Figure S1: The maximum extent of the three most extreme GLDEs based on SoilClim model with month of occurrence indicated.

Figure S2: All centroid positions of the mHM-based GLDE with the second largest dynamic score, which happened from June 2014–March 2015 in North America.

Animation S1: Spatiotemporal behavior of individual GLDEs during 2019 in the native 10-day step.