

Medicinal Plants Used By the Jah Hut Orang Asli at Kampung Pos Penderas, Pahang, Malaysia

H.C. Ong, A.W. Faezah and P. Milow*

Institute of Biological Sciences, University of Malaya, 50603 Kuala Lumpur Malaysia

**E-mail: pozimilow@um.edu.my*

KEYWORDS Traditional. Decoctions. Infusions. Poultices. Coughs. Flatulence. Dandruff

ABSTRACT A survey through observation, participation and conversation was carried out at a Jah Hut Orang Asli village Kampung Pos Penderas to document medicinal plants used by the villagers. A total of 53 species of medicinal plants was recorded. These plants were used for treating various ailments encountered by the villagers ranging from minor ailments and complaints such as itch and flatulence to more serious conditions such as hypertension, stones in the urinary system and poisoning. Several species merit further studies such as *Ancistrocladus extensus* for treating liver problems, *Ardisia sanguinolenta* for halting internal bleeding, *Connarus grandis*, *Licuala spinosa* and *Lindera pipericarpa* as antidotes to poisoning, *Goniotalamus macrophyllus* for anti-aging purpose, *Vernonia arborea* for treating tumours.

INTRODUCTION

There are three groups of Orang Asli (indigenous people) in Peninsular Malaysia with six tribes in each group (Carey 1976; Nicholas and Raajen 1996). The Jah Hut tribe is in the Senoi group. The total population of Jah Hut in Malaysia is more than 3,000 persons (Nicholas and Raajen 1996). Previous studies on the Jah Hut focussed on the art and culture of wood carvings and their healing ceremonies (Werner 1975, 1986; Kasimin 1993). This has made the Jah Hut widely known for their wood carvings and healing ceremonies. Although the Jah Hut mostly associate ailments as caused by spirits and thus perform healing ceremonies to appease the spirits and bring about healing, medicinal plants are also used for treating and healing the sick. This study focuses on the plants used in traditional medicine and not on the ceremonial healing process which is well documented. There are more studies and publications on the Orang Asli of Peninsular Malaysia in various fields within the social sciences as compared to fields in the pure and applied sciences (Teh 1995). Thus much of the traditional Jah Hut knowledge and usage of medicinal plants have yet to be studied and published by the scientific community. This study is part of a concerted effort to send out researchers into native villages and conduct ethnobotanical projects, collecting data on traditional knowledge and usage of plants. Researchers stayed in the study sites to observe, participate and converse with the natives. Traditional knowledge and usage of me-

dicinal plants is decreasing due to various factors. For example, modern medicines are easily available, the younger generations are less interested in traditional medicines, changes in habitats and environment causing many medicinal plants to be less available or unavailable (Ong 1994; Nicholas and Raajen 1996; Nicholas 2000).

Documentation on traditional knowledge on medicinal plants usage by the native people in Peninsular Malaysia is still far from complete. Among the available records on medicinal uses of plants among the native of Peninsular Malaysia were by Lin (2005) and Ong et al. (2011a, b). Until now, the work by the former is the only available record on the medicinal plant usage by the Jah Hut tribe. It was carried out at Kampung Keboi in Jerantut district and in the state of Pahang. The present study is to help the Jah Hut to conserve knowledge of medicinal plants usage that may be useful to the future generations of the Jah Hut. This study is also part of the on-going effort to document traditional knowledge on medicinal plants usage that, among others, can be used to strategise the conservation of medicinal plants in Peninsular Malaysia.

The Study Site

Pos Penderas village is in the district of Jerantut of Pahang state. The village covers a land area of 283 hectares and can be reached by road. It is situated on the fringe of the forest with a river nearby. The coordinates are 3.6° N and

102.3° E. The nearest neighbour is a Malay village named Kampung Paya Luas. The nearest town is Kuala Krau. The total population in Pos Penderas at the time of study was 525 persons in 125 families. It is a resettled village under the government's resettlement plan supervised by the Department of Orang Asli Affairs, Malaysia. The villagers are agriculturists as well as hunters and gatherers. Farming activities are conducted near their houses and also in plots further away from the village. They catch fish and other riverine animals from a nearby river and hunt mainly for small animals in the forests. Plant resources used for the purposes of food, medicine, building materials and other uses are obtained from their farms and the surrounding areas.

