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Ethnomedicinal Flora of Otuo People of Edo State, Nigeria

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Abstract: The study reports oral information on the ethnomedicinal uses of plant remedies in traditional health-care among Otuo tribe of Edo State, Nigeria. Records of 51 plant species belonging to 47 genera of 34 families are presented with their local names, parts used, preparations, modes of administration, dosage and uses.

Key words: Ethnomedicinal, flora, Otuo people, Edo State, Nigeria

INTRODUCTION

The sampling area, Otuo, is inhabited by a clan in Owan East Local Government Area of Edo State, Nigeria. It is located between 7°12'N. and 5°55' W (Fig. 1). It is

surrounded by a mountainous terrain; the climate is comparable with that of a rainforest zone, promoting the growth and development of a rich biodiversity. The natives are mainly involved in agriculture, weaving, pottery and blacksmithing.

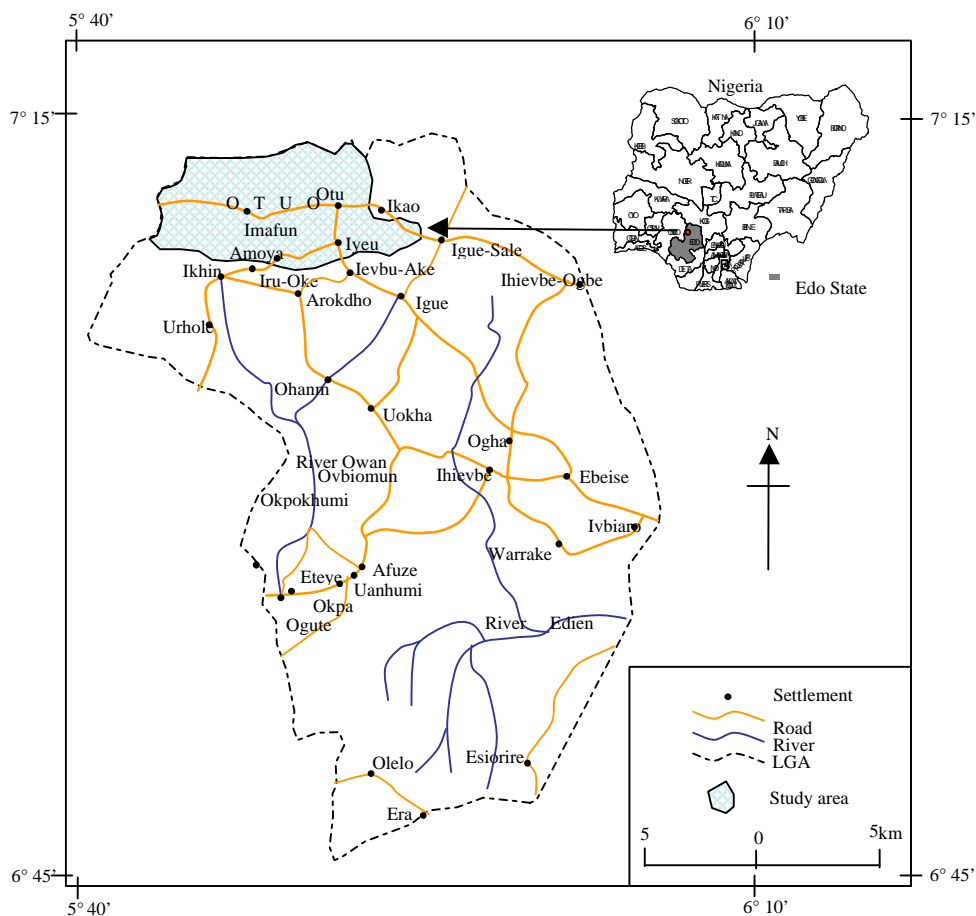


Fig. 1: Location map of Owan east local government area

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They are plagued with several diseases not uncommon among developing tropical regions. However, the near absence of modern health care facilities and personnel in the locality makes folk medicine practice the primary source of health care among the locals. Although some of the practices are beclouded with rituals and superstition, most of the remedies are based on rather simple preparation and application of certain plants, or plant parts commonly found around their immediate vicinity. However, the insight to such medicinal recipe is jealously guarded and controlled by a few individuals, predominantly in the class of the elderly who are often revered for their perceived 'special powers'. They are referred to by various names such as herbalist, native doctor or witch doctor and they are popular among the natives.

Earlier records attest to the curative and ethnomedicinal practices of some tribes of the world (Ayensu, 1978; Keay, 1989; Gill, 1992; Sofowora, 1993; Kumar and Jain, 1998; Idu and Olorunfemi, 2000; Idu and Omoruyi, 2003; Idu *et al.*, 2006). This report focuses on the medicinal folk use of some plant species among the Otuos of Edo State, Nigeria.

