

# *Aralia fragrans* (D. Don) Jebb & J. Wen, a new combination in Araliaceae

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## ABSTRACT

*Hedera fragrans* D. Don and *Aralia leschenaultii* (DC.) J. Wen are identical, but the former has nomenclatural priority. A new combination, *Aralia fragrans*, is thus required. *Aralia fragrans* belongs to *Aralia* sect. *Pentapanax* and is widely distributed in Asia including Bangladesh, Bhutan, China (Yunnan), India, Nepal, Sri Lanka, north Thailand (Chiang Mai), and north Vietnam (Lao Cai). It appears to be closely related to *Aralia kingdon-wardii* J. Wen, Lowry & Esser.

## KEW WORDS

*Aralia*,  
*Aralia* sect. *Pentapanax*,  
*Aralia fragrans*,  
Araliaceae.

## RÉSUMÉ

*Aralia fragrans* (D. Don) Jebb & J. Wen, une nouvelle combinaison dans les Araliaceae.

*Hedera fragrans* D. Don et *Aralia leschenaultii* (DC.) J. Wen sont identiques, le premier étant nomenclaturalement prioritaire. Une nouvelle combinaison, *Aralia fragrans*, est ainsi nécessaire. *Aralia fragrans* appartient à *Aralia* sect. *Pentapanax* et est largement distribué en Asie, y compris le Bangladesh, Bhutan, la Chine (Yunnan), l'Inde, le Nepal, le Sri Lanka, la Thaïlande du nord (Chiang Mai), et le Nord Vietnam (Lao Cai). Cette espèce semble très affine de *Aralia kingdon-wardii* J. Wen, Lowry & Esser.

## MOTS CLÉS:

*Aralia*,  
*Aralia* sect. *Pentapanax*,  
*Aralia fragrans*,  
Araliaceae.

*Hedera fragrans* D. Don and *Aralia leschenaultii* (DC.) J. Wen represent the same taxon, with the former having nomenclatural priority over *Panax leschenaultii* DC., the basionym of *Aralia leschenaultii*. A new combination is thus required. *Aralia fragrans* is a member of *Aralia* sect. *Pentapanax* (WEN 1993) and is closely related to *Aralia kingdon-wardii* J. Wen, Lowry & Esser (WEN et al. 2001).

*Pentapanax longipedunculatus* N.S. Bui and *Pentapanax leschenaultii* (DC.) Seem. var. *simplex* K.M. Feng were described independently by BUI (1969) and FENG (1979) as characterized by a single umbel on each primary inflorescence branch. Our examination of specimens from throughout the distributional range, including types, suggests that this character varies among plants at several localities, such as in Mt. Pidurutalagala, Sri Lanka (cf. *Davidse & Sumithraarachchi 8052* and *Nowicke & Jayasuriya 258*) and Mt. Inthanon, Thailand (cf. *Fukuoka T-62285* and *Mitsuta et al. T-43170*). It also sometimes varies within a single specimen (e.g., *Anstead s.n.*, Nilgiri Hills, India). We therefore include *Pentapanax longipedunculatus* and *Pentapanax leschenaultii* var. *simplex* in synonymy under *Aralia fragrans*.

***Aralia fragrans* (D. Don) Jebb & J. Wen, comb. nov.**

*Hedera fragrans* D. Don, Prodr. Fl. Nepal. 187 (1825). — *Pentapanax fragrans* (D. Don) Ha, Nov. Syst. Vyssh. Rast. 11: 227 (1974). — Type: *Wallich 4937*, Nepal, location unknown (holo-, K-W!; iso-, W!, WU!).

*Panax leschenaultii* DC., Prodr. 4: 254 (1830). — *Hedera leschenaultii* (DC.) Wight & Arn., Prodr. Fl. Ind. Orient. 1: 377 (1834). — *Pentapanax leschenaultii* (DC.) Seem., J. Bot. 2: 296 (1864). — *Aralia leschenaultii* (DC.) J. Wen, Brittonia 45: 53 (1993). — Type: *Leschenault s.n.*, India, Nilgiri Hills (holo-, G!).

*Hedera trifoliata* Wight & Arn., Prodr. Fl. Ind. Orient. 1: 377 (1834). — Type: *Wight s.n.*, India, Dindygul Hills (holo-, K!).

*Pentapanax umbellatum* Seem., Rev. Heder. 22 (1868). — *Pentapanax leschenaultii* (DC.) Seem. var. *umbellatum* (Seem.) C.B. Clarke, Fl. British India 2: 725 (1879). — Type: *Hooker & Thomson s.n.*, India, Mt. Khasia, 5-6000 ft. (holo-, BM!; iso-, CAL!, GH!, K!, W!).

