

Topography	Time (minutes)	Sed. RMSE	Elev. RMSE	Pred. RMSE	Accepted %
Crater-short	102	4.3	1.1	5.4	19.17
Crater	275	0.9	1.3	2.2	8.56
Etopo-short	68	60.0	587.9	11.0	4.62
Etopo	325	55.3	46.1	101.4	1.42

Table 1: Results for respective problems (24 replicas/cores and 100 000 samples).

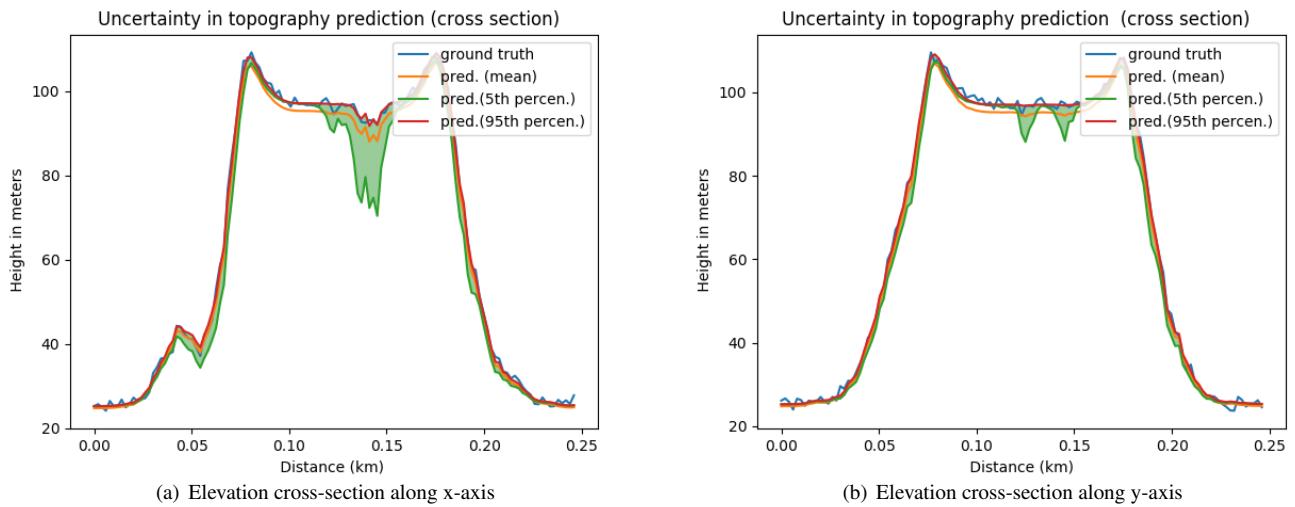


Figure 1: Crater-short: Elevation cross-section taken at mid-point along x-axis and y-axis

