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Excerpta Dermatologia Botanica: Achariaceae

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ACHARIACEAE

(Acharia family)

• *Medicinal / Folk-medicinal aspects:* Chaulmoogra Oil, a fixed oil expressed from the seeds of several members of this family, was formerly used externally, orally, and by infiltration into lesions in the treatment of leprosy, the activity being ascribed to the unusual cyclopentenyl fatty acids present as glycerides in the oil. Traditional medicinal uses of oils obtained from members of this family include their application to cuts and wounds, and their use in the treatment of various dermatological conditions including parasitic pediculi, pityriasis, psoriasis, rosacea, scabies, and urticaria. •

• *Adverse effects:* Severe local reactions and fever following cutaneous injection of Chaulmoogra Oil were often seen. There is also a possibility that aggressive arboreal ants nesting in certain species of **Ryparosa** Blume and perhaps **Buchnerodendron** Gürke and **Caloncoba** Gilg will render the collection of these plants from the wild hazardous. •

• *Veterinary aspects:* There are reports from India of the topical use of Chaulmoogra Oil for the treatment of "obstinate skin diseases" including summer sores (cutaneous habronematidosis) in horses. •

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The family comprises about 170 species of mostly trees and shrubs, but also some stemless or climbing herbs in 32 genera found in tropical regions but also in South Africa. They are a variable group that are difficult to characterise (Mabberley 2017). Members of the family have formerly been included in the Flacourtiaceae, Bixaceae, Kiggelariaceae, and Salicaceae. The principal genera are **Hydnocarpus** Gaertn. (45 spp.), **Lindackeria** C.Presl (14 spp.), and **Ryparosa** Blume (25 spp.).[a] Timber from **Kiggelaria africana** L., the wild peach, is used and traded locally in Africa.[b]

[a] https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:77126656-1; accessed August 2026
[b] https://prota.prota4u.org/protav8.asp?h=M4&t=Kiggelaria,africana&p=Kiggelaria+africana; accessed August 2026

Buchnerodendron speciosum Gürke

[syn. **Buchnerodendron laurentii** De Wild.]

An early report described this African taxon as an ant-plant, noting that its branches were all hollow to within 5cm of their tips and inhabited by small black ants identified as **Crematogaster excisa** Mayr, 1895 (fam. Formicidae). However, it was subsequently decided that **Buchnerodendron speciosum** was only accidentally occupied by ants (Bequaert 1922, McKey & Davidson 1993, Webber *et al*. 2007). **Crematogaster excisa** is now recognised as an arboreal ant species that nests in hollow branches, in dead wood, and under bark, and has a documented commensal relationship with **Oecophylla longinoda** Latreille, 1802 (fam. Formicidae), the African weaver ant, one of the most aggressive African ants.[a] Bequaert (1922) also referred to a similar accidental occupation by ants of "*Caloncoba laurentii* (De Wildeman and Durand)" [sic; = **Oncoba laurentii** De Wild. & T.Durand, now regarded as a synonym of **Caloncoba welwitschii** (Oliv.) Gilg],[b] a species which, when originally published[c] by De Wild. & T.Durand, was described as "myrmécophile" with "plusieurs fourmis" inside its hollow stems. Schmidt (1985) further explored the dermatological hazards associated with ant-plants (myrmecophytes) and their potential to elicit a pseudophytodermatitis in plant collectors.

[a] https://antscout.com/species/crematogaster-excisa; accessed August 2026
[b] https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:111950-1; accessed August 2026
[c] https://bibdigital.rjb.csic.es/viewer/15815/?offset=#page=14&viewer=picture; accessed August 2026

Caloncoba echinata (Oliv.) Gilg

[syn. **Oncoba echinata** Oliv.]
Caloncoba

The seeds from this shrub provide gorli oil, otherwise known as beurre de gorli, which has been used in the treatment of leprosy [see **Hydnocarpus kurzii** (King) Warb. below]. It differs from chaulmoogra oil in that it contains chaulmoogric

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and gorlic glycerides but only a very small proportion of, or no hydnocarpic glycerides (Cole 1933, Cole & Cardoso 1938, Christie *et al*. 1989).

