

## Mini Review

### Ethno botanical Uses of Globba Species: A brief Review

Muhammad Shahzad Aslam<sup>1\*</sup> and Muhammad Syarhabil Ahmad<sup>1</sup>

<sup>1</sup>School of Bioprocess Engineering, University Malaysia Perlis, Kompleks Pusat Pengajian, Jejawi 3, 02600 Arau, Perlis, Malaysia

#### Abstract

Globba is a well-known genus native to India, Malaysia, Indonesia and China. There are more than 100 species and they are used traditionally in number of ailments such as post partum, mouth ulcer, post natal care of mother and child, conjunctivitis, eye abrasions, asthma, leucoderma, cough, food poisoning, analgesic, antipyretic, heart pain and Stomach pain. This articles reviews list of important species with synonyms, distribution around the world, traditional uses, common names and mode of application of different species.

**Keywords:** Globba; Ethnobotany; Traditional Medicine

#### Introduction

Medicinal plants are important part in human life [1]. There are used as home remedy in different part of world and has been used generation after generation since the beginning of universe. They are used in primary healthcare due to its effectiveness and less adverse effect [2]. Malaysia is a country with tropical climate

and abundance of medicinal plants. Most famous and renowned plants are *Centellaasiatica* (pegaga), *Ficusdeltoidea* (mas cotek), *Orthosiphonaristatus* (misaikucing), *Polygonum minus* (kesum) and *Psidiumguajava* (jambubatu) [3]. Many globba species available in different parts of Malaysia. This review article focuss on genus globba. All the data were collected from Google scholar. List of Globba species along with their synonyms were mentioned in table 1 along with its distribution in table 2 respectively.

#### Conclusion

Globba consist of many useful species but there is limited study available about their phytochemical evaluation and pharmacological activities. Preliminary screening is required in many species to identify useful species. There is limited resources available to understand the correlation between bioactive compounds and their traditional activities. These traditional uses has needed further pharmacological investigation and Clinical trial. Standardization of these traditional herbs is another challenge that is required in selected species after pre-clinical and clinical evaluation.

**\*Corresponding author:** Muhammad Shahzad Aslam; School of Bioprocess Engineering, University Malaysia Perlis (UniMAP), Kompleks Pusat Pengajian Jejawi 3 (KPPJ3), Kawasan Perindustrian Jejawi, 02600, Arau, Perlis, Malaysia, Tel: +60193009674; E-mail: aslammuhammadshahzad@gmail.com

**Sub Date:** May 25, 2017, **Acc Date:** May 30, 2017, **Pub Date:** May 30, 2017.

**Citation:** Muhammad Shahzad Aslam and Muhammad Syarhabil Ahmad (2017) Ethno botanical Uses of Globba Species: A brief Review. BAOJ Pharm Sci 3: 035.

