

Ethnobotanical survey of biopesticides and other medicinal plants traditionally used in Meru central district of Kenya

Gakuya, D.W.; Itonga, S.M.; Mbaria, J.M.; Muthee, J.K.; Musau, J.K. Date: 2013

Abstract

Ethnopharmacological relevance: The purpose of this study was to carry out a survey and document plants used in Meru-central district by traditional healers with emphasis on those used as biopesticides. **Materials and methods:** The study was carried out at Igane and Gatuune sub-locations, Abothuguchi East division of Meru-Central district, Kenya. The data collection involving 23 traditional healers was done using semi-structured questionnaire, focused group discussion and transect walks. Plants samples were collected and botanically identified at the herbarium of the Department of Land Resource Management and Agriculture Technology in the University of Nairobi. **Results:** The results of the ethnobotanical survey revealed that herbalists belonged to both gender with the majority being male (82.6%) and female (17.4%). Their ages ranged from 28 to 82 years. Seventy (70) plant species, belonging to 35 families, were identified as being used as biopesticides and also as medicinal. The families encountered were Asteraceae (10%), Euphorbiaceae (8.6%), Lamiaceae (8.6%), Fabaceae (8.6%), Caesalpiniaceae (5.7%), Rubiaceae (5.7%), Liliaceae (4.3%), Apocynaceae (2.9%), Flacourtiaceae (2.9%), Verbenaceae (2.9%) and the rest of the 24 families had 1.4% each. These medicinal plants were used to treat and manage a wide range of diseases and conditions including parasitic, microbial, helminthosis, protozoa, cuts and wounds, fractures, dental, arthritis, allergic, snake bites, reproductive as well as metabolic. Among the plants used, shrubs were the commonest at 42.8%; trees were 32.9%, while herbs and liana were at 22.9% and 1.4%, respectively. Majority of the respondents used leaves, roots and bark to make their herbal preparations with only a few using seeds, flowers, whole plant, flower sap and pods. The plants that were cited by the respondents to be used as biopesticides were *Prectranthus barbatus* Andr. (47.8%), *Tephrosia vogelii* Hookf. (39.1%), *Ocimum gratissimum* L (34.7%), *Vernonia lasiopus* O.Hoffm. (8.7%), *Cascabella thevetia* (L.)Lippold (4.3%) and *Oncoba routledgei* Sprague (4.3%). **Conclusion:** Meru central district is rich in biodiversity of biopesticides and other medicinal plants and there is need for further pharmacological studies to validate their use as potential drugs for pests and disease control.