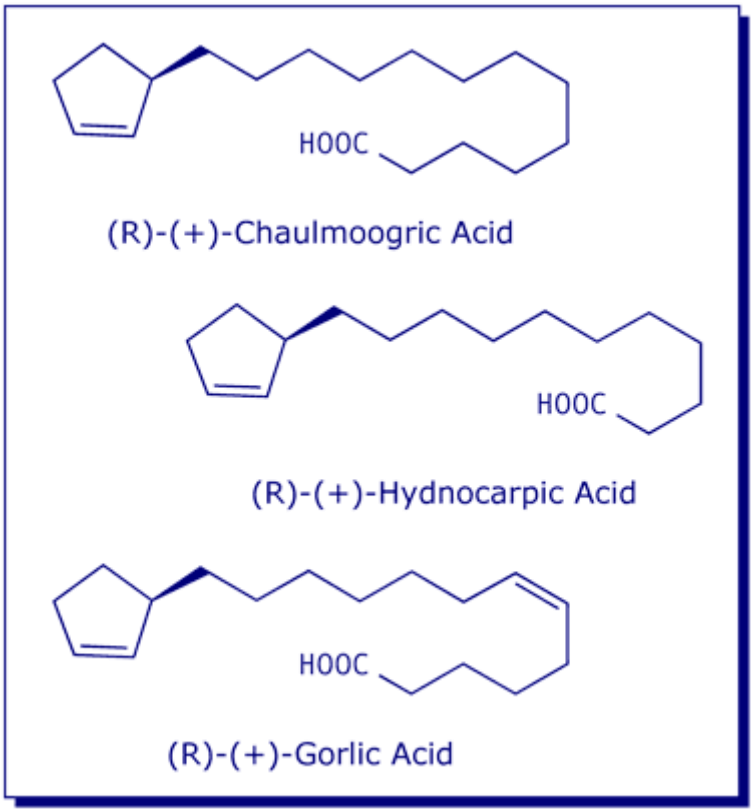
In Ivory Coast the pounded seeds are used sometimes with success against lice and mange; and a lotion prepared from this plant is used in Guinea and Sierra Leone for pustular eruptions of the skin (Kerharo & Bouquet 1950, Irvine 1961).

Carpotroche amazonica Mart. ex Eichler
[syn. **Mayna amazonica** (Mart. ex Eichler) J.F.Macbr.]

According to a note found on an herbarium specimen collected in Colombia, the bark is used as a caustic (von Reis Altschul 1973).

Carpotroche brasiliensis (Raddi) A.Gray
[syn. **Mayna brasiliensis** Raddi]
Brazilian Carpotroche, Pau de Lepra, Sapucainha

The oil expressed from the seeds, which is known as carpotroche oil or sapucainha oil, was at one time recommended as a substitute for Indian chaulmoogra oil [see **Hydnocarpus pentandrus** (Buch.-Ham.) Oken below] on the basis that it contains essentially the same glycerides of the cyclopentenyl fatty acids hydnocarpic acid, chaulmoogric acid, and gorlic acid albeit in slightly different ratios (de Souza-Araujo 1935, Cole & Cardoso 1938, Nadkarni 1976).



In a more detailed investigation of the composition of sapucainha oil, Waktola *et al*. (2019) found that the oil contained free fatty acids and diacylglycerides in addition to the triacylglycerides of hydnocarpic, chaulmoogric, and gorlic acids together with minor quantities of other fatty acids often found in vegetable oils, for example palmitic, linoleic, oleic, and stearic acids.

In an investigation of an acid fraction (comprising mainly cyclopentenyl fatty acids) from the saponified seed oil, administered orally in rat and mouse models of inflammation and pain, Lima *et al*. (2005) found anti-inflammatory and peripheral antinociceptive effects that they believed may contribute to the use and effectiveness of the oil as an anti-leprosy agent.