MATERIAL AND METHODOLOGY

Information was obtained using standard methods of ethno-botanical enquiry through observation, participation and conversation keeping in mind all the time the need to gather all necessary aspects on traditional medicinal plant knowledge and usage for every specimen recorded (Chin 1981; Martin 1995). The sessions were recorded and transcribed later. Plant specimens were collected using standard taxonomical procedures, taking specimens with flowers and fruits whenever possible (Womersley 1981). Photographs of the specimens were also taken and later used together with the plant specimens for identification purposes. Identification was done using various references on the local flora such as Henderson (1974a,b) for herbs and shrubs, Ng (1995) and Whitmore (1983) for trees, Ridley (1967) for general flora, Piggott (1988) for ferns. The species recorded are listed in a table according to alphabetical order of the binomial names.

RESULTS AND DISCUSSION

This study recorded a total of 53 species of plants (Table 1) used as herbal medicine by the Jah Hut villagers in Pos Penderas. Table 1 consists mainly of plants used in making decoctions, infusions or poultices to be taken orally or applied topically but there are also plants used in making love potion, hate potion and those used in healing ceremonies as a source of incense, healing wands or talisman. The Jah Hut used these plants to treat various minor and also

major ailments such as coughs, flatulence, dandruff, hypertension, poisoning. They also used plants as female contraceptives, male tonics, to induce abortion. Table 1 is a comprehensive record of the Jah Hut usage of plants to treat all types of ailments or other problems faced by them.

An earlier paper recorded 16 medicinal plant species being used by the Jah Hut peoples of Malaysia (Lin 2005). The present report of 53 species of medicinal plants used in a single Jah Hut village is a substantial contribution to the knowledge and report on the Jah Hut peoples' knowledge of medicinal plants. These two studies also show that the Jah Hut peoples do not depend only on ritual healing using wood carvings, ceremonies and incantations. The usage of medicinal plants also involve the Jah Hut belief in spiritual powers playing a big role in the healing process but in science, the healing power of medicinal plants come from the chemicals contained within these plants. Several species merit further studies on the medicinal properties for verification purposes and potential usage such as *Ancistrocladus extensus* for treating liver problems, *Ardisia sanguinolenta* for halting internal bleeding, *Connarus grandis*, *Licuala spinosa* and *Lindera pipericarpa* as antidotes to poisoning, *Goniothalamus macrophyllus* for anti-aging purpose, *Vernonia arborea* for treating tumours. Most of these plants have been reported to have similar or other medicinal uses among other native tribes. *Ancistrocladus extensus* is used in a mixture to treat cuts, wounds, and fractures by the Karens of Middle Andaman (Sharief et al. 2005). Chuakul et al. (2006) reported that *Licuala spinosa* is used by natives in Thailand to treat centipede bite. Leaves, fruits and barks of *Lindera pipericarpa* is used by the Muruts of Sabah as antidote for snake bite (Kulip 2003). Different parts of *Goniothalamus macrophyllus* are used by the Temuan in Peninsular Malaysia to treat various ailments such as body pains, rheumatism, skin complaints (Hanum and Hamzah 1999). According to Alam et al. (2011), the bark juice of *Vernonia arborea* is used to treat worms. Infusion of roots or decoction of bark of the plant is used for treating fever.

CONCLUSION

This study has recorded 53 species of medicinal plants used by the Jah Hut tribe in Pos