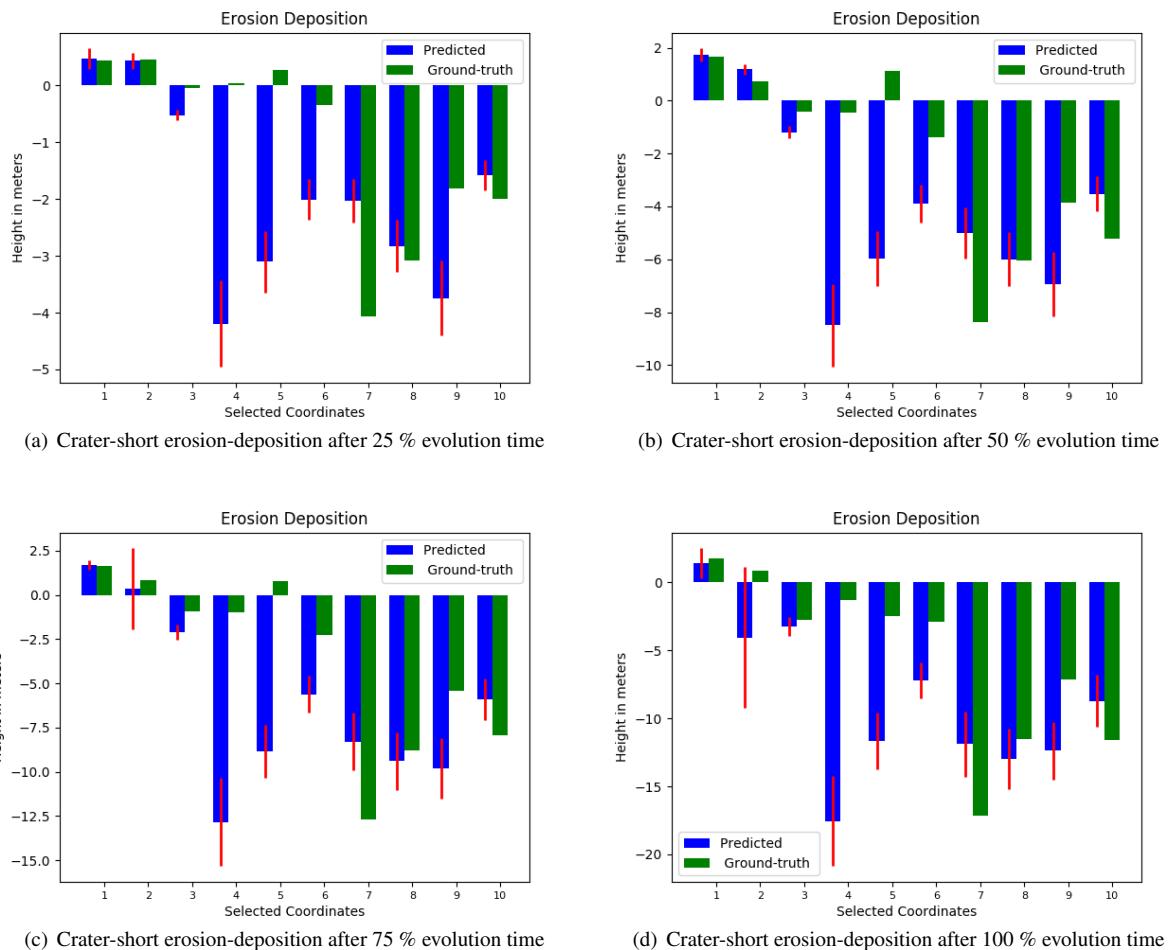


Figure 2: Crater-short erosion-deposition

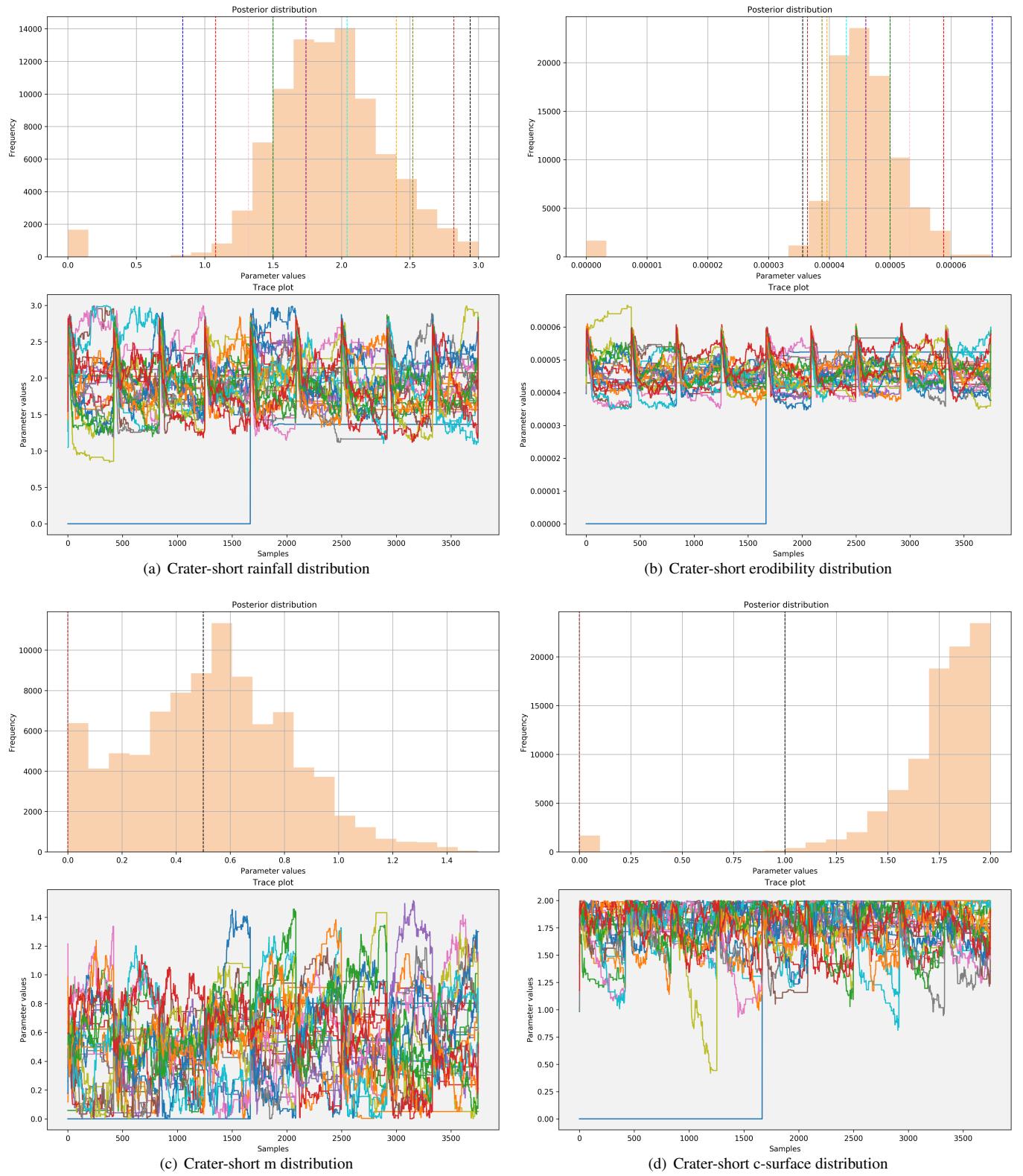


Figure 3: Crater-short: Posterior distribution of rainfall, erodibility,  $m$  and  $c$ -surface

