Modeling potential distribution of *Baccaurea macrocarpa* in South Kalimantan, Indonesia

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Abstract. *Gunawan, Rizki MI, Anafarida O, Mahmudah N. 2021. Modeling potential distribution of* Baccaurea macrocarpa *in South Kalimantan, Indonesia. Biodiversitas 22: 3230-3236. Baccaurea macrocarpa* is fruit tree that has a potential source of food and medicine. However, little is known about the occurrences and potential distribution of *B. macrocarpa* mainly in South Kalimantan. This study is the first to predict the distribution of *B. macrocarpa* in South Kalimantan using maximum entropy (MaxEnt). Modeling included 102 occurrence records with 19 bioclimatic variables, solar radiation, altitude, and slope. Temperature, solar radiation, and precipitation were the key environmental factor influencing the distribution of *B. macrocarpa.* The district of HS (Hulu Sungai Selatan), HT (Hulu Sungai Tengah), HU (Hulu Sungai Utara), BL (Balangan), and TG (Tabalong) were predicted as highly suitable areas (IHS 0.6-1) for this species. The MaxEnt model performed better than the random method with an Area Under Curve (AUC) value of 0.817, indicating that the model is good and informative model for habitat suitability of *B. macrocarpa*. The predicted model we presented here can help habitat conservation, biodiversity conservation planning and monitoring, and cultivation in the future for *B. macrocarpa*.

Keywords: Biodiversity conservation, habitat suitability, MaxEnt, Phyllanthaceae, predictive modeling.