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Article

Ethnomedicinal survey of plants used by local society in Poncokusumo district, Malang, East Java Province, Indonesia

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Abstract: An ethnomedicinal survey was carried out in district Poncokusumo, Malang, East Java Province, Indonesia for documentation of important plants diversity and information from local society. The indigenous knowledge of traditional local societywas collected throught structural and open indept interview, direct observation and personal interviews during the research. To better acessesto the extractive activities and the utilization of the plant diversity by indigenous people. Plants with their correct nomenclature were arranged by vernacular name, family name, parts used, ethnomedicinal remedies and ethnomedical use. The determination and nomenclature of the listed plants were based on the Flora of Java.A Total of 181species plants (68 family) determinate of Tengger and Java people existing in the region. Family ethnomedicine plants that have large members includes Umbelliferae (3 species), Apocynaceae (4 species), Gramineae (6 species), Myrtaceae (7 species), Euphorbiaceae (8 species), Fabaceae (10 species), Zingiberaceae (10 species), Solanaceae (12 species) and Asteraceae (15 species).The number of plants used to treat more than 60 diseases. The treatment done by a medicine man or shaman from Tengger people by ritual treatment with called "*Suwuk*" .

Keywords: ethnomedicinal plants; indigenous knowledge; local people; district Poncokusumo Malang; East Java

1. Introduction

Indonesia is an important country which has "mega-biodiversity" and its variety of culture becoming unique, attractive and having high potention resources that were not yet explored, known and exploited. These are all used for supporting people's life. The wisdom utilization of them can be functioned as the people welfare in the future. More thanthree thousand species and variety of flowering plants are reported from Java land Indonesia (Backer and van den Brink, 1968). Rifai (1994) reported at least 940 species of plants are currently being used in traditional medicines. Many of these species are useful as tonics and prophylactics to help keep the body fit. Besides the familiar microbial, fungi, algae resource, *Volvariella volvacea*, *Usnea barbata*, etc. Medicinal plants play a key role in traditional health care system for human and animals and most of allopathic drugs also comprise extracts taken from medicinal plants. According to Claudine Berthe-Frieberg in Waluyo (2004) describes as two basic approaches that must be considered in the study ethnomedicine follow perception and conception ofan object approaches and scientific fields.

Ethnobotany methods done with exploratory surveys namely biodiversity in ventory drugs in the community. Research can be integrated with technique for example Rapid Rural Appraisal (PRA), Particypatory Rural Appraisal and Rapid Ethnobotanical Appraisal (REA) (Cotton, 1996; Hoffman and Gallaher, 2007). Ethnomedicines acts as a bridge between botany and tribal knowledge regarding medicinal aspects of plants.

Tengger people added good knowledge and important ancient source of information on medicinal plants. The modern literature has further added to our knowledge regarding plant-based remedies.

The total area of the district Poncokusumo is 209.888 hectare, and has 4 villages. Tengger people in district Poncokusumo involved five villages viz Poncokusumo, Pandansari, Duwet, Gubuklakah and Ngadas and Java people has 2 villages namely Wringinanom and Sumberejo (Stibbe and Uhlenbeck, 1921; Batoro, 2015). In the east by the Senduro district, in the south by the Wajak district, in the north by the Tajinan district, and in the west by the Tumpang district (Fig. 1A). The district Poncokusumotemperature between 10°C -22°Cand has latitudes between 700 m dpl – 1800 m dpl. In the Ngadas village (inclave) is Tengger people bounded Bromo Tengger Semeru National Park (BTSNP) (Fig. 1B).To protect the importance of medicinal flora Tengger people in district Poncokusumo Malang, Province East Java Indonesia conservation must be realize. This study was arranged to document and collect ethnomedicinaltibb and ethnomedicinal knowledge about the wild plants and agricultural of Poncokusumo distric–Malang city.

2. Materials and Methods

2.1. Preservation and sample collection

The research were arranged in order to collect information about the Ethnomedicinal tibb and ethnomedicinal uses of plants by the Tengger and Java people during 2013-2015 in district Poncokusumo Malang, East Java, Indonesia. Standard methods were followed with regard for collection of plant materials, drying, mounting, preparation and preservation of plant specimens.Herbarium specimens of medicinal plants in triplicates were collected, prepared and determinated. Plant spesimens collected identificated, preseved and mounted were deposited in Herbarium of Brawijaya University (H. Bio Unibraw) Malang, East Java, Indonesia.This study concerning about local people's knowledge about medicine (Ethnomedicine) in Poncokusumo district, Malang, East Java, Indonesia.