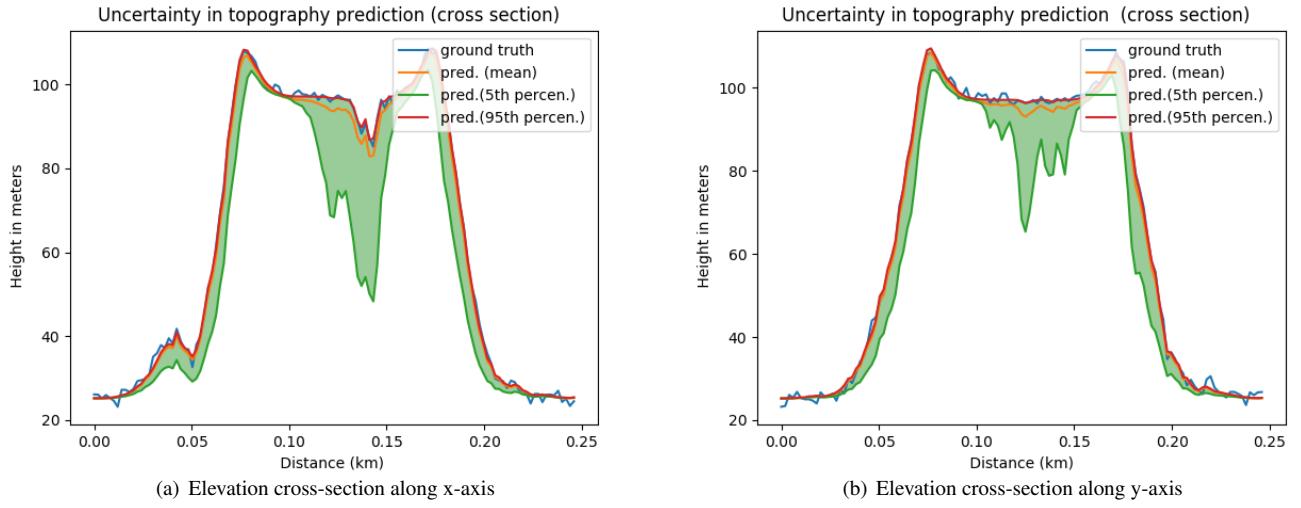


Figure 4: crater: Elevation cross-section taken at mid-point along x-axis and y-axis

