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GOOGLE STREET VIEW REVEALS NEW INSIGHT INTO THE DISTRIBUTION OF *PANICUM MAXIMUM* IN SRI LANKA

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The alien invasive species (AIS) *Panicum maximum* causes negative impacts on the ecosystem by out-competing native vegetation, creating fire hazards during dry periods, and blocking access to animals. *Panicum maximum* has a wide distribution in Sri Lanka, while an accurate estimation of its distribution has not yet been determined. Estimating the current distribution of *P. maximum* in the island is vital to develop management strategies to control its spread. Thus, the objectives of the current study were to map and model the distribution of *P. maximum* in Sri Lanka. Google Street View (GSV) images have been used previously as a low-cost method to map the distribution of several animal and plant species. Thus, the mapping of *P. maximum* was conducted using GSV data, Google Earth Pro and QGIS software. The presence and absence data of *P. maximum* covering the entire island were recorded from 50,231 and 30,950 data points from GSV images taken during 2015-2016 and 2020-2022, respectively. The distribution maps were generated separately for each district, depicting the presence and absence of *P. maximum*. The density distribution maps of *P. maximum* were prepared for each district and the entire country using the same data sets. Heat maps can be used to predict the density of the species distribution. *P. maximum* is mainly distributed in the wet and intermediate zones of the country, with a limited distribution in the dry zone. Compared to 2015-2016, a higher distribution of *P. maximum* was observed in 2020-2022. During 2015-2016, the lowest distribution (<10%) was reported in the Northern Province, particularly Trincomalee and Batticaloa districts. The highest distribution of *P. maximum* (>80% of the total area) was reported from Polonnaruwa, Kurunegala. Kandy and Galle districts. A comparison of the distribution of *P. maximum* during 2015-2016 and 2020-2022 revealed a 2-11% increase in the spread of *P. maximum* in 11 districts thus a further spreading of the species can be expected, especially in wet and intermediate zones where its distribution is high.

Keywords: AIS, Google Street View, *Panicum maximum*, Range dynamics