Plants with their correct nomenclature were arranged alphabetically by local name, scientific name, family name, ethnomedicinaltibb and ethnomedicinal uses. The determination and nomenclature of the listed plants were based on the Flora of Java (Backer and van den Brink, 1968; Chinery, 1982; De Vogel, 1987).

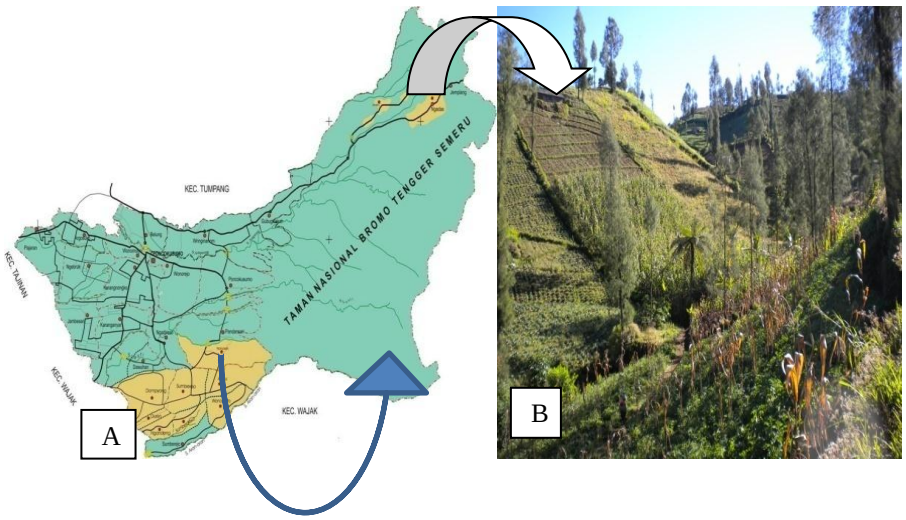

Figure 1.A. Map of district Poncokusumo Malang, East Java and locations of study sites (TAMAN NASIONAL BROMO TENGGER SEMERU is mentioned as Bromo Tengger National Park (BTS NP) in this paper). B. Ngadas village is an inclave Village in Bromo Tengger National Park (BTS NP).

2.2. Ethnomedicinal knowledge

A questionnaire method was adopted for documentation of ethnomedicinal knowledge Tengger society. The interviews were carried out from local community to document botany local name and ethnomedicinal uses. About 42 informants have been interviewed on random base (Cotton, 1996; Sheil *et al*., 2004; Waluyo, 2004). The indigenous medicinal plants having traditional knowledge (perception and conception) of utilization among the Tengger and Java societyhave been selected as reference speciments herbarium.

3. Results and Discussion

During the present study, ethnomedicinal data on 181 plant species was collected and preserved at Herbarium of Brawijaya University (H Bio Unibraw) (Table 1). From the total colected ethnomedical plants belonging to150 genera and 66 families which were recorded. Information regarding their vernacular name, botanical name, family, part used and their ethnomedicinal uses are listed below starting with local name, scientific name and family name, part used and Ethomedicinal uses.

Table 1. Presentage of life form of ethnomedicinal plant use by local people district Poncokusumo Malang.