**Copyright:** © 2017 Muhammad Shahzad Aslam, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

**Table 1:** List of Globba Species with synonyms[4]

<b>Species</b>	<b>Synonyms</b>
<i>Globba adhaerens</i> Gagnep.	<i>Globba villosula</i> Gagnep. <i>Globba violacea</i> Gagnep.
<i>Globbaalbobracteata</i> N.E.Br.	<i>Globba alba</i> E.Morren
<i>Globba albiflora</i> Ridl.	<i>Globba albiflora</i> var. <i>albiflora</i>
<i>Globba atosanguinea</i> Teijsm. & Binn.	<i>Globba atosanguinea</i> var. <i>atosanguinea</i> <i>Globba coccinea</i> H.J.Veitch
<i>Globba argentiata</i> R.M.Sm.	<i>Globba franciscii</i> Ridl.
<i>Globba aphanantha</i> K.Larsen	<i>Globba substrigosa</i> King ex Baker.
<i>Globba atosanguinea</i> Teijsm. & Binn	<i>Globba atosanguinea</i> var. <i>atosanguinea</i> <i>Globba coccinea</i> H.J.Veitch
<i>Globba aurantiaca</i>	<i>Globba deliana</i> Valetton
<i>Globba brachyanthera</i>	<i>Globba affinis</i> Rendle <i>Globba brachyanthera</i> var. <i>angustifolia</i> Ridl. <i>Globba brachyanthera</i> var. <i>brachyanthera</i>
<i>Globba brachyanthera</i> var. <i>hirsuta</i> R.M.Sm.	<i>Globba burbridgei</i> Ridl.
<i>Globba brevifolia</i> (K.Schum.) K.Schum.	<i>Globba parviflora</i> var. <i>brevifolia</i> K.Schum.
<i>Globba cernua</i> Baker	<i>Globba brachycarpa</i> Baker <i>Globba cernua</i> subsp. <i>cernua</i> <i>Globba macranthera</i> Ridl. <i>Globba trachycarpa</i> Baker ex Ridl.
<i>Globba corneri</i> A.A.Weber	<i>Globba unifolia</i> var. <i>sessiliflora</i> Holttum
<i>Globba crispa</i> Retz.	<i>Amomum echinatum</i> Willd
<i>Globba cuspidata</i> Nees & Mart.	<i>Chamaecostus cuspidatus</i> (Nees & Mart.) C.D.Specht & D.W.Stev. <i>Costus cuspidatus</i> (Nees & Mart.) Maas <i>Costus igneus</i> N.E.Br.
<i>Globba erecta</i> DC.	<i>Alpinia calcarata</i> (Haw.) Roscoe <i>Alpinia bracteata</i> Roscoe <i>Alpinia alata</i> A.Dietr. <i>Alpinia calcarata</i> var. <i>compacta</i> Gagnep. <i>Alpinia cernua</i> Sims <i>Alpinia roscoeana</i> Steud. <i>Alpinia simsii</i> Gasp. <i>Alpinia spicata</i> Roxb. <i>Catimbium erectum</i> (DC.) Juss. ex T.Lestib. <i>Languas calcarata</i> (Haw.) Merr. <i>Reneathmia calcarata</i> Haw. <i>Reneathmia erecta</i> (DC.) Boos <i>Reneathmia minor</i> Roem. & Schult.
<i>Globba flavidula</i> Ridl.	<i>Globba leucantha</i> var. <i>flavidula</i> (Ridl.) Holttum
<i>Globba leucantha</i> Miq.	<i>Globba floribunda</i> Baker <i>Globba leucantha</i> var. <i>leucantha</i> <i>Globba pallidiflora</i> Baker <i>Globba stenothyrsa</i> var. <i>cumingii</i> Baker
<i>Globba leucantha</i> var. <i>bicolor</i> Holttum	<i>Globba regalis</i> Ridl.
<i>Globbaleucantha</i> var. <i>flavidula</i> (Ridl.) Holttum	<i>Globba flavidula</i> Ridl.
<i>Globba leucantha</i> var. <i>violacea</i> (Ridl.) Holttum	<i>Globba violacea</i> Ridl.
<i>Globba holttumii</i> S.N.Lim	<i>Globba holttumii</i> subsp. <i>holttumii</i>

