

## How many *Paphiopedilum insigne* do we have in Western Australia?

The first plants of *P. insigne* reached England in 1819 where it was introduced by Wallich and flowered in 1820. This clone, the type form, was described and published in 1821. *P. insigne* [Wall ex. Lindl] Pfitz 1888 is the type form for the SUBGENUS *Paphiopedilum* and is in SECTION *Paphiopedilum* (Karasawa & Saito 1982).



This species occurs in northeastern India in the Khasia Hills of Meghalaya, and the Sylhet region of Bangladesh and in Nepal. Plants usually grow at 1000-1500m elevation in light shade from shrubby vegetation. It is often found on dolomitic limestone outcrops over streams and rivers, near waterfalls where its roots are embedded in soil and moss. It is a small to medium sized, humus epiphyte species with 5 to 6 strap-shaped, clear green leaves that are minutely bilobed apically.

*P. insigne* is a cool growing slipped orchid that generally flowers in late autumn and early winter on a terminal, erect, to 30 cm long, one and occasionally 2 flowered, dark green brown, purple-pubescent inflorescence that has an ovate, pubescent, glabrous floral bract and does not need a winter rest. As this paper will show, it has been extensively used in hybridizing, and imparts a wide range of colour and flower form to its hybrids.

There are many varietal forms and cultivars, only some of which are regarded as valid. *P. insigne* has more synonyms than any other orchid species of which I am aware. Furthermore, in early descriptions, it was often referred to as *Cypripedium* rather than *Paphiopedilum* significantly increasing the number of synonyms.

In an attempt to clarify some of this uncertainty and ambiguity, the Kew Catalogue of Life lists all the following as synonyms for *P. insigne*. The authors Desbois and Pfitzer were responsible for many of these synonyms between 1888 and 1903, and as shown in the descriptions following, primarily based their proposed nomenclature on flower colour and form. Clearly some synonyms persist and are still used by vendors, for example *P. insigne* var. *sanderæ*.

- *P. insigne* var. *albomarginatum* (Desbois) Pfitzer
- *P. insigne* var. *amesianum* (Desbois) Pfitzer
- *P. insigne* var. *amoenum* (Desbois) Pfitzer
- *P. insigne* var. *aureoalbum* (Desbois) Pfitzer
- *P. insigne* var. *biflorum* (Desbois) Pfitzer
- *P. insigne* var. *chantinii* (Rolfe) Pfitzer
- *P. insigne* var. *cypheri* (Van Geert) Pfitzer
- *P. insigne* var. *duvalii* (Desbois) Pfitzer
- *P. insigne* var. *elegantissimum* (Pucci) Pfitzer

- *P. insigne* var. *forstermanii* (Desbois) Pfitzer
- *P. insigne* var. *giganteum* (Desbois) Pfitzer
- *P. insigne* var. *gracile* (Desbois) Pfitzer
- *P. insigne* var. *holzhausenianum* (Desbois) Pfitzer
- *P. insigne* var. *kimballianum* (Desbois) Pfitzer
- *P. insigne* var. *madouxianum* (Desbois) Pfitzer
- *P. insigne* var. *maulei* (T.Moore) Pfitzer
- *P. insigne* var. *maximum* (Desbois) Pfitzer
- *P. insigne* var. *moensii* (Desbois) Pfitzer
- *P. insigne* var. *mooreanum* (Desbois) Pfitzer
- *P. insigne* var. *nilsonii* (Desbois) Pfitzer
- *P. insigne* var. *pynaertii* (Desbois) Pfitzer
- *P. insigne* var. *rubrum-maculatum* (Desbois) Pfitzer
- *P. insigne* var. *rubrum-marginatum* (Desbois) Pfitzer
- *P. insigne* fma. *sanderiae* (Rchb.f.) O.Gruss & Roeth
- *P. insigne* var. *sanderiae* (Rchb.f.) Pfitzer
- *P. insigne* fma. *sanderianum* (Rolfe) O.Gruss & Roeth
- *P. insigne* var. *sanderianum* (Rolfe) Pfitzer
- *P. insigne* var. *speciosum* (Desbois) Pfitzer
- *P. insigne* var. *sylhetense* (Desbois) Pfitzer
- *P. insigne* var. *tresederi* (Desbois) Pfitzer
- *P. insigne* var. *wallacei* (Desbois) Pfitzer

The first *Paphiopedilum* of different appearance was introduced in 1855, and the shipment was divided between two growers, a M. Chantin of Paris, and an English firm. The portion sent to France was described by M. Rafarin, a director of the Horticole International, under the name of *P. insigne* var. *chantinii*. The English portion was described by O'Brien in 1869 as *P. insigne* var. *punctato-violaceum*.

