayes (LJ)</td>
<td>Uncertainty Propagation (LJ &amp; MD)</td>
<td>Ensemble Data Assimilation (MD)</td>
<td>Data Fusion (MD)</td>
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<td>11:00</td>
<td>Lightning talks</td>
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<td>Structured Decision Making &amp; Expert Elicitation (MD)</td>
<td>Project</td>
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<td>Project talks</td>
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<td>Lunch (on your own)</td>
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<td>Bayes Primer</td>
<td>Complex data in Bayes (SL &amp; LJ )</td>
<td>State Space (SL)</td>
<td>Analytical Data Assimilation (MD)</td>
<td>Model assessment</td>
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<td>Forecast Infrastructure &amp; Automation (EW)</td>
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<td>Project</td>
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<td>Machine Learning (EW)</td>
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