MATERIALS AND METHODS

Ethno-medicinal data collection was based on oral interview, aided by structured questionnaire. Fifty local informants, mostly herbal practitioners and a few aged persons, both male and female, they were interviewed individually, under relaxed atmosphere. Their selection was geographically widespread to accommodate a good sample of the entire population. Any information provided was considered credible whenever there is correlation with another independent report. However, attempts to obtain more precise quantification for preparations and dose did not enjoy much coherence as the healers do not employ the use of standard measuring vessel or scale. For such, information were recorded in approximate terms such as one handful, two pieces of root, one cup three times a day etc. (Table 1).

The assistance of a colleague who is a native of the clan, coupled with the offer of cash incentive greatly facilitated the relative ease with which the informants divulged their ethno-medicinal knowledge. Fresh samples of the reported plants were collected from the field for proper identification by using standard texts (Olorode,

Table 1: Enumeration of plants used by the Otuos

Name of plant species (Voucher name)	Family	Vernacular name	Parts used	Preparation	*Route		Dosage and use
					I	E	
<i>Abrus precatorius</i> L. (BDH: 240)	Fabaceae	Asologbo	Fresh leaves	-	+	-	Chew a few leaves thrice daily for two days in the treatment of cough.
<i>Acacia senegal</i> (L.) Wild. (BDH: 222)	Fabaceae	Koyeye	Dried leaves	Add juice from two balls of <i>Citrus aurantifolia</i> to one litre of leaf infusion	+	-	One cup twice daily for irregular menstruation.
<i>Acanthus montanus</i> (Nees) T. Anders (BDH: 238)	Acanthaceae	Ugbakhasa	Fresh leaves	Grind and make into soup	+	-	Lick soup three times daily for treating chicken pox.
<i>Aframomum sceptrum</i> (Rosc) K. Schum (BDH: 255)	Zingiberaceae	Ulea	Fresh leaves	Maceration	-	+	Apply on razor marked area thrice daily for two days to treat neck pain.
<i>Alchornea cordifolia</i> (Schun and Thonn.) Mull. (BDH: 251)	Euphorbiaceae	Otova	A handful	Infusion of fresh leaves	+	+	Half cup thrice daily, also bath with water for treatment infusion of depression in the middle of the head of a new born.
<i>Alchornea laxiflora</i> (Benthe) Pax. and K. Hoffin (BDH: 220)	Euphorbiaceae	Ebeoro	Fresh or dried leaves	Decoction	+	-	One cup thrice daily for treatment of severe boil.
<i>Anacardium occidentale</i> L. (BDH: 229)	Anacardiaceae	Icashew	Stem bark	-	+	-	Chew as much as you can for treating coated tongue.
<i>Ananas comosus</i> (L.) Merr. (BDH: 252)	Bromeliaceae	Oghakha	Unripe fruits	Peel fruit	+	-	Eat a few unripe fruits as a vermifuge.
<i>Anchomanes difformix</i> (BL.) Engl. (BDH: 215)	Araceae	Ebasicon	Root tuber	Infusion of chopped roots, plus some salt	+	-	One cup 1 h after preparation then another after 2 h and another in the evening as anti-poison.
<i>Azadirachta indica</i> A. Juss (BDH: 259)	Meliaceae	Dogoyaro	Leaves and stem bark	Decoction	+	-	One cup a day for three days in the treatment of malaria