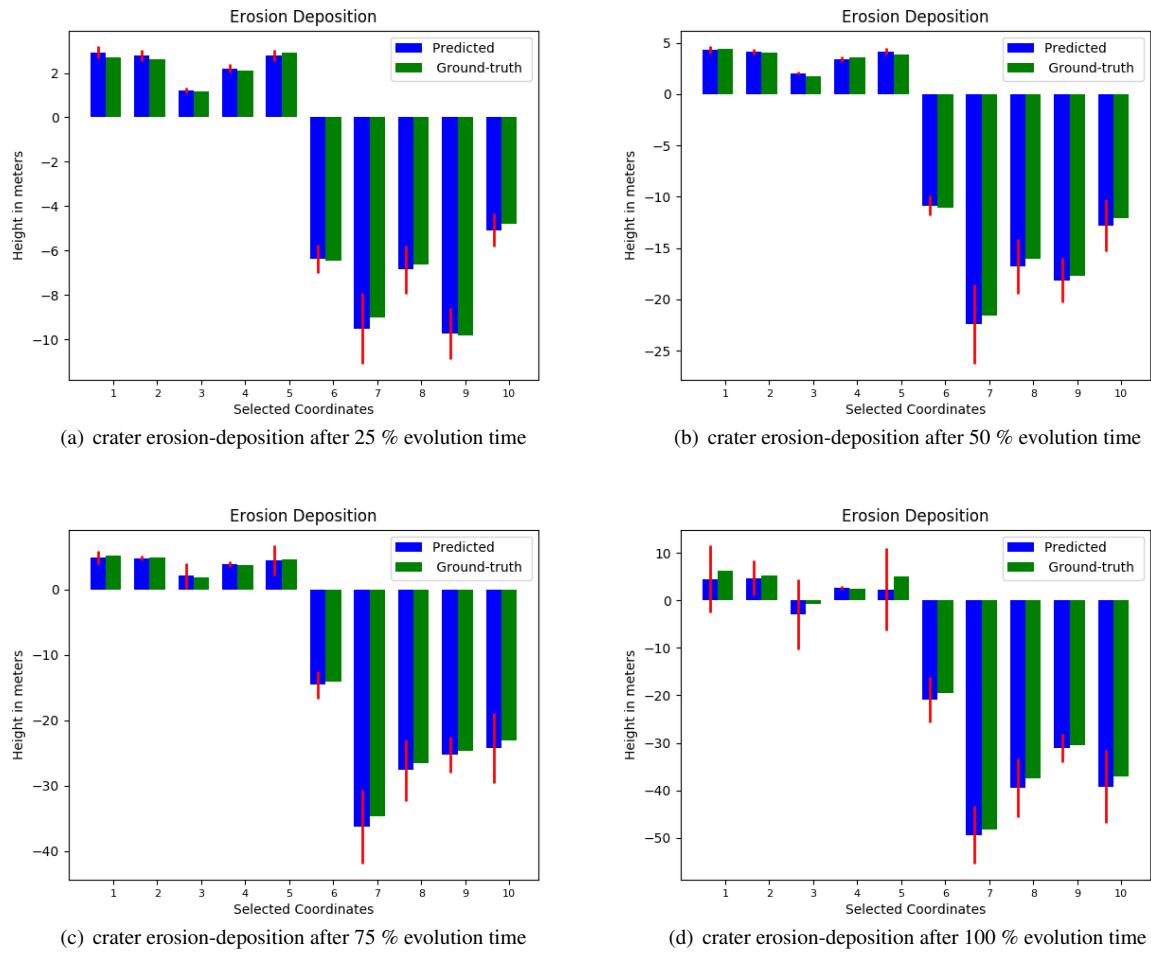


Figure 5: crater erosion-deposition

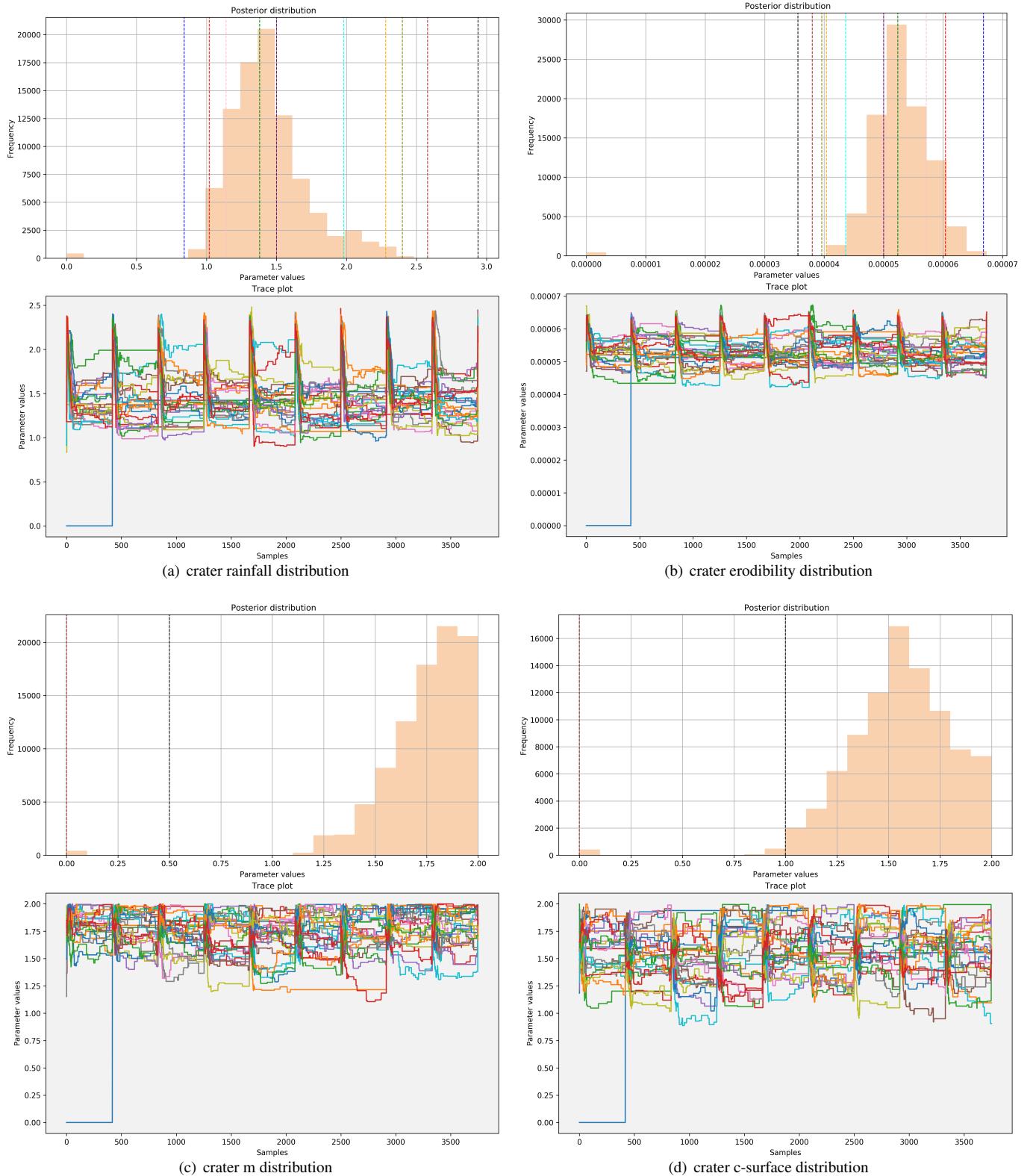


Figure 6: crater: Posterior distribution of rainfall, erodibility,  $m$  and c-surface