In 1856, Messrs. Maule & Sors of Bristol, England imported another widely different variety which was named *P. insigne* var. *maulei*. Both varieties seem to have been of a robust type and were widely disseminated and much used in hybridising.

At a later time, new and abundant populations of *P. insigne* were discovered and imported into England and the continent as *P. insigne* var. *montanu*. In 1895 Rolfe wrote in *The Orchid Review* (OR) that the varieties of *P. insigne* have become surprisingly numerous during the past few years and that recent importations of the *montanum* type have shown a vast amount of variation.

More than 40 named varieties of *P. insigne* were exhibited at the meetings of the Royal Horticultural Society in England and by 1918 this Society had given eighteen awards to varieties of *P. insigne*. In 1891 Pucci listed 69 varieties in his book, *Les Cyripediums*.

During the great orchid boom in the latter part of the nineteenth century, it appears that the naming of varieties of *P. insigne* reached such alarming proportions that the question, 'What is a valid variety' became more insistent, with no satisfactory answer available. No positive

data about specific habitats of the countless varieties were available, and consequently, doubts about the authenticity of many of the varieties were raised by taxonomists. These concerns persist and Kew has largely reduced them to synonymy.

In *Lindenia*, by Linden, Jules and Lucien. Ghent. 1885-1901, lithographs of many *P. insigne* varieties are shown, although the validity of many is suspect.

However, as this ambiguity and uncertainty is integral to this important species, the following categorisation is included for its historical significance and to demonstrate what is now considered to be natural variation in a species.

### **Green or greenish *P. insigne* varieties with spots**

*P. insigne* var. *amoenum*. Pfitzer. Khasia. Dorsal sepal olive-green, marked with large brown spots and widely bordered with white, with purple spots on the lower part of the border; petals olive-green, suffused with brown; lip clear maroonbrown.

*P. insigne* var. *Arthurianum*. OR, 1898. This example came in a small consignment of var. *montanum* collected further afield than any previous batch. It had a striking resemblance to the hybrid *Arthurianum*, (*P. insigne* X *P. fairieanum*). Out of the same batch flowered *P. hirsutissimum*, several very distinct forms of *P. insigne*, one of which was more highly coloured than any seen before and having mottled leaves like *P. chamberlainianum*.

*P. insigne* var. *Berryanum*. OR, 1902. Rather large flower with the dorsal sepal longer than usual, and the blotches few and large. Rather light in colour, with the green area on the dorsal sepal extending nearly to the margin except at the apex. Having a very wavy edge to the dorsal sepal.

*P. insigne* var. *bisepalum*. OR, 1895. The synsepalum is an exact duplicate of the dorsal sepal, both in size and colour.

*P. insigne* var. *Breevesianum*. Pfitzer, Dorsal sepal oblong, the lower two thirds yellowish-green, with brown spots in regular lines, the remainder white, petals reddish-brown.

*P. insigne* var. *Brownii*. Pfitzer. Flowers large, pale green; dorsal sepal strongly marked with large pustules, each with a white dent at the apex; petals spotted.

*P. insigne* var. *Chantinii*. Pfitzer (Syn. *punctato-violaceum*). Nepal. One of the best varieties; dorsal sepal large, olive-green below, heavily spotted with brown, the upper part only white with a few large mauve spots, the lip mahoganybrown, polished.

*P. insigne* var. *Colsonianum*. Pfitzer. Flowers large, with a large dorsal sepal.

*P. insigne* var. *Cuningianum*. Pfitzer. Flowers large clear green; dorsal sepal broad, the upper part white, with numerous clear violet spots.

*P. insigne* var. *Dormami*. OR, 1903. Remarkable for its sparse but very large spots.

*P. insigne* var. *Forstermanni*. Williams. A variety having pubescent dorsal sepal ornamented with brown hieroglyphic markings and with a large white border; the upper spots are found in the white area and are of a violet colour; the petals are waxy yellow at the base, netted with olive-brown, greenish at the edges; pouch brown and shining.

*P. insigne* var. *Fowlerianum*, A.M. 1902. OR. A dark and well spotted form.

*P. insigne* var. *Gilmoreanum*. Pfitzer. Flowers large, resembling those of var. *Chantinii*; dorsal sepal very broad, bordered with white, with large brown spots in the centre and smaller ones towards the border.

*P. insigne* var. *gracile*. Pfitzer. Dorsal sepal narrow, yellowish-green, irregular brown spotted, broad white border.

*P. insigne* var. *Gravesianum*. Pfitzer. Flowers on a long peduncle; dorsal sepal with a broad white border and numerous brown spots arranged in regular lines.

*P. insigne* var. *Hallianum*. OR, 1895. Sepals longer and broader than usual, (Pfizer). Much like var. *Horsmanianum*, but with spotted petals. The dorsal sepal has a long greenish disc, on which are some fine, nearly chocolate spots.