No	Local name	Scientific name	Family	Parts used	Ethnomedicinal uses
1	Aseman	*Achiranthes bidentata* Bl.	Amaranthaceae	Young stem, leaf	Kidney problems and cough,inflamations, gonorrhea,headache
2	Bayam	*Amaranthus hybridus* L.	Amaranthaceae	Young stem, leaf	Vitality,inflamations, piles, gonorrhea,hipertension and skin allergies
3	Mangga	*Mangifera indica* L. cv. Manalagi	Anacardiaceae	Fruit	Stomach acidity and skin allergy, hemorrhoid
4	Mangga	*Mangifera* indica L. cv. Gadung	Anacardiaceae	Leaf, friut	Ear ache, hemorrhoid, vomiting
5	Sirsat	*Annona muricata* L.	Annonaceae	Leaf, fruit	Reumatik, hypertension, skin diseases &helminthiasis
6	Srikoyo	*Annona squamosa* L.	Annonaceae	Fruit	Reumatik, hemorrhoid
7	Kenongo	*Cananga odorata* Hook.f.& Th.	Annonaceae	Flower, leaf	Ritual, obsession, hair oil
8	Sledri	*Apium graviolens* L.	Apiaceae	Yung stem, leaf, fruit	Hypertension,the smell of sweat, foodflavoring, headache
9	Calingan	*Centela asiatica* Urb.	Apiaceae	Whole plant	Cough, urinary,stones
10	Tumbar	*Coriandrum sativum* L.	Apiaceae	Fruit	Cold, stimulan
11	Wortel	*Daucus carota* L.	Apiaceae	Whole plant	Sprue, eye treatment
12	Pule	*Alstonia shcolaris* R.Br.	Apocynaceae	Stem	Injury, headaches
13	Pulosari	*Alyxia reinwardii* L.	Apocynaceae	Leaf, fruit, stem	In the treatment of asthma.
14	Ampet	*Astronia macrophilla* L.	Apocynaceae	Stem	Dysentery
15	Tapak doro	*Catharanthus roseus* (L.) G.Don.	Apocynaceae	Young stem, leaf, flower	Diabetes mellitus
16	Dringu	*Acorus calamus* L.	Araceae	Leaf, rhizome	Asthma, cough tuberculosis, bloated
17	Mbote	*Calocasia esculentum* Schott.	Araceae	Stem	It is effective against cancer and cure mouth and feet diseases, sleep
18	Bentul	*Xanthosoma violacium* Schott	Araceae	Stem	Vitality
19	Sangit	*Eryngium foetidum* L.	Araliaceae	Whole plant	Diabetes mellitus
20	Cakar kucing	*Polyscias fructicosa* (L.) Harms.	Araliaceae	leaf	Vitality
21	Aren	*Arenga pinnata* (Wurm.) Merr.	Arecaceae	fruit	Hypertension and skin allergies
22	Rotan	*Calamus javensis* Bl.	Arecaceae	Young stem (umbut)	Dysentery
23	Klopo	*Cocos nucifera* L.	Arecaceae	Fruit, water	Soap, margarine
24	Piji	*Pinanga coronata* (Bl.ex Mart.) Bl.	Arecaceae	Young stem (umbut)	Dysentery, ritual Tengger
25	Salak	*Sallaca edulis* Reinw	Arecaceae	Fruit	Dysentery
26	Jambe/pinang	*Areca catechu* L.	Arecaceae	Young stem, fruit	Protection of teeth,dysentery, cosmetic, wormy
27	Bandotan	*Ageratum* sp.	Asteraceae	Whole plant	Toxic