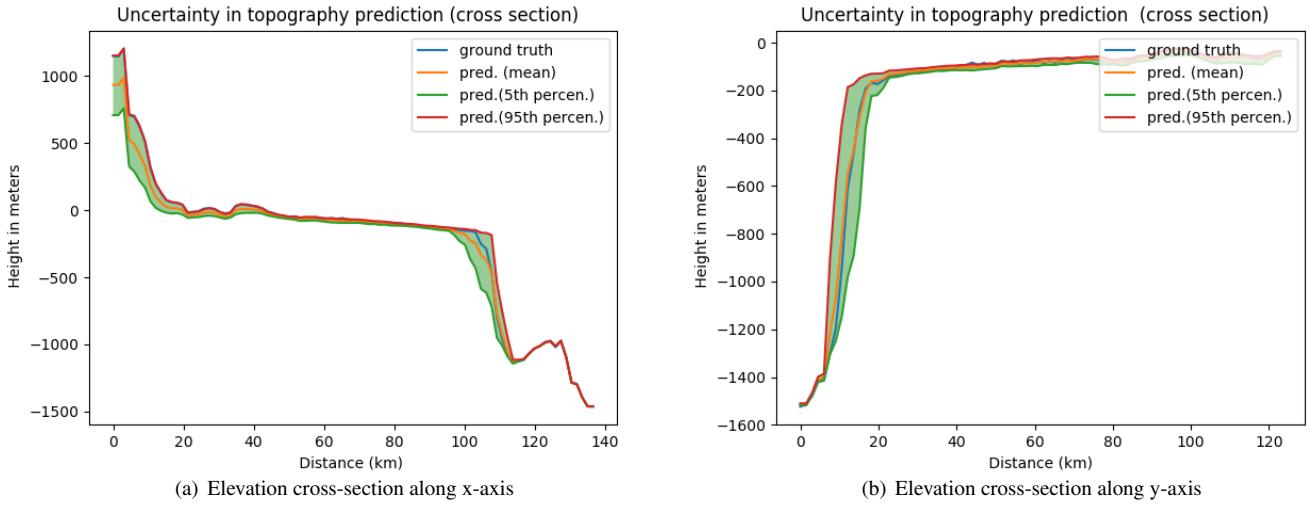


Figure 7: eTopo\_short: Elevation cross-section taken at mid-point along x-axis and y-axis

