Dataset for: Fire in the Tree: The Origin and Distribution of Fire-adapted Traits within Conifers and their Influence on Speciation Rates across the Conifer Phylogeny.

What everything is and how to use it:

Ancestral State Reconstruction:

To run code:

Conifer Phytools Code for Publication.R – R file to get reconstructions

conif\_spcies\_fire\_master\_post\_20032023.csv – trait file for R script

lesfinally2018.tre – Newick formatted tree from Leslie et al. 2018

BAMM

BAMM\_Script\_divcontrol\_march\_conifer\_correct\_priors.txt – need to download BAMM but then use this to run it

lesfinally2018.tre – Newick formatted tree from Leslie et al. 2018, need to run BAMM

Bamm Script for Publication.R – post divcontrol text run, use this to see results.

Outputs in publication (use Bamm Script for Publication.R)

event\_data\_man6-8.txt – output file needed to run R script for results in publication

mcmc\_out\_man6-8.txt – other output file needed to run R script for results in publication

HiSSE

Hisse Final Code 03202023.R – use this to run program

use\_for\_pub\_conif\_spcies\_fire\_master\_forhisse.csv -trait file for hisse

lesfinally2018.tre – Newick formatted tree from Leslie et al. 2018

MiSSE

FireMiSSE.R – use this to run everything

lesfinally2018.tre – Newick formatted tree from Leslie et al. 2018

LSBDS

FireLSBDSext.Rev – use this code first to run

SummFireLSBDS\_AncStates.Rev – turn LSBDS anc states into MAP tree files

lesfinally2018.tre – Newick formatted tree from Leslie et al. 2018

Tables and Figures

Table S1: reported Ancestral State Reconstruction Results.

Table S2: HiSSE results, all models all results

Table S3: Master File for Citations. First sheet, quick reference for traits. Second sheet, fully written out citations.

Figure S1-4: Ancestral State Reconstruction Results

Figure S5: Ancestral State Reconstructions if root is fixed in the other direction.

Figure S6-8: Zoomed in BAMM plots

Figure S9: Ancestral State Reconstruction Results for pyrophilic species (nice visualization for any species with fire adaptation).

Figure S10-12:Best Clade Shift plots (runs6,7,8)

Figure S13-15: Credible Clade Shift Plots (runs6,7,8)

Figure S16-18: Maximum Shift Credibilities

Figure S19: MiSSE Output

Figure S21: Pagel Climate Trait Phylogenies

Figure S20: LSBDS Output

Figure S22: LSBDS\_number\_of\_shifts

Figure S23: LSBDS\_lambda

Figure S24: LSBDS\_mu

Figure S25: LSBDSext\_3\_rate\_categories\_Pie\_charts

Figure S26: LSBDSext\_3\_rate\_catsMAP

Figure S27: LSBDS net div vs mean posterior probability shifts