Table 1: List of medicinal plants recorded in this study and the medicinal uses

<i>Names (Binomial, family, Jah Hut name)</i>	<i>Ethno-medicinal uses</i>
<i>Albizzia myriophylla</i> Benth. Mimosaceae. Telinga gajah	Root decoction taken orally to treat flatulence and as a male tonic.
<i>Aloe barbadensis</i> Mill. Liliaceae. Lentak bahayak	Leaf gel taken orally to treat asthma, coughs, diarrhoea; applied topically on dandruff.
<i>Ancistrocladus extensus</i> Wall. ex Planch. <i>Ancistrocladaceae</i> . Pokok sembelit	Root decoction taken orally to treat jaundice, liver problems.
<i>Aquilaria malaccensis</i> Lamk. <i>Thymelaeaceae</i> . Pokok gaharu	Dried wood and leaves burnt as part of healing ceremony to treat various ailments.
<i>Ardisia crenata</i> Sims. <i>Myrsinaceae</i> . Pokok ubat dui	Pounded leaves applied topically on abscesses and swellings, especially on head of children.
<i>Ardisia sanguinolenta</i> Bl. <i>Myrsinaceae</i> . Pokok pencuci darah	Root decoction taken orally to halt mother's post-partum bleeding.
<i>Baccaurea ramiflora</i> Lour. <i>Euphorbiaceae</i> . Pokok rambai tiung	Root decoction taken orally to treat piles.
<i>Chroesthes longifolia</i> (Wight) Hansen. <i>Acanthaceae</i> . Pokok peluruh darah	Root decoction taken orally as an abortifacient.
<i>Cinnamomum aureofulvum</i> Gamb. <i>Lauraceae</i> . Misai Ali	Root decoction taken orally as a male tonic.
<i>Citrus medica</i> L. <i>Rutaceae</i> . Pokok lemo	Extracted fruit juice mixed in bath water as a preventive medicine against potential ailments and calamities.
<i>Connarus grandis</i> Jack. <i>Connaraceae</i> . Pokok penawar racun	Root chewed and juice swallowed as antidote to poisoning.
<i>Costus speciosus</i> (Koenig.) Smith. <i>Zingiberaceae</i> . Pokok setawar	Leafy branch used in healing ceremony for treating various ailments.
<i>Cymbopogon citratus</i> (DC.) Stapf. <i>Poaceae</i> . Serai cak	Leaf base decoction sweetened with honey taken orally to treat skin cracks on the feet.
<i>Cymbopogon nardus</i> (L.) Rendle. <i>Poaceae</i> . Serai reom	Leaf base is one of many ingredients used to make medicated oil for treating flatulence, aches and pains.
<i>Cyrtandra pendula</i> Bl. <i>Gesneriaceae</i> . Pokok seladap	Root decoction taken orally to treat hypertension.
<i>Desmos chinensis</i> Lour. <i>Annonaceae</i> . Akar pemecah darah	Root decoction taken orally as an abortifacient.
<i>Epiprinus malayanus</i> Griff. <i>Euphorbiaceae</i> . Pokok awet muda	Root decoction taken as a general tonic and anti-aging.
<i>Eugenia urceolata</i> King. <i>Myrtaceae</i> . Akar senggugut	Root decoction taken orally to treat painful menses.
<i>Euphorbia hirta</i> L. <i>Euphorbiaceae</i> . Setuk nilang	Latex applied topically on sties.
<i>Eurycoma longifolia</i> Jack. <i>Simaroubaceae</i> . Tongkat Ali putih	Root decoction taken orally as a male tonic.
<i>Ficus aurantiaca</i> Griff. <i>Euphorbiaceae</i> . Akar tengkuk biawak	Stem and root decoction taken orally to treat painful menses.
<i>Garcinia scortechinii</i> King. <i>Clusiaceae</i> . Akar senggugut	Root decoction taken orally to treat painful menses and as an abortifacient.
<i>Goniothalamus macrophyllus</i> (Bl.) Miq. <i>Annonaceae</i> . Pokok pelada	Root decoction taken orally for anti-aging purpose. Mixed decoction with <i>Eurycoma longifolia</i> taken orally as male tonic.
<i>Helminthostachys zeylanica</i> (L.) Hook. <i>Ophioglossaceae</i> . Pokok tunjuk langit	Root decoction taken orally to treat diarrhoea and hypertension.
<i>Hevea brasiliensis</i> Muell. Arg. <i>Euphorbiaceae</i> . Nohok getah	Stem juice mixed with boiling water, strained and taken orally to treat diarrhoea.
<i>Hippocratea indica</i> Willd. <i>Celastraceae</i> . Kayu serapat	Root decoction taken orally by post-partum mothers to hasten the contraction of expanded organs.
<i>Homalomena rostrata</i> Griff. <i>Araceae</i> . Pokok janggut baung	Root decoction taken orally to treat hypertension.
<i>Justicia betonica</i> L. <i>Acanthaceae</i> . Bukau sepatah	Pounded leaves applied topically on sprains.
<i>Labisia pothoina</i> Lindl. <i>Myrsinaceae</i> . Pokok remoyan batu	Root and stem decoction taken orally to treat post-partum dementia, painful menses, as a female oral contraceptive.
<i>Lasia spinosa</i> Thwaites. <i>Araceae</i> . Pokok geli	Pounded leaves applied topically on itches.
<i>Lasianthus oblongus</i> K. & G. <i>Rubiaceae</i> . Pokok sekentut	Root decoction taken orally by post-partum mothers to hasten the contraction of expanded organs.
<i>Lawsonia inermis</i> (L.) Pers. <i>Lythraceae</i> . Pokok inai	Pounded leaves applied topically on abrasions, cuts and wounds, loss of hair.
<i>Lepidagathis incurva</i> Buch.-Ham. <i>Acanthaceae</i> . Sawi bangkok	Pounded leaves mixed with kerosene applied topically on shingles.
<i>Leptaspis urceolata</i> R. Br. <i>Poaceae</i> . Pokok pelekak anak	Root eaten raw or decoction taken orally by women to promote fertility.
<i>Licuala spinosa</i> Wurm. <i>Arecaceae</i> . Daun kreching	Meristem infusion taken orally as an antidote to poisoning.
<i>Lindera pipericarpa</i> (Miq.) Boerl. <i>Lauraceae</i> . Kayu sassi	Root decoction taken orally to treat flatulence, as antidote to poison.
<i>Peliosanthes violacea</i> Wall. <i>Liliaceae</i> . Akar penjarang	Root decoction taken as a female oral contraceptive.

