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## Food and Medicinal Uses of Annona Senegalensis Pers: a Countrywide Assessment of Traditional Theoretical Knowledge and Actual Uses in Benin, West-africa

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## Abstract

The growing interest in more natural products in food and health industries has led to increasing research on traditional knowledge related to plants. While theoretical knowledge (TK) informs on a wide spectrum of potential uses of species, actual uses (AU) highlight their potential being actually used. Distinguishing between the two is important when reporting ethnobotanical studies but has often been confused possibly misleading decision-making. This study assessed TK and AU of Annona senegalensis focusing on its food and medicinal uses in Benin. We further assessed how factors such as age, sex, sociolinguistic group, and main activity determine the distribution of TK and AU among local communities. Data were collected through semi-structured individual interviews (n = 755) and analysed using relative frequency of citation (RFC) and reported use-

value (RUV). A total of 167 theoretical uses were recorded but only 92 were actually practised of which 3 were food and 88 medicinal. The average difference between TK  $(3.16\pm0.04)$  and AU

 $(2.53\pm0.04)$  was  $0.64\pm0.03$  and was the highest for Bariba sociolinguistic group and did not vary with age, sex, and main activity. TK and AU were high for traditional healers and low for Non-

farmers. The highest TK was found with Bariba sociolinguistic group and the highest AU with Otamari sociolinguistic group. Fruits (100%) and flowers (10%) were the most commonly used organs for food while leaves (40%) and roots (7%) were mostly used for medicinal purposes. The most common food uses were consumption of the ripe fruits (100%) and the use of flowers to season foods (10%). The most cited diseases were malaria (28%), and intestinal worms (8%). Our study shows the importance of differentiation between TK and AU. The study documents ranges of uses of A. senegalensis and highlights the most common uses of the species, providing ways for its valorisation.

**Keywords:** Annona senegalensis, knowledge gap, socio-demographic factors., sociolinguistic groups, Use patterns

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