Rivers Top Trumps

Florence Halstead, Christopher Hackney, and Daniel Parsons

School of Environmental Sciences, University of Hull, Hull, United Kingdom (c.hackney@hull.ac.uk)

Flood risk is a serious issue facing communities around the globe. In order to improve societal resilience to flooding, education regarding the risks posed by river systems is vital. Yet, flooding does not always have negative impacts, as it is key in the development of vital global ecosystems such as wetlands and deltas. Understanding the pros and cons of flooding and the natural ecosystem services that rivers provide is hugely important as human interactions alter natural fluvial systems. A key educational tool which spans a range of age groups is the use of games. Following on from other successful geoscience based versions, and in partnership with Winning Moves Ltd, we have developed a set of Top Trump game cards based on the World's rivers in order to aid improved education around the risks and benefits posed by river systems. Thirty of the world's rivers from the Amazon to the Danube have been selected. For each river, six categories have been defined: length (km), discharge (km3 a-1 at most seaward gauging station), number of countries the river flows through, flood devastation potential (values between 20,000 and 80 million based on potential population affected by flooding in each catchment), wildness factor (based on the level of human modifications) and a deadly creature index (based on the number of species inhabiting the catchment which can cause harm to humans). All scores are based on real data for each river catchment. The selected river catchments are representative of the different river styles found around the globe, from meandering to anastomosing channels, to ones which are frozen in winter. By engaging both children and adults alike through the use of already well-established games adapted to rivers, the overall awareness, interest and knowledge of rivers can be increased, and thus societal resilience to the risks posed by rivers improved.