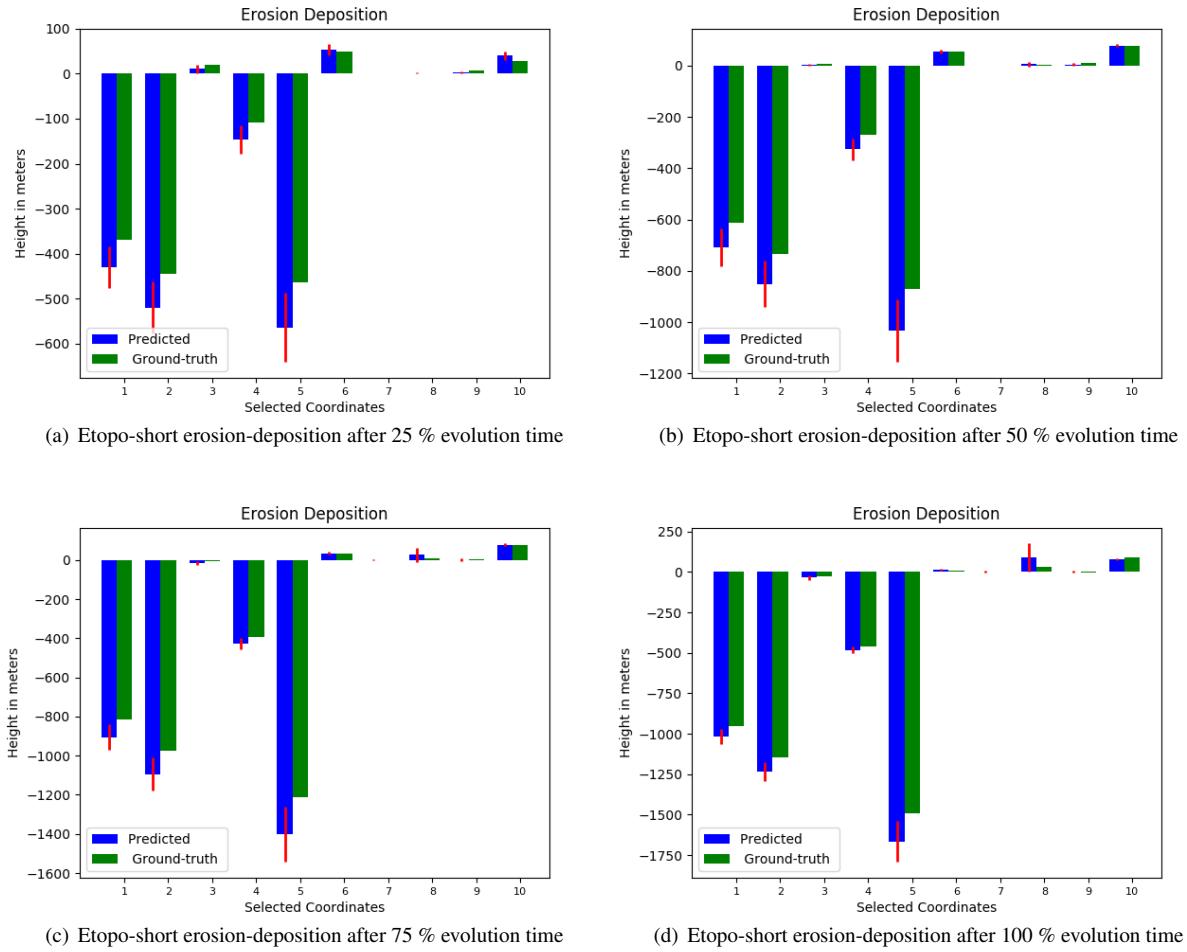


Figure 8: Etopo-short erosion-deposition

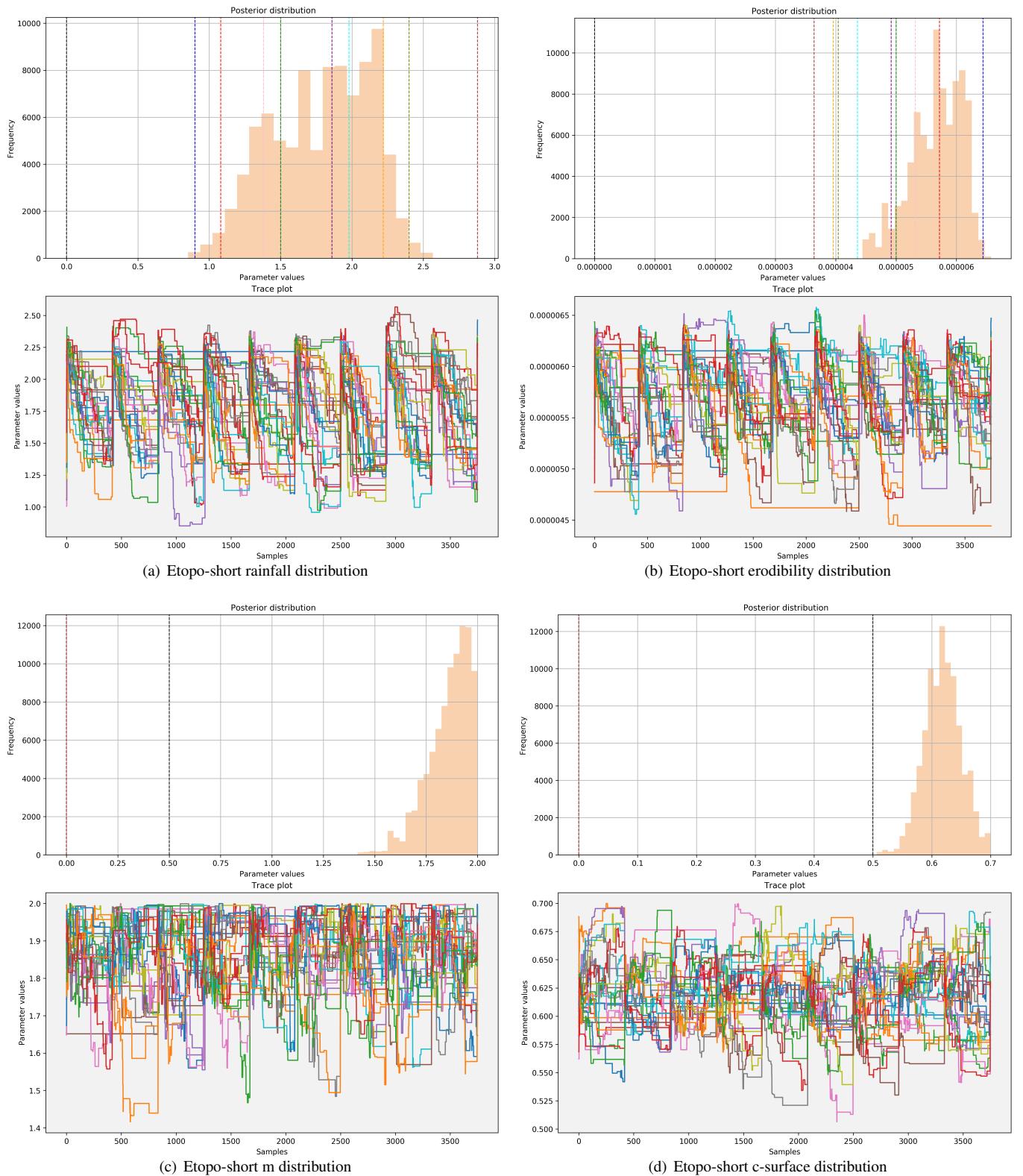


Figure 9: Etopo-short: Posterior distribution of rainfall, erodibility,  $m$  and  $c$ -surface

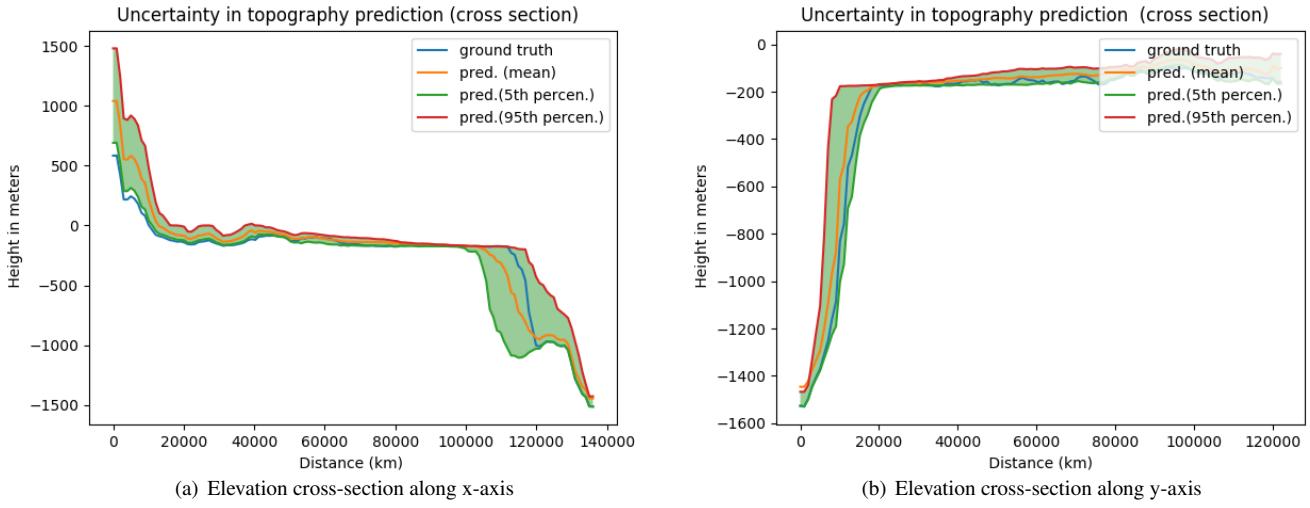


Figure 10: eTopo: Elevation cross-section taken at mid-point along x-axis and y-axis

