

Supplemental Tables

Ecological connectivity and habitat loss shape patterns of genetic diversity in a threatened salamander

Bryce S. Wade^{1,2*}, Todd W. Pierson³, Benjamin M. Fitzpatrick⁴, William E. Peterman⁵, Evin T. Carter²

¹Bredesen Center for Interdisciplinary Research and Graduate Education, University of Tennessee, TN 37996, USA

²Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN 37830, USA

³Department of Ecology, Evolution, and Organismal Biology, Kennesaw State University, Kennesaw, GA 30144, USA

⁴Department of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, TN 37996, USA

⁵School of Environment and Natural Resources, The Ohio State University, Columbus, OH, 43210, USA

*Corresponding author: bwade12@utk.edu

Table S1. A table of ELPD values for road density models by buffer distance.

Buffer Distance (m)	ELPD Difference	SE of Difference
100	0	0
1800	-0.91839	2.197206
1700	-0.93033	2.374813
200	-1.1557	1.219188
1600	-1.21649	2.402368
1900	-1.24014	2.053413
2000	-1.27117	2.022163
1500	-1.35681	2.307012
600	-1.49303	2.059784
1400	-1.55877	2.163294
1100	-1.58207	2.07958
700	-1.59234	2.023272
900	-1.59354	1.988403
300	-1.59834	1.957067
500	-1.60888	1.981513
1200	-1.6489	2.057917
800	-1.67003	1.966766
1300	-1.67286	2.015911
400	-1.70051	1.959675
1000	-1.77341	2.088697

Table S2. A table of ELPD values for deforestation (1985–1994) models by buffer distance.

Buffer Distance (m)	ELPD Difference	SE of Difference
1200	0	0
1300	-0.5909274	0.7413364
1100	-0.7104756	0.6730432
1400	-1.7994318	1.4421311
1000	-1.8101567	1.4909474
1500	-3.004085	1.9807683
900	-3.3608184	2.3439872
1600	-3.8693464	2.3671024
1700	-4.1636931	2.5337187
1800	-4.6879261	2.7851992

2000	-5.2542799	2.9936003
1900	-5.2765667	2.906028
800	-6.814845	3.662021
700	-9.4195832	4.8720753
600	-10.4830477	5.4643169
500	-11.2929439	5.5946689
200	-11.6060065	5.837589
300	-11.7253454	5.5253122
400	-11.8164399	5.4425557
100	-12.4238027	5.9253718

Table S3. A table of ELPD values for deforestation (1995–2004) models by buffer distance.

Buffer Distance (m)	ELPD Difference	SE of Difference
500	0	0
1000	-0.03739297	0.46278
400	-0.07475594	0.264355
900	-0.10528165	0.407502
600	-0.11104218	0.166597
1100	-0.14101725	0.511151
800	-0.14136982	0.322221
700	-0.27625474	0.259779
1300	-0.2823205	0.596804
1200	-0.29652214	0.544687
300	-0.50513102	0.480952
1900	-0.57678283	0.969637
2000	-0.58691109	1.00293
1500	-0.63371501	0.670498
1600	-0.63905043	0.722088
1800	-0.65791515	0.894515
1700	-0.66511264	0.802286
1400	-0.74578746	0.62575
200	-0.7995246	0.883875
100	-0.98368381	1.728202

Table S4. A table of ELPD values for deforestation (2005–2014) models by buffer distance.

Buffer Distance (m)	ELPD Difference	SE of Difference
1800	0	0
2000	-0.0975	0.157108
1600	-0.1115	0.174046
1900	-0.11845	0.095489
1500	-0.16538	0.231856
1700	-0.20005	0.08383
200	-0.22363	1.644006
100	-0.23342	1.627718
1400	-0.51992	0.406066
300	-0.58569	1.255154
400	-0.65245	1.106119
800	-0.70231	0.774069
900	-0.70998	0.752221
1300	-0.7401	0.568596
600	-0.74041	0.758497
1100	-0.78596	0.722467
1000	-0.81711	0.768867
700	-0.82803	0.79682
500	-0.85313	0.843657
1200	-0.93063	0.772517

Table S5. A table of ELPD values for deforestation (2015–2024) models by buffer distance.

Buffer Distance (m)	ELPD Difference	SE of Difference
1600	0	0
1400	-0.0332204	0.163658
1500	-0.03396606	0.07915
1700	-0.04139843	0.11372
1800	-0.09224749	0.183055
1300	-0.09512387	0.241536
1900	-0.15152409	0.249509
1100	-0.24993089	0.376165
2000	-0.40517705	0.320304

1200	-0.4136816	0.379033
1000	-0.44942372	0.457596
700	-0.55371798	0.707968
200	-0.60782337	0.91753
900	-0.62142096	0.552363
400	-0.65370338	0.911919
800	-0.66452689	0.644403
300	-0.70446961	0.869478
500	-0.76867545	0.926699
600	-0.78780209	0.806418
100	-0.97792623	0.975976

Table S6. A table of ELPD values for deforestation (all years combined) models by buffer distance.

Buffer Distance (m)	ELPD Difference	SE of Difference
1800	0	0
1700	-0.03983717	0.146741
1900	-0.07618222	0.086656
2000	-0.11406316	0.140033
1500	-0.11983727	0.319769
1300	-0.12375601	0.39928
1600	-0.19832555	0.272274
1400	-0.24504774	0.355434
1200	-0.28122687	0.447397
1100	-0.34154238	0.608411
1000	-0.48281558	0.76054
900	-0.61070483	0.920269
800	-0.74613943	1.078003
400	-0.75164674	1.324925
300	-0.77273422	1.285043
700	-0.81545862	1.179729
600	-0.82632127	1.274548
200	-0.84414432	1.430925
500	-0.98031621	1.356491
100	-1.74149167	1.631319