

Fig S1. Predicted  $\delta^2\text{H}$  ranges using different  $\lambda$  values

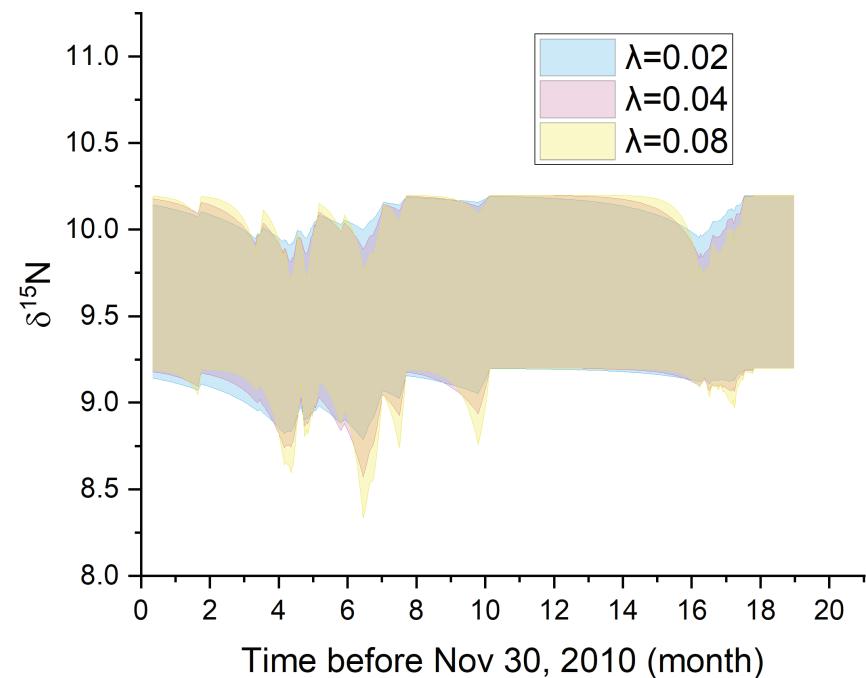


Fig S3. Predicted  $\delta^{15}\text{N}$  ranges using different  $\lambda$  values

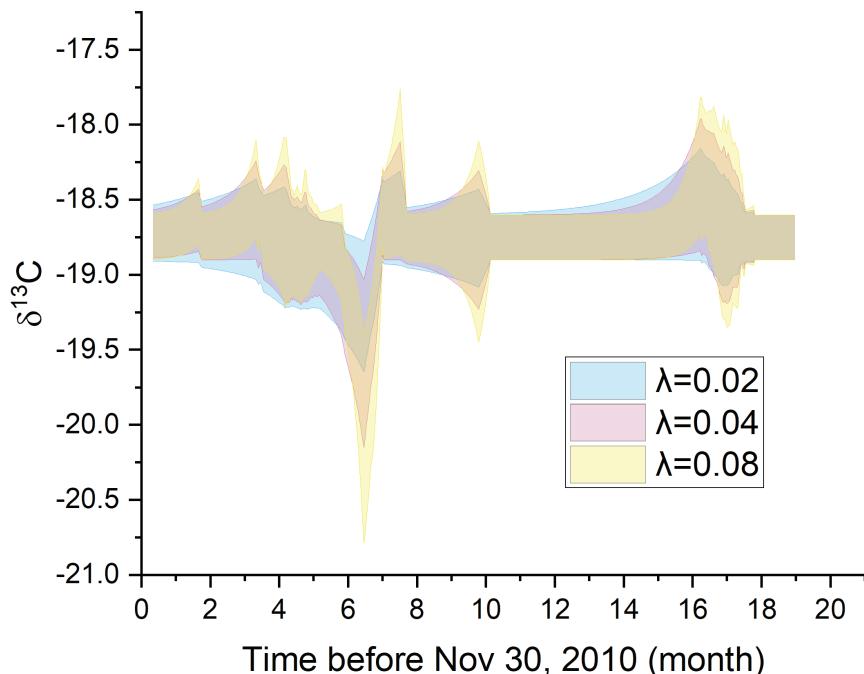


Fig S2. Predicted  $\delta^{13}\text{C}$  ranges using different  $\lambda$  values

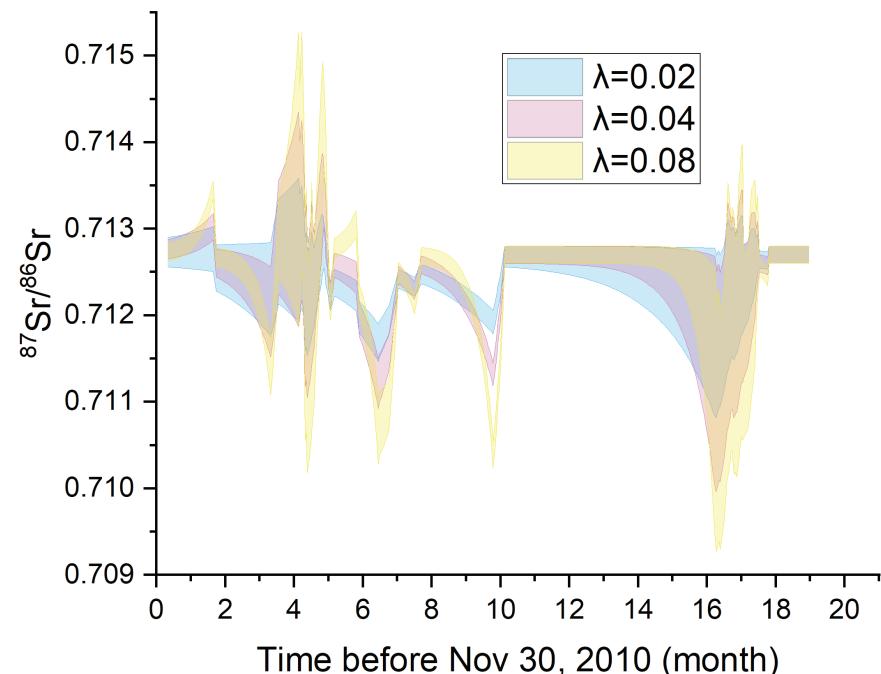


Fig S4. Predicted  ${}^{87}\text{Sr}/{}^{86}\text{Sr}$  ranges using different  $\lambda$  values