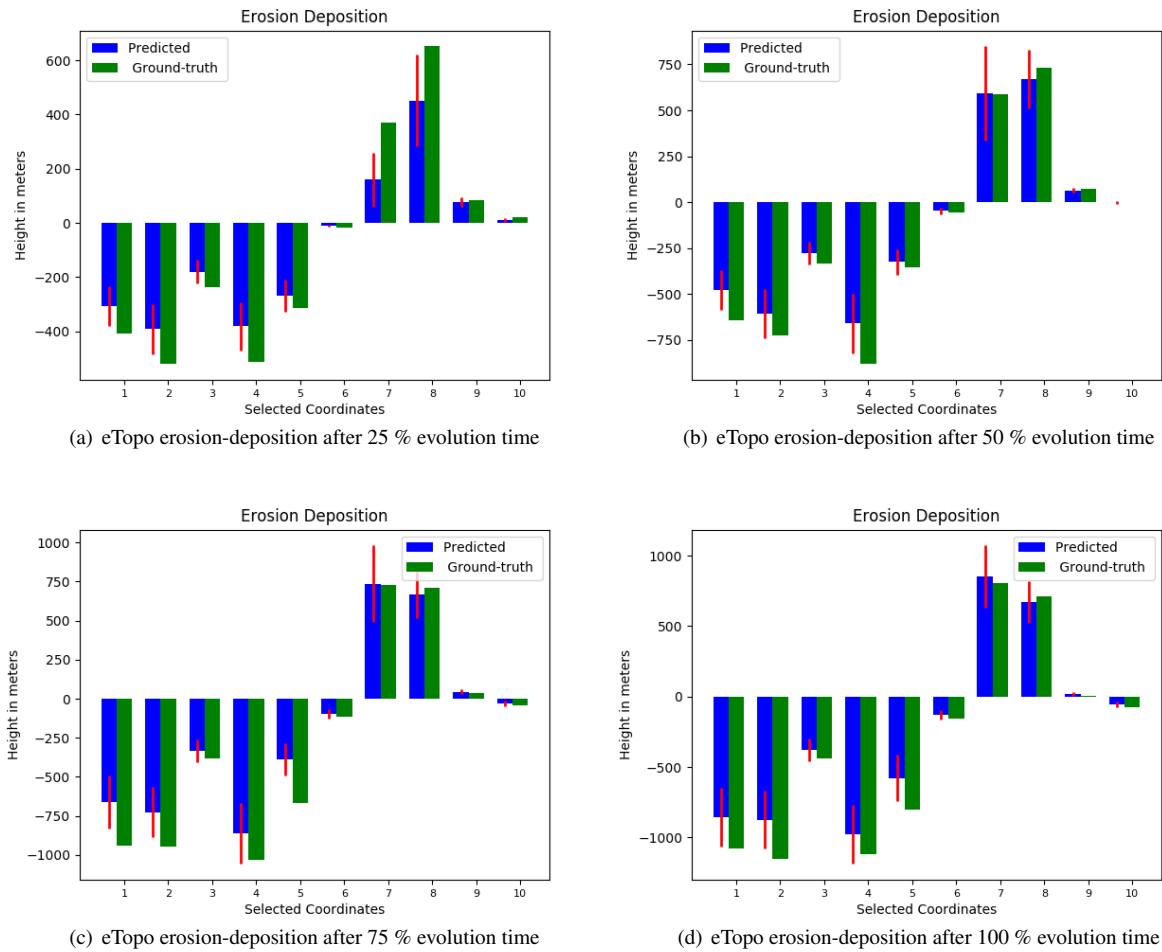


Figure 11: eTopo erosion-deposition

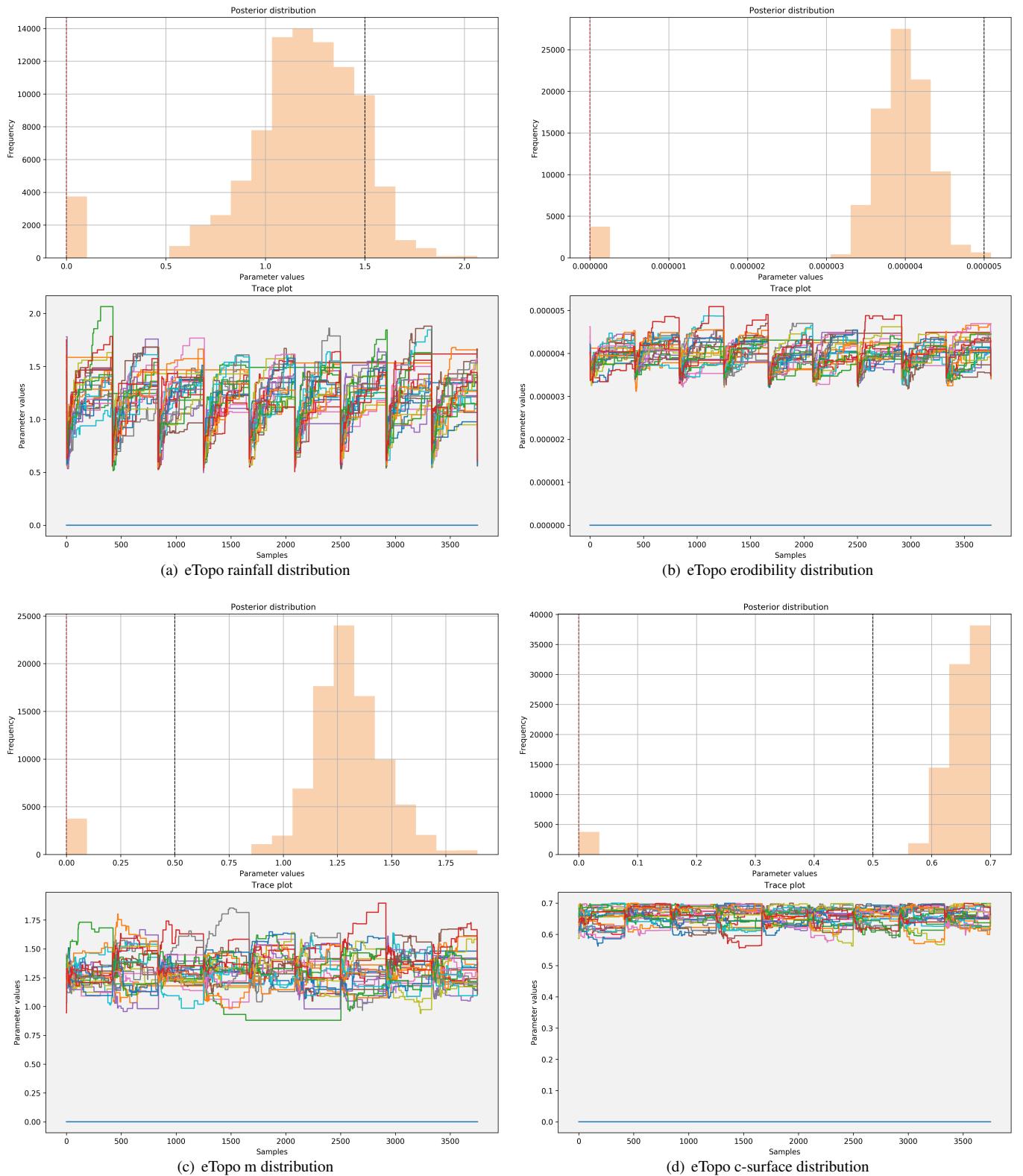


Figure 12: eTopo: Posterior