<i>Globba japonica</i> Thunb.	<i>Alpinia japonica</i> (Thunb.) Miq. <i>Alpinia agiokuensis</i> Hayata <i>Alpinia japonica</i> var. <i>kiushiana</i> Kitam. <i>Alpinia kiushiana</i> Kitam. <i>Languas agiokuensis</i> (Hayata) Sasaki <i>Languas japonica</i> (Thunb.) Sasaki
<i>Globba macrocarpa</i> Gagnep	<i>Globba macrocarpa</i> var. <i>densa</i> Gagnep.
<i>Globba marantina</i> L.	<i>Colebrookia bulbifera</i> Donn <i>Globba barthei</i> Gagnep. <i>Globba barthei</i> var. <i>pauciflora</i> Gagnep. <i>Globba bracteosa</i> Horan. <i>Globba bulbifera</i> Roxb. <i>Globba ectobolos</i> K.Schum. <i>Globba heterobracteata</i> K.Schum. <i>Globba marantinoides</i> Wight <i>Globba strobilifera</i> Zoll. & Moritzi <i>Globba timorensis</i> K.Schum. <i>Globba zollingeri</i> Gagnep. <i>Lampujang majus</i> Medik. <i>Ceratanthera amomoides</i> Hornem.
<i>Globba multiflora</i> Wall. ex Baker	<i>Globba rubromaculata</i> J.Lal & D.M.Verma Horan.
<i>Globba nutans</i> L.	<i>Alpinia nutans</i> (L.) Roscoe <i>Alpinia molucana</i> Gagnep. <i>Globba sylvestris</i> Rumph. ex Dum.Cours. <i>Catimbium nutans</i> (L.) Juss. ex T.Lestib.
<i>Globba orixensis</i> Roxb.	<i>Alpinia missionis</i> Wall. <i>Globba orixensis</i> var. <i>pubescens</i> Subba Rao & Kumari
<i>Globba pendula</i> Roxb.	<i>Globba aphylla</i> Miq. <i>Ceratanthera pendula</i> (Roxb.) T.Lestib <i>Globba calophylla</i> Ridl. <i>Globba ciliata</i> Jack <i>Globba debilis</i> Ridl. <i>Globba expansa</i> Wall. ex Horan. <i>Globba fasciata</i> Ridl. <i>Globba hura</i> (J.F.Gmel.) Roxb. <i>Globba kingii</i> Baker <i>Globba koenigiana</i> Spreng. <i>Globba maculata</i> var. <i>minor</i> Blume <i>Globba maculata</i> var. <i>stricta</i> Blume <i>Globba oligantha</i> Miq. <i>Globba panicoides</i> Miq. <i>Globba pendula</i> subsp. <i>Pendula</i> <i>Globba polyphylla</i> K.Schum. <i>Globba siamensium</i> (J.Koenig) A.S.Rao & D.M.Verma <i>Globba stenothyrsa</i> Baker <i>Globba uliginosa</i> Miq. <i>Globba valida</i> Ridl. <i>Globba versicolor</i> Sm. <i>Globba wallichii</i> Baker <i>Hura koenigii</i> Roem. & Schult. <i>Hura siamensium</i> J.Koenig <i>Manitia aurea</i> Giseke <i>Sphaerocarpos hura</i> J.F.Gmel.
<i>Globba pendula</i> var. <i>elegans</i> (Ridl.) Holttum.	<i>Globba elegans</i> Ridl.
<i>Globba pendula</i> subsp. <i>montana</i> (Ridl.) S.N.Lim	<i>Globba montana</i> Ridl.
<i>Globba pulchella</i> K.Schum.	<i>Alpinia pulchella</i> (K.Schum.) K.Schum <i>Languas pulchella</i> (K.Schum.) Merr.

