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## Ethnobotanical, ecological and monographic study of four medicinal plants traditionally used in the treatment of sterility in Kenge City and its surroundings, Democratic Republic of the Congo

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### ABSTRACT

**Objective:** The objective of this study is the ethnobotanical and ecological characterization of the four aphrodisiac plant species used in Congolese traditional medicine, with the aim of their valorisation.

**Methodology and Results:** A survey was carried out in the town of Kenge and the surrounding area (Kwango Province). Sixty-four people or traditional practitioners were interviewed who in-depth knowledge of the medicinal plants had used in traditional medicine as aphrodisiacs. This enabled us to continue research based on the 8 species from the initial results. Four (4) species of different medicinal plants used effectively as aphrodisiacs in the treatment of male infertility. These species are distributed in 3 families: Phyllanthaceae (25 %), Apocynaceae (50 %) and Pentadiplandraceae (25 %). With regard to the level of knowledge of the uses of the plants listed as aphrodisiacs, *Landolphia lanceolata* or Mata (Kikongo) and *Mondia whitei* or la Racine (Français) represent (26.5%) the well-known species, *Pentadiplandra brazzeana* or l'Oubli (Français) (28.1%) the moderately well-known species and *Hymenocardia acida* or Coeur volants (Français) (17.2%) the little-known species. As for intensity of use, which expresses the degree to which it is used in recipes by traditional practitioners, 2 species, *Landolphia lanceolata* (1.88) and *Mondia whitei* (1.73) are widely used; *Pentadiplandra brazzeana* (1) is moderately used and *Hymenocardia acida* (0.5) is little used.

**Conclusion and Results and Applications:** This study classifies selected aphrodisiac plants traditionally used in the above mentioned city into three categories. First, *Landolphia lanceolata* and *Mondia whitei* are the most frequently cited and little used species, as it is found in almost all

grassy savannahs and which is justified by the fact that it is harvested and available a little late in the forest and is very expensive for farmers. Secondly, *Pentadiplandra brazzeana* is the species most frequently cited. Thirdly, *Hymenocardia acida* is the species that is rarely cited or used. Thus, it is desirable to conduct an in-depth study of these plant species using X-ray fluorescence and an *in vivo* study to determine which plant would be more active, and subsequently utilize it as a raw material for formulating an effective phytomedicine.

**Keywords:** Ethnobotany, Ecology, Monograph, Aphrodisiacs and sterility and Democratic Republic of Congo.