*Pentapanax longipedunculatus* N.S. Bui, Adansonia, n.s., 9: 392 (1969). — *Pentapanax fragrans* (D. Don) Ha var. *longipedunculatus* (N.S. Bui) Ha, Nov. Syst. Vyssh. Rast. 11: 227 (1974). — Type: *Pételot 4624*, Vietnam, Prov. Lao Cai, Tonkin, Chapa, 1800 m, Aug. 1930, fl. (holo-, P!; iso-, A!, US!, HN), *syn. nov.*

*Pentapanax leschenaultii* (DC.) Seem. var. *simplex* K.M. Feng, Fl. Yunnanica 2: 506 (1979). — Type: *Yunnan Exp. Team 1332*, China, Yunnan, Jingping, Hetouzai, in dense forests, 1900 m, tree 8 m tall, 12 May 1956 (holo-, KUN!), *syn. nov.*

Climbing or epiphytic shrubs, or small trees, 5-15 m tall. Seedlings with enlarged and sometimes bi-forked tap-roots. Branches with elliptic lenticels. Leaves stipulate, stipules usually caducous; (3-)5(-7) foliate; petioles glabrous, 6-13 cm long; leaflets chartaceous, ovate, narrowly ovate, oblong to elliptic, 6-15.5 × 2.5-8 cm, apex acuminate or acute, base rounded to acute, margin ciliate to serrulate, blade glabrous on both surfaces to more or less pilose on lower surface, lateral veins 8-10 per side, conspicuous above and below; petiolules glabrous to somewhat pilose, those of the two lower leaflets 0.2-2.8 cm long, those of terminal leaflets inarticulate, 2.5-4.5 cm long. Inflorescences terminal at the branch apex, glabrous to pilose, usually without a main axis or with only a short axis (up to 3.5 cm long), primary branches (4-)7-13; scales of the reproductive buds triangular, 0.5 cm long, 1 cm wide at base, margin fimbriate caducous; primary branches 7-17.5 cm long, each with 1-5(-7) umbellately arranged umbels; peduncles of terminal umbel 2-4.5 cm long, those of lateral umbels 1.5-2.5 cm long. Terminal umbels 25-55-flowered, pedicels articulated, glabrous to pilose, 8-15 mm long, lateral umbels 12-28-flowered, pedicels 6-15 mm long, bracteoles caducous, lanceolate, 1-1.3 × 0.3-0.4 mm; sepals triangular, 0.25-0.35 mm long; petals ovate, 1.8-2 mm long, sometimes forming a calyptra; stamens 3.5-4 mm long, anthers 1 mm long; ovary 5-locular, sometimes enlarged at anthesis; base of the style often forming a conical stylopodium-like structure, or sometimes flat. Fruits globose, 4.5-5.5 mm in diameter, strongly ribbed when dry, with persistent styles, 2-2.5 mm long, slightly divided at the tip.