<i>Globba paniculata</i> Valeton	<i>Globba virginea</i> I.M.Turner <i>Globba candida</i> Ridl.
<i>Globba patens</i> Miq.	<i>Globba patens</i> var. <i>patens</i>
<i>Globba propinqua</i> Ridl.	<i>Globba paucibractea</i> Valeton
<i>Globba racemosa</i> var. <i>hookeri</i> (C.B.Clarke ex Baker) S.Kumar	<i>Globba hookeri</i> C.B.Clarke ex Baker
<i>Globba racemosa</i> Sm	<i>Globba bulbosa</i> Gagnep. <i>Globba mairei</i> H.Lév. <i>Globba orixensis</i> var. <i>racemosa</i> (Sm.) Gagnep. <i>Globba racemosa</i> var. <i>racemosa</i> <i>Globba simaoensis</i> Y.Y.Qian <i>Globba strigulosa</i> K.Schum.
<i>Globba radicalis</i> Roxb.	<i>Globba mantifera</i> Sims <i>Globba mantiformis</i> Horan. <i>Globba purpurea</i> Andrews <i>Globba saltatoria</i> (Sims) Roscoe <i>Globba subulata</i> Roxb. <i>Mantisia radicalis</i> (Roxb.) D.P.Dam & N.Dam <i>Mantisia saltatoria</i> Sims
<i>Globba sessiliflora</i> Sims	<i>Globba canarensis</i> Baker <i>Globba careyana</i> Roxb. <i>Globba ophioglossa</i> Wight <i>Globba refractibulbigera</i> Kuntze
<i>Globba schomburgkii</i> Hook.f.	<i>Globba chinensis</i> K.Schum. <i>Globba schomburgkii</i> var. <i>schomburgkii</i>
<i>Globba siamensis</i> (Hemsl.) Hemsl.	<i>Achilus siamensis</i> Hemsl. <i>Globba graminifolia</i> Gagnep.
<i>Globba spathulata</i> Roxb.	<i>Mantisia spathulata</i> (Roxb.) Schult.
<i>Globba subsessilis</i> Nees & Mart.	<i>Chamaecostussubsessilis</i> (Nees& Mart.) C.D.Specht & D.W.Stev <i>Costus acaulis</i> S.Moore <i>Costus gagnepainii</i> K.Schum. <i>Costus kaempferoides</i> Loes. <i>Costus latifolius</i> Gagnep. <i>Costus paucifolius</i> Gagnep. <i>Costus pilosissimus</i> (Gagnep.) K.Schum. <i>Costus pumilus</i> Petersen <i>Costus pumilus</i> var. <i>pilosissimus</i> Gagnep. <i>Costus rosulifer</i> Gagnep. <i>Costus steinbachii</i> Loes. <i>Costus subsessilis</i> (Nees & Mart.) Maas <i>Costus warmingii</i> Petersen
<i>Globbasubstrigosa</i> King ex Baker	<i>Globba aphanantha</i> K.Larsen
<i>Globba tricolor</i> var. <i>gibbsiae</i> (Ridl.) R.M.Sm	<i>Globba gibbsiae</i> Ridl.
<i>Globba tricolor</i> Ridl.	<i>Globba tricolor</i> var. <i>tricolor</i>
<i>Globba variabilis</i> Ridl.	<i>Globba malaccensis</i> Ridl. <i>Globba perakensis</i> Ridl. <i>Globba variabilis</i> subsp. <i>variabilis</i>
<i>Globba ustulata</i> Gagnep	<i>Globba ustulata</i> var. <i>ustulata</i>
<i>Globba uviformis</i> L.	<i>Plagiostachys uviformis</i> (L.) Loes. <i>Alpinia annabellae</i> Ridl. <i>Alpinia uviformis</i> (L.) Horan. <i>Languas uviformis</i> (L.) Burkill
<i>Globba wardii</i> (B.L.Burt & R.M.Sm.) K.J.Williams	<i>Mantisia wardii</i> B.L.Burt & R.M.Sm.
<i>Globba wengeri</i> (C.E.C.Fisch.) K.J.Williams	<i>Mantisia wengeri</i> C.E.C.Fisch.