Table 1: Contd.....

<i>Names (Binomial, family, Jah Hut name)</i>	<i>Ethno-medicinal uses</i>
<i>Peristrophe acuminata</i> Nees. Acanthaceae. Pokok pengubat luka	Pounded leaves applied topically on abrasions, cuts and wounds.
<i>Phyllagathis rotundifolia</i> (Jack) Bl. Melastomataceae. Pokok kulit	Root decoction taken orally by post-partum mothers as a blood cleanser.
<i>Phyllanthus pulcher</i> Wall. ex Muell. Arg. Nohok penunduk	Root decoction taken orally to treat hypertension. Leaves used in compound mixture to make a love potion.
<i>Pinanga polymorpha</i> Becc. Arecaceae. Kayu legong	Leaf used in healing ceremony for treating various ailments.
<i>Polyalthia bullata</i> King. Annonaceae. Tongkat Ali hitam	Root decoction taken orally as a male tonic.
<i>Psidium guajava</i> L. Myrtaceae. Pokok jambu	Pounded young leaves mixed with water, strained and taken orally to treat diarrhoea.
<i>Psychotria montana</i> Bl. Rubiaceae. Pokok sembelit merah	Root decoction taken orally to treat constipation.
<i>Rennelia speciosa</i> (Wall. ex Kurz.) Hk.f. Rubiaceae. Pokok sekemang	Root decoction taken orally as a male tonic.
<i>Salacca affinis</i> Griff. Arecaceae. Pokok salak	Leaf used in healing ceremony for treating various ailments.
<i>Stachyphrynium jagoratum</i> Schum. Marantaceae. Pokok pengancur darah	Root decoction taken orally to treat stones in the urinary organs.
<i>Striga asiatica</i> (L.) Kuntze. Scrophulariaceae. Jarum emas	Plant decoction taken orally as a female oral contraceptive.
<i>Styrax benzoin</i> Dryand. Styracaceae. Pokok kemenyan	Resin is burnt as part of healing ceremony for treating various ailments.
<i>Tetracera macrophyllus</i> Wall. ex Hk.f. & Thoms. Dilleniaceae. Daun mempelas	Leaves hung on the door as part of healing ceremony for treating various ailments.
<i>Timonius wallichianus</i> Val. Rubiaceae. Pokok pembenci	Whole plant used in making hate potion.
<i>Vernonia arborea</i> Buch. Ham. Asteraceae. Pokok kayu ubat barah	Root scraped on stone and scrapings applied on tumours, swellings.
<i>Zingiber spectabile</i> Griff. Zingiberaceae. Daun penyempul	Leafy branch used in healing ceremony for treating various ailments.

Penderas. Several of the species recorded merit further studies in laboratories and may have potential for clinical trials in treating various ailments. Many of the plant species recorded in this study also have potential as health foods and food supplements that can contribute towards better health.

ACKNOWLEDGEMENTS

We thank the Government of Malaysia and the University of Malaya for providing funds and facilities for research. We are most grateful to the Jah Hut villagers who have shared their valuable knowledge on plants. Many thanks also to the Department of Orang Asli Affairs for giving permission to conduct this research.

