Arka Ghosh, Steven Noren* (snoren@iwu.edu) and Alex Roitershtein. On the range of the transient frog model on Z.

We observe the frog model, an infinite system of interacting random walks, on \mathbb{Z} with an asymmetric underlying random walk. For certain initial frog distributions we construct an explicit formula for the moments of the leftmost visited site, as well as their asymptotic scaling limits as the drift of the underlying random walk vanishes. We also provide conditions in which the lower bound can be scaled to converge in probability to the degenerate distribution at 1 as the drift vanishes. (Received August 01, 2019)