REPRESENTATIVE SPECIMENS EXAMINED. — **BANGLADESH:** *Herb. Griffith 2671*, E Bengal (W). — **BHUTAN:** *Cooper 1277*, Bunakha Timpu, 6000 ft., 6 July 1914, tree 30' (BM); *Cooper 1573*, location unknown (BM); *Cooper 2124*, Kopub, Pumthang, 10500 ft., 14 Sep. 1920 (BM); *Cooper 4131*, Yatodo Ridge, 12,000 ft., 15 July 1915, 20' shrubby plant among *Abies* forest (BM); *Hara, Kanai, Murata, Ohashi, Tanaka & Yamazaki 14536*, Bhotokha (1250 m) – Rinchu (1300 m), 1300 m, 8 May 1967 (A); *Ludlow & Sherriff 3149*, Mara Clur valley, central Bhutan, 7000 ft., 29 May 1937 (BM); *Ludlow, Sherriff & Hicks 16875*, Loothaung, Hotspring, 11 500 ft., 16 July 1949, shrub 5'–6' (BM); *Ludlow, Sherriff & Hicks 20827*, Me La Chu, Lao, NE Bhutan, 9000 ft., 5 July 1949, flowers green, pedicels pink, in mixed forest (BM); *Ludlow, Sherriff & Hicks 20859*, Trashi Yangsi Chu, Tobrang, E Bhutan, 8000 ft., 8 July 1949, tree 15–20', in mixed forest, fls. reddish green (BM). — **CHINA:** *Yunnan, Tsiang & Wang 16037*, Cheng-kiang, Tung-lung-tang, 1800 m, Mar.–May 1939 (A); *Henry 13646*, Feng Chen Lin, 6000 ft., tree 40' (A); *Wen 5036*, Gongshan Xian, on the way from Qiqi to Bridge #12, a large climbing shrub on a *Quercus* tree, fruit black, 2700 m, 3 Oct. 2000, fr. (F); *Forrest 10765*, Lijiang, mountains in the NE of the Yangtze Bend, 24°45'N, 9–10000 ft., Aug. 1913, shrub of 25–30 ft. (BM); *von Handel-Mazzetti 3735*, Lijiang, Yulong Shan (W, WU); *von Handel-Mazzetti 6832* (Diar. Nr. 1216), Lijiang, near Ganhaide, 3000 m, 19 June 1915 (W, WU); *McLaren's native collectors s.n.*, Lichiang range, 1933 (BM); *Wen & Li 5719*, Lijiang Xian, Baisha Xiang, Yühu Village, Laomeiluo, 3100 m, 5 Aug. 2001, a climbing shrub, c. 8 m tall, in fl. (F); *Wen & Li 5698*, Tengcong Xian, Guyong Xiang, near Danzha Tree Farm, roadside, epiphytic on an old oak tree, 2500 m, 3 Aug. 2001, in fl. and young fr. (F); *Forrest 17672*, location unknown, 1917–19 (BM). — **INDIA:** **Sikkim,** *Cave 1079*, Rathong Chu, 13000 ft., 12 Aug. 1913 (LBG); *Dash & Maiti 18551*, N Sikkim, Lachung to Dombayang, 27 July 1997 (BSHC, 3 sheets); *Hooker s.n.*, 6–10000 ft. (U, 2 sheets, W, 2 sheets); *Lister s.n.*, Tong Ru, May 1877 (U); *Rao 464*, on way to Zemie, 10 May 1953 (BSHC); *Raju & Singh 5805*, Zakophyak on way to Thankarla, frequent, 11 July 1986 (BSHC); *Raju & Singh 6237*, Tallam-Samdong to Gompa to wards Lachen, frequent, 23 July 1986 (BSHC); *Smith & Cave s.n.*, Lachin, 8800 ft., 25 July 1909 (U); *Verma 5496*, S Sikkim, Manion Reserve Forest, 21 Aug. 1986 (BSHC, 3 sheets); *Singh 16311*, W Sikkim, Hilley Reserve Forest, epiphytic shrub, not common, 2800 m, 26 Aug. 1994 (BSHC, 2 sheets); *Singh 17339*, 15 May 1995 (BSHC), Collector unknown, 1874 (W, 2 sheets). **Tamil Nadu:** *Anstead s.n.*, Ootacamund, Nilgiri Hills, July 1927, in fl. (A); *Beddome 3404*, Nilgiri Hills (WU); *Gamble 18155*, Nilgiri Hills, 7500 ft. (WU); *Perrotet 425* (W, 2 sheets); *Perrotet 427* (W, 2 sheets); *Unknown collector 86* (W, 2 sheets). **Uttar Pradesh:** *Osmastou 950*,