*P. insigne* var. *Horsmanianum*. OR, 1895. Characterised by having long narrow petals, but is of the usual colour.



*P. insigne* var. *Harefield Hall*, F.C.C. 1898. OR, 1911. This variety was first exhibited in 1896 at a R.H.S. meeting under the name of *P. insigne* var. *giganteum* and was described as follows; "An enormous form of this useful old species, presumably out of recent importations. The dorsal sepal is over 2 3/4 inches in diameter, and the petals measure 5 3/4 inches from tip to tip, all the other parts being of corresponding development.

It somewhat resembles *P. insigne* var. *Chantinii*. In 1898, a well bloomed plant was exhibited at a meeting of the R.H.S. as *P. insigne* var. *Harefield Hall* and received both F.C.C. and a C.C.O. More recently, it has been known almost exclusively under the latter name, and has been justly regarded as the premier form of the species. The circumstances of its introduction do not appear to have been recorded, but it is said to have been cultivated at Harefield Hall since 1894, and presumably came out of an importation of *P. insigne* var. *montanum*.

*P. insigne* var. *Kimballianum*. Khasia. Pfitzer. Dorsal sepal three times longer than broad, flat, yellowish-green, the spots running in lines into the white border; petals strongly veined.

*P. insigne* var. *macranthum*. OR. 1902. Has a broad dorsal sepal with the spots rather large and sparse, and the petals wellspotted on the light ground, in which it differs from all preceding.

*P. insigne* var. *maculatum*. A very handsome form with regular flowers. The dorsal sepal is somewhat like that of var. *Maulei* but less spotted.

*P. insigne* var. *Mandevilleanum*. Pfitzer. Resembles var. *albomarginatum*; petals with numerous spots in regular lines.

*P. insigne* var. *Maulei*, F.C.C. 1860. OR, 1895. Differs in having the green area reduced in size, so that the white extends nearly to the base on either side, and leaves the uppermost spots clear purple, instead of purple-brown. The spots are larger and fewer. (Pfitzer's description is similar, but Veitch adds that the petals are more undulated and that the lip is narrower and longer.)

*P. insigne* var. *maximum*. Williams. This is said to be the finest variety of all; the dorsal sepal is large undulate, clear green striped with dark green, spotted with brown, with a very large white section at the top spotted with violet; petals broad, olive-green shaded and netted with clear brown; pouch white, yellowish-brown.

*P. insigne* var. *Monk's Cowl*. OR, 1904. With a concave dorsal sepal.

*P. insigne* var. *Mooreanum*. Nepal, Williams. A very desirable form having long narrow ligulate leaves, and tall hairy purple scapes. Dorsal sepal with undulate white margins 1/2 inch wide; remainder of surface pale yellowish-green with purple-brown spots; petals more undulate towards the apex, glossy, ciliate, greenish-yellow tinged with pale purplish-brown along the veins, and two rows of dots along the margin; purple hairs basally; pouch with obtuse, wide spread ears, greenish-yellow suffused with light brown, polished. Pfitzer's description is very similar.

*P. insigne* var. *nobilius*. Lindenia. A splendid form due to its bright colouring which is even more splendid than in var. *Chantinii*. The dorsal sepal is less broad, but larger and flatter, with numerous large red-brown spots, surrounded at centre and base by a circle of pale yellow, with a very wide white margin. Petals are brown with deep brown longitudinal stripes and a yellow border. Lip is brown.

*P. insigne* var. *Oddity*. OR, 1916. This is a freak rather than a variety proper, as is proved by it sometimes producing a normal flower. Its peculiarity is due to the petals being modified into a pair of additional lips which clasp the normal lip, and the absence of the two normal anthers or rather their being confluent with the petals. This variety appeared in the collection of MW Appleton in 1890 and its permanence has long been proven.

*P. insigne* var. *punctatissimum*. Pfitzer. Dorsal sepal entirely covered with brown spots except a narrow white margin.

*P. insigne* var. *picturatum*. Lindenia. This variety presents a very dark and spotted appearance. The dorsal sepal has a white base slightly shaded with clear yellowish-green, and is covered with a mass of large contiguous blackish purple-brown blotches, similar to certain hybrids from *P. villosum* var. *boxallii*. The petals are similar and of an appearance rarely seen; they are large and broad, the whole clear yellow surface being dotted with large brownish-red blotches. The lip is light brown and staminode yellow.

*P. insigne* var. *Mitchellianum*. OR, 1905. Having the dorsal sepal tinged with brown instead of being spotted.

*P. insigne* var. *nigrum*. Lindenia. Dorsal sepal large, of a deep purple-brown, above which are purple-black lines and a wide border of pure white. The synsepalum is slightly tinted with brown as in the type. The petals are relatively broad and rather short, yellowish-brown, paler on the margins, and with numerous lines and reticulations of deep brown. The lip is deep purple-brown.