28	Wedusan	*Ageratum conyzoides* L.	Asteraceae	Whole plant	Facilitatingurine, tumor, cancer
29	Tanalayu	*Anaphalis javanica* (Reinw.) Schulzh.;	Asteraceae	Whole plant	Ritual (petra)
30	Tanalayu	*Anaphalis longifolia* (Bl.) DC	Asteraceae	Whole plant	Ritual (petra)
31	Tiu	*Emilia sonchifolia* (L.) DC	Asteraceae	Latex leaf,flower	Icth, wound
32	Kerinyu	*Eupatorium inulifolium* H.B.k	Asteraceae	Whole plant	Toxic/ leaf paste applied to treat allergy, athlete's foot and ringworm.
33	Putihan	*Eupatorium odoratum* L.f.	Asteraceae	Whole plant	Toxic
34	Tehan	*Eupatorium riparium* Reg.	Asteraceae	Leaf	Toxic
35	Berokan	*Eupatorium triplinerve* M.Vahl	Asteraceae	Whole plant	Toxic
36	Pusek	*Gynura procumbens* (Lour.) Merr.	Asteraceae	Whole plant	Itchdrug
37	Menjari	*Sonchus javanicus* Jungh.	Asteraceae	Whole plant, latex	Itch, dewormingdrugs
38	Nyamu/paitan/liyer	*Tithonia diversifolia* Gray	Asteraceae	Whole plant	Toxic, stimulants
39	Kuningan	*Widelia montana* (Bl.) Boerl	Asteraceae	Leaf, flowers	Inflammations, asthma and diseases.
40	Ganjan	*Artemisia vulgaris* L.	Asteraceae	Leaf	Toxic
41	Sempretan	*Bidens pilosa* L.	Asteraceae	Radix	Asthma, reumatic, vitality
42	Jamur kuping	*Auricularia polystrica* (Montagne) Saccardo.	Auriculariaceae	Fruit	Vitality
43	Binahong	*Basella rubra* L.	Basellaceae	Young stem, leaf	Wound
44	Durian	*Durio zibethinus* Murray	Bombaceae	Fruit	Hypertension, vitality
45	Sawi	*Brassica juncea* Cosson	Brassicaceae	Leaf	Wounds, earaches and ulcers. The seeds are anthelmintic, carminative, stimulant and vesicant
46	Kobis	*Brassica oleracea* L.	Brassicaceae	Leaf	Wounds, earaches and ulcers,the seeds are anthelmintic, carminative, stimulant and vesicant
47	Lobak	*Rhapanus sativus* L.	Brassicaceae	Leaf, flower	Gout,flatulence, a bee sting
48	Nanas	*Ananas comusus* Merr.	Bromeliaceae	Young fruit	Used for abortion.
49	Tepung otot	*Plantago mayor* L.	Campanulaceae	Whole plant: leaf, seed	Sprained, diabetes mellitus, herbs
50	Kates	*Carica papaya* L.	Caricaceae	Leaf, fruit	Vitality, hemorrhoid
51	Srikaya	*Carica pubescent* L.	Caricaceae	Fruit	Vitality, hemorrhoid
52	Cemara gunung	*Casuarina junghuhniana* L.	Casuarinaceae	Stem (ash)	Dysentery
53	Tirem	*Solanum* sp.	Convolvulaceae	Leaf	Vitality, stimulans, headaches
54	Timun	*Cucumis sativus* L.	Cucurbitaceae	Fruit	Hypertention, skin allergies
55	Waluh	*Cucurbita moschata* (Duch.ex Lam.) Duch.ex Poir.	Cucurbitaceae	Fruit	Vitality
56	Pare	*Mimordica charantia* L.	Cucurbitaceae	Fruit	Vitality, stimulanmosquito bites,headaches
57	Siyem	*Sechium edule* (Jacq.) Swart	Cucurbitaceae	Fruit	Infections, stomach problems
58	Teki	*Cyperus rotundus* L.	Cyperaceae	Rhizomes	Dysentery and blood disorders, headaches, tuberous,

					indigestion, diarrhoea, cholera, stomachic and diuretic
59	Kesemek	*Diospyros kaki* L.	Ebenaceae	Fruit	Vitality, hypertension
60	Petungan	*Equisetum debile* Roxb.	Equisetaceae	Stem, leaf	Dysentry
61	Buntut tikus	*Acalypha indica* L.	Euphorbiaceae	Leaf	Bloated
62	Kemiri	*Aleruites moluccana* Willd	Euphorbiaceae	Seed	Hairgrower, bumbu (seasoning)
63	Kontol belang	*Euphorbia pulcheima*L.	Euphorbiaceae	Whole plant, latex	Expectroant, used in bronchitis, cough and asthma, toxic
64	Ketela rambat	*Ipomoea batatas* Poir	Euphorbiaceae	Stem, leaf	Colds
65	Jarak pagar	*Jatropa curcas* L.	Euphorbiaceae	Latex, fruit	Protection of teeth,toxic
66	Jodium	*Jatropha multifida* L.	Euphorbiaceae	Latex (whole plant)	Cure wounds, toxic
67	Pohong	*Manihot esculenta* Crantz.	Euphorbiaceae	Root, leaf, tape	Vitality, alkoholic, tape
68	Jarak kepyar	*Ricinus communis* L.	Euphorbiaceae	Latex, seed (whole plant)	Toxic, protection of teeth, herbs (seasoning)
69	Klanding	*Albitzia lophanta* (Wild.) Bth.	Fabaceae	Latex, fruit, seed	Appetite wound, vitality
70	Dadap	*Erythrina variegata* L.	Fabaceae	Leaf	Flu remedy,colds
71	Pronojiwo	*Euchresta horsfieldii* (Lesch.) Benn	Fabaceae	Stem, seed	Vitality, gastric troubles, impotence
72	Toro	*Leucaena leucacephala* (Lamk.) De Wit.	Fabaceae	Young leaf, latex, fruit, seed	Itch,gastric pains, appetite, protection of teeth
73	Riwilkop	*Mimusa pudica* L.	Fabaceae	Leaf	Gastric pains, protection of teeth
74	Benguk	*Mucuna pruriens* (L.) DC.	Fabaceae	Seed	Stimulans
75	Pete	*Parkia speciosa* Hassk.	Fabaceae	Seed	Appetite, stimulants
76	Buncis	*Phaseolus vulgaris* L.	Fabaceae	Young leaf, fruit, seed	Sprue
77	Ercis	*Pisum sativum* L.	Fabaceae	Leaf, fruit, seed	Stimulans
78	Asam jawa	*Tamarindus indica* L.	Fabaceae	Fruit	Cough, whitish, purification,sprained
79	Rukem	*Flacourtia rukam* Zoll. & Mor	Flacourtiaceae	Leaf	Gonorrhea
80	Grinting	*Cynodon dactylon* Pers.	Gramineae	Stem	Injury of bone
81	Alang-alang	*Imperata cylindrica* (L.) Beauv.	Gramineae	Rhyzomes	Wound,fever, to treat dysfunctional organs of cattle
82	Padi	*Oryza sativa* L.	Gramineae	Flower, seed	Shampoo,facilitating themother'smilk, sprain, bone fractures
83	Tebu	*Sacharum officinarum* L.	Gramineae	Stem	Stimulans,diabetes mellitus, fever, to treat dysfunctional organs of cattle,improvement of appetite and in the treatment of abdominal pain
84	Gandum	*Zea mays* L.	Gramineae	Young fruit	Smallpox,urinary disorders, bladder cleaning and kidney disorders
85	Sereh	*Adropogon nardus* DC.	Gramineae	Leaf, rhizomes	Cough, fever
86	Danglu	*Engelhardia spicata* L.	Juglandaceae	Stem, flower	Protection of eye
87	Permenan	*Mentha arvensis* L.	Labiatae	Whole plant: root	Vitality
88	Kemangi	*Oscimum basilicum*	Labiatae	Young stem,	Vitality, male fertility,