distribution of rainfall, erodibility,  $m$  and  $c$ -surface

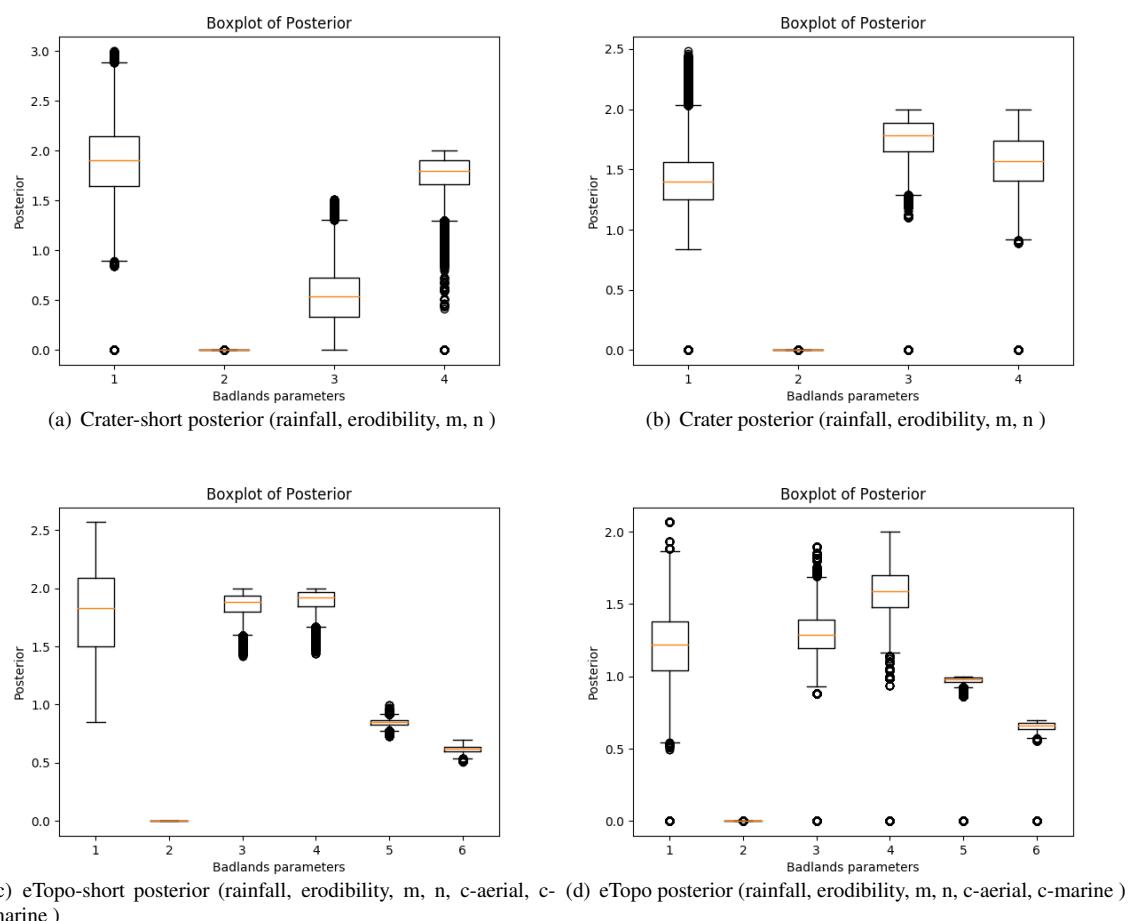


Figure 13: Posterior distribution given as Boxplot