REFERENCES

- Alam G, Singh MP, Singh A 2011. Wound healing potential of some medicinal plants. *International Journal of Pharmaceutical Sciences Review and Research*, 9(1): 136-145.
- Carey I 1976. *Orang Asli: The Aboriginal Tribes of Peninsular Malaysia*. Kuala Lumpur: Oxford University Press.
- Chin SC 1981. A guide to ethnobotanical collection with reference to Malaysia. *Sarawak Mus J*, 29(50):227-238.
- Chuakul W, Soonthornchareonnon N, Sappakun S, 2006. Medicinal plants used in Kungkrabaen Royal Development Study Center, Chanthaburi province. *Thai Journal of Phytopharmacy*, 13(1): 27-42.
- Hanum F, Hamzah N, 1999. The use of medicinal plant species by the Temuan Tribe of Ayer Hitam Forest, Selangor, Peninsular Malaysia. *Pertanika J Trop Agric Sci*, 22(2): 85 – 94.
- Henderson MR 1974a. *Malayan Wild Flowers Dicotyledons*. Kuala Lumpur: Malayan Nature Society.
- Henderson MR 1974b. *Malayan Wild Flowers Monocotyledons*. Kuala Lumpur: Malayan Nature Society.
- Kasimin A 1993. *Agama dan Perubahan Sosial di Kalangan Penduduk Asli di Semenanjung Malaysia*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Kulip J 2003. An ethno-botanical survey of medicinal and other useful plants of Muruts in Sabah, Malaysia. *Telopea*, 10(1): 81-98.
- Lin KW 2005. Ethno-botanical study of medicinal plants used by the Jah Hut peoples of Malaysia. *Ind J Med Sc*, 59(4): 156-161.
- Martin GJ 1995. *Ethnobotany: A People and Plants Conservation Manual*. London: Chapman and Hall.
- Ng FSP 1995. *Tree Flora of Malaya*. Volumes 3, 4. Kuala Lumpur: Longman.
- Nicholas C, Raajen S 1996. *Indigenous Peoples of Asia, Many Peoples, One Struggle*. Bangkok: Asia Indigenous Peoples Pact.
- Nicholas C 2000. *The Orang Asli and the Contest for Resources: Indigenous Politics, Development and Identity in Peninsular Malaysia*. Kuala Lumpur: International Work Group for Indigenous Affairs.
- Ong HC, Chua S, Milow P 2011a. Ethno-medicinal plants used by the Temuan villagers in Kampung Jeram Kedah, Negeri Sembilan, Malaysia. *Ethno Med*, 5(2): 95-100.

- Ong HC, Ruzalila BN, Milow P 2011b. Traditional knowledge of medicinal plants among the Malay villagers in Kampung Tanjung Sabtu, Terengganu, Malaysia. *Indian Journal of Traditional Knowledge*, 10(3): 460-465.
- Ong HC 1994. The practice of traditional medicine among the Temuan Orang Asli – an indigenous tribe in Malaysia. *Wallaceana*, 72: 1-5.
- Piggott AG 1988. *Ferns of Malaysia in Colour*. Kuala Lumpur: Tropical Press.
- Ridley HN 1967. *The Flora of the Malay Peninsula*. 5 Volumes. London: L. Reeve and Co.
- Sharief MU, Kumar S, Diwakar PG, Sharma TVRS 2005. Traditional phytotherapy among Karens of Middle Andaman. *Indian Journal of Traditional Medicine*, 4(4): 429-436.
- Teh KH 1995. *Proceedings of the First National Seminar on Ethnobotany*. Serdang, September 16 to 18, 1991. Kuala Lumpur: Malaysian National Library.
- Werner R 1975. *Jah-het of Malaysia Art and Culture*. Kuala Lumpur: University of Malaya Publication.
- Werner R 1986. *Bomoh-poyang Traditional Medicine and Ceremonial Art of the Aborigines of Malaysia*. Kuala Lumpur: University of Malaya Publication.
- Whitmore TC 1983. *Tree Flora of Malaya*. Volumes 1,2. Kuala Lumpur: Longman.
- Womersley JS 1981. *Plant Collecting and Herbarium Development: A Manual*. Rome: FAO.