**Table 2:** Globba Species distributed in Malaysia [5]

Species	Distribution
<i>Globba albiflora</i> Ridl.	Penang, Timur Laut, Government Hill, Cooly Lines
<i>Globba brachyanthera</i> K.Schum.	First Division: Sungei Lundu, below Gunung Perigi. Fourth Division: Lambir Hills. Sarawak, Kuching, Matang.
<i>Globba burbidgei</i> Ridley, H.N.	Borneo. Sarawak. Lundu.
<i>Globba affinis</i> Rendle	Baram district, Entoyut river.
<i>Globba burbidgei</i> Ridl.	Lundu.
<i>Globba macranthera</i> Ridl.	Pahang, Telom, Selom
<i>Globba cernua</i> Baker	Bujang Melaka
<i>Globba trachycarpa</i> Baker ex Ridl.	Larut
<i>Globba corneri</i> A.Weber	Kemaman : Ulu Bendong
<i>Globba unifolia</i> Ridl. var. <i>sessiliflora</i> Holttum	Kemaman: Ulu Bendang
<i>Globba argentiana</i> R.M.Sm	Gunong Mulu National Park, 4th Division, Baram District, Gua Rusa
<i>Globba glandulosa</i> Ridl.	Mt. Lingga
<i>Globba regalis</i> Ridl.	Pahang, Telom
<i>Globba flavidula</i> Ridl.	Pahang, Jerantut, Ulu Sg. Merapoh
<i>Globba violacea</i> Ridl.	Johor, Johor Bahru, G. Pulau
<i>Globba muluensis</i> R.M.Sm.	Gunong Mulu National Park. 4th Division, Baram District, Gunong Mulu, west ridge near camp 3
<i>Globba elegans</i> Ridl.	Perak, Manjung, Teluk Sera, Bruas Woods. Gunong Tungul
<i>Globba fasciata</i> Ridl.	Perak, Hulu Perak, Sg. Temengor. Temango
<i>Globba montana</i> Ridl.	Kedah, Baling, Kedah Peak
<i>Globba burbidgei</i> Ridl.	Malaysia (Malaysia)
<i>Globba pendula</i> Roxb.	Malaysia (Malaysia)
<i>Globba valida</i> Ridl.	Telom
<i>Globba wallichii</i> Baker	Malaysia (Malaysia)
<i>Globba gibbsiae</i> Ridl.	Malaysia (Malaysia)
<i>Globba unifolia</i> Ridl.	Terengganu , Bundi
<i>Globba unifolia</i> Ridl. var. <i>sessiliflora</i> Holttum	Kemaman: Kampong Ayer Puteh
<i>Globba variabilis</i> Rendle	Jahan River.
<i>Globba malaccensis</i> Ridl.	Malacca, Jasin, Bkt. Sedanan
<i>Globba perakensis</i> Ridl.	Perak, Kinta, Ipoh
<i>Globba curtisii</i> Holttum	Pahang, Raub, Frasers Hill
<i>Globba franciscii</i> Ridl.	Malaysia (Malaysia)
<i>Globba holttumii</i> S.N.Lim subsp. <i>aurea</i> S.N.Lim	Mersing Lenggong Forest Reserve

**Table 3:** Globbaspecies with their common names, part use and their traditional uses

Species	Vernacular Name/Common name	Part use	Traditional uses	Method of usage	Reference
<i>Globbaleucantha</i> Miq	Malaysia: Merian darah	Root	Post-partum	Decoction taken orally	[6]
<i>Globba patens</i> Miq.	Malaysia: Merian biasa	Root	Post-partum	Decoction	
<i>Globbapendula</i> Roxb.	Indonesia: South Sumatra: pedas kancil; Bangka: jae nera; Malaysia: meroyan tinggal, halia hutan, puar birah, puah gemur.	Root	Post-partum flatulence	Decoction taken orally	[6][7]
	Tepus Pemulih	Exudates	Mouth ulcer	Raw	[8]
<i>Globbamarantina</i> Linn	India: Kattumanjal	Rhizome	Post-natal care of mother and child	Ten grams of fresh rhizome is made into a paste with equal amount of fresh or shade dried rhizome of <i>Dioscorea tomentosa</i>	[9]
		Leaves	Conjunctivitis and eye abrasions	aqueous extract of leaves is used as eye drops against severe conjunctivitis	[10]
		-	Asthma	-	[11]
		Rhizome	Leucoderma	Fresh rhizomes crushed, mixed with Pongamia seed oil and paste applied on white spots	[12]
<i>Globbaclarkei</i> Baker.	India: Silaadha (Chakma, Arunachal Pradesh)	Rhizome	To cure cough	Rhizome extract mixed with leaf extract of <i>Adhatoda vasica</i> is taken orally.	[13]
	India: Globba-tong (Nagaland)	Rhizome	Food poisoning	Juice of rhizome and the decoction seed's is taken orally for food poisoning	[14]
<i>Globbamultiflora</i> Baker.	India: Belah (Nyishi Arunachal Pradesh)	Rhizome	Analgesic and Anti-pyretics	Crushed rhizome applied locally on wound.	[13]
<i>Globba multiflora</i> Wall. ex Baker	India: Hiching (in Reang)	Rhizome	Hoping cough	Decoction	[15]
<i>Globba racemosa</i> Smith	India: Gundenoppimandu	Fruit	Heart pain, Stomach pain	-	[16]
<i>Globba winitii</i> Wright	-	-	It is an important ornamental plant	-	[17]
<i>Globba spatulata</i> Roxb	India: Kaman tu bang (Manipur)	Tuber	Vegetables	-	[18]
<i>Globba schomburghii</i> Hook	-	-	Fresh or steamed young leaves as vegetables	-	[19]