In their review of the literature, de Souza-Araujo (1935) identified a number of other "Brazilian chaulmoogras" that yielded similar such seed oils characterised by their specific optical rotatory power, a feature of the bioactive cyclopentenyl fatty acids:

Carpotroche longifolia (Poepp.) Benth.
[syn. **Mayna longifolia** Poepp.]
Lindackeria latifolia Benth.
Lindackeria paludosa (Benth.) Gilg
[syns **Carpotroche paludosa** Benth., **Lindackeria maynensis** Poepp.]
Lindackeria paraensis Kuhlm.
Mayna odorata Aubl.
[syn. **Mayna echinata** Spruce ex Benth.]

Carpotroche Brasiliensis Seed Acid, Carpotroche Brasiliensis Seed Butter and Carpotroche Brasiliensis Seed Oil [INCI; all of uncertain composition (see Schmidt 2017)][a] are recognised cosmetic product ingredients purported to have surfactant cleansing and emulsifying, conditioning / emollient, and skin protecting properties respectively. Further, Myristyl Carpotroche Brasiliensis Seedate, Lauryl Carpotroche Brasiliensis Seedate, and Hydroxycyclohexyl Ethyltrisiloxane Sapucainhate produced by chemical derivatisation of carpotroche oil, are purported to have skin conditioning / emollient properties, the former two also purported to have bleaching activity (Standing Committee on Cosmetic Products 2019, CosIng 2023/4).

[a] INCI is a registered trademark of the Personal Care Products Council.

Gynocardia odorata R.Br.
[syns **Chaulmoogra odorata** Roxb., **Hydnocarpus odoratus** (R.Br.) Lindl. ex Voigt, **Hydnocarpus odoratus** (Roxb.) Peterm.]
Chaulmogra, Chhal Mogra, False Chaulmoogra

In an ethnobotanical review of medicinal plants used for skin diseases in Northeastern India, Begum & Nath (2000), citing an earlier source, noted that a paste made from the bark is applied to cuts and wounds.

Hydnocarpus odorata [sic] was at one time believed, erroneously, to be the source of Oil of Chaulmoogra used both locally and internally to treat leprosy (see, for example, Felter 1922; see also **Hydnocarpus kurzii** (King) Warb. below).

In an analysis of the component fatty acids present in the seed oils obtained from three different botanical sources of chaulmoogra oil, Sengupta *et al*. (1973) found in **Hydnocarpus odorata** [sic] none of the cyclopentenyl fatty acids (chaulmoogric acid, hydnocarpic acid, gorlic acid) that account for the antileprotic activity of chaulmoogra oils from other species.

Hydnocarpus alcalae C.DC.

According to Cole (1933), cited by Sahoo *et al*. (2014), the seeds from this species, which is found on the island of Luzon in the Philippines, yield an oil resembling that found in **Oncoba echinata** [see **Caloncoba echinata** (Oliv.) Gilg above] and **Asteriastigma macrocarpa** Bedd. [see **Hydnocarpus macrocarpus** (Bedd.) Warb. below] in that it comprises about 90% chaulmoogric acid glycerides and no, or only very low levels of, hydnocarpic acid glycerides. These oils lend themselves to the preparation of Ethyl Chaulmoograte [see **Hydnocarpus kurzii** (King) Warb. below]. He noted also that the oil is "used by the natives in curing wounds".

Hydnocarpus alpinus Wight

The seeds from this taxon, and also from **Hydnocarpus anthellmintica** [sic; see **Hydnocarpus castaneus** Hook.f. & Thomson below] are identified[a] as the source of the traditional Chinese medicine known as *da feng zi* (大風子) or Semen Hydnocarpi used historically for the oral treatment of leprosy and elephantiasis and also externally for rosacea, scabies, and urticaria.