Table 1: Continued

Name of plant species (Voucher name)	Family	Vernacular name	Parts used	Preparation	*Route		Dosage and use
					I	E	
<i>Boerhavia diffusa</i> L. (BDH: 257)	Nyctaginaceae	Iwurela	Fresh leaves	Make into soup without salt	+	-	Lick thrice daily against bareness caused by worm in the stomach.
<i>Bryophyllum pinnatum</i> (Lam.) Oken (BDH: 235)	Crassulaceae	Owowo	Fresh leaves	Maceration	-	+	Apply juice on the navel of new bom to facilitate healing after fall off of umbilica cord.
<i>Cajanus cajan</i> (L.) Millsp. (BDH: 224)	Fabaceae	Ule	Dried leaves	Infusion and bath	+	+	One cup thrice daily. Bathe with water infusion for treating inability of a child to walk.
<i>Calotropis procera</i> (Ait) Dryand. (BDH: 254)	Apocynaceae	Elayeye	A handful of dried leaves	Decoction plus salt	+	-	One spoonful thrice daily for three days for severe infant cough.
<i>Capsicum minimum</i> Roxb. (BDH: 234)	Solanaceae	Ashesugbo	Unripe fruit	-	+	-	Chew one fruit to treat inability to urinate due to excess alcohol intake.
<i>Carica papaya</i> L. (BDH: 212)	Caricaceae	Ayaba	Fresh unripe fruit	Infusion	+	-	One cup three times daily for treatment of high fever.
<i>Chromolaena odorata</i> (L.) R.M. King and Robinson (BDH: 217)	Asteraceae	Awolowo	Fresh or dried leaves and stem	Decoction	+	-	One cup thrice daily for one to two weeks as diuretic in diabetics.
<i>Cnestis ferruginea</i> Dc. (BDH: 221)	Connaraceae	Ebe-khe-ebe	Fruit	-	+	-	Eat one or two fruits thrice daily for three days against hypertension.
<i>Cocos nucifera</i> L. (BDH: 249)	Palmae	Ovibo	Matured fruit	Collect water from fruit	+	-	Drink as much as possible for treating heart failure.
<i>Cola laurifolia</i> Mast (BDH: 226)	Sterculiaceae	Ote-wa	Stem bark	Grind and mix with <i>Aframomum melegueta</i>	-	+	Apply on razor markings along the spinal region to treat spinal cord injury.
<i>Costus afer</i> Ker. (BDH: 245)	Zingiberaceae	Tetegule	Fresh leaves	Decoction	+	-	One cup three times daily against convulsion.
<i>Dialium guineense</i> Wild (BDH: 232)	Fabaceae	Uge	Fresh leaves	-	+	-	Chew as much as possible to improve appetite.
<i>Dioscorea dumetorium</i> (Knuth) Pax. (BDH: 242)	Dioscoreaceae	Uhulu	Fresh root tuber	Infusion	-	+	Use to wash wound twice daily for treating protracted/unhealing wound.
<i>Elaeis guineensis</i> Jacq. (BDH: 230)	Palmae	Khi	Fresh leaves	Pound and mix with palm wine	+	-	One cup thrice daily for two days to treat dysentery.
<i>Ficus exasperata</i> Vahl. (BDH: 223)	Moraceae	Otakhafe	Leaves	Infusion	+	-	One or two cups thrice daily for pile.
<i>Fimbristylis ferruginea</i> (L.) Vahl. (BDH: 227)	Cyperaceae	Evo	Root	-	+	-	Chew twice daily for treating scorpion sting.
<i>Glyphaea brevis</i> (Spreng.) Monachino (BDH: 241)	Tiliaceae	Uwakhi	Fresh leaves	Infusion mixed with native black soap	-	+	Use to wash head thrice daily for three days for treating severe headache.
<i>Icacina trichanta</i> Oliv. (BDH: 236)	Icacinaceae	Urokhoma	Fresh root tuber	Grind and make into soup	+	-	Lick soup thrice daily for three days for menstrual-stomach pain.
<i>Ipomoea involucreta</i> P. Beauv. (BDH: 244)	Convolvulaceae	Ebuke	Fresh leaves	Infusion of two handful	+	-	One cup thrice daily for three days to cure stomach pain and menstruation in two to three months pregnant women.
<i>Jatropha gossypifolia</i> L. (BDH: 228)	Euphorbiaceae	Ugbagbasobo	Fresh leaves	Infusion	+	-	One cup taken thrice daily to treat dysuria.
<i>Lawsonia inermis</i> L. (BDH: 233)	Lythraceae	Ilale	Fresh leaves	Grind and make into soup	+	-	Eat soup three times a day for one week in the treatment of typhoid fever.
<i>Malolus oppositifolius</i> (Geisel) Mull. Arg. (BDH: 254)	Euphorbiaceae	Utua	Fresh leaves	Slice or grind and prepare as soup	+	-	Lick or eat with other food thrice a day to treat liver disease.
<i>Malvastrum coromandelianum</i> (L.) Garcke (BDH: 219)	Malvaceae	Oraruvi	Dried leaves	Infusion of a handful	+	-	One cup thrice daily in the treatment of hypertension.
<i>Momordica charantia</i> Linn. (BDH: 246)	Cucurbitaceae	Elohn	Fresh leaves	Infusion of a bowl	+	-	One cup thrice daily to cure poor menstruation.
<i>Mucuna pruriens</i> (L.) DC. (BDH: 258)	Fabaceae	Ikharekpe	Fresh leaves	Squeeze juice from leaves	-	+	Apply juice on wound and dislocated area to aid healing.