		L.		leaf, flower	perfumedbody
89	Keningar	*Cinnamomum burmanii* Bl.	Lauraceae	stem	Vitalitas, cold, nose infections, common cold
90	Sintok	*Cinnamomum sintoc* Bl.	Lauraceae	Stem	Tuberculosis, vitality
91	Apokat	*Persea americana* Miller.	Lauraceae	Fruit	Sprue, smooth bowel movement, hemorrhoid
92	Bawang prei, tropong	*Alium fistulosum* L.	Liliaceae	Stem, leaf	Tuberculosis.,tonic, aphrodisiac, diuretic, carminative, appetizer, antispasmodic, diarrhea, dysentery and rheumatism.
93	Bawang putih	*Alium sativum* L.	Liliaceae	Stem, leaf	Hypertension, cold, cough,tuberculosis, diureticum, panu/tinea versicolor,headache
94	Lidah buaya	*Aloe vera* Mill.	Liliaceae	Leaf	Shampoo, body weakness and in the treatment of pimples or acne.
95	Pandan suji	*Pleumele angustifolia* (Roxb.) N.T.Brown	Liliaceae	Leaf	Food color
96	Lidah mertua	*Sansevieria trifasciata* Prain	Liliaceae	Leaf	Smokeabsorber
97	Mladean	*Loranthus*sp.	Loranthaceae	Whole plant	Cancer
98	Jamur impes	*Calvatia bovista* (L.) Van Overeem	Lycoperdaceae	Fruit	Itch/toxic, cancer
99	Pacar	*Lawsonia inermis* L.	Lythraceae	leaf	Itch, nail polish
100	Locari	*Michelia champaca* L.	Magnoliaceae	Fruit	Perfumedbody, ritual
101	Waron	*Abelmonchus moschatus* Medik.	Malvaceae	Flower	Bitten by insect, skin allergies
102	Kerut, garut	*Marantha arundinacea* L.	Marantaceae	Rhyzomes	Powder skin, vitality
103	Senggani	*Melastoma polyanthum* Bl.	Melastomaceae	Leaf	Highblood pressure drugs
104	Mindi	*Melia azedarach* L.	Meliaceae	Leaf, fruit	Toxic, skin infection, skin diseases.
105	Mahoni	*Switenia mahagoni* Jacq.	Meliaceae	Fruit, seed	Headache, encok
106	Nangka	*Artocarpus heterophyllus* Lamk.	Moraceae	Young fruit	Dysentery
107	Ringin	*Ficus benyamina* L.	Moraceae	Leaf, fruit	Blood purifications, ritual
108	Lo	*Ficus glomerata* Roxb.	Moraceae	Fruit	Dysentery,gonorrhea
109	Awar-awar	*Ficus septica* Burm.f.	Moraceae	Leaf, fruit	Asthma,urinary problems, constipation and vomiting
110	Besaran	*Morus alba* L.	Moraceae	Fruit	Vitality, bad thorax, stomach worms, demam, hemorrhoid
111	Kelor	*Moringa oleifera* Lamk.	Moringiaceae	Leaf	Tuberculosis, headache
112	Pisang	*Musa paradisiaca* L.	Musaceae	Fruit, latex, flower	Itch, dysentery, hemorrhoid, ritual
113	Kayu putih	*Eucalyptus alba* Reinw. ex Bl.	*Myrtaceae*	Leaves, seeds	Cold, cough, throat lozenges, malaria and toothache
114	Jambu air	*Eugenia aquea* Burm.f.	Myrtaceae	Fruit	Vitality
115	Cengkeh	*Eugenia aromatica* O.K.	Myrtaceae	Flower	Protection of teeth, cygarette
116	Salam	*Syzygium polyanthum*	Myrtaceae	Leaf, fruit	Rheumatism, body weakness and in the treatment of pimples
117	Poo	*Melaleuca leucadendron* L.	Myrtaceae	Stem, leaf	Common cold, nose infections, tuberculosis
118	Jambu wer	*Prunus persica* Zieb.	Myrtaceae	Young leaf,	Dysentery, improvement of