Zhang *et al*. (1989) investigated the structures of the cyclopentenyl fatty acids obtained from saponified seed oil from **Hydnocarpus alpina** [sic]. Hydnocarpic acid was the most abundant, with smaller quantities of chaulmoogric acid together with a minor amount of a positional isomer of gorlic acid (with the double bond at position 4 rather than 6) but no gorlic acid [see **Carpotroche brasiliensis** (Raddi) A.Gray above].

[a] 中藥詞典 Chinese Herb Dictionary : https://alternativehealing.org/da_feng_zi.htm; accessed June 2020

Hydnocarpus annamensis Lescot & Sleumer
[syns **Hydnocarpus merrillianus** H.L.Li, **Taraktogenos merrilliana** C.Y.Wu]

Zhang *et al*. (1989) investigated the structures of the cyclopentenyl fatty acids obtained from saponified seed oil from **Taraktogenos merrilliana**. Hydnocarpic acid was the most abundant, with smaller quantities of chaulmoogric acid and gorlic acid [see **Carpotroche brasiliensis** (Raddi) A.Gray above].

Hydnocarpus castaneus Hook.f. & Thomson
[syn. **Hydnocarpus anthelminthicus** Pierre ex Gagnep.]
Chaulmoogra Tree

This taxon is one of the botanical sources of Chaulmoogra Oil (Rameshkumar *et al*. 2012), also known as Lukrabo Oil (Holmes 1884, Mangold & Spener 1977), formerly used externally, orally, and by infiltration into lesions in the treatment of leprosy. Citing an earlier source, Amenta *et al*. (2000) included **Hydnocarpus anthelmintica** [sic] in a tabulated list of medicinal plants traditionally used in the treatment of dermatitis and psoriasis. Referring to **Hydnocarpus anthelminthica** [sic] and **Hydnocarpus anthelmintica** [sic] respectively, Kirtikar & Basu (1935) and Nadkarni (1976) noted that the oil from the seeds has been employed by the Chinese in the treatment of parasitic pediculi, leprosy, pityriasis, psoriasis, and other skin diseases. See also **Hydnocarpus kurzii** (King) Warb. below.

Zhang *et al*. (1989) investigated the structures of the cyclopentenyl fatty acids obtained from saponified seed oil from **Hydnocarpus anthelminthica** [sic]. Hydnocarpic acid was the most abundant, with smaller quantities of chaulmoogric acid together with a minor amount of a positional isomer of gorlic acid (with the double bond at position 4 rather than 6) but no gorlic acid [see also **Carpotroche brasiliensis** (Raddi) A.Gray above]. Similar findings were reported by Christie *et al*. (1989).

Hydnocarpus Anthelminthicus Seed Extract [INCI; of uncertain composition (see Schmidt 2017)][a] is a recognised cosmetic product ingredient purported to have skin conditioning properties (Standing Committee on Cosmetic Products 2019, CosIng 2023/4).

[a] INCI is a registered trademark of the Personal Care Products Council.

Hydnocarpus hainanensis (Merr.) Sleumer
[syn. **Taraktogenos hainanensis** Merr.]
Hainan Chaulmoogra

Zhang *et al*. (1989) investigated the structures of the cyclopentenyl fatty acids obtained from saponified seed oil from this taxon. Hydnocarpic acid was the most abundant, with smaller quantities of chaulmoogric acid together with a minor amount of a positional isomer of gorlic acid (with the double bond at position 9 rather than 6) but no gorlic acid [see **Carpotroche brasiliensis** (Raddi) A.Gray above].

Hydnocarpus heterophyllus Blume
[syn. **Taraktogenos heterophylla** (Blume) Slooten]
Indian Oil Tree

This taxon is one of the botanical sources of Chaulmoogra Oil (Todd 1967, Rameshkumar *et al*. 2012), formerly used externally, orally, and by infiltration into lesions in the treatment of leprosy. See **Hydnocarpus kurzii** (King) Warb. below.