---

## Reference

1. Aslam MS, Ahmad MS (2016) Worldwide Importance of Medicinal Plants: Current and Historical Perspectives. *Recent Advances in Biology and Medicine* 2: 88-93.
2. Kamboj V (2000) Herbal medicine. *Current Science* 78(1): 35-39.
3. Jamal P, Karim IA, Abdullah e, Raus RA, Hashim YZ (2011) Phytochemical screening for antibacterial activity of potential Malaysian medicinal plants. *African Journal of Biotechnology* 10(81): 18795-18799.
4. (2007) *The Plant List*.
5. Thiers B, Thiers BM, Holmgren P, Holmgren NH, Holmgren K et al. (2015) *Index Herbariorum: A global directory of public herbaria and associated staff*. New York Botanical Garden's Virtual Herbarium.
6. Ong HC, Zuki RM, Milow P (2011) Traditional knowledge of medicinal plants among the Malay villagers in Kampung Mak Kemas, Terengganu, Malaysia. *Studies Ethno-Medicine* 5(3): 175-185.
7. Priyadi H, Takao G, Rahmawati I, Supriyanto B, Nursal WI, et al. (2010) Five hundred plant species in Gunung Halimun Salak National Park, West Java: a checklist including Sundanese names, distribution and use. Center for International Forestry Research (CIFOR).
8. Azliza MA, Ong HC, Vikineswary S, Noorlidah A, Haron NW (2012) Ethno-medicinal Resources Used By the Temuan in Ulu Kuang Village. *Ethno Med* 6(1): 17-22.
9. S. Muthukumarasamy VR, Mohan S, Kumaresan, Chelladurai (2004) Traditional medicinal practices of Palliyar tribe of Srivilliputhur in Ante-natal and Post-natal care of mother. *Nat Prod Radiance* 3: 422-426.
10. Verma C, Bhatia S, Srivastava S (2010) Traditional medicine of the Nicobarese. *Indian Journal Traditional Knowledge* 9(4): 779-785.
11. Choudhary K, Singh M, Pillai U (2008) Ethnobotanical Survey of Rajasthan -An Update. *Am J Bot* 1(2): 38-45.
12. Jeevan Ram A, Bhakshu LM, Venkata Raju RR (2004) In vitro antimicrobial activity of certain medicinal plants from Eastern Ghats, India, used for skin diseases. *J Ethnopharmacol* 90(2-3): 353-357.
13. Tushar, Basak S, Sarma GC, Rangan L (2010) Ethnomedical uses of Zingiberaceous plants of Northeast India. *J Ethnopharmacol* 132(1): 286-296.
14. Jamir NS Traditional Knowledge of Medicinal Plants Used By Ao Naga Tribes of Mokokchung District, Nagaland (India). *Multidisciplinary Approaches in Angiosperm Systematics* : 602-607.
15. Shil S, Dutta Choudhury M, Das S (2014) Indigenous knowledge of medicinal plants used by the Reang tribe of Tripura state of India. *J Ethnopharmacol* 152(1): 135-141.
16. Rao JK, Suneetha J, Reddi TVVS, Kumar OA (2011) Ethnomedicine of the Gadabas, a primitive tribe of Visakhapatnam district, Andhra Pradesh. *International Multidisciplinary Research Journal* 1(2): 10-14.
17. Sirirugsa P (1997) Thai Zingiberaceae: Species diversity and their uses. *International union of pure and applied chemistry* 70(11): 2111.
18. Daimei P, Kumar Y (2014) Ethnobotanical uses of gingers in Tamenglong district, Manipur, Northeast India. *Genetic Resource Crop Evolution* 61(1): 273-285.
19. Suksri S, Premcharoen S, Thawatphan C, Sangthongprow S (2005) Ethnobotany in Bung Khong Long non-hunting area, northeast Thailand. *Kasetsart J (Nat Sci)* 39: 519-533.