*P. insigne* var. *Osyana*. OR, 1905. Having the dorsal sepal tinted and reticulated with emerald green.

*P. insigne* var. *radiatum*. OR, 1895 . The dorsal sepal is unspotted, but the green area is rayed with light purplebrown basally.

### **Yellow varieties of *P. insigne* with spots**

*P. insigne* var. *albo-marginatum*. Lindenia. Leaves of a deep green colour, paler underneath, scrapes purplish. Flowers very showy, very distinct from the type because of a distinct yellow tinge in their colour; sepals broad, boldly undulated, the lower two-thirds marked with an obvate blotch of greenish-yellow traversed by light brown veins and bearing scattered spots of pale reddish brown towards the centre. White margin very broad at the apex; petals slightly undulated, with tuft of blackish hairs at the base; tawny yellow with numerous fine parallel reddish brown veins; lip ovate of a palish red-brown. Staminode pubescent, deep yellow, with an orange coloured boss in the centre. Flower yellowish; dorsal sepal white bordered on entire margin, the light coloured spots only on the green portion (Pfitzer). William's description, in his *Orchid Grower's Manual*, 1894, clearly states that the dorsal sepal is entirely margined with white and is quite devoid of the spotting usually found in the type.

*P. insigne* var. *Arnoldianum*. Pfitzer. Flowers larger than in *P. insigne* var. *Maulei*; dorsal sepal greenish-yellow, broadly margined. , the spots confined to the coloured part.

*P. insigne* var. *Chantinii*, *Lindenii*. Lindenia. Has all the qualities of size and grace of var. *Chantinii*. It is light yellow mixed with greenish in places. The dorsal sepal inclined forward, is very large, margined with white at the top and sides, and at the base and centre portion large light brown spots.

*P. insigne* var. *Arnoldii*. OR, 1908. A greenish yellow form with raised blotches on the dorsal sepal.

*P. insigne* var. *Bailianum*. OR, 1896 . A fine greenish-yellow form, with the spots on the dorsal nearly through not quite obliterated



*P. insigne* var. *sanderae*. Beautiful almost nearly albino with pure green variety of this important and easy to grow Paphiopedilum. The dorsal/sepal are green to pale yellow and has faint dots and red hairs at the base of the petals.







*P. insigne* fma *sanderae* [Rchb.f] Braem 1999 ..

Only one natural hybrid is recorded, *P xvenusto-insigne* from Assam.





Why is this little orchid that so many of us take for granted so important?. A total of 282 crosses have been made from 1871 to 2013 using this orchid as a pod or pollen plant. Many hundreds of modern orchid hybrids would contain this species in their background.





Let's just look at a few Yellow type breeding

 A photograph of a Paph. Clifford Peter orchid. The flower has a white upper lip with a greenish-yellow center and a yellow lower lip. The background is a solid blue color.	<p>Paph. Clifford Peter</p> <p><i>Paph. insigne</i> species in its background equates to 47%</p>
 A photograph of a Paph. Magic Mountain orchid. The flower has a white upper lip with a yellowish-green center and a yellow lower lip. The background is a solid blue color.	<p>Paph. Magic Mountain</p> <p><i>Paph. insigne</i> species in its background equates to 43%</p>
 A photograph of a Paph. Magic Mood orchid. The flower has a white upper lip with a greenish-yellow center and a yellow lower lip. The background is a solid black color.	<p>Paph. Magic Mood</p> <p><i>Paph. insigne</i> species in its background equates to 44%</p>
 A photograph of a Paph. Todd Clark orchid. The flower has a white upper lip with a greenish-yellow center and a yellow lower lip. The background is a solid black color.	<p>Paph. Todd Clark</p> <p><i>Paph. insigne</i> species in its background equates to 59%</p>







	<p>Paph. TB Karen Magic</p> <p><i>Paph. insignis</i> species in its background equates to 49%</p>
	<p>Paph. Knight's Wow</p> <p><i>Paph. insignis</i> species in its background equates to 42%</p>
	<p>Paph. Elfstone</p> <p><i>Paph. insignis</i> species in its background equates to 55%</p>
	<p>Paph. TB Snerta (Silver Medal 2014 World Orchid Conference)</p> <p><i>Paph. insignis</i> species in its background equates to 39%</p>

It's not only had a major impact on yellows and whites, but you will find this species in many famous orchid hybrids' background.

	<p>Paph. Winston Churchill</p> <p><i>Paph. insigne</i> species in its background equates to 35%</p>
	<p>Paph. Orchilla 'Chilton'</p> <p><i>Paph. insigne</i> species in its background equates to 6%</p>

So as we can see this species has had a major impact on breeding over time and makes a fine specimen in its own right when the plants are well grown carrying many flowers

	
	
<p>Prepared by T Burnett</p>	