		& Zucc.		young fruit	appetite, and stomach problems
119	Jambu klutuk	*Psidium quajava* L.	Myrtaceae	Leaf, fruit	Dysentery, dengue fever, improvement of appetite, and stomach problems,dengue fever
120	Blimbing	*Averhoa carambola* L.	Oxalidaceae	Fruit	Hypertension
121	Tapak kuda	*Oxalis corniculata* L.	Oxalidaceae	Leaf	Influenza
122	Pandan wangi	*Pandanus amaryllifolius* Roxb.	Pandanaceae	Leaf	Foot aromatic flavoring, body, ritual
123	Meniran	*Phyllanthus ninuri* L.	Phyllanthaceae	Leaf, fruit	Cough
124	Katu	*Sauropus androgynus* (L.) Merr.	Phyllanthaceae	Whole plant	Facilitatebreastfeeding
125	Pinus	*Pinus merkusii* Jung & de Vries	Pinaceae	Bark, resin	Burns and scalds, boils, cough and gastric troubles
126	Sirih	*Piper betle* L.	Piperaceae	Whole plant	Protection of teeth, nosebleed, blood purification, used for bath after delivery for body care, skin allergies
127	Akar wangi	*Polygala paniculata* L.	Polygalaceae	Root, leaf	Bronchitis, itch, cought
128	Paku jangan	*Diplazium esculentum* Swartz.	Polypodiaceae	Rhyzomes	Dysentery
129	Paku sarang	*Drynaria quercifolia* J.Sm.	Polypodiaceae	Rhyzomes	Dysentery
130	Jamur kayu	*Ganoderma cochlear* (Bl. et Nees Murrill.	Polyporaceae	Badan buah	Skin diseases,used for bath after delivery for body care
131	Delima	*Punica granatum* L.	Punicaceae	Radix, fruit	Vitality, wormy, dysentery
132	Stroberi	*Fragaria fista* L.	Rosaceae	Fruit	Sprue disentery
133	Melati	*Jasmicum sambac* Ait.	Rosaceae	Flower	Deodorizer body
134	Apel	*Pyrus malus* L.	Rosaceae	Fruit	Vitality, sprue
135	Mawar	*Rosa multiflora* Thunb.	Rosaceae	Flower	Deodorizer body, ritual
136	Grunggung	*Rubus rosaefolius* J.E. Smith	Rosaceae	Fruit	Sprue, astringens
137	Kina	*Cinchona ledgeriana* Moens.	Rubiaceae	Stem skin	Malaria fever
138	Kopi	*Coffea arabica* L.	Rubiaceae	Fruit, seed	Hipertention, used in stomach ache, headache
139	Mengkudu	*Morinda citrifolia* L.	Rubiaceae	Fruit	Diabetes mellitus, hipertention
140	Simbukan	*Paederia scandens* (Lour.) Merr.	Rubiaceae	Young stem,leaf	Bloated stomach, headache
141	Jeruk nipis	*Citrus aurantifolia* (Ch.&P.) Sw.	Rutaceae	Leaf, fruit	In the treatment of asthma, cough, tuberculosis
142	Jeruk bali	*Citrus maxima* (Burm.) Merr.	Rutaceae	Fruit	Vitality,toothpowder for teeth diseases and in infections.
143	Jeruk keprok	*Citrus nobilis* Lour.	Rutaceae	Fruit	Sprue, toothpowder for teeth diseases and in infections.
144	Jeruk manis	*Citrus sinensis* Osb.	Rutaceae	Fruit	Sprue, toothpowder for teeth diseases and in infections.
145	Lengkeng	*Lechi sinensis* Sonn	Sapindaceae	Fruit	Vitality
146	Lerak	*Sapindus rarak* D.C.	Sapindaceae	Fruit	Soap, shampoo, iradicate insect
147	Sawo	*Achras zapota* L.	Sapotaceae	Young fruit	Dysentery
148	Jamur grigit	*Schizophyllum alneum* (L.) Schr; *Schzophyllum commune*	Schizophyllaceae	Fruit body	Vitality
149	Rumput kuda	*Selaginella ornata* Spring	Selaginellaceae	Whole plant	Dysentery
150	Cubung tingkat	*Brugmansia candida* Pers.	Solanaceae	Leaf, fruit, flower	Gonorrhea,used to reduce general body inflammation, intoxication, loss of appetite
151	Cubung	*Brugmansia suaveolens* Barcht. &	Solanaceae	Leaf, fruit, flower	Gonorrhea,eye medicationused to reduce general body