*Dhanpur Garhwal*, 8500 ft., 21 June 1918 (BM). **West Bengal:** *Cave 843*, Chowbhanjan, 11000 ft., Sep. 1905 (LBG); *Cave s.n.*, Sinchul, 8000 ft., epiphytic, 14 July 1917 (LBG); *Clarke 26719C*, Darjeeling, 7300 ft., 17 June 1875 (U); *Cave s.n.*, Goompahar, in forest, 7500 ft., 25 May 1919 (LBG); *Cave s.n.*, Tonglo, in forest, 9000 ft., 26 Aug. 1924 (LBG); *Das & Rai 079*, Alubari to Jaributti, 2280–2195 m, 14 June 1995 (NBU); *Das/TH/502*, Tiger Hill, 2450 m, epiphyte on *Quercus pachyphylla*, 12 July 1981 (NBU), *Das/TH/503* (NBU); *Das/TH/504*, Tiger Hill-Senchal, 2400 m, 12 July 1981 (NBU); *Gammie 1396*, Suriel, 5000 ft., 27 Oct. 1885 (LBG); *Krishna 4617*, Tiger Hill area, 1 Sep. 1985 (BSHC, 2 sheets). **Peninsula India:** *Wright 1204*, location unknown (W). — **NEPAL:** *Dawson 531*, Lumle, epiphytic shrub tree, by stream, 13 May 1976 (BM, 2 sheets); *Dobremez 1579*, Khokia, 27°23'N, 87°29'E, 3100 m, 19 Aug. 1972, epiphyte in *Rhododendron* forests (BM); *Dobremez 1285*, Lam Pokhain, 27°06'N, 87°58'E, 1 Oct. 1971, 2700 m (BM); *McCosh 190*, Khare Khola, Sikpasor Khani, 27°45'N, 86°15'E, 5 June 1964 (BM); *Polunin 1403*, Chilime Kharka, 7500 ft., damp gully with stream, July 1949 (BM); *Shrestha & Jasbi 98*, 9500 ft., in forest, near wet ravine, shrub 15' (BM); *Stainton, Sykes & Williams 674*, Lete, N of Dana, Kali Gandaki, 8000 ft., 26 May 1954 (BM, 2 sheets); *Stainton, Sykes & Williams 956*, Dhumpu, S of Tukucha, Kali Gandaki, tree, 15 ft., riverside, 8500 ft., 5 June 1954 (BM, 2 sheets); *Suzuki, Acharya, Fujii, Kajita, Kondo, Mikage, Noshiro & Yoda 9480049*, C. Nepal, Gandaki Zone, Gorkha District, Sardu Khola (1800 m) – Ripche (2390 m), 28°26'49"N, 84°55'56"E – 28°27'57"N, 84°57'46"E 1830 m, 27 July 1994 (A); *Suzuki, Acharya, Fujii, Kajita, Kondo, Mikage, Noshiro & Yoda 9450100*, C Nepal, Gandaki Zone, Manang District, Bimtang (3530 m) – Suggi Khola (2570 m) – Ghwa (2360 m) – Tilche (2160 m), 28°38'04"N, 84°28'20"E–28°32'45"N, 84°22'56"E, 2960 m, 12 Aug. 1994 (A); *Suzuki, Acharya, Fujii, Kajita, Kondo, Mikage, Noshiro & Yoda 9480131*, 2930 m, 12 Aug. 1994 (A); *Tabata, Rajbhandari & Shimizu 10434*, Solukhumbu District, from Ringmo to Manidingma, moist cool deciduous temperate forest with *Acer* and *Rhododendron* sp., 2810–2400 m, 7 June 1978 (A). — **SRI LANKA:** **Central Prov.,** *Davidse & Sumithraarachchi 8052*, Nuwara Eliya Dist., slopes of Mt. Pidurutalagala, directly N of Nuwara Eliya, in montane forest, with *Rhododendron* prominent, 2300 m, 25 Oct. 1974, young fr. (US); *Nowicke & Jayasuriya 258*, Horton Plains, Agrapatana Road, tree in thicket, 29 June 1973, fl. (US). — **THAILAND:** **Chiang Mai,** *Anderson 4760*, 18°35'N, 98°31'E, at KM 47, Mae Klang drainage area, near summit of Doi Inthanon, hill evergreen forest, *Sphagnum* bog area, podsollic soil, 2500 m, 7 May 1977 (MO); *Fukuoka T-62272* (Field No. 1484), the swampy place and its vicinity of the summit (RS-22), 2520 m, Doi Inthanon, in forest, shrub slender, 5 m tall, infl. pale green, ovary

and corolla pale green, 27 July 1988 (BKF); *Fukuoka T-62285* (Field No. 1497), the summit (RS-23), 2565 m, Doi Inthanon, in mossy forest, 27 July 1988 (BKF); *Hennipman 3301*, Doi (Mt.) Chiengdao, tree, c. 10 m tall, flowers yellowish green, thecae whitish, c. 2000 m, 98°55'E, 19°25'N (BKF); *Mitsuta, Yahara & Nagamasu T-43170*, Doi Inthanon, in hill evergreen forest at the higher elevation, 2500-2690 m, 5 Dec. 1984 (BKF); *Murata, Iwatsuki & Pengklai T-15021*, higher elevation of Doi Chiang Dao, 1300-1900 m, in dense evergreen forest, 26 Sep. 1971 (BKF); *Sørensen, Larsen & Hansen 4192*, Doi Chiang Dao, occasional, 1950 m (BKF); *Shimizu, Koyama & Nalampoon T10024*, below the summit of Doi Chiang Dao, 1900-2175 m, in light forest on rocky slope at ridge, 14 Sep. 1967 (BKF); *Smitinand s.n.*, Doi Inthanon, 2100 m, Oct. 1986 (BKF); *Smitinand 4735*, Chiengdao, 1900 m, 16 July 1958, shrubby tree 4 m tall, on rocky ridge, flowers greenish (BKF). Country, location and collector unknown, labeled as "*Panax micranthus* Wall., Roglé's Herb." (W).

*Aralia fragrans* is widely distributed in Bangladesh, Bhutan, China (Yunnan Province), India, Nepal, Sri Lanka, N Thailand (Chiang Mai), and N Vietnam (Lao Cai). It usually occurs in moist mixed forests, edges of forests, near ravines, and streamsides at altitudes of 1250-3500 m. *Aralia fragrans* blooms in late May to December and fruits in July to December.

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