Table 1: Continued

Name of plant species (Voucher name)	Family	Vernacular name	Parts used	Preparation	*Route		Dosage and use
					I	E	
<i>Musa paradisiaca</i> L. (BDH: 218)	Musaceae	Ugede	Inner portion of stem	Infuse for 1 h	+	-	One cup thrice daily for three days to one week to treat cholera.
<i>Musa sapientum</i> L. (BDH: 247)	Musaceae	Ugedenikeke	Ripe fruit	Infusion	+	-	One cup three times daily to cure dysentery.
<i>Myrianthus arboreus</i> P. Beauv. (BDH: 250)	Moraceae	Ebesakhea	Fresh or dried leaves	Prepare as soup	+	-	Lick thrice daily. For pregnant women to cure stunted growth in three weeks to four months old foetus.
<i>Newbouldia laevis</i> P. Beauv. (BDH: 210)	Bignoniaceae	Azeze	Fresh stem bark and leaves	Decoction of leaves.	+	-	Three table spoonful twice daily to treat rib pain. Swallow juice from chewed bark to facilitate expulsion of un-descended placenta after delivery.
<i>Nicotiana tabacum</i> L. (BDH: 213)	Solanaceae	Ataba	Fresh or dried leaves	Infusion of a handful of fresh, or half of dried leaves	+	-	One table spoonful once daily as anti-convulsant.
<i>Pandanus candelabrum</i> P. Beauv. (BDH: 253)	Pandanaceae	Owawa	Fresh leaves	Infusion	+	-	One teaspoonful thrice daily is used for cough in children. Chew a few leaves thrice daily to cure sore throat.
<i>Persea americana</i> Mill. (BDH: 231)	Lauraceae	Pear	Seed	Dry grind and mix with honey	+	-	One table spoon thrice daily for about two weeks to treat hypertension
<i>Piper guineense</i> Schum. and Thonn. (BDH: 239)	Piperaceae	Olo	Fresh leaves	-	+	-	As much as one can chew to soften the bowels.
<i>Psidium guajava</i> L. (BDH: 225)	Myrtaceae	Egova	Leaves	Infusion	+	-	One cup thrice a day for one week to treat weakness in knee joint.
<i>Sida rhombifolia</i> L. (BDH: 214)	Malvaceae	Agbuzo	Fresh leaves	Decoction or soup preparation	+	-	Lick soup or one cup of decoction thrice daily for rheumatism
<i>Smilax anceps</i> Wild. (BDH: 243)	Smilacaceae	Ugo	Fresh leaves	Heat leaves mildly then squeeze out the juice	+	-	One cup thrice a day for one week to cure cough in children with bloodshot eyes.
<i>Spondias mombin</i> L. (BDH: 237)	Anacardiaceae	Ukhian	Fresh leaves	Infusion	+	+	One cup thrice daily and use to wash face for one week to treat short sightedness.
<i>Telfairia occidentalis</i> Hook. F. (BDH: 248)	Cucurbitaceae	Umeke	Fresh leaves	Add salt to infusion	+	-	One cup three times daily as blood booster.
<i>Theobroma cacao</i> L. (BDH: 216)	Sterculiaceae	Obiokoko	Stem bark	Tincture	+	-	One cup thrice daily for a week as blood booster.
<i>Vernonia amygdalina</i> Del. (BDH: 211)	Asteraceae	Olale	Fresh leaves	Infusion of leaves mixed with that of <i>Ocimum basilicum</i> in ratio 2:1	+	-	One cup thrice daily for treating weak erection.
<i>Ximenia americana</i> L. (BDH: 256)	Olacaceae	Otu-ugba	Fresh leaves	Maceration	-	+	Apply on affected area twice daily to treat skin discoloration.

* I = Internal, E = External, + = in use, - = not in use

1984; Keay, 1989; Akobundu and Agyakwa, 1998). The study was carried out between December 2006 and March 2007. The Voucher copies of plants collected were deposited in Botany Department Herbarium, University of Benin.

RESULTS AND DISCUSSION

Plants have been used as a source of medicine since ancient times (Farnsworth and Bingel, 1997; Yesilada, 2005). TM is the source of primary health care to 80% of

world's population (Alves and Rosa, 2005). The present survey accounts for 51 plant species in 47 genera belonging to 34 families which are commonly used among the Otuo in traditional health care for a variety of disease conditions such as hypertension, renal problem, women's reproductive health, visual defect, cough, etc. The popularity of these plant remedies among the natives attests to their efficacy. Trees, herbs and weed plant species were well represented in their choice of remedies, this contrast earlier report about the predominance of tree species in Bachama ethno-medicine (Idu *et al.*, 2006).

Most of the remedies were prepared from single plant source, whereas a few others had to be in combination with other common plants.

Many pharmaceutical products of modern time can be traced to insight derived from indigenous knowledge (Robbers *et al.*, 1996). This study further substantiate the key place traditional medicine occupies in the adequate and sustainable delivery of health care services to the peoples of the world, especially those inhabiting the developing, rural communities.

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