		Presl.			inflammation, intoxication, loss of appetite
152	Lombok kriting	*Capsicum anuum* L.	Solanaceae	Fruit	Cold, cough, vitality, stimulans, sweatbullets
153	Pedesan, rawit	*Capsicum frutescent* L.	Solanaceae	Fruit and leaf	Flu, vitality, stimulans, sweatbullets
154	Kangkung	*Ipomoea aquatica* Fosrk.	Solanaceae	Young stem, leaf	Smooth bowel movements, hemorrhoid,constipation, control dandruff,skin diseases, constipaton, vomitting
155	Tomat	*Lycopersicum esculentum* Mill.	Solanaceae	Fruit	Eyepain medications, Sprue, ambeien (hemorrhoid)
156	Mbako, soto	*Nicotiana tabacum* L.	Solanaceae	Young stem,leaf	Bitten by asnake,tooth ache,malaria(mosquito)
157	Ciplukan	*Physalis heterophyla* L., *Physalis minima* L.	Solanaceae	Whole plant	Wound, medicine, sprue, diabetes mellitus
158	Lombok udel	*Solanum capiscatrum* L.	Solanaceae	Fruit	Sprue
159	Ranti	*Solanum nigrum* L.	Solanaceae	Leaf, fruit	Stimulants, fasility urinare, used for abortionand painful secretions from ears
160	Pokak	*Solanum torvum* Sw.	Solanaceae	Fruit	Stimulans, appetiteabnormal and painful secretions from ears
161	Kentang	*Solanum tuberosum* L.	Solanaceae	Stem	Vitality, appetite, ritual
162	Teh	*Camelia sinensis* (L.) O.K.	Theaceae	Leaf	Vitality, urinary,skin cleansers, dysentery
163	Adas	*Foeniculum vulgare* Mill.	Umbelliferae	Whole plant	Stimulans, fever, cought, in the treatment of asthma.
164	Purwoceng	*Pimpinella pruacan* Molkenb.	Umbelliferae	Whole plant	Vitality for men,diabetes mellitus
165	Calingan, pepagan	*Centella asiatica* Urb.	Umbelliferae	Leaf	Astma,bladder stones
166	Janggut wesi	*Usnea dasypoga* (Acharius) Nylander	Usneaceae	Fruit	Vitality,Javanes traditionalherbal people
167	Mentigi	*Vaccinum varingiaefolium* (Bl.) Miq	Vaccinaceae	Fruit	Vitality
168	Waung, telekan	*Lantana camara* L.	Verbenaceae	Whole plant	Toxic, leaf paste applied to treat allergy, athlete's foot and ringworm.
169	Pecut kuda	*Stachytarpetha indica* (L.) Vahl	Verbenaceae	Whole plant	
170	Anggur	*Vitis vinifera* L.	Vitaceae	Fruit	Vitality, facilitatingurination
171	Jamur kancing	*Volvaria volvacea* (Bull.) Fries	Volvariaceae	Fruit	Skin diseases, vitality
172	Laos	*Alpinia galanga* (L.) Wild.	Zingiberaceae	Rhyzomes	Liver disease, fungi. rheumatism, body weakness and in the treatment of pimples or acne.
173	Kapulogo	*Amomum cardanomum* L.	Zingiberaceae	Rhyzoma, fruit, seed	Analgetic, tuberculosis
174	Ganyong	*Canna edulis* Ker.	Zingiberaceae	Rhizomes, leaf	Powder skin, dysentery
175	Temu ireng	*Curcuma aeruginosa* Roxb.	Zingiberaceae	Rhyzomes	Javanes Traditional herbal, helminthic
176	Kunyit	*Curcuma domestica* Val.	Zingiberaceae	Rhyzomes	Fungi , liver, food color
177	Temu lawak	*Curcuma xanthorhiza* L.	Zingiberaceae	Rhyzomes	Hipertention, liver, cancer
178	Kunci	*Kaempferia angustifolia* Rosc.	Zingiberaceae	Rhyzomes	Vitality
179	Kencur	*Kaempferia galanga*	Zingiberaceae	Rhyzomes	In the treatment of asthma,