Hydnocarpus ilicifolius King
[syn. **Taraktogenos ilicifolia** (King) Kerr]

The seed oil from this taxon has been reported to contain chaulmoogric and hydnocarpic acids (Cole 1933, Sahoo *et al*. 2014). See also **Hydnocarpus kurzii** (King) Warb. below.

Hydnocarpus kurzii (King) Warb.
[syn. **Taraktogenos kurzii** King]
Chaulmoogra Tree, Kalaw Tree

In an ethnobotanical review of medicinal plants used for skin diseases in Northeastern India, Begum & Nath (2000), citing earlier sources, noted that an oil prepared from the bark is used to treat itching, and an oil prepared from the seeds is used as a remedy for leprosy and itching.

There is a long history of the use of Chaulmoogra Oil in the treatment of skin diseases, and in particular leprosy [also known as elephantiasis graecorum – see Cottle (1879) – and Hansen disease; a chronic bacterial infection caused by the pathogens **Mycobacterium leprae** Hansen, 1874 and **Mycobacterium lepromatosis** Han et al., 2008, fam. Mycobacteriaceae] in India, China, and Burma [now Myamnar]. Originally believed, erroneously, to be the fixed oil derived from the seeds of **Chaulmoogra odorata** Roxb. [later re-named **Gynocardia odorata** R.Br.; see above], its true botanical source was subsequently identified as **Taraktogenos kurzii** [later re-named **Hydnocarpus kurzii** (King) Warb.], which grows in Burma and Northeast India. Two further species of **Hydnocarpus** Gaertn., namely **Hydnocarpus anthelminthicus** [later re-named **Hydnocarpus castaneus** Hook.f. & Thomson; see above] from Indo-China and **Hydnocarpus wightiana** [later re-named **Hydnocarpus pentandrus** (Buch.-Ham.) Oken; see below] from India were then identified as sources of an essentially

identical seed oil. So, on the introduction of the oil into Western medicine in the nineteenth century, all three species became recognised as botanical sources of pharmacopoeal Oleum Hydnocarpi, otherwise known as Hydnocarpus Oil or Chaulmoogra Oil (Holmes 1923, Kirtikar & Basu 1935, Nadkarni 1976, Parascandola 2003, Rameshkumar *et al*. 2012). Chaulmoogra Oil eventually fell out of use in Western medicine in the 1950s when dapsone, a synthetic antibacterial agent, became the treatment of choice for leprosy (Norton 1994).

In an analysis of the component fatty acids present in the seed oils obtained from three different botanical sources of chaulmoogra oil, Sengupta *et al*. (1973) (referring to **Hydnocarpus kurzii**) and Christie *et al*. (1989) (referring to **Taraktogenus kurzii** [sic]) found the cyclopentenyl fatty acids chaulmoogric acid, hydnocarpic acid, and gorlic acid that account for the antileprotic activity [see **Carpotroche brasiliensis** (Raddi) A.Gray above].

Chaulmoogra Oil was used both internally and externally, and by direct infiltration of the leprotic lesions. It had little effect when applied externally, was unpleasant to take internally at doses that might have been effective, and often produced severe local reactions and fever following its injection (Warren 1921, Norton 1998, Parascandola 2003). For this reason, alternative less disagreeable forms of the cyclopentyl fatty acid glyceride active agents were developed, including the ethyl esters of the cyclopentenyl fatty acids [known variously as Ethyl Hydrocarpate, Ethyl Chaulmoograte, or Oleum Hydnocarpi Aethelicum] and the sodium salts of the cyclopentenyl fatty acids [known as Sodium Chaulmoograte or Sodium Gynocardate; see Todd (1967)].

Sharma & Joshi (2004) included **Hydnocarpus kurzii** seed in a tabulated list of plants used against skin diseases in Indian veterinary practice, but provided no further detail.

Taraktogenos Kurzii Seed Oil [INCI; of uncertain composition (see Schmidt 2017)][a] is a recognised cosmetic product ingredient purported to have skin conditioning properties (Standing Committee on Cosmetic Products 2019, CosIng 2023/4).

[a] INCI is a registered trademark of the Personal Care Products Council.