		L.			broken bones, sprains
180	Lempuyang	*Zingiber aromaticum* Val.	Zingiberaceae	Rhyzomes	Vitality (Javanese traditional herbal)
181	Jae, jae wono	*Zingiber officinale* Roxb.	Zingiberaceae	Rhyzomes	Vitality, blood purification, sprained

The results showed that part of the plant used as an ingredients medicine consistingof rhizomes, sap, roots, stem bark, leaf, flower, fruit and seed. Total of 181 plant species determinate of Tengger and Java people existing in the region. The indigenous knowledge and useful medicine of plants is magnificent and one species dancukan (*Gardenia palmata*) very toxic. Family ethnomedicine plants that have large members includes Euphorbiaceae (8 species), Fabaceae (10 species), Zingiberaceae (10 species), Solanaceae (12 species) and Asteraceae (15 species).On the other hand family importance e.g. Rosaceae (*Pyrus malus*), Araceae (*Acorus calamus*), Myrtaceae (*Prunus persica*), Musaceae (*Musa paradisiaca*), Caricaceae (*Carica papaya*, *Carica pubescent*), Apiaceae (*Foeniculum vulgare*). The number of plants used to treat more than 60 diseases. The necessity of traditional Tengger people'sknowledge driven by the needs formal life in their environment. Related to the needs they have to manage, used, controled and market.

The research of local knowledge should be followed with the knowledge of ethics, which in turn flows into the validity and regulatory framework. Local knowledge is the basic which is very useful to support scientific research (ethics) and as the key in the developingpolicies in plants with pharmacological value, ultimately for the national and international markets.The traditional knowledge of Tengger tribe about the medicine becomethe important and very valuable in the development of the pharmacology fields.

The less of government attention, foolishness, poverty, ignorance and lack of modern health facilities, so the most local people use traditional medicine in everyday life. Most of special Tengger people gain strength with mantra (suwuk), both in the compounding and the implementation of their traditional medicine. A knowledge of how public compounding medicinal plant materials are to combat against various diseases, although regional differences within a tribe into a traditional knowledge that very important.Recentlythe use of medicinal plants by the Tengger tribe and Java people beginning to be, due to less practical, especially on the younger generation.Based on the results of this study conducted on Ethno-medicine local people as follows: (a) Traditional knowledge of medicinal plants. (b) Compounding techniques of medicine, selection types of plant, organs and types of diseases.

4. Conclusions

An ethnomedecinal survey was carrying in district Poncokusumo Malang, Province East Java, Indonesia for documentation of importan plants diversity and information from local people. Total of 181 plant species determinate of Tengger and Java people existing in the region. The indigenous knowledge and useful medecine of plants is magnificent. Family ethnomedicine plants that have large members includes Euphorbiaceae (8 species), Fabaceae (10 species), Zingiberaceae (10 species), Solanaceae (12 species) and Asteraceae (14 species).The number of plants used to treat more than 60 diseases.The treatment done by a medicine man or shaman from Tengger people by ritual treatment with called "Suwuk".Qualitative approach (emic) must be followed research ethic with intensive, and phytochemicals present identity. This study can be references to Perhutani, Bromo Tengger Semeru National Park (BTS NP), local people, companies, and pharmacology for further development.

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Conflict of interest

None to declare.

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