Hydnocarpus macrocarpus (Bedd.) Warb.

[syns **Asteriastigma macrocarpa** Bedd., **Taraktogenos macrocarpa** (Bedd.) N.P.Balakr.]

Asteriostigma macrocarpa [sic] was listed by Nadkarni (1976) as one of the botanical sources of Chaulmoogra Oil, formerly used externally, orally, and by infiltration into lesions in the treatment of leprosy [see **Hydnocarpus kurzii** (King) Warb. above].

Hydnocarpus pentandrus (Buch.-Ham.) Oken

[syns **Hydnocarpus laurifolius** Sleumer, **Hydnocarpus wightianus** Blume]

Chaulmoogra, Jangli Almond, Soorty Oil Tree

This taxon is one of the botanical sources of Chaulmoogra Oil (Kirtikar & Basu 1935, Nadkarni 1976, Rameshkumar *et al*. 2012), formerly used externally, orally, and by infiltration into lesions in the treatment of leprosy. See **Hydnocarpus kurzii** (King) Warb. above.

In an analysis of the component fatty acids present in the seed oils obtained from three different botanical sources of chaulmoogra oil, Sengupta *et al*. (1973) found in **Hydnocarpus wightiana** [sic] the cyclopentenyl fatty acids chaulmoogric acid, hydnocarpic acid, and gorlic acid that account for the antileprotic activity [see **Carpotroche brasiliensis** (Raddi) A.Gray above]. Similar findings were reported by Zeman & Pokorný (1963).

According to Kirtikar & Basu (1935) and repeated by Nadkarni (1976) and by Sahoo *et al*. (2014), **Hydnocarpus wightiana** [sic] seed oil has a reputation in the Konkan region (India) as a remedy for

barsati (बरसाती) in horses. Barsati is a traditional or regional term most commonly used in South Asia for summer sores in horses, a skin condition medically known as cutaneous habronematidosis,[a] habronema, habronemiasis, or, incorrectly, as hebronemiasis (Singh *et al*. 2010). It is caused by stomach worm larvae (the fly-borne gastro-intestinal nematodes **Habronema microstoma** Creplin, 1849, **Habronema muscae** Carter, 1865, and **Draschia megastoma** (Rudolphi, 1819) Chitweood & Wehr, 1934, fam. Habronematidae) that are deposited on the skin by muscid flies during warm or rainy weather (Barlaam *et al*. 2020). Sharma & Joshi (2004) included **Hydnocarpus laurifolia** [sic] seed and seed oil as a remedy for scabies and "obstinate skin diseases" in a tabulated list of plants used against skin diseases in Indian veterinary practice.

Hydnocarpus Pentandrus Kernel Oil [INCI; of uncertain composition (see Schmidt 2017)][b] is a recognised cosmetic product ingredient purported to have hair, nail, and skin conditioning, and emollient properties (Standing Committee on Cosmetic Products 2019, CosIng 2023/4).

[a] https://thehorse.com/1126590/summer-sores-in-horses-causes-clinical-signs-and-diagnostics/; accessed August 2026
[b] INCI is a registered trademark of the Personal Care Products Council.

Hydnocarpus venenatus Gaertn.

[syn. **Hydnocarpus inebrians** Vahl]

Makulu

According to Klingmüller (1930), cited by Cole (1933), "Kanti Oil" (or perhaps "Kawath Oil" or "Kauty Oil") produced from the seeds of **Hydnocarpus inebrians** was used by the Indian physician Bhau Daji [Ramkrishna Lad (1822–1874)][a] to treat leprosy. The regimen involved taking varying amounts in milk in the morning, followed by rubbing the entire body with the oil and taking a warm bath, after which the body was rubbed with oil again; towards evening, physical activity was undertaken until sweating occurred, followed by wiping off the oil or, at times, a second application in the evening; the nasal mucosa was also treated with the oil; strict dietary rules were enforced, prohibiting meat, fish, alcohol, tea, and coffee; distinct effects were observed and cures reported after one to one-and-a-half months. Waring (1883) later noted that the oil of the seeds of **Hydnocarpus inebrians** has a great repute amongst natives of Malabar [in the Indian state of Kerala] as a remedy for leprosy. Referring to **Hydnocarpus venenata** [sic], Kirtikar & Basu (1935) recorded that the oil is used as an external application in certain [unspecified] cutaneous diseases, and has a special reputation in leprosy, adding that the oil from the seeds was administered [in an unspecified way] to twenty cases of leprosy and was found very beneficial in early cases and slightly so in longstanding cases.

[a] Mukhopadhyay AK (2018) A brief biographic sketch of Dr. Bhau Daji Lad (1822-1874): A forgotten figure of Indian dermatology. Indian Journal of Dermatology, Venereology and Leprology 84(1): 114-116. https://doi.org/10.4103/ijdvl.IJDVL_108_17

Pangium edule Reinw.

[syn. **Hydnocarpus edulis** (Reinw.) Peterm.]

Football Fruit, Keluak

Pangium Edule Kernel Oil [INCI; of uncertain composition (see Schmidt 2017)][a] is a recognised cosmetic product ingredient purported to have skin conditioning and emollient properties (Standing Committee on Cosmetic Products 2019, CosIng 2023/4).

[a] INCI is a registered trademark of the Personal Care Products Council.

Ryparosa Blume

This Austro-Malesian rainforest tree genus comprises 25 accepted species,[a] most if not all of which seemingly being "ant-plants" or "myrmecophytes". All species studied by Webber *et al*. (2007) had evidence of food body production (which would attract ants); seven species had evidence of stem inhabitation by ants; and five species had specialised stem domatia. Several associated ant species have been identified, including **Pheidologeton affinis** [= **Carebara affinis** (Jerdon, 1851) (fam. Formicidae)], **Camponotus dorycus confusus** Emery, 1887 [= **Camponotus confusus** Emery, 1887 (fam. Formicidae)], **Leptomyrmex unicolor** Emery, 1895 (fam. Formicidae), and **Tetramorium pacificum** Mayr, 1870 (fam. Formicidae). **Cladomyrma petalae** Agosti, 1991 and **Cladomyrma nudidorsalis** Agosti, Moog & Maschwitz, 1999 (fam. Formicidae) were found by Webber *et al*. (2007) to regularly inhabit the stems of **Ryparosa fasciculata** King. These arboreal ants have been recorded by Maschwitz *et al*. (1989) as being particularly aggressive in the defence of their host plant:

> After disturbance (e.g. shaking) small as well as large workers came out of the numerous nest entrances and attacked by biting and releasing formic acid and other weak smelling substances which were produced by glands of the gaster.
>
> The ants continued to attack up to one hour after the end of the disturber's contact with the plant if they could find a good place to bite while wandering over him. This persistent and long lasting fighting behaviour, which is also typical for other ants living on Asiatic myrmecophytes, makes *Cladomyrma* an unpleasant opponent and contributes to its efficiency as a protective partner of the system.
>
> Unlike the bites of other small camponotines, the skin where the *Cladomyrma* ant had bitten remained red and itchy for days. Obviously the ant secretes skin irritating substances in addition to formic acid.

Because of their association with ants, and their consequent potential to elicit a "pseudophytodermatitis", such myrmecophytes have been described as "super-nettles" (see Schmidt 1985). The following list of species is representative but they are likely to represent a hazard only for those who collect these plants from the wild:

Ryparosa anterides B.L.Webber
Ryparosa fasciculata King
Ryparosa javanica (Blume) Kurz ex Koord. & Valeton
[syns **Bergsmia javanica** Blume, **Gertrudia amplifolia** K.Schum., **Ryparosa amplifolia** (K.Schum.) Mildbr.]
Ryparosa kurrangii B.L.Webber
Ryparosa porcata P.F.Stevens

[a] https